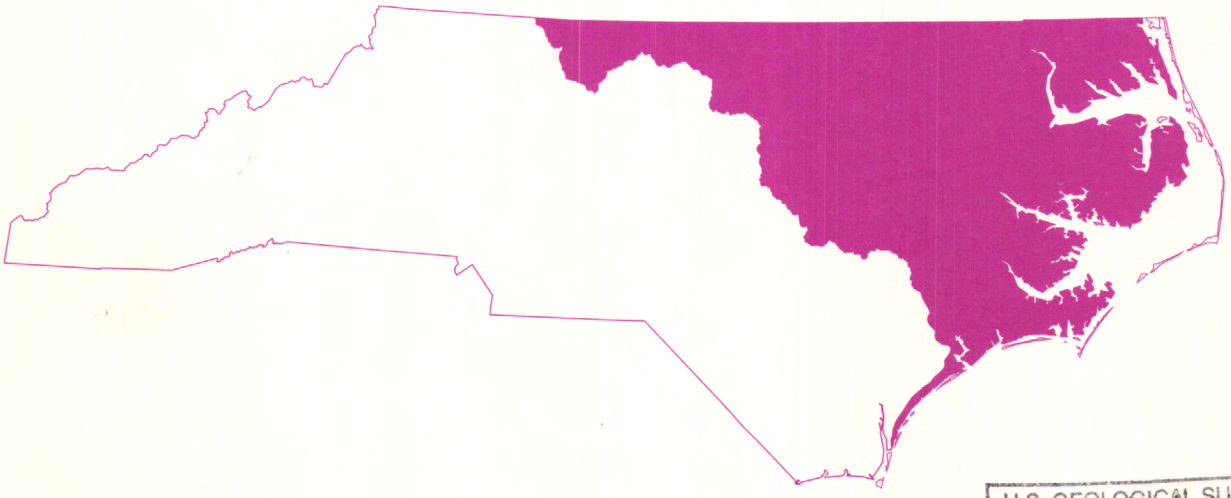
USGS
science for a changing world

Water Resources Data North Carolina Water Year 1999

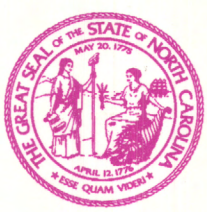
Volume 1A. Surface-Water Records

Water-data Report NC-99-1A



U.S. GEOLOGICAL SURVEY
RESTON, VA.
MAY 17 2000
SR
LIBRARY

U.S. Department of the Interior
U.S. Geological Survey



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

CALENDAR FOR WATER YEAR 1999

1998

OCTOBER

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

NOVEMBER

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

DECEMBER

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

1999

JANUARY

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

FEBRUARY

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

MARCH

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

APRIL

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

MAY

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

JUNE

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

JULY

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

AUGUST

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

SEPTEMBER

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

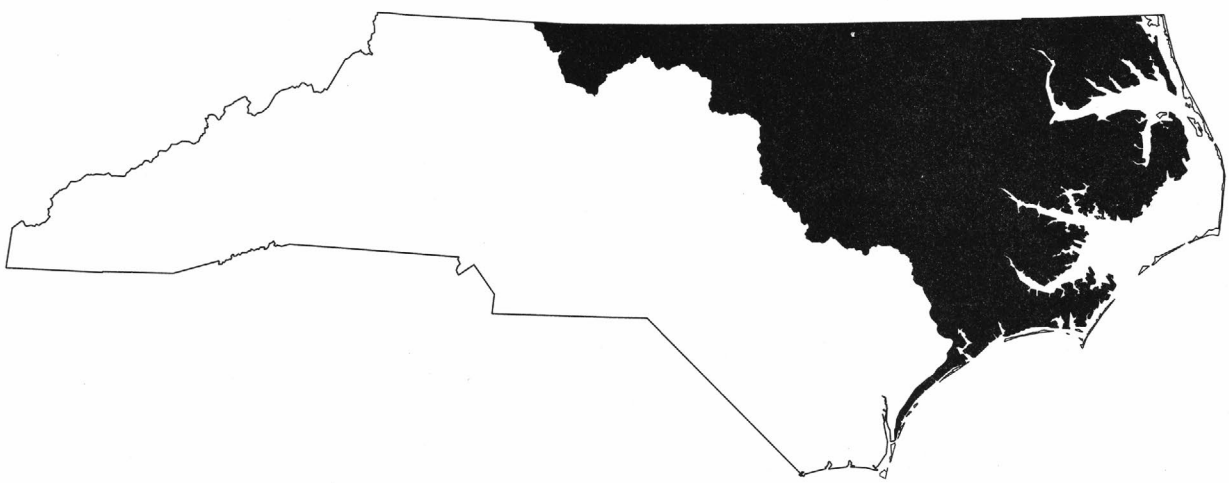
U.S. Department of the Interior
U.S. Geological Survey

Water Resources Data North Carolina Water Year 1999

Volume 1A. Surface-Water Records

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

Water-Data Report NC-99-1A



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

U. S. DEPARTMENT OF THE INTERIOR

BRUCE BABBITT, Secretary

GEOLOGICAL SURVEY

CHARLES G. GROAT, Director

For information on the water program in North Carolina write to:

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

2000

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:

Bernice A. Allen
William T. Baldwin
Jerad D. Bales
Russell G. Barker
Pamilee L. Breton
W. Scott Caldwell
Carolyn J. O. Childress
Christine A. Edmonds
Sean D. Egen
Jo L. Eimers
Jason M. Fine
C. David Fowler
Ronald G. Garrett
Norman D. Haffield (volunteer)
C. Timothy Hanna
Stephen L. Harden
Douglas A. Harned
William F. Hazell
Brian M. Heissenberger
David M. Holmes
James I. Marlowe
Frank Melendez, Jr.
Terry L. Middleton
Michael D. Penley
Benjamin F. Pope
Kristy L. Rogrigue
Jeanne C. Robbins
Jerald B. Robinson
Kelly E. Ruhl
Kathleen M. Sarver
Christopher A. Smith
Douglas G. Smith
P. Shawn Spivey
Bruce C. Steiner
Raymond Strain
A. Gerald Strickland
Jack M. Tankard
Tristan Teasley
J. Curtis Weaver
Karl E. Winters

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

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

REPORT DOCUMENTATION PAGE

Form Approved OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.

1. AGENCY USE ONLY *(Leave blank)*	2. REPORT DATE	3. REPORT TYPE AND DATES COVERED
	April 5, 2000	Annual Data - Oct. 1, 1998 thru Sept. 30, 1999

4. TITLE AND SUBTITLE

Water Resources Data, North Carolina, Water Year 1999
Volume 1A. Surface-Water Data

5. FUNDING NUMBERS

6. AUTHOR(S)

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

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)

U.S. Geological Survey
Water Resources Division
3916 Sunset Ridge Road
Raleigh, North Carolina 27607

8. PERFORMING ORGANIZATION REPORT NUMBER

USGS-WDR-NC-99-1A

9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES)

U.S. Geological Survey
Water Resources Division
3916 Sunset Ridge Road
Raleigh, North Carolina 27607

10. SPONSORING / MONITORING AGENCY REPORT NUMBER

USGS-WDR-NC-99-1A

11. SUPPLEMENTARY NOTES

Prepared in cooperation with the State of North Carolina and other agencies

12a. DISTRIBUTION / AVAILABILITY STATEMENT

No restriction on distribution. This report may be purchased from:

National Technical Information Center
Springfield, VA 22161

12b. DISTRIBUTION CODE

13. ABSTRACT *(Maximum 200 words)*

Water-resources data for the 1999 water year for North Carolina consists of discharge records for 192 gaging stations; stage only records for 36 gaging stations; stage and contents for 62 lakes and reservoirs; water quality for 71 gaging stations and 3 miscellaneous sites; continuous daily tide stage at 5 sites and continuous precipitation at 67 sites. Additional water data were collected at 62 sites not involved in the systematic data-collection program, and are published as miscellaneous measurements.

Data contained in this volume includes discharge records for 61 gaging stations; stage and contents for 17 lakes and reservoirs; stage for 31 gaging stations; water quality for 49 gaging stations and 3 miscellaneous sites; continuous daily tide stage at 5 sites; continuous precipitation at 4 sites and miscellaneous measurements for 7 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.

14. SUBJECT TERMS

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

15. NUMBER OF PAGES

574

16. PRICE CODE

17. SECURITY CLASSIFICATION OF REPORT	18. SECURITY CLASSIFICATION OF THIS PAGE	19. SECURITY CLASSIFICATION OF ABSTRACT	20. LIMITATION OF ABSTRACT
UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED

CONTENTS

	Page
Preface	iii
List of surface-water stations, in downstream order, for which records are published	vii
List of discontinued surface-water gaging stations	x
Introduction	1
Cooperation	1
Summary of water-resources conditions	2
Precipitation	2
Surface water	2
Water quality	12
Special networks and programs	18
Explanation of records	18
Station identification numbers	18
Downstream order system	19
Latitude-longitude system	19
Records of stage and water discharge	19
Data collection and computation	20
Data presentation	20
Identifying estimated daily discharge	23
Accuracy of the records	23
Other records available.	24
Records of discharge collected by agencies other than the Geological Survey.	24
Records of precipitation	24
Data collection and computation	24
Data presentation	24
Records of surface-water quality	24
Classification of records	25
Arrangement of records	25
On-site measurements and sample collection	25
Water temperature	25
Sediment	26
Laboratory measurements	26
Data presentation	27
Remarks codes	28
Dissolved trace-element concentrations	28
Change in National Trends Network Procedures	28
Water Quality-Control Data	28
Blank Samples	28
Reference Samples	29
Replicate Samples	29
Spike Samples	29
Access to USGS Water Data	29
Definition of terms	30
Publications on Techniques of Water-Resources Investigations	41
Station records, surface water	54
Lakes and Reservoirs in South Atlantic Slope Basin	538
Discharge at partial-record stations and miscellaneous sites	542
Analyses of samples collected at water-quality miscellaneous sampling sites	544
Index	556

ILLUSTRATIONS

		Page
Figure 1.	Map showing location of index stations	3
2.	Monthly rainfall for 1999 water year and average monthly rainfall for period 1961-90	4
3.	Monthly streamflow, October-March, during 1999 water year	5
4.	Monthly streamflow, April-September, during 1999 water year	6
5.	Hydrograph showing daily and median discharge for Black River near Tomahawk, 1999 water year	7
6.	Hydrograph showing daily and median discharge for Rocky River at Norwood, 1999 water year	8
7.	Hydrograph showing daily and median discharge for Lumber River at Boardman, 1999 water year	9
8.	Hydrograph showing daily and median discharge for French Broad River at Asheville, 1999 water year.	10
9a.	Plots showing concentration of selected constituents for Contentnea Creek at Hookerton, 1999 water year	14
9b.	Plots showing concentration of selected constituents for Neuse River at Kinston, 1999 water year	15
9c.	Plots showing concentration of selected constituents for Cape Fear River near Brickhaven, 1999 water year	16
9d.	Plots showing concentration of selected constituents for Flat River at Bahama, 1999 water year	17
10.	System for numbering miscellaneous sites and wells	19
11.	Map of western part of North Carolina showing locations of gaging stations	46
12.	Map of eastern part of North Carolina showing locations of gaging stations	47
13.	Map of western part of North Carolina showing locations of water-quality stations	48
14.	Map of eastern part of North Carolina showing locations of water-quality stations	49
15.	Map showing locations of sites in Bertie and Martin Counties	50
16.	Map showing locations of sites in and around Wake County	51
17.	Map showing locations of sites in and around Mecklenburg County	52

TABLES

Factors for converting inch-pound units to International System Units (SI) ..... inside back cover

SURFACE-WATER STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED IN THIS VOLUME

Letter after station name designates type of data: (d) discharge, (g) gage height, (c) chemical, (s) sediment, (e) elevation, (p) precipitation; and continuously monitored water-quality characteristics: (t) water temperature; (k) specific conductance; (h), pH; (o) dissolved oxygen; (n) salinity.

		Page
SOUTH ATLANTIC SLOPE BASIN		
ALBEMARLE SOUND BASIN		
Albemarle and Chesapeake Canal near Princess Anne, VA (g,t,n)	02043120	54-67
West Neck Creek at Indian River Road at Pungo, VA (d,t,n)	02043200	68-78
Currituck Sound at Bell Island (g,t,n)	0204342510	80-93
Intracoastal Waterway at Coinjock (d,t,n)	0204343500	94-105
Currituck Sound at Poplar Branch (g,t,n)	0204345010	106-119
Currituck Sound near Point Harbor (g,t,n)	0204347490	120-132
CHOWAN RIVER BASIN		
Chowan River:		
Pasquotank River near South Mills (d)	0204382800	134-135
Meherrin River:		
Potecasi Creek near Union (d)	02053200	136-137
Wiccacon River:		
Ahoskie Creek at Ahoskie (d)	02053500	138-139
ROANOKE RIVER BASIN		
Roanoke River:		
Dan River near Francisco (d).	02068500	140-141
Mayo River near Price (d)	02070500	142-143
Dan River near Wentworth (d)	02071000	144-145
Smith River at Eden (d)	02074000	146-147
Hyco Creek (head of Hyco River) near Leasburg (d,t)	02077200	148-151
Hyco Lake at Dam near Roxboro (g)	02077280	152-153
Afterbay Reservoir at Dam near McGhees Mill (g)	0207730290	154-155
Hyco River below Afterbay Dam near McGehees Mill (d,t)	02077303	156-159
Mayo Creek near Bethel Hill (d)	02077670	160-161
Roanoke River at Roanoke Rapids (d)	02080500	162-163
Roanoke River at Halifax (g,k,h,t,o)	0208062765	164-174
Roanoke River near Scotland Neck (g)	02081000	176-177
Big Swash Transect (Site #1) (g)	360533077131601	178-179
Big Swash Transect (Site #2) (g)	360356077172601	180-181
Big Swash Transect (Site #3) (g)	360347077191401	182-183
Roanoke River near Hills Ferry (g)	0208102115	184-185
Roanoke River near Oak City (g,t,k,h,o)	02081022	186-196
Roanoke River at Hamilton (g)	02081028	198-199
Broadneck Transect (Site #1) (g)	355812077082301	200-201
Broadneck Transect (Site #2) (g)	355722077082801	202-203
Broadneck Transect (Site #3) (g)	355540077083401	204-205
Roanoke River above Secondary Road 1100 near Grabtown (t,k,h,o)	0208102855	206-214
Roanoke River near Hamilton (g)	0208102925	216-217
Roanoke River at Williamston (g)	02081054	218-219
Conine Creek at US Highway 17 near Williamston (g)	0208108600	220-221
Devils Gut Transect (Site #1) (g)	355326076565301	222-223
Devils Gut Transect (Site #2) (g)	355024076562301	224-225
Devils Gut Transect (Site #3) (g)	354900076554101	226-227
Roanoke River near Woodard (g)	0208108650	228-229
Roanoke River at Jamesville (e,t,k,h,o)	02081094	230-240
Cow Creek Transect (Site #1) (g)	355312076533601	242-243
Cow Creek Transect (Site #2) (g)	355205076522501	244-245

SOUTH ATLANTIC SLOPE BASIN--Continued

ROANOKE RIVER BASIN--Continued
Cow Creek Transect (Site #3) (g) 355149076504001 246-247
Cow Creek Transect (Site #4) (g) 355140076484201 248-249
Cashie River at Secondary Road 1257 near Windsor (d) 0208111310 250-251
Cashie River at Sans Souci Ferry (e) 0208113400 252-253
Roanoke River at Plymouth (e) 0208114055 254-255
Roanoke River at N.C. 45 near Westover (e,t,k,h,o) 0208114150 256-266

PAMLICO RIVER BASIN
Tar River (head of Pamlico River) near Tar River (d,c) 02081500 268-271
Tar River at U.S. 401 at Louisburg (d,c) 02081747 272-275
Tar River below Tar River Reservoir near Rocky Mount (d,c) 02082506 276-279
Tar River at N.C. 97 at Rocky Mount (d) 02082585 280-281
Swift Creek at Hillardston (d) 02082770 282-283
Fishing Creek:
Little Fishing Creek near White Oak (d) 02082950 284-285
Fishing Creek near Enfield (d) 02083000 286-287
Tar River at Tarboro (d,c) 02083500 288-291
Conetoe Creek near Bethel (d) 02083800 292-293
Tar River at Greenville (d,c) 02084000 294-297
Chicod Creek:
Chicod Creek at Secondary Road 1760 near Simpson (d) 02084160 298-299
Pamlico River:
Pamlico River at Washington (n,h,t,o) 02084472 300-310
Pamlico River at Light 5 (n,h,t,o) 0208453300 312-323
Pamlico River at Light 3 (n,h,t,o) 0208455155 324-335
Pungo River:
Pantego Creek:
Cucholds Creek:
Intercepting Canal:
Albemarle Canal:
Van Swamp near Hoke (d) 02084557 336-337

NEUSE RIVER BASIN
Eno River:
Sevenmile Creek near Efland (d) 02084909 338-339
Eno River (head of Neuse River) at Hillsborough (d,c,s) 02085000 340-343
Eno River near Durham (d) 02085070 344-345
Eno River near Weaver (c,s) 02085079 346-347
Little River at Secondary Road 1461 near Orange Factory (d,c,s) 0208521324 348-350
Mountain Creek at Secondary Road 1617 near Bahama (d,c,s) 0208524090 352-358
Little River Reservoir at dam near Bahama (c) 0208524845 359-360
Little River tributary at Fairntosh (c,s) 0208524950 361-365
Little River below Little River tributary at Fairntosh (d,c,s) 0208524975 366-368
Flat River at Bahama (d,c,s) 02085500 370-374
Lake Michie at Dam near Bahama (c) 02086490 375-376
Flat River tributary near Willardville (d,c,s) 0208650112 378-384
Neuse River:
Falls Lake above Dam near Falls (g,p) 02087182 386-388
Neuse River near Falls (d) 02087183 390-391
Crabtree Creek at Ebenezer Church Road near Raleigh (d) 0208726005 392-393
Crabtree Creek at Highway 70 at Raleigh (d) 02087275 394-395
Crabtree Creek at Anderson Drive at Raleigh (g) 0208731190 396-397
Crabtree Creek at Old Wake Forest Road at Raleigh (g) 02087322 398-399
Crabtree Creek at U.S. 1 at Raleigh (d,c) 02087324 400-403
Pigeon House Creek at Cameron Village at Raleigh (d) 0208732534 404-405
Marsh Creek near New Hope (d,p) 0208732885 406-407
Rocky Branch below Pullen Drive at Raleigh (d) 0208735012 408-409

SOUTH ATLANTIC SLOPE BASIN--Continued

NEUSE RIVER BASIN--Continued
Walnut Creek at Sunnybrook Drive at Raleigh (d,p) 02087359 410-412
Neuse River near Clayton (d,c) 02087500 414-417
Neuse River at Smithfield (d,c) 02087570 418-421
Swift Creek near McCullars Crossroads (d) 0208758850 422-423
Middle Creek near Clayton (d) 02088000 424-425
Little River near Princeton (d) 02088500 426-427
Neuse River near Goldsboro (d,c) 02089000 428-431
Bear Creek at Mays Store (d) 0208925200 432-433
Neuse River at Kinston (d,t,s) 02089500 434-440
Contentnea Creek near Lucama (d) 02090380 442-443
Nahunta Swamp
Exum Mill Branch
Nahunta Swamp near Shine (d) 02091000 444-445
Contentnea Creek at Hookerton (d,c,s) 02091500 446-452
Unnamed Tributary to Sandy Run nr Lizzie (c) 0209173150 453
Unnamed Tributary to Sandy Run nr Lizzie (d,c) 0209173190 454-458
Drainage Ditch to Tributary to Sandy run nr Lizzie (d,c) 0209173192 460-462
Weather Station nr Lizzie (c,p) 0209173196 463-464
Middle Swamp near Farmville (d,c) 02091736 466-469
Little Contentnea Creek nr Willow Green (d,c) 02091737 470-473
Neuse River near Fort Barnwell (d,c) 02091814 474-477
Swift Creek at NC Highway 43 near Streets Ferry (d) 0209205053 478-479
Neuse River at New Bern (e,t,n,h,o) 02092162 480-497
Trent River near Trenton (d) 02092500 498-499
Trent River at Pollocksville (d) 02092554 500-501
Neuse River at Channel Light 11 (t,n,h,o) 0209262905 502-518
Neuse River at Channnel Light 9 (t,n,h,o) 0209265810 519-535

NEW RIVER BASIN
New River near Gum Branch (d) 02093000 536-537

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
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
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
0208705200	Smith Creek at Grissom, NC	6.2	1984-85

DISCONTINUED SURFACE-WATER DISCHARGE STATIONS--Continued

Station number	Station name	Drainage area (mi^2)	Period of record
	Neuse River Basin--Continued		
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
02091960	Creeping Swamp near Calico, NC	9.80	1971-77
02091970	Creeping Swamp near Vanceboro, NC	27.0	1971-85
02092000	Swift Creek near Vanceboro, NC	182	1950-89
02092020	Palmetto Swamp near Vanceboro, NC	24.0	1971-76
0209257120	W. P. Brice Creek below SR 1101 near Riverdale, NC	11.2	1986-91
	Hewletts Creek Basin		
02093229	Hewletts Creek at SR 102 near Wilmington, NC	1.98	1977-90
	Cape Fear River Basin		
0209330990	Brooks Lake tributary near Browns Summit, NC	.06	1985-90
0209331325	Candy Creek at SR 2700 near Monticello, NC	1.10	1985-90
02093500	Haw River near Benaja, NC	168	1928-71
02094000	Horsepen Creek at Battle Ground, NC	15.9	1925-31, 1934-59
02095000	South Buffalo Creek near Greensboro, NC	33.6	1928-58
0209509100	South Buffalo Creek at SR 2821 at McLeansville, NC	43.5	1986-88
02095500	North Buffalo Creek near Greensboro, NC	37.1	1929-90
0209555450	Buffalo Creek at SR 2719 near Osceola, NC	97.4	1986-87
0209560800	Reedy Fork Creek at NC 61 near Osceola, NC	243	1986-88
02096000	Stony Creek near Burlington, NC	44.2	1952-59
02096700	Big Alamance Creek near Elon College, NC	116	1957-80
02096842	Cane Creek 0.1mile above SR 1126 near Buckhorn, NC	.64	1979-81
02096850	Cane Creek near Teer, NC	33.7	1959-73
02097000	Haw River near Pittsboro, NC	1,310	1928-73
02097243	Third Fork Creek at Durham, NC	1.68	1968-73
02097500	Morgan Creek near Chapel Hill, NC	30.1	1923-32
0209782150	New Hope River tributary at SR 1716 near Farrington, NC	2.05	1986-88
02098000	New Hope River near Pittsboro, NC	285	1949-73
02098500	West Fork Deep River near High Point, NC	32.1	1923-26, 1928-58
02100000	Muddy Creek near Archdale, NC	16.7	1934-41
02101000	Bear Creek at Robbins, NC	134	1939-71
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
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

DISCONTINUED SURFACE-WATER DISCHARGE STATIONS--Continued

Station number	Station name	Drainage area (mi^2)	Period of record
	Cape Fear River Basin--Continued		
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
0210783273	Herrings Marsh Run Tributary at Red Hill, NC	1.14	1991-97
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
02124471	Dutch Buffalo Creek at NC 49 near Mount Pleasant, NC	45.1	1985-87
02125500	Richardson Creek near Marshville, NC	170	1940-44
02125557	Gourdvine Creek at SR 1715 near Olive Branch, NC	8.75	1978-82
02125696	Lane Creek at SR 2115 near Trinity, NC	3.98	1969-79
02125699	Wicker Branch at SR 1940 near Trinity, NC	5.83	1978-82
02125816	Lane's Creek near Marshville, NC	87.8	1985-87
02126500	Little Brown Creek near Polkton, NC	13.5	1935-41
02127000	Brown Creek near Polkton, NC	110	1937-71
02127500	Pee Dee River near Ansonville, NC	6,330	1938-42
02129500	North Fork Jones Creek near Wadesboro, NC	9.43	1935-41
0213228795	Jordan Creek near Silver Hill, NC	0.36	1983-93
	Santee River Basin		
02137000	Mill Creek at Old Fort, NC	20.7	1960-75
02138000	Catawba River near Marion, NC	172	1941-81

DISCONTINUED SURFACE-WATER DISCHARGE STATIONS--Continued

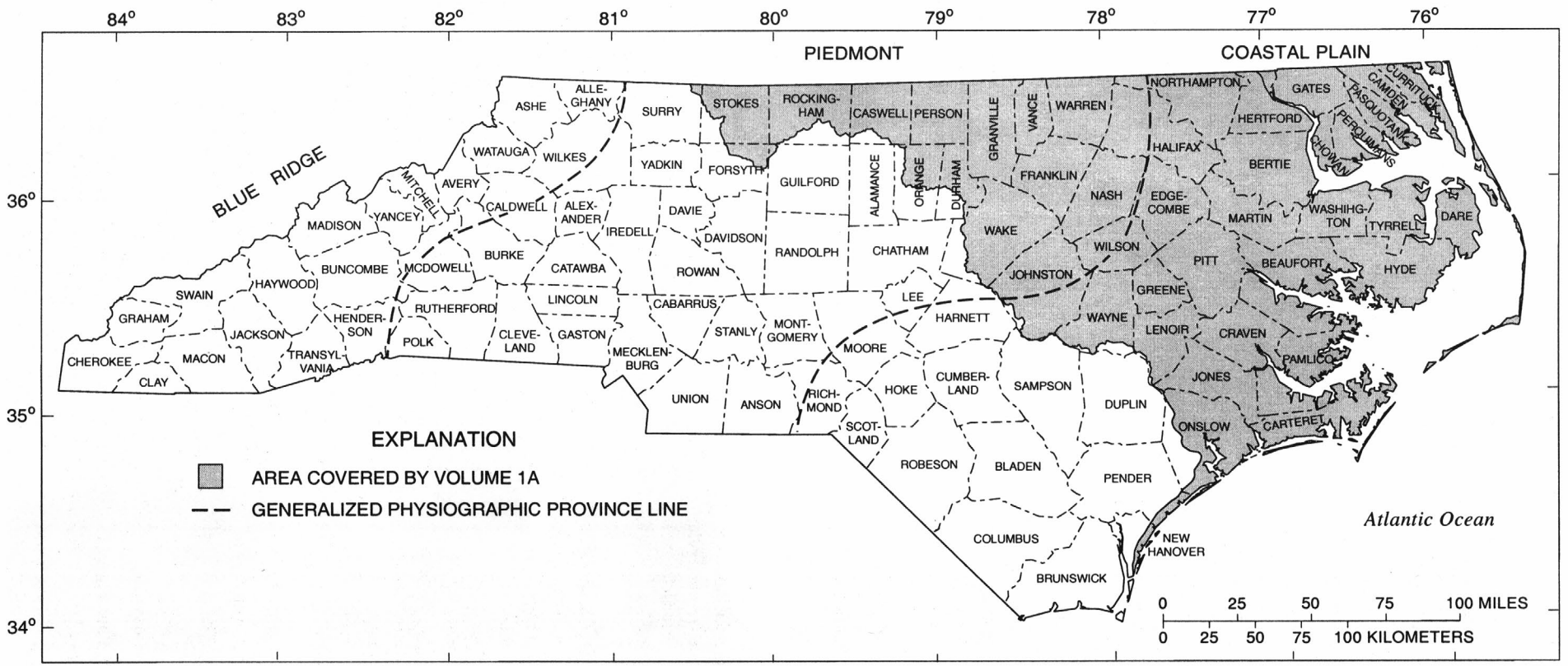
Station number	Station name	Drainage area (mi^2)	Period of record
	Santee River Basin--Continued		
0213875850	High Shoals Creek near Dysartsville, NC	2.38	1986-88
02139200	Bailey Fork near Morganton, NC	7.86	1966-70
02139650	East Prong near Morganton, NC	8.94	1966-74
0214042720	North Harper Creek near 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
0214620760	Irwin Creek at Starita Road at Charlotte, NC	4.40	1989-94
02146450	Briar Creek at Sharon Road, Charlotte, NC	18.5	1962-73
02146500	Little Sugar Creek near Charlotte, NC	41.0	1924-78
02146579	Irvin's Creek at Lebanon Road near Mint Hill, NC	5.27	1983-90
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
03444000	Boylston Creek near Horseshoe, NC	14.8	1942-55
03444500	South Fork Mills River at the Pink Beds, NC	9.99	1926-49 1965-73
03445000	South Fork Mills River near Sitton, NC	40.0	1904-09 1925-26
03445500	North Fork Mills River at Pinkbed, NC	23.1	1904-09
03446500	Clear Creek near Hendersonville, NC	42.2	1945-55
03447000	Mud Creek at Naples, NC	109	1938-55
03447500	Cane Creek at Fletcher, NC	63.1	1942-58
03448000	French Broad River at Bent Creek, NC	676	1933-86
03448500	Hominy Creek at Candler, NC	79.8	1942-77
03448960	North Fork Swannanoa River below Burnett Reservoir near Black Mountain, NC	22.1	1976-77
03449000	North Fork Swannanoa River near Black Mountain, NC	23.8	1926-58
03449500	Swannanoa River at Swannanoa, NC	58.8	1907-09 1926-31
0345092550	Ross Creek at Beaucatcher Road at Asheville, NC	2.46	1986-89
0345112600	Nasty Branch at Asheville, NC	1.19	1986-89
03451510	Reed Creek above Barnard Avenue at Asheville, NC	2.13	1986-89
03452000	Sandymush Creek near Alexander, NC	79.5	1942-55

DISCONTINUED SURFACE-WATER DISCHARGE STATIONS--Continued

Station number	Station name	Drainage area (mi^2)	Period of record
	Tennessee River Basin--Continued		
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
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	1934-45
03554000	Nottely River near Ranger, NC	272	1901-05
			1914-17
			1919-29
			1932-45
03555000	Hiwassee River at Hiwassee Dam, NC	968	1934-43



Vehicles inundated by flood waters of the Tar River near Tarboro, N.C. at U.S. highway 64, September 1999.



COUNTIES AND PHYSIOGRAPHIC PROVINCES OF NORTH CAROLINA

INTRODUCTION

Water-resources data for the 1999 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 61 gaging stations; stage and contents for 17 lakes and reservoirs; stage for 31 gaging stations; water quality for 49 gaging stations and 3 miscellaneous sites; continuous daily tide stage at 3 sites; and continuous precipitation at 4 sites. Additional water data were collected at 8 sites not involved in the systematic data-collection program, and are published as miscellaneous measurements in this report. The collection of water-resources data in North Carolina is a part of the National Water-Data System operated by the U.S. Geological Survey in cooperation with State, municipal, and Federal agencies.

Stream-discharge records, and contents and stage for lakes or reservoirs were first published in a series of U.S. Geological Survey water-supply papers entitled, "Surface Water Supply of the United States." Through September 30, 1960, these water-supply papers were published annually; beginning in 1961, these water-supply papers were published every 5 years through 1970. Records of chemical quality, water temperature, and suspended sediment were published from 1941 to 1970 in an annual series of water-supply papers entitled, "Quality of Surface Waters of the United States." Water-supply papers can be found in the libraries of principal cities and universities throughout the United States or can be purchased from the U.S. Geological Survey, Earth Science Information Center, Open-File Reports Section, Denver Federal Center, Box 25286, Mail Stop 517, Denver, Colorado 80225.

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

Publication of streamflow and water-quality data, beginning with the 1971 water year, and ground-water data, beginning with the 1975 water year currently is limited to reports on a State-by-State basis. Beginning with the 1975 water year, these Survey reports carry an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this report is identified as "U.S. Geological Survey Water-Data Report NC-99-1." Water-data reports are for sale by the National Technical Information Service, U.S. Department of Commerce, Springfield, Virginia 22161.

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

COOPERATION

Cooperative agreements between the U.S. Geological Survey (USGS) and organizations of the State of North Carolina for the systematic collection of water-resources data began in 1895 and continued through 1909. Following a lapse of 8 years, the State of North Carolina resumed cooperation in October 1918. Organizations that assisted in collecting the data contained in this report through cooperative agreements with the USGS are:

North Carolina Cooperative Extension Service
North Carolina Department of Environment and Natural Resources
North Carolina Department of Transportation
City of Asheville
City of Brevard
City of Charlotte
City of Danville, Virginia
City of Durham
City of Morganton
City of Greensboro
City of Raleigh
City of Rocky Mount
Mecklenburg County
Orange County
Town of Bethel
Town of Chapel Hill
Triangle Area Water Supply Monitoring Steering Committee
Winston-Salem/Forsyth County Utility Commission
Pender County Emergency Management

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

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

The following organizations aided in collecting records:

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

SUMMARY OF WATER-RESOURCES CONDITIONS

Precipitation

Precipitation amounts for the first quarter, October through December, of the 1999 water year varied from 3.11 (Asheville) and 3.13 (Charlotte) inches below average in the western part of the State to 0.95 (Elizabeth City) inch above average in the eastern part of the State. Average precipitation amounts are based on data from 1961 through 1990, the 30-year base period used by the National Weather Service. Rainfall data collected at six key National Weather Service stations (figs. 1 and 2) indicate that rainfall was at or above average in the northern Coastal Plain and below average in the southern Coastal Plain, Piedmont, and Blue Ridge Provinces of North Carolina.

The second quarter of the 1999 water year, January through March, brought drier conditions to the northern Coastal Plain, and below-average conditions continued throughout the State except in the central Piedmont Province (Raleigh) and the southern Blue Ridge Province (Asheville). Rainfall in Raleigh was 0.48 inch above average and in Asheville was 0.70 inch above average. Below-average rainfall amounts were observed at the other index stations; the greatest rainfall deficiency was reported in Charlotte at 4.48 inches below average.

The third quarter, April through June, brought below-average amounts of rainfall across the State except in the southern Coastal Plain Province (Wilmington), where a greater-than-average rainfall of 3.81 inches above normal was reported. Below-normal rainfall was observed in the northern Coastal Plain Province (Elizabeth City), where a deficit of 2.86 inches was recorded. The Piedmont and Blue Ridge Provinces continued to struggle with dry conditions; rainfall deficits were reported at Raleigh (4.92 inches), Greensboro (1.04 inches), Charlotte (0.25 inches), and Asheville (2.66 inches) for the third quarter.

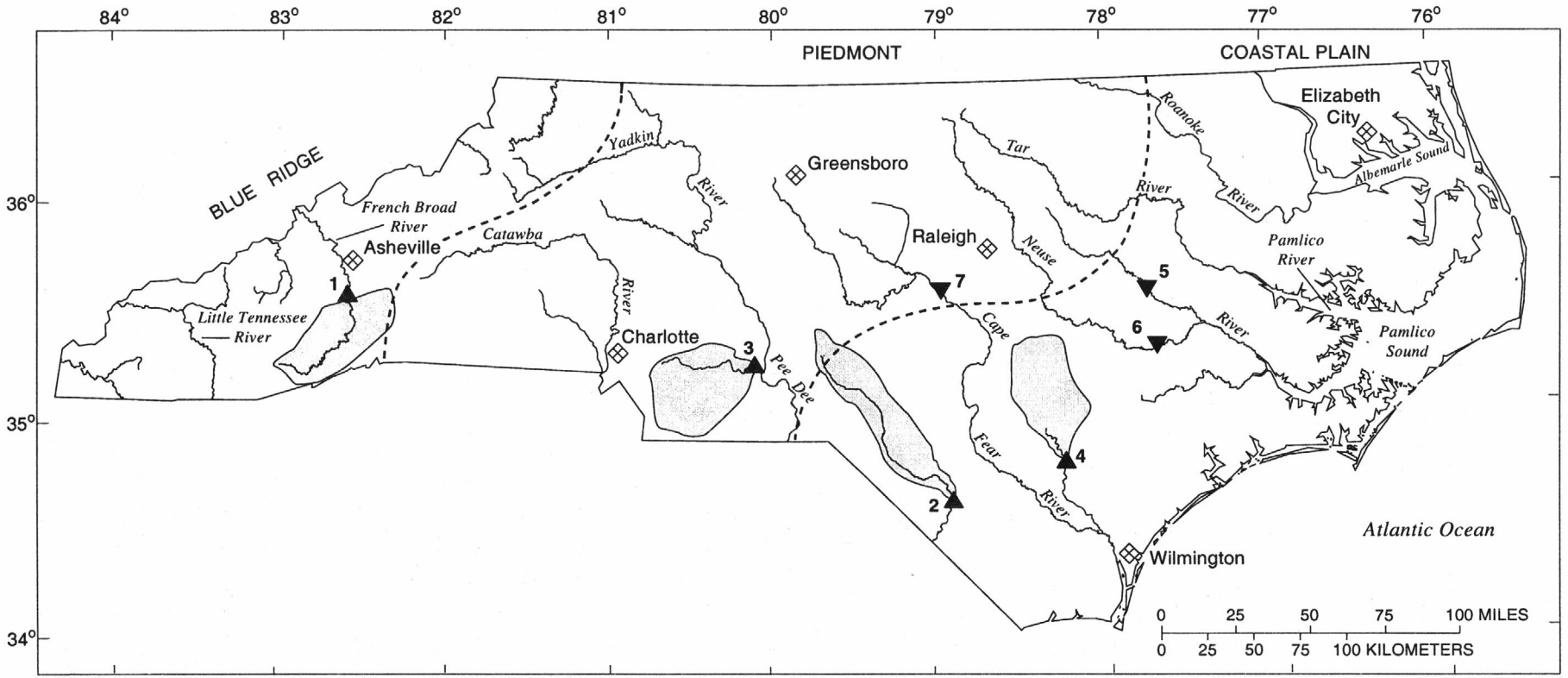
The State continued to observe below- to near-average rainfall amounts during the first 2 months of the fourth quarter, July and August. Parts of eastern North Carolina experienced extremely heavy and, in some cases, unprecedented rainfall amounts during September as a result of Hurricanes Dennis and Floyd. Asheville recorded a deficit rainfall of 1.67 inches, and Charlotte observed a rainfall amount of 0.76 inch above average for the month of September. However, conditions in the Piedmont and Coastal Plain Provinces proved otherwise. Hurricane Dennis approached the North Carolina coast, turned and meandered offshore for several days, making landfall in North Carolina on September 4 and moving in a west-northwesterly direction over the Neuse and Tar River Basins. Rainfall amounts generally were greatest near the coast but as much as 7 inches were reported in the central Neuse and Tar River Basins. Hurricane Floyd made landfall between Wilmington and Jacksonville on September 15 and moved in a north-northeasterly direction over the lower Cape Fear, Neuse, Tar, lower Roanoke, and Chowan River Basins. The storm delivered 12 to 18 inches of rain to much of the Neuse and Tar River Basins, and triggered wide spread regional flooding throughout the eastern part of the State during the remainder of September and most of October. Index sites in the Piedmont and Coastal Plain Provinces recorded rainfall amounts for September well above average at Greensboro (8.02 inches), Raleigh (21.79 inches), Wilmington (23.45 inches), and Elizabeth City (12.23 inches). Rainfalls at Raleigh and Wilmington were in excess of 18 inches above average and were the highest monthly rainfall amounts on record for the month of September.

In summary, below-average precipitation was reported for most areas in the Blue Ridge, Piedmont, and Coastal Plain Provinces from October 1998 through August 1999. As a result, some restrictions on water use were implemented at numerous locations across the State. The month of September brought unprecedented and, in some cases, record rainfall amounts to the Piedmont and Coastal Plain Provinces of North Carolina. The National Weather Service reported the following rainfall amounts for selected stations for the period of October through August, prior to the arrival of Hurricanes Dennis and Floyd in September: Asheville, 36.66 inches (7.06 inches below average); Charlotte, 28.89 inches (10.70 inches below average); Greensboro, 35.01 inches (4.09 inches below average); Raleigh, 31.49 inches (6.75 inches below average); Elizabeth City, 41.20 inches (2.78 inches below average); and Wilmington, 46.14 inches (3.09 inches below average). The National Weather Service reported the following annual (including the month of September) rainfall amounts for the entire 1999 water year at these selected stations: Asheville, 38.86 inches (8.73 inches below average); Charlotte, 33.15 inches (9.94 inches below average); Greensboro, 43.63 inches (1.01 inches above average); Raleigh, 53.28 inches (11.85 inches above average); Elizabeth City, 53.43 inches (4.95 inches above average); and Wilmington, 69.59 inches (15.32 inches above average).

Surface Water

Streamflow conditions in North Carolina are greatly influenced by precipitation. Excess rainfall can produce rapid responses in streamflow. Streamflow also declines following periods of deficient rainfall. The rate and magnitude of decline depend on basin size, the season, evapotranspiration, and on the amount of ground water in storage at the onset of the dry period. The effects on streamflow of variable rainfall in North Carolina during the 1999 water year are illustrated in figures 3-8. Monthly conditions are depicted in maps (figs. 3 and 4) that show the regions of above-normal (excessive), normal, and below-normal (deficient) streamflow.

Data for the 30-year base period, 1961-90, from 35 index gaging 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



EXPLANATION

GENERALIZED PHYSIOGRAPHIC PROVINCE LINE

SURFACE-WATER INDEX STATION, BASIN AND MAP NUMBER

WATER-QUALITY INDEX STATION AND MAP NUMBER

NATIONAL WEATHER SERVICE STATION

MAP NUMBER	STATION NUMBER	STATION NAME
1	03451500	French Broad River at Asheville
2	02134500	Lumber River at Boardman
3	02126000	Rocky River near Norwood
4	02106500	Black River near Tomahawk
5	02091500	Contentnea Creek near Hookerton
6	02089500	Neuse River at Kinston
7	0210215985	Cape Fear River at Brickhaven

Figure 1.--Location of selected long-term index stations for precipitation, discharge, and water-quality.

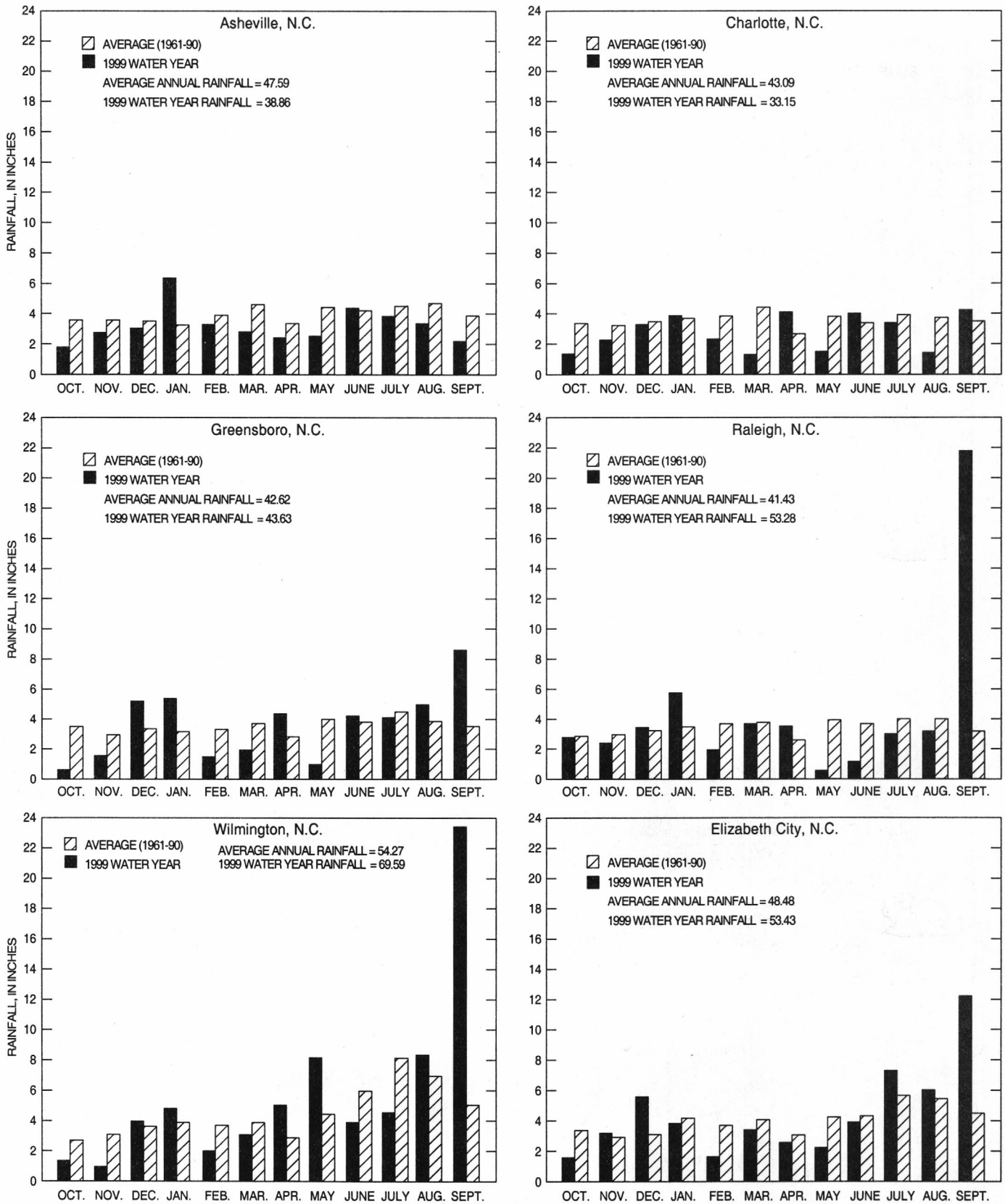


Figure 2.--Monthly rainfall at index stations for 1999 water year and average monthly rainfall for the period 1961-90 (data from National Oceanic and Atmospheric Administration reports).

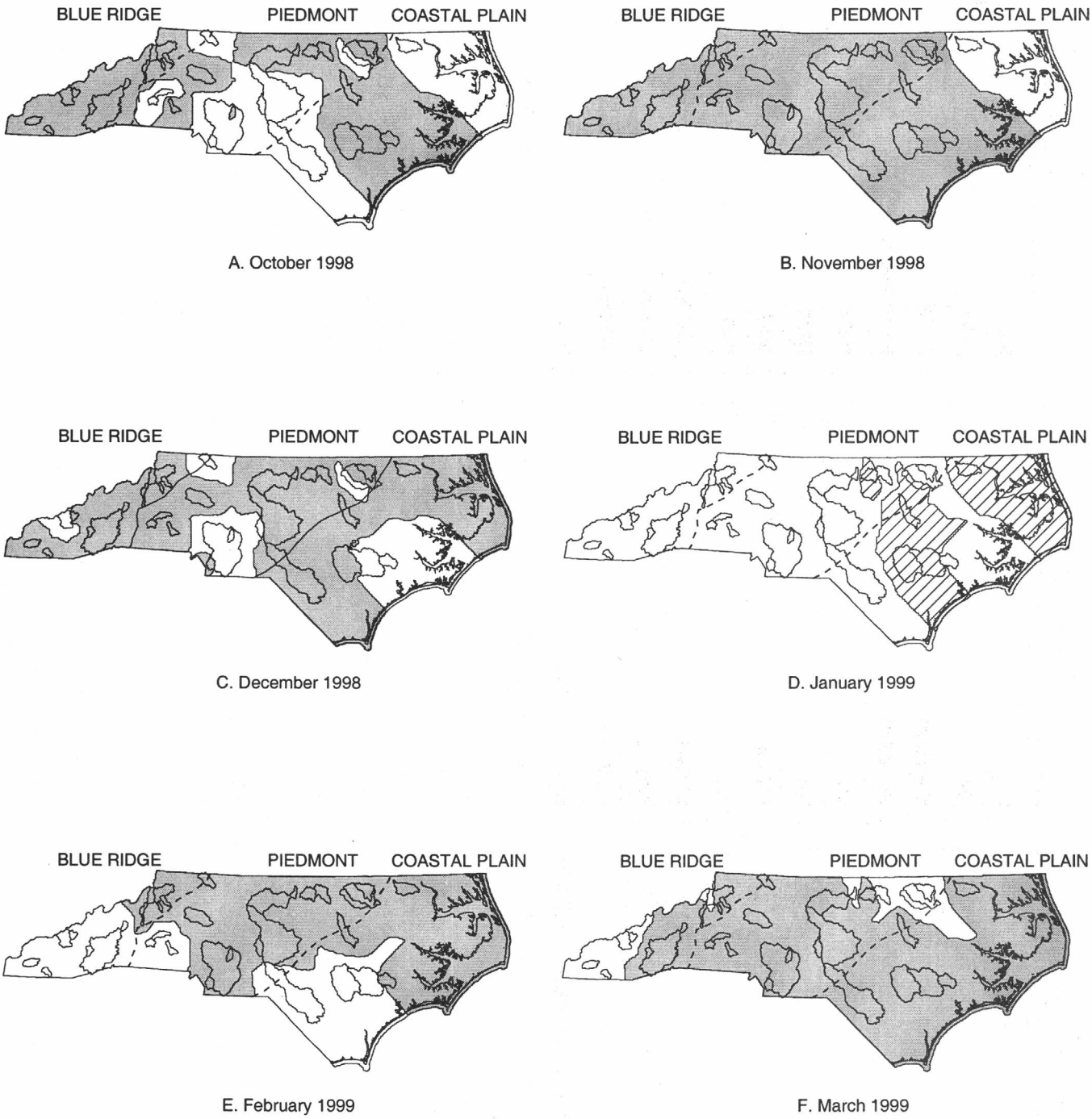


Figure 3.--Monthly streamflow during October - March 1999 water year.

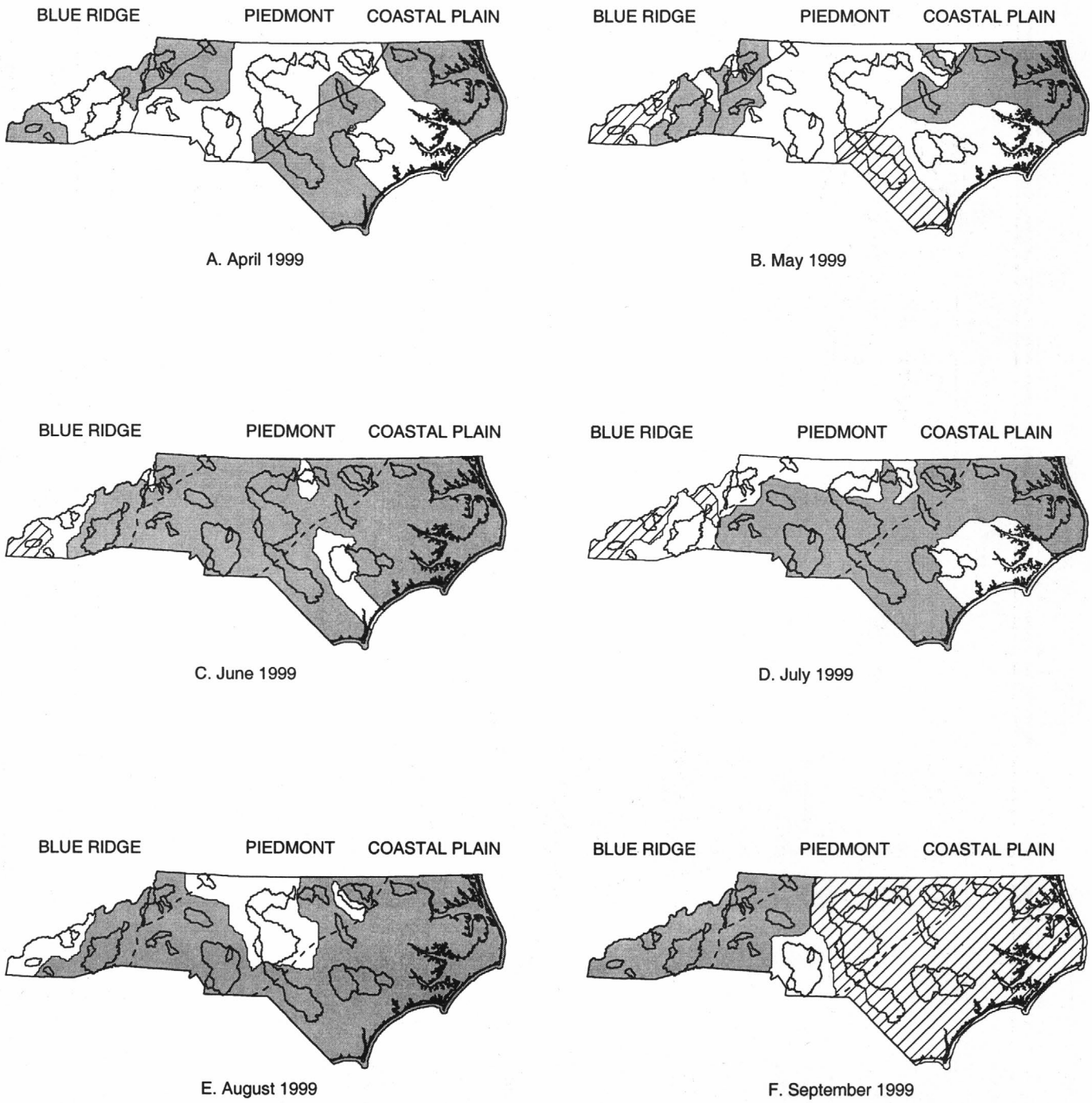


Figure 4.--Monthly streamflow during April - September 1999 water year.

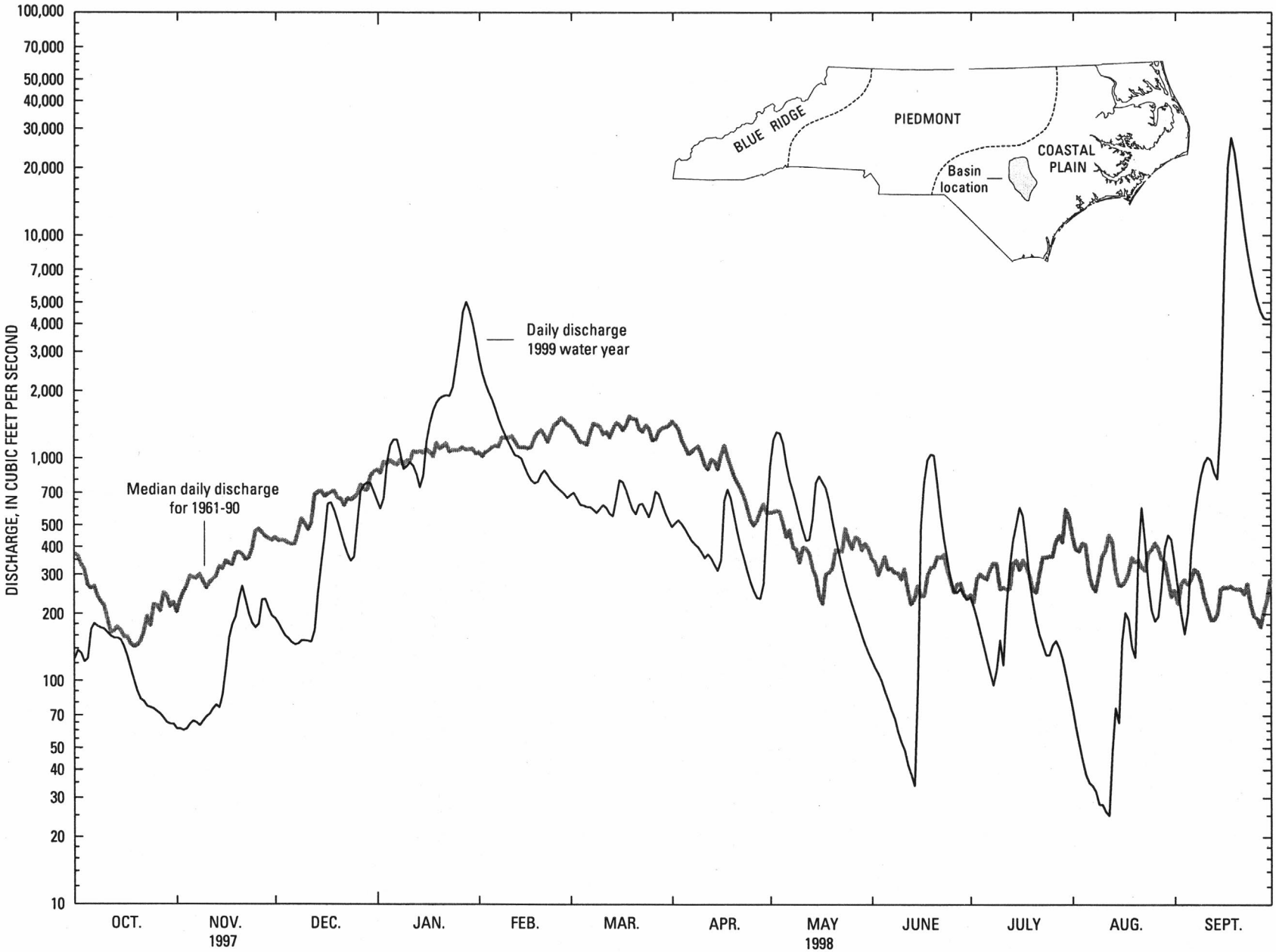


Figure 5.--Daily discharge for 1999 water year and median daily discharge for 1961-90 water years for Black River near Tomahawk (02106500). Location shown in figure 1.

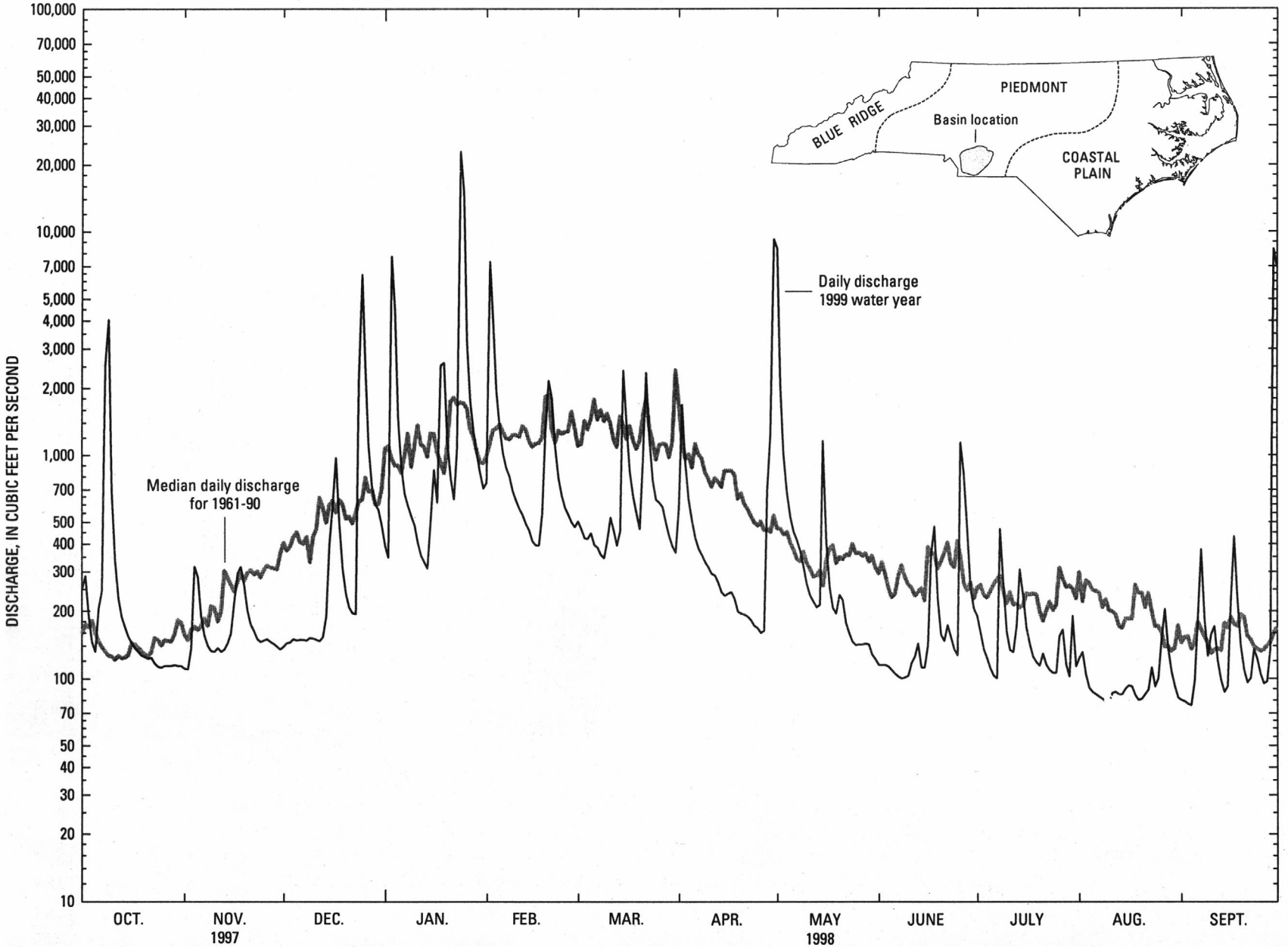


Figure 6.--Daily discharge for 1999 water year and median daily discharge for 1961-90 water years for Rocky River near Norwood (02126000). Location shown in figure 1.

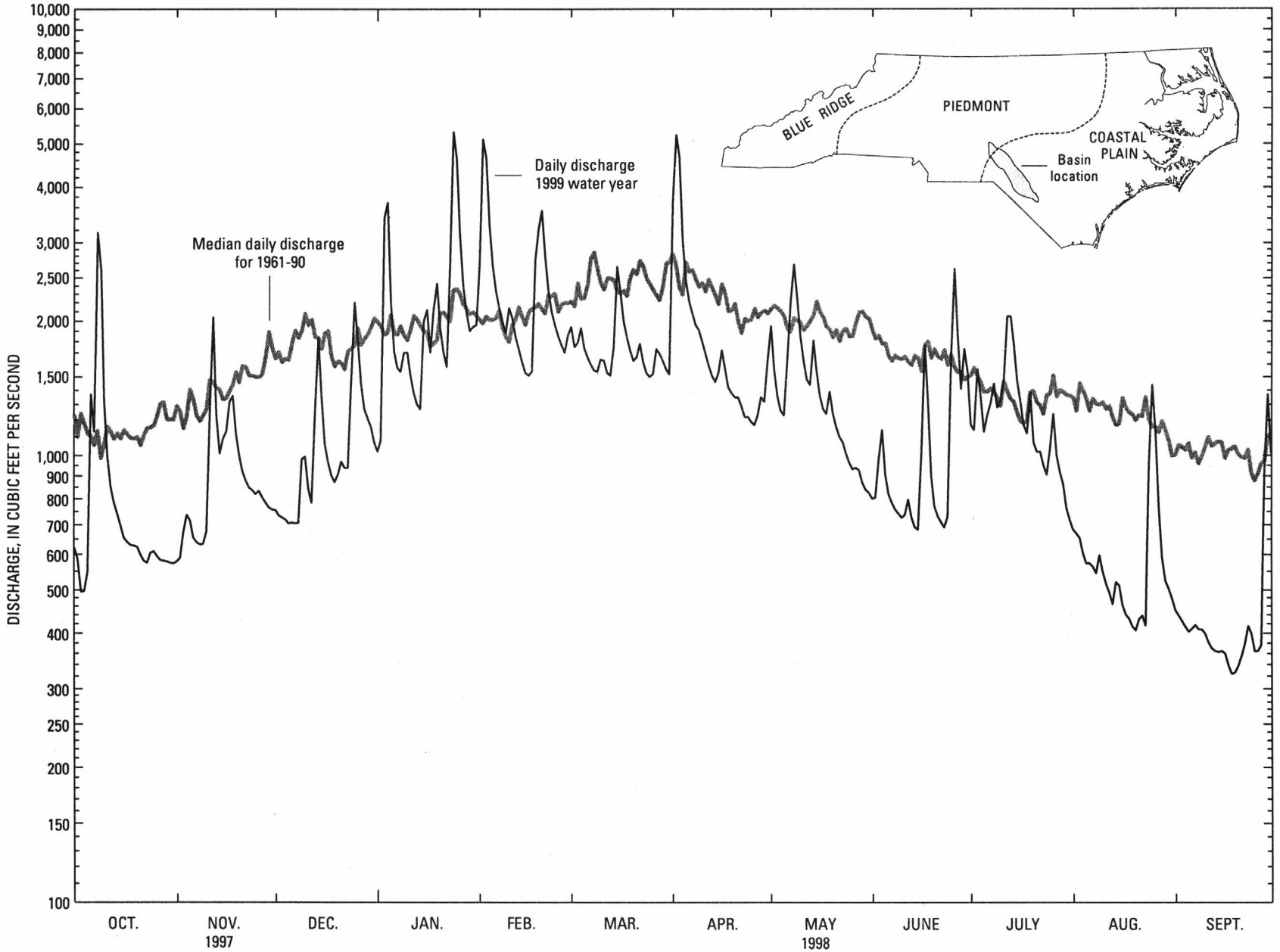


Figure 7.--Daily discharge for 1998 water year and median daily discharge for 1961-90 water years for Lumber River at Boardman (02134500). Location shown in figure 1.

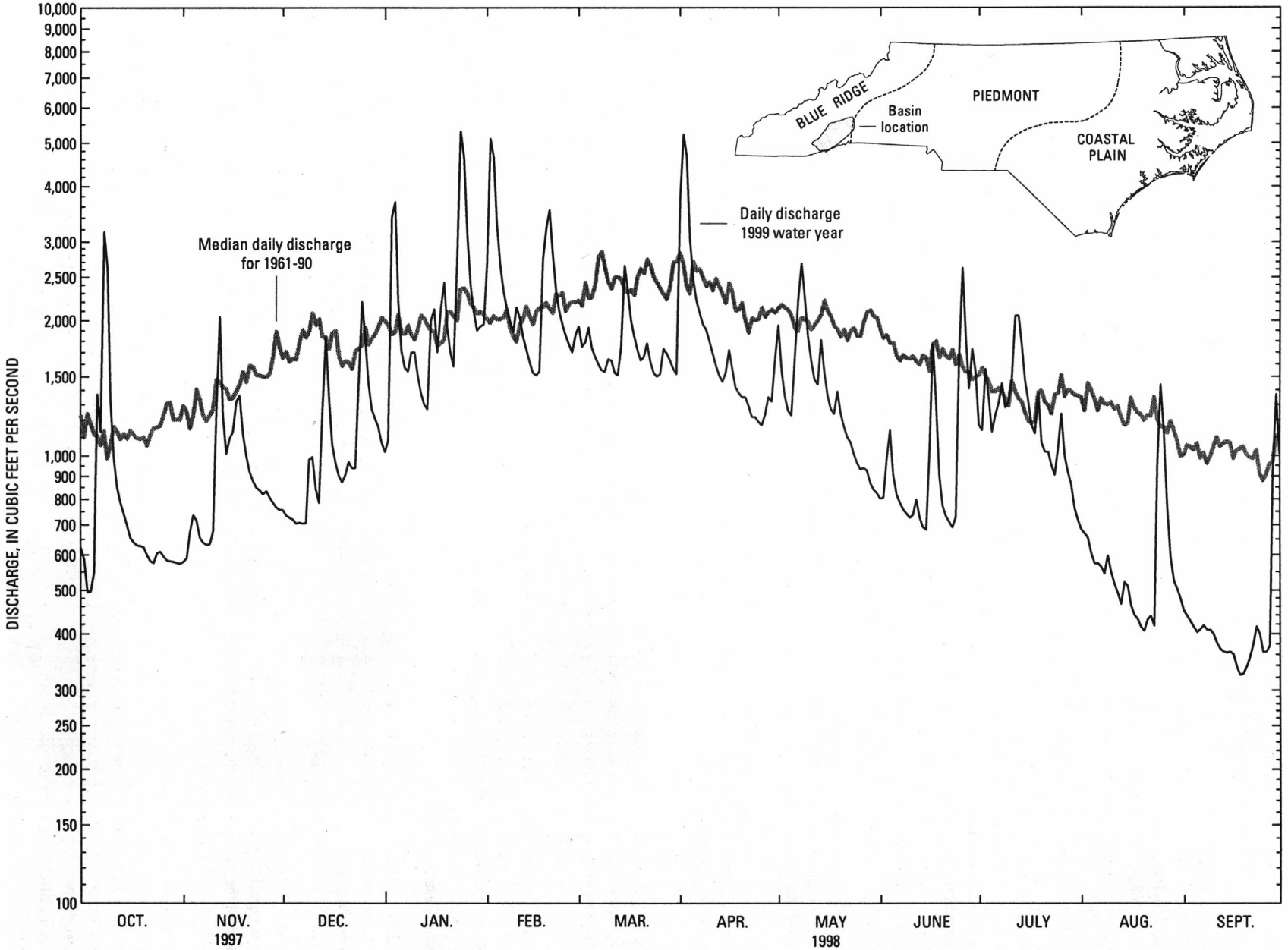


Figure 8.--Daily discharge for 1999 water year and median daily discharge for 1961-90 water years for French Broad River at Asheville (03451500). Location shown in figure 1.

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.

Responses of daily streamflow to basinwide weather patterns throughout the year at four long-term index stations across the State (fig. 1) are shown in figures 5-8. The daily mean discharge hydrograph for the 1999 water year is superimposed on the 1961-90 median daily discharge hydrograph for each of these index stations. Daily mean discharge was below the median daily discharge at the four sites for most of the 1999 water year.

Across the State, below-average precipitation conditions occurred during the month of October. As a result, 71 percent of the 35 index sites had deficient flows (fig. 3A). The remaining sites were at normal-flow conditions. Six index sites had monthly mean discharges that were third lowest or less for the periods of record. The site rankings for the periods of recordd are as follows: third lowest were Indian Creek near Laboratory (50 years of record) and South Toe River near Celo (44 years of record); second lowest was Little Fishing Creek near White Oak (41 years of record); and the lowest were Hyco Creek near Leasburg (37 years of record), Cataloochee Creek near Cataloochee (57 years of record), and Nantahala River near Rainbow Springs (60 years of record).

Below-average precipitation totals continued across the State, except in Elizabeth City where the precipitation total was slightly above normal during November. The continued wide-spread, below-average precipitation resulted in extensive deficient monthly mean discharges for streams throughout the State. Only one index site, Potecasi Creek near Union, had normal-flow conditions (fig. 3B). Seven index sites reached their second lowest or less monthly mean discharge for the periods of record. The site rankings for the periods of record are as follows: second lowest were Tar River near Tar River (61 years of record), Elk Creek at Elkville (35 years of record), Cataloochee Creek near Cataloochee (57 years of record), and Watauga River near Sugar Grove (61 years of record); the lowest were Hyco Creek near Leasburg (37 years of record), Little Fishing Creek near White Oak (41 years of record), and South Toe River near Celo (44 years of record).

December rainfall totals were near average across the State, which helped shift several streams into the normal-flow range; however, 77 percent of the index sites continued to have deficient flow conditions for the month (fig 3-C). Monthly mean discharge at Indian Creek near Laboratory (50 years of record) reached its third lowest monthly mean discharge for the period of record.

January rainfall totals were above average at the six index weather stations across the State except at Elizabeth City where a slightly less-than-average rainfall amount was recorded for the month. Monthly mean discharges were in the normal range across the State except for six index sites which had excessive flows for the month—Potecasi Creek near Union, Swift Creek at Hillardston, Flat River at Bahama, Little River near Princeton, Black River at Tomahawk, and the Northeast Cape Fear River near Chinquapin (fig. 3D).

The month of February brought below-average precipitation totals at the six index weather stations across the State. Sixty-three percent of the index sites slipped into the deficient discharge range (fig 3E). One station, Hyco Creek near Leasburg (37 years of record), recorded its second lowest monthly mean discharge for the period of record. The remaining index sites remained at, or decreased to, the normal-discharge range.

Below-average rainfall amounts persisted throughout the month of March. Streamflow conditions remained fairly steady compared to the previous month, with 71 percent of the index sites having deficient flow conditions. The remainder of the index sites were in the normal streamflow range (fig. 3F). Two index sites reached their third lowest or less monthly mean discharge for the periods of record. The site rankings for the periods of record are as follows: third lowest was Big Bear Creek near Richfield (47 years of record), second lowest was First Broad River near Casar (42 years of record).

Rainfall totals in April were above-average from the mountains to the coast, except for Asheville and Elizabeth City, which reported below-normal rainfall amounts. Many index sites returned to the normal monthly mean discharge range, leaving 38 percent of the index sites in the deficient range (fig. 4A). One station, South Fork New River near Jefferson (74 years of record), recorded its third lowest monthly mean discharge for the period of record.

In May, rainfall totals across the State were well below average (1.9 to 3.34 inches) except at Wilmington, which recorded 3.73 inches above average. Despite the widespread below-average rainfall, 60 percent of the index sites remained in the normal streamflow range with the remainder of the index sites in the deficient streamflow range (fig. 4B). One station, Rocky River near Norwood (71 years of record), recorded its third lowest monthly mean discharge for the period of record.

Rainfall totals for the month of June were above average in the western part of the State and below average in the eastern part of the State. One streamflow index site, Valley River at Tomotla, had excessive monthly mean streamflow conditions in June. Despite above-average rainfall in the western half of the State, 80 percent of the index sites across the State were in the deficient streamflow range (fig 4C). Five index sites reached their third lowest or less monthly mean discharge for the periods of record. The site rankings for the periods of record are as follows: third lowest were Elk Creek at Elkville (35 years of record) and Big Bear Creek near Richfield (47 years of record); second lowest were Fishing Creek near Enfield (74 years of record) and Little Fishing Creek near White Oak (41 years of record); and the lowest was Little River near Princeton (71 years of record).

In July, rainfall amounts were below average at the six index weather sites across the State except for Elizabeth City which recorded about 1.6 inches above average. Though rainfall at Asheville was slightly below average, four index sites in the mountain region had excessive monthly mean discharges (fig 4D). One of these index sites, South Toe River near Celo (44 years of record), recorded its third highest monthly mean flow for the period of record. Deficient streamflow conditions occurred at 49 percent of the index sites. Four index sites reached their third lowest or less monthly mean discharge for the periods of record. The site rankings for the periods of record are as follows: third lowest were Little Fishing Creek near White Oak (41 years of record) and South Toe River near Celo (44 years of record); second lowest was Twelve Mile Creek near Waxhaw (40 years of record); and the lowest was Little River near Princeton (71 years of record) for the second consecutive month.

Rainfall at index weather sites in August were below average in the western part of the State and above average in the eastern part. Rainfall amounts were above average at Greensboro and below average at Raleigh. Though above-average rainfall occurred in the eastern part of the State, 74 percent of the streamflow index sites remained at, or decreased to, the deficient-flow range (fig. 4E). Nine index sites reached their third lowest or less monthly mean discharge for the periods of record. The site rankings for the periods of record are as follows: third lowest were Little Fishing Creek near White Oak (41 years of record), Elk Creek at Elkville (35 years of record), Rocky River near Norwood (71 years of record), and Indian Creek near Laboratory (50 years of record); second lowest were South Yadkin River near Mocksville (62 years of record), Big Bear Creek near Richfield (47 years of record), Twelve Mile Creek near Waxhaw (40 years of record), and First Broad River near Casar (42 years of record); and the lowest was Henry Fork near Henry River (67 years of record), which experienced its lowest monthly mean flow since 1925. The remainder of the sites were in the normal streamflow range.

In September, Hurricanes Dennis and Floyd brought record rainfall amounts that led to widespread and prolonged flooding in portions of central and most of eastern North Carolina. The western Piedmont and Blue Ridge Provinces had near-average to below-average rainfall amounts. The Raleigh (21.79 inches) and Wilmington (23.45 inches) index weather stations recorded their highest monthly rainfall amounts on record. Index streamflow sites in the western half of the State remained at, or decreased to, the deficient-flow range (fig. 4F). Seven of these index sites reached their third lowest or less monthly mean discharge for the periods of record, and First Broad River near Casar had its lowest monthly mean flow for the periods of record. Three index sites reached their third to second lowest monthly mean discharge for the periods of record. The site rankings for the periods of record are as follows: third lowest was Deep River at Moncure (71 years of record); second lowest were Hyco Creek near Leasburg (37 years of record) and Flat River at Bahama (76 years of record). Monthly mean discharge conditions in the eastern part of the State were unprecedented. With the exception of the Lumber River Basin, all major river basins in eastern North Carolina experienced flooding at the 500-year recurrence interval in some portion of the basin. Monthly mean flow was excessive at 43 percent of the 35 streamflow index sites. Ten index sites reached their highest monthly mean discharge for the periods of record. The site names and the dates of the previous high are as follows: Potecasi Creek near Union (1960), Tar River near Tar River (1996), Swift Creek near Hillardston (1996), Fishing Creek near Enfield (1928), Little River near Princeton (1996), Little Fishing Creek near White Oak (1996), Trent River near Trenton (1955), Black River at Tomahawk (1996), Northeast Cape Fear River near Chinquapin (1955), and the Lumber River near Boardman (1945).

In summary, below-average precipitation occurred during the 1999 water year throughout much of the State until August, producing drought or near-drought conditions. September hurricanes, Dennis and Floyd, brought record rainfall amounts to the Coastal Plain and Piedmont Provinces of North Carolina. Streamflow conditions reflected the rainfall pattern, yielding below-average discharges through the early part of September before the hurricanes brought unprecedented 500-year recurrence interval flooding to much of eastern North Carolina.

Water Quality

Water-quality data are summarized for Contentnea Creek near Hookerton (733 mi^2 drainage area), Neuse River at Kinston (2,692 mi^2), Cape Fear River near Brickhaven (3,160 mi^2), and Flat River at Bahama (149 mi^2). These stations drain watersheds in the Piedmont (Cape Fear River and Flat River) and Coastal Plain (Neuse River and Contentnea Creek) Provinces of North Carolina. The USGS collected water samples at these sites during the 1999 water year as part of the USGS National Water-Quality Assessment (NAWQA) Program (Spruill and others, 1998), and for two projects that are part of the USGS Cooperative Program (Garrett and Bales, 1995; Childress and Bathala, 1997).

Concentrations of total phosphorus and orthophosphate as P, nitrite plus nitrate and ammonia plus organic nitrogen as N, total and dissolved organic carbon, total dissolved solids, and suspended-sediment are illustrated along with hydrographs of daily mean discharge for the 1999 water year (fig. 9). Greatest total phosphorus concentrations occurred in Contentnea Creek and the Neuse River in July (greater than 0.16 mg/L; figs. 9a, b). Decreases in total phosphorus concentrations in January correspond with seasonal increases in discharge in Contentnea Creek and the Neuse River (fig. 9a, b). Total phosphorus concentrations were lowest in the Flat River--all but two values were censored at or estimated below than the laboratory reporting level (<0.05). Greatest orthophosphate concentrations occurred during seasonal decreases in discharge in Contentnea Creek, and the Neuse and Cape Fear Rivers. Orthophosphate concentrations were less than or near the laboratory reporting level (0.01 mg/L) in the Flat River.

Nitrite plus nitrate concentrations were similar in the Neuse River and Contentnea Creek and ranged from 0.05 to 1.0 mg/L. The minimum

concentrations, much less than the minimum of 0.2 mg/L recorded in the 1998 water year, occurred during September in floodwaters from Hurricane Floyd. The median nitrite plus nitrate concentrations (0.7 mg/L each) for the Neuse River and Contentnea Creek were the same as in the 1998 water year. The lowest median and range in nitrite plus nitrate concentrations occurred in the Flat River (fig. 9d). In the Cape Fear River high nitrite plus nitrate concentrations correspond with seasonal increases in discharge (fig. 9c). In the Neuse River and Contentnea Creek, ammonia plus organic nitrogen concentrations were generally less than nitrite plus nitrate concentrations, whereas ammonia plus organic nitrogen concentrations were generally greater than nitrite plus nitrate concentrations in the Cape Fear and Flat Rivers. Maximum concentrations of ammonia plus organic nitrogen occurred in floodwaters from Hurricane Floyd in the Neuse and Flat Rivers.

The maximum total organic carbon (TOC) concentration was measured in the only sample collected from the Flat River. This sample was collected on September 6 during extreme runoff resulting from Hurricane Dennis. Otherwise, TOC concentrations ranged from 4.4 to 15.6 mg/L in the Neuse River and Contentnea Creek, and from 0.8 to 10 mg/L in the Cape Fear River. Maximum TOC concentrations were measured in floodwaters from Hurricane Floyd. Samples were analyzed for dissolved organic carbon (DOC), the dissolved fraction of TOC, in the Neuse River and Contentnea Creek. DOC typically composed nearly all of the TOC (fig. 9b).

Dissolved solids concentrations were greater in the Cape Fear River (88 to 182 mg/L, fig. 9c) than in the Neuse River and Contentnea Creek (47 to 108 mg/L, fig. 9a, b). Concentrations decreased during seasonal increases in discharge. The maximum suspended-sediment concentration (143 mg/L) occurred in the Flat River and was associated with the early September sampling of runoff from Hurricane Dennis.

References

Childress, C.J.O., and Bathala, Neeti, 1997, Water-quality trends for streams and reservoirs in the Research Triangle Area of North Carolina, 1983-95: U.S. Geological Survey Water-Resources Investigations Report 97-4061, 18 p.

Garrett, R.G., and Bales, J.D., 1995, Water-quality characterisitics of streams in the Treyburn Development area of Falls Lake watershed, North Carolina, 1988-93: U.S. Geological Survey Water-Resources Investigations Report 95-4094, 79 p.

Spruill, T.B., Harned, D.A., Ruhl, P.M., Eimers, J.L., McMahon, Gerard, Smith, K.E., Galeone, D.R., and Woodside, M.D., 1998, Water quality in the Albemarle-Pamlico Drainage Basin, North Carolina and Virginia, 1992-95: U.S. Geological Survey Circular 1157, 36 p.

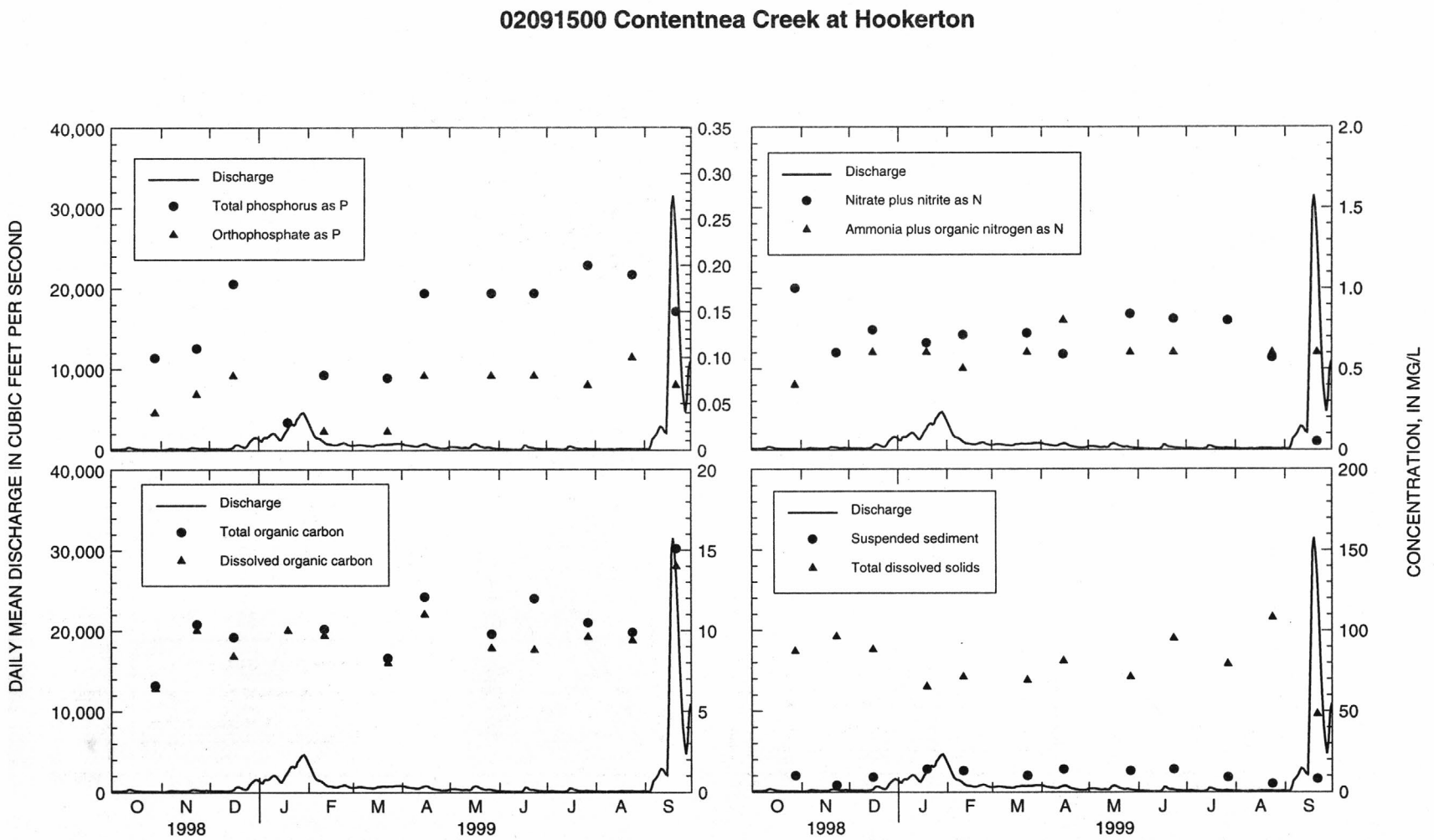


Figure 9a.--Concentration of selected constituents and daily mean discharge for Contentnea Creek at Hookerton duriing the 1999 water year.

02089500 Neuse River at Kinston

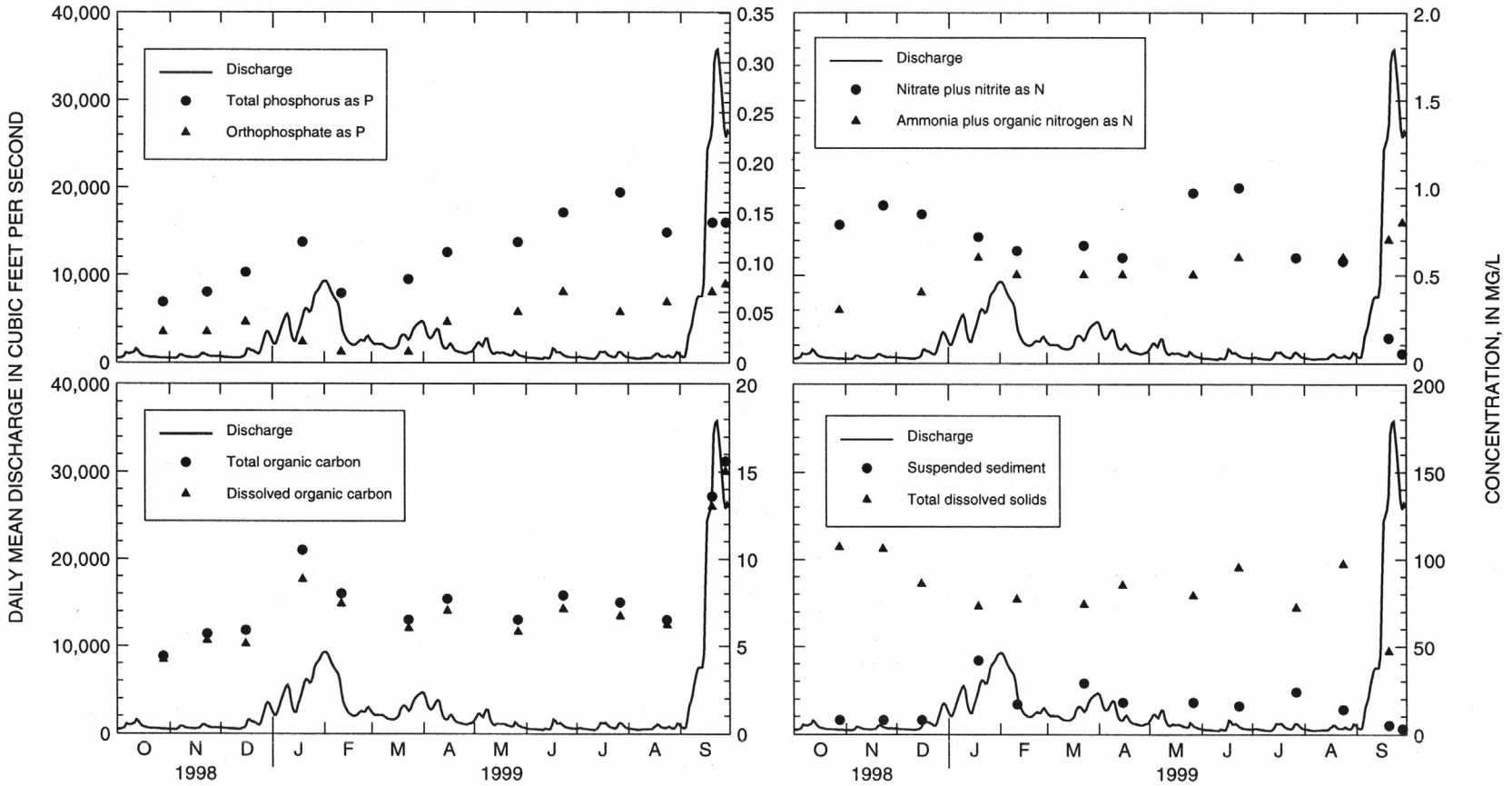


Figure 9b.--Concentration of selected constituents and daily mean discharge for Neuse River at Kinston during the 1999 water year.

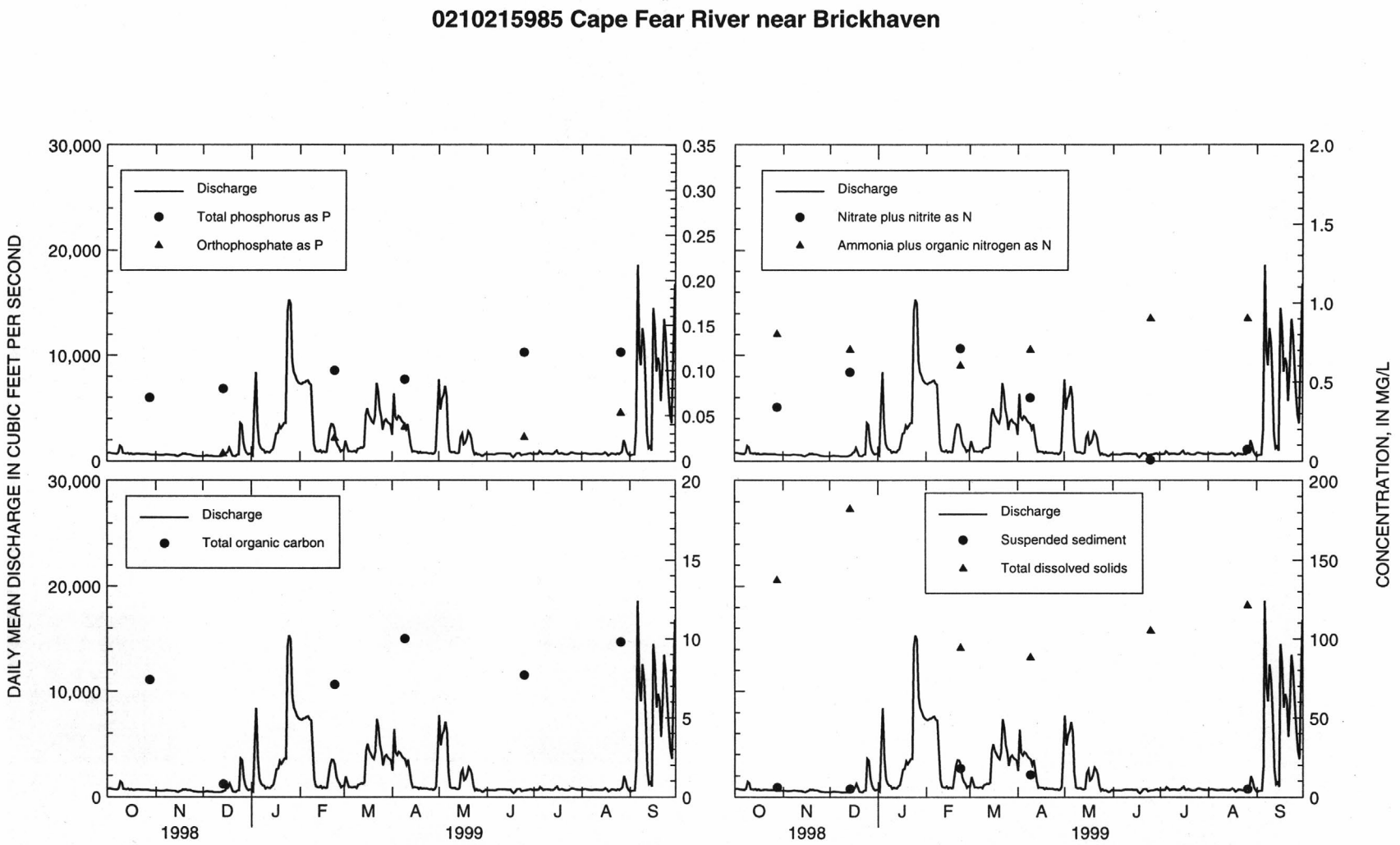


Figure 9c.--Concentration of selected constituents and daily mean discharge for Cape Fear River near Brickhaven during the 1999 water year.

02085500 Flat River at Bahama

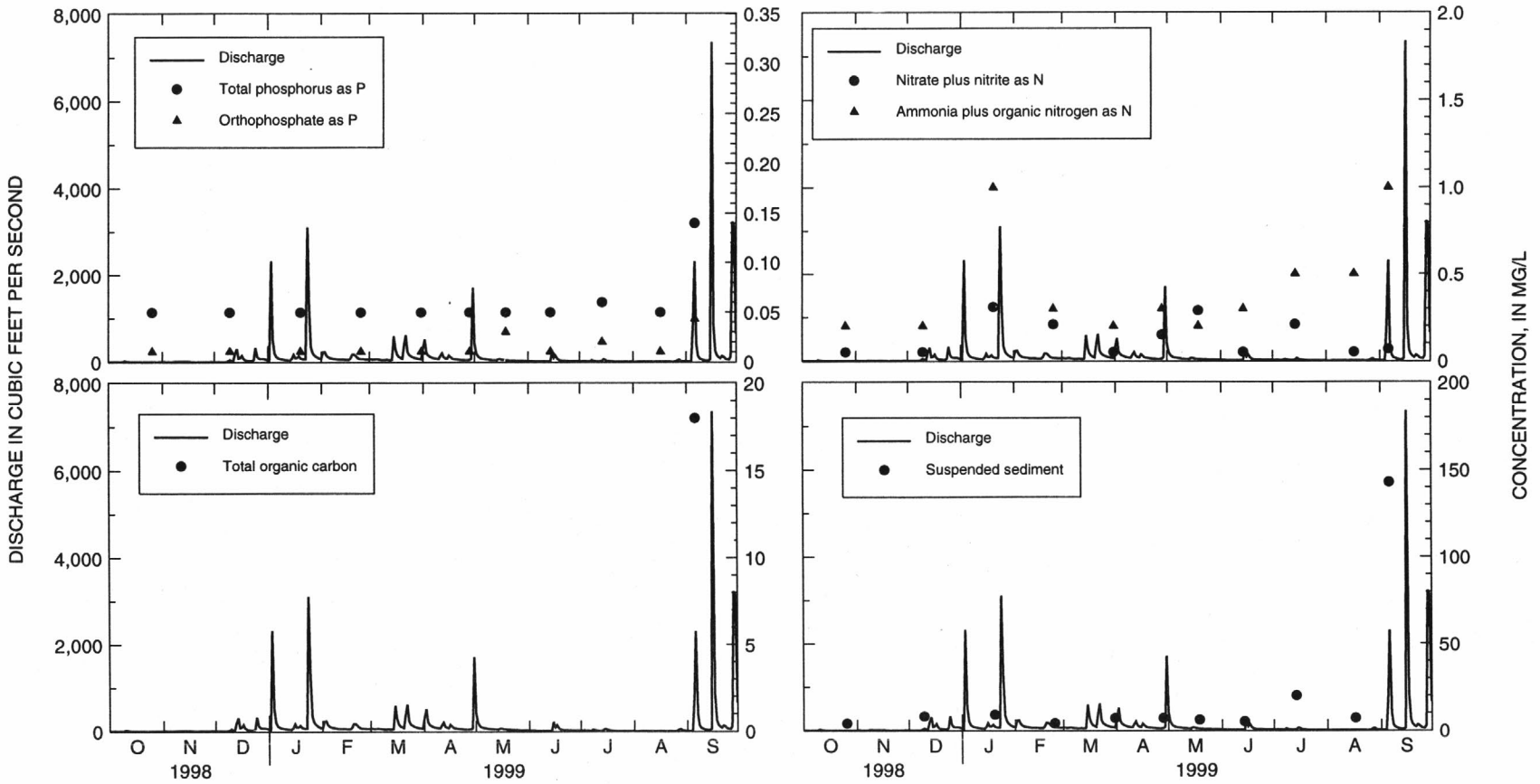


Figure 9d.--Concentration of selected constituents and daily mean discharge for Flat River at Bahama during the 1999 water year.

SPECIAL NETWORKS AND PROGRAMS

Hydrologic Benchmark Network is a network of 50 sites in small drainage basins around the country whose purpose is to provide consistent data on the hydrology, including water quality, and related factors in representative undeveloped watersheds nationwide, and to provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by human activities.

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

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

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

http://nadp.nrel.colostate.edu/NADP

The National Water-Quality Assessment (NAWQA) Program of the U.S. Geological Survey is a long-term program with goals to describe the status and trends of water-quality conditions for a large, representative part of the Nation's ground- and surface-water resources; provide an improved understanding of the primary natural and human factors affecting these observed conditions and trends; and provide information that supports development and evaluation of management, regulatory, and monitoring decisions by other agencies.

Assessment activities are being conducted in 53 study units (major watersheds and aquifer systems) that represent a wide range of environmental settings nationwide and that account for a large percentage of the Nation's water use. A wide array of chemical constituents will be measured in ground water, surface water, streambed sediments, and fish tissues. The coordinated application of comparative hydrologic studies at a wide range of spatial and temporal scales will provide information for decision making by water-resources managers and a foundation for aggregation and comparison of findings to address water-quality issues of regional and national interest.

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

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

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

EXPLANATION OF RECORDS

The surface-water records published in this report are for the 1999 water year that began October 1, 1998, and ended September 30, 1999. A calendar of the water year is provided on the inside of the front cover. The records contain streamflow data, stage and content data for lakes and reservoirs, and water-quality data. Locations of the stations where the data were collected are shown in figures. The following sections of the introductory text are presented to provide users with a more detailed explanation of how the hydrologic data published in this report were collected, analyzed, computed, and arranged for presentation.

Station Identification Numbers

Each data station in this report is assigned a unique identification number. This number is unique in that it applies specifically to a given station and to no other. The number usually is assigned when a station is first established and is retained for that station indefinitely. The systems

used by the USGS to assign identification numbers for surface-water stations and for ground-water well sites differ, but both are based on geographic location. The "downstream order number" system is used for surface-water stations, and the "latitude-longitude" system is used for miscellaneous surface-water sites and wells.

Downstream Order System

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

The station identification number is assigned according to downstream order. In assigning station numbers, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete eight- or ten-digit number for each station, such as 02053200 (0208700780), which appears just to the left of the station name, includes the two-digit part number "02" plus the six- or eight digit downstream-order number "053200." The part number designates the major river basin; for example, part "02" is the South Atlantic Slope Basin.

Latitude-Longitude System

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

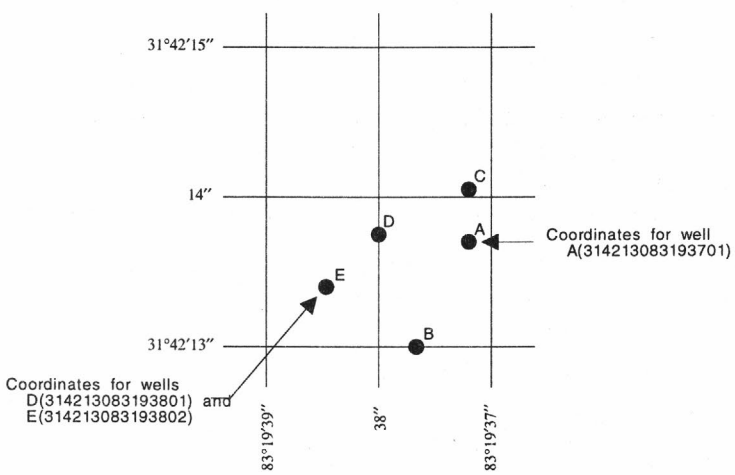


Figure 10.--System for numbering miscellaneous sites and wells.

Records of Stage and Water Discharge

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

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

Data Collection and Computation

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

Continuous records of stage are obtained by analog-digital recorders that punch stage values on paper tapes at selected time intervals, or electronic data loggers that either store data electronically on site or transmit it by satellite or telephone telemetry to a computer at the office. Measurements of discharge are made with current meters using methods adapted by the USGS as a result of experience accumulated since 1880. These methods are described in standard textbooks, in Water-Supply Paper 2175, and in U.S. Geological Survey Techniques of Water-Resources Investigations (TWRI), Book 3, Chapter A6.

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

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

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

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

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

Data Presentation

Streamflow data in this report are presented in a new format that is considerably different from the format in data reports prior to the 1991 wateryear. The major changes are that statistical characteristics of discharge now appear in tabular summaries following the water-year data

Data Presentation--Continued

table, and less information is provided in the text or station manuscript above the table. These changes were made as a result of a pilot program to reformat the annual water-data report to meet current user and data preferences.

The records published for each continuous-record surface-water discharge station (gaging station) now consist of five parts: (1) the manuscript or station description; (2) the data table of daily mean values of discharge for the current water year with summary data; (3) a tabular statistical summary of monthly mean flow data for a designated period, by water year; (4) a summary statistics table that includes statistical data of annual, daily, and instantaneous flow as well as data pertaining to annual runoff, 7-day low-flow minimums, and flow duration; (5) and a hydrograph of discharge.

Station manuscript

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

LOCATION.-- Information on site locations is obtained from the most accurate maps available. The location of the gage is given with respect to cultural and physical features in the vicinity and with respect to the reference place mentioned in the station name. River miles, given for only a few stations, were either determined by methods given in "River Mileage Measurement," Bulletin 14, Revision of October 1968, prepared by the Water Resources Council, or were provided by the U.S. Army Corps of Engineers. Latitudes and longitudes used in this report are reported as National American Datum of 1927 unless otherwise specified.

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

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

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

GAGE.--The type of gage in current use, the datum of the current gage referenced to sea level (see glossary), and a condensed history of the types, locations, and datums of previous gages are given under this heading.

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

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

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

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

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

Data Presentation--Continued

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

Headings for AVERAGE DISCHARGE, EXTREMES FOR PERIOD OF RECORD, AND EXTREMES FOR CURRENT YEAR which were included prior to the 1987 water year have been deleted and the information contained in these paragraphs, except for the listing of secondary instantaneous peak discharges in the EXTREMES FOR CURRENT YEAR paragraph, is now presented in the tabular summaries following the discharge table or in the REMARKS paragraph, as appropriate. No changes have been made to the data presentations of lake contents.

Data table of daily mean values

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

Statistics of monthly mean data

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

Summary statistics

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

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

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

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

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

Data Presentation--Continued

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

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

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

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

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

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

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

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

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

ANNUAL RUNOFF (CFSM).--Indicates the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area for the year.

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

10 PERCENT EXCEEDS.--The discharge that has been exceeded 10 percent of the time for the designated period.

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

90 PERCENT EXCEEDS.--The discharge that has been exceeded 90 percent of the time for the designated period.

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

Identifying Estimated Daily Discharge

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

Accuracy of the Records

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

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

Accuracy of the Records--Continued

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

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

Other Records Available

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

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

Records of stream stage not published by the USGS were collected in North Carolina during the 1999 water year by the National Weather Service, NOAA, U.S. Department of Commerce, and other Federal agencies. The USGS National Water Data Exchange (NAWDEX), National Center, Reston, Virginia 22092, maintains an index of such sites. Information on records available at specific sites can be obtained upon request.

Records of Precipitation

Data Collection and Computation

Rainfall data were generally collected by electronic data loggers in 0.01-in. increments every 15 minutes using either tipping-bucket rain gages or collection well gages. Twenty-four hour rainfall totals are tabulated and presented. A 24-hour period extends from just past midnight the previous day to midnight 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 a "---" in the table.

Data Presentation

Precipitation records collected at surface-water gaging stations are identified by the same station number and name as the 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, as appropriate, is provided with each precipitation station. Comments that follow clarify informationpresented under the various headings of the station description.

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

PERIOD OF RECORD.--See Data Presentation under "Records of Stage and Water Discharge", same comments apply.

INSTRUMENTATION. -- Information on the type of rainfall collection system isgiven.

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

Records of Surface-Water Quality

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

Classification of Records

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

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

Arrangement of Records

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

On-Site Measurements and Sample Collection

In obtaining water-quality data, a major concern is assuring that the data obtained represent the naturally occurring quality of the water. To assure this, certain measurements, such as water temperature, pH, and dissolved oxygen, must be made on site when the samples are taken. To assure that measurements made in the laboratory also represent the naturally occurring water, carefully prescribed procedures must be followed in collecting the samples, in treating the samples to prevent changes in quality pending analysis, and in shipping the samples to the laboratory. Procedures for on site measurements and for collecting, treating, and shipping samples are given in TWRI's Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chaps. A1, A3, and A4. All of these references are listed on pages 32 through 35 of this report. Also, detailed information on collecting, treating, and shipping samples can be obtained from the USGS North Carolina District office.

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

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

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

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

Water Temperature

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

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

Sediment

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

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

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

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

Laboratory Measurements

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

The U.S. Geological Survey 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-MDL's) and laboratory reporting levels (LRL's). 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. The chance of 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 <LRL for samples in which the analyte was either not detected or did not pass identification. Analytes that are detected at concentrations between the LT-MDL and 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.

In March 1990 the National Water-Quality Laboratory discovered a bias in the turbidimetric method for sulfate analysis, indicating that values below 75 mg/L have a median positive bias of 2 mg/L above the true value for the period between 1982 and 1990.

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

MBASCOR = M - 0.0088N - 0.00019C

where:

MBASCOR = corrected MBAS concentration, in mg/L;

M = reported MBAS concentration, in mg/L;

N = dissolved nitrate plus nitrate, as nitrogenconcentration, in mg/L; and

C = dissolved chloride concentration, in mg/L.

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

Data Presentation

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

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

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

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

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

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

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

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

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

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

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

Remarks Codes

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

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

Dissolved Trace-Element Concentrations

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

Change in National Trends Network Procedures

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

Water Quality-Control Data

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 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.

Blank Samples

Blank samples are collected and analyzed to ensure that environmental samples have not been contaminated by 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. There are many types of blank samples possible, each 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 whose 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. There are many types of replicate samples 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:

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 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.

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 at

http://water.usgs.gov

Some water-quality and ground-water data also are available through the WWW. In addition, data can be provided in various machine-readable formats on magnetic tape or 3-1/2 inch floppy disk. Information about the availability of specific types of data or products, and user charges, can be obtained locally from each of the Water Resources Division District Offices (See address on the back of the title page.)

DEFINITION OF TERMS

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

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 the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet, 325,851 gallons, or 1,233 cubic meters.

Adenosine triphosphate (ATP) is an organic, phosphate-rich, compound important in the transfer of energy in organisms. Its central role in living cells makes it 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.

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

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.

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 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, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equal to 43,560 cubic feet, 325,851 gallons, or 1,233 cubic meters

Cubic foot per second per square mile [CFSM, $(ft^3/s)/mi^2$] 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.

Inch (IN., in.) 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 uniformly distributed on it.

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 weight percent of the hydrogen substituted chlorine.

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

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. This group includes coliforms that inhabit the intestine of warm-blooded 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 mL of sample.

Fecal coliform bacteria are bacteria that are present in the intestine or feces of warm-blooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory, they are defined as all organisms 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.

Fecal streptococcal bacteria are bacteria found in the intestine of warm-blooded animals. Their presence in water is considered to verify fecal pollution. 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.

Enterococcus bacteria are commonly found in the feces of humans and other warm-blooded 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 pres-

ence 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 and subsequent transfer to EIA medium. Enterococci include *Streptococcus feacalis, Streptococcus feacium, Streptococcus avium,* and their variants.

Escherichia coli (E. coli) are bacteria present in the intestine and feces of warm-blooded 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. Their concentrations are expressed as number of colonies per 100 mL of sample.

Base flow is flow in a channel sustained by ground-water discharge in the absence of direct runoff.

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

Benthic organisms (invertebrates) are the group of animals 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.

Ash mass is the mass or amount of residue present after the residue from the dry mass determination has been ashed in a muffle furnace at a temperature of 500 °C for 1 hour. 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).

Dry mass refers to the mass of residue present after drying in an oven at 105 °C for zooplankton and periphyton, until the mass remains unchanged. This mass represents the total organic matter, ash, and sediment in the sample. Dry mass is expressed in the same units as ash mass.

Organic mass or volatile mass of the living substance is the difference between the dry mass and ash mass and represents the actual mass of the living matter. Organic mass is expressed in the same units as for ash mass and dry mass.

Wet mass is the mass of living matter plus contained water.

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

Bottom material: See "Bed material."

Cells/volume refers to the number of plankton cells or natural units counted using a microscope and grid or counting cell. Results are generally reported as cells or units per milliliter.

Cells volume (biovolume) determination is one of several common methods used to estimate biomass of algae in aquatic systems. Cell members of algae are frequently used 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 on 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:

sphere $4/3\ \pi r^3$ cone $1/3\ \pi r^3 h$ cylinder $\pi r^3 h$.

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

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.

Chlorophyll refers to the green pigments of plants. Chlorophyll a and b are the two most common green pigments in plants.

Colloid is any substance with particles in such a fine state of subdivision dispersed in a medium (for example, water) that they do not settle out; but not in so fine a state of subdivision that they can be said to be truly dissolved.

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 that meets either of the following conditions:

1. Stage or streamflow are recorded at some interval on a continuous basis. The recording interval is usually 15 minutes, but may be less or more frequent.
2. Water-quality, sediment, or other hydrologic measure-ments are recorded at least daily.

Control designates a feature in the channel downstream from a gaging station that physically influences the water-surface elevation and thereby determines the stage-discharge relation at the station. 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, ft^3/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, 448.8 gallons per minute, or 0.02832 cubic meters per second.

Cubic foot per second-day (CFS-DAY, Cfs-day, [$(ft^3/s)/d$]) 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, 1.9835 acre-feet, 646,317 gallons, or 2,447 cubic meters.

Daily record is a summary of streamflow, sediment, or water-quality values computed from data collected with sufficient frequency to obtain reliable estimates of daily mean values.

Daily record station is a site for which daily records of streamflow, sediment, or water-quality values are computed.

Datum, as used in this report, is an elevation above mean sea level to which all gage height readings are referenced.

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

Discharge, or flow, is the volume of water (or more broadly, volume of fluid including solid- and dissolved-phase material), that passes a given point in a given period of time.

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

Instantaneous discharge is the discharge at a particular instant of time.

Mean discharge (MEAN) is the arithmetic mean of individual daily mean discharges during a specific period.

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 agencies that collect water data. Determinations of "dissolved" constituents are made on subsamples of the filtrate.

Dissolved oxygen (DO) content of water in equilibrium with air 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, with small temperature changes having the more significant offset. Photosynthesis and respiration may cause diurnal variations in dissolved-oxygen concentration in water from some streams.

Dissolved-solids concentration of water 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 that analytical determination of dissolved solids, the bicarbonate (generally a major dissolved component of water) is converted to carbonate. Therefore, in the mathematical calculation of dissolved-solids concentration, the bicarbonate value, in milligrams per liter, is multiplied by 0.4926 to reflect the change. Alternatively, alkalinity concentration (as mg/L $CaCO_3$) can be converted to carbonate concentration by multiplying by 0.60.

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

$$' = -\sum_{i=1}^{s} \frac{n_i}{n} \log_2 \frac{n}{r}$$

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. Diversity 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 site on a stream is that area, measured in a horizontal plane, that has a common outlet at the site for its surface runoff. Figures of drainage area 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 is occupied by a drainage system with a common outlet for its surface runoff (see "Drainage area").

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.

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 the elevation of the zero point of the reference gage from which gage height is determined as compared to sea level (see "Datum"). This elevation is established by a system of levels from known benchmarks, by approximation from topographic maps, or by geographical positioning system.

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

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

Gas chromatography/flame ionization detector (GC/FID) is a laboratory analytical method used as a screening technique for semivolatile organic compounds that are extractable from water in methylene chloride.

Ground-water level is the elevation of the water table or another potentiometric surface at a particular location.

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is attributable to the presence of alkaline earths (principally calcium and magnesium) and is expressed as the equivalent concentration of calcium carbonate ($CaCO_3$).

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*

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

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 U.S. Geological Survey. Each hydrologic unit is identified by an 8-digit number.

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

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.

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 are usually 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.

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.

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.

Methylene blue active substances (MBAS) are apparent detergents. 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, µg/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, µg/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, µg/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.

Microsiemens per centimeter (US/CM, µS/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 mg/L and is based on the mass of dry sediment per liter of water-sediment mixture.

Miscellaneous site, or miscellaneous station, is a site where streamflow, sediment, and/or water-quality data are collected once, or more often on a random or discontinuous basis.

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 of 1929) is a geodetic datum derived from a general adjustment of the first order level nets of the United States and Canada. It was formerly called "Sea Level Datum of 1929" or "mean sea level" in this series of reports. Although the datum was derived from the average sea level over a period of many years at 26 tide stations along the Atlantic, Gulf of Mexico, and Pacific Coasts, it does not necessarily represent local mean sea level at any particular place. *See NOAA web site: http://www.ngs.noaa.gov/faq.shtml#WhatVD29VD88*

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.

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 sediments. May be reported as dissolved organic carbon (DOC), suspended organic carbon (SOC), or total organic carbon (TOC).

Organism is any living entity.

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 (m^2), 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.

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

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 U.S. Geological Survey 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 utilizes 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 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

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

Percent composition 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, or volume.

Periodic station is a site where stage, discharge, sediment, chemical, 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. While 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 are termed "acidic," and solutions with a pH greater than 7 are termed "basic." Solutions with a pH of 7 are neutral. The presence and concentration of many dissolved chemical

constituents found in water are, in part, influenced by the hydrogen-ion activity of water. Biological processes including growth, distribution of organisms, and toxicity of the water to organisms are also influenced, in part, by the hydrogen-ion activity of water.

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

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

Phytoplankton is the plant part of the plankton. They are usually microscopic, and their movement is subject to the water currents. Phytoplankton growth is dependent upon solar radiation and 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 are commonly known as algae.

Blue-green algae (*Cyanophyta*) are a group of phytoplankton organisms having a blue pigment, in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water.

Diatoms are the unicellular or colonial algae having a siliceous shell. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample.

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

Fire algae (*Pyrrhophyta*) are a group of algae that are free-swimming unicells characterized by a red pigment spot.

Green algae have chlorophyll pigments similar in color to those of higher green plants. Some forms produce algae mats or floating "moss" in lakes. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample.

Zooplankton is the animal part of the plankton. Zooplankton are capable of extensive movements within the water column and are often large enough to be seen with the unaided eye. Zooplankton are secondary consumers feeding upon bacteria, phytoplankton, and detritus. Because they are the grazers in the aquatic environment, the zooplankton are a vital part of the aquatic food web. The zooplankton community is dominated by small crustaceans and rotifers.

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

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 [mg C/(m^2/time)] for periphyton and macrophytes or per volume [mg C/(m^3/time)] for phytoplankton. 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 in unenriched waters. Unit time may be either the hour or day, depending on the incubation period.

Primary productivity (oxygen method) is expressed as milligrams of oxygen per area per unit time [mg O/(m^2/time)] for periphyton and macrophytes or per volume [mg O/(m^3/time)] for phytoplankton. 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.

Radioisotopes are isotopic forms of an element 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.

Recoverable from bottom material is the amount of a given constituent that is in solution after a representative sample of bottom material has been digested by a method (usually using an acid or mixture of acids) that results in dissolution of 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.

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 non-exceedance 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 non-exceedances of the $7Q_{10}$ occur less than 10 years after the previous non-exceedance, half occur less than 7 years after, and about one-eighth occur more than 20 years after the previous non-exceedance. 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.

River mile is the distance of a point on a river measured in miles from the river's mouth along the low-water channel.

River mileage is the linear distance along the meandering path of a stream channel determined in accordance with Bulletin No. 14 (October 1968) of the Water Resources Council.

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

Sea level refers to the National Geodetic Vertical Datum of 1929 (NGVD of 1929)—a geodetic datum derived from a general adjustment of the first-order level nets of the United States and Canada, formerly called Sea Level Datum of 1929. *See*: *http://www.co-ops.nos.noaa.gov/ glossary/gloss_n.html#NGVD*

Sediment is solid material that is transported by, suspended in, or deposited from water. It originates mostly from disintegrated rocks; it also includes chemical and biochemical precipitates and decomposed organic material, such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are influenced by environmental factors. Some major factors are degree of slope, length of slope, soil characteristics, land usage, and quantity and intensity of precipitation.

Bed load is the sediment that is transported in a stream by rolling, sliding, or skipping along or very close to the bed. In this report, bed load is considered to consist of particles in transit from the bed to an elevation equal to the top of the bed-load sampler nozzle (usually within 0.25 ft of the streambed).

Bed-load discharge (tons per day) is the quantity of sediment moving as bed load, reported as dry weight, that passes a cross section in a given time.

Suspended sediment is the sediment that is maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid.

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L). The entire sample is used for the analysis.

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

Suspended-sediment discharge (tons/day) is the quantity of sediment moving in suspension, reported as dry weight, 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 (ft^3/s) x 0.0027.

Suspended-sediment load is a term that refers to material in suspension. 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.

Total sediment discharge (tons/day) is the sum of the suspended-sediment discharge and the bed-load discharge. It is the total quantity of sediment, reported as dry weight, that passes a cross section in a given time.

Total sediment load or total load is a term that refers to the total sediment (bed load plus suspended-sediment load) that is in transport. 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 total sediment discharge.

Seven-day 10-year low flow (7Q10, $7Q_{10}$) is the minimum flow averaged over 7 consecutive days that is expected to occur on average, once in any 10-year period. The 7Q10 has a 10-percent chance of occurring in any given year.

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. Waters range in respect to sodium hazard from those which can be used for irrigation on almost all soils to those which are generally unsatisfactory for irrigation.

Solute is any substance that is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current. It is expressed in microsiemens per centimeter at 25 °C. Specific conductance is related to the type and concentration of ions in solution and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is 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 MILL/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 waters, to evaluate mixing of different waters, 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.

Artificial substrate is a device which is purposely 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 taken. Examples of artificial substrates are basket samplers (made of wire cages filled with clean streamside rocks) and multiplate samplers (made of hardboard) for benthic organism collection, and plexiglass strips for periphyton collection.

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

Surface area of a lake or impoundment is that area encompassed by the boundary of the lake or impoundment as shown on USGS topographic maps, or on other available maps or photographs. The computed surface areas reflect the water levels of the lakes or impoundments at the times when the information for the maps or photographs was obtained.

Surficial bed material is the top 0.1 to 0.2 ft of the bed material that is sampled using U.S. Series Bed-Material Samplers.

Suspended (as used in tables of chemical analyses) refers to the amount (concentration) of undissolved material in a water-sediment mixture. It is associated with 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-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 analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total recoverable concentrations of the constituent.

Suspended, total is the total amount of a given constituent in the part of a representative suspended-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 analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total concentrations of the constituent.

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.

Taxonomy is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a hierarchial 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	*Hexagenia*
Species	*Hexagenia limbata*

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 that would be contained in a vessel or reservoir that had received equal quantities of water from the stream each day for the year.

Tons per acre-foot is the dry mass of dissolved solids in 1 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 the rate representing a mass of 1 ton of a constituent in streamflow passing a cross section in 1 day. It is equivalent to 2,000 pounds per day, or 0.9072 metric tons per day.

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

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

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 recoverable is the amount of a given constituent that is in solution after a representative suspended-sediment sample has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all particulate matter is not achieved by the digestion treatment, and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the dissolved and suspended phases of the sample. To achieve comparability of

analytical data, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Turbidity is a measurement of the collective optical properties of a water sample that cause light to be scattered and absorbed rather than transmitted in straight lines; the higher the intensity of scattered light, the higher the turbidity. Turbidity is expressed in nephelometric turbidity units (NTU) or Formazin turbidity units (FTU) depending on the method and equipment used.

Volatile organic compounds (VOC's) 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 VOC's are manmade chemicals that are used and produced in the manufacture of paints, adhesives, petroleum products, pharmaceuticals, and refrigerants. They are often 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 (U.S. Environmental Protection Agency, 1996).

Water level is the water-surface elevation or stage of the free surface of a body of water above or below any datum (see "Gage height"), or the surface of water standing in a well, usually indicative of the position of the water table or other potentiometric surface.

Water table is the surface of a ground-water body at which the water is at atmospheric pressure.

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

Water year in U.S. Geological Survey 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, 1999, is called the "1999 water year."

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.

Well is an excavation (pit, hole, tunnel), generally cylindrical in form and often walled in, drilled, dug, driven, bored, or jetted into the ground to such a depth as to penetrate water-yielding geologic material and allow the water to flow or to be pumped to the surface.

Wet weight refers to the weight of animal tissue or other substance including its contained water.

WSP is used as an abbreviation for "Water-Supply Paper" in reference to previously published reports

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

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

The reports listed below are for sale by the U.S. Geological Survey, Branch of Information Services, Box 25286, Federal Center, Denver, Colorado 80225 (authorized agent of the Superintendent of Documents, Government Printing Office). Prepayment is required. Remittance should be sent by check or money order payable to the U.S. Geological Survey. Prices are not included because they are subject to change. Current prices can be obtained by writing to the above address. When ordering or inquiring about prices for any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations."

Book 1. Collection of Water Data by Direct Measurement

Section D. Water Quality

1-D1. *Water temperature--influential factors, field measurement, and data presentation*, by H. H. Stevens, Jr., J. F. Ficke, and G. F. Smoot: USGS--TWRI Book 1, Chapter D1. 1975. 65 pages.

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

Book 2. Collection of Environmental Data

Section D. Surface Geophysical Methods

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

2-D2. *Application of seismic-refraction techniques to hydrologic studies,* by F. P. Haeni: USGS--TWRI Book 2, Chapter D2. 1988. 86 pages.

Section E. Subsurface Geophysical Methods

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

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

Section F. Drilling and Sampling Methods

2-F1. *Application of drilling, coring, and sampling techniques to test holes and wells*, by Eugene Shuter and W. E. Teasdale: USGS--TWRI Book 2, Chapter F1. 1989. 97 pages.

Book 3. Applications of Hydraulics

Section A. Surface-Water Techniques

3-A1. *General field and office procedures for indirect discharge measurements,* by M. A. Benson and Tate Dalrymple: USGS--TWRI Book 3, Chapter A1. 1967. 30 pages.

3-A2. *Measurement of peak discharge by the slope-area method,* by Tate Dalrymple and M. A. Benson: USGS--TWRI Book 3, Chapter A2. 1967. 12 pages.

3-A3. *Measurement of peak discharge at culverts by indirect methods,* by G. L. Bodhaine: USGS--TWRI Book 3, Chapter A3. 1968. 60 pages.

3-A4. *Measurement of peak discharge at width contractions by indirect methods,* by H. F. Matthai: USGS-TWRI Book 3, Chapter A4. 1967. 44 pages.

3-A5. *Measurement of peak discharge at dams by indirect methods,* by Harry Hulsing: USGS--TWRI Book 3. Chapter A5. 1967. 29 pages.

3-A6. *General procedure for gaging streams,* by R. W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6. 1968. 13 pages.

3-A7. *Stage measurement at gaging stations,* by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A7. 1968. 28 pages.

3-A8. *Discharge measurements at gaging stations,* by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A8. 1969. 65 pages.

3-A9. *Measurement of time of travel in streams by dye tracing,* by F. A. Kilpatrick and J. F. Wilson, Jr.: USGS--TWRI Book 3, Chapter A9. 1989. 27 pages.

3-Al0. *Discharge ratings at gaging stations,* by E. J. Kennedy: USGS--TWRI Book 3, Chapter A10. 1984. 59 pages.

3-A11. *Measurement of discharge by the moving-boat method,* by G. F. Smoot and C. E. Novak: USGS--TWRI Book 3, Chapter A11. 1969. 22 pages.

3-A12. *Fluorometric procedures for dye tracing,* Revised, by J. F. Wilson, Jr., E. D. Cobb, and F. A. Kilpatrick: USGS- -TWRI Book 3, Chapter A12. 1986. 34 pages.

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

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

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

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

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

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

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

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

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

Section B. Ground-water techniques

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

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

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

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

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

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

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

3-B7. *Analytical solutions for one-, two-, and three-dimensional solute transport in ground-water systems with uniform flow,* by E. J. Wexler: USGS--TWRI Book 3, Chapter B7. 1992. 190 pages.

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

3-C2. *Field methods for measurement of fluvial sediment*, by Thomas K. Edwards and G. Douglass Glysson: USGS-TWRI Book 3, Chapter C2, 1988, 80 pages.

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

Book 4. Hydrologic Analysis and Interpretation

Section A. Statistical Analysis

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

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

Section B. Surface Water

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

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

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

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, Chapter D1. 1970. 17 pages.

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, Chapter A1. 1989. 545 pages.

5-A2. *Determination of minor elements in water by emission spectroscopy,* by P. R. Barnett and E. C. Mallory, Jr.: USGS--TWRI Book 5, Chapter A2. 1971. 31 pages.

5-A3. *Methods for the determination of organic substances in water and fluvial sediments*, edited by R. L. Wershaw, M. J. Fishman, R. R. Grabbe, and L. E. Lowe: USGS--TWRI Book 5, Chapter A3. 1987. 80 pages.

5-A4. *Methods for collection and analysis of aquatic biological and microbiological samples,* by L. J. Britton and P. E. Greeson, editors: USGS--TWRI Book 5, Chapter A4. 1989. 363 pages.

5-A5. *Methods for determination of radioactive substances in water and fluvial sediments,* by L.L. Thatcher, V. J. Janzer, and K. W. Edwards: USGS--TWRI Book 5, Chapter A5. 1977. 95 pages.

5-A6. *Quality assurance practices for the chemical and biological analyses of water and fluvial sediments,* by L. C. Friedman and D. E. Erdmann: USGS--TWRI Book 5, Chapter A6. 1982. 181 pages.

Section C. Sediment Analysis

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

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, Chapter A1. 1988. 586 pages.

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

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

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

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

6-A6. A coupled surface-water and ground-water flow model (MODBRANCH) for simulation of stream-aquifer interaction, by Eric D. Swain and Eliezer J. Wexler. 1995. 125 pages.

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, Chapter C1. 1976. 116 pages.

7-C2. *Computer model of two-dimensional solute transport and dispersion in ground water,* by L. F. Konikow and J. D. Bredehoeft: USGS--TWRI Book 7, Chapter C2. 1978. 90 pages.

7-C3. *A model for simulation of flow in singular and interconnected channels,* by R. W. Schaffranek, R. A. Baltzer, and D. E. Goldberg: USGS--TWRI Book 7, Chapter C3. 1981. 110 pages.

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, Chapter A1. 1968. 23 pages.

8-A2. *Installation and service manual for U.S. Geological Survey manometers*, by J. D. Craig: USGS--TWRI Book 8, Chapter A2. 1983. 57 pages.

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, Chapter B2. 1968. 15 pages.

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, Chapter 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, Chapter 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, Chapter A6. 1998. Variously paginated.

9-A7. *National Field Manual for the Collection of Water-Quality Data: Biological Indicators*, by D. N. Myers and F. D. Wilde: USGS--TWRI Book 9, Chapter 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, Capter A8. 1998. 48 pages.

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, Chapter A9, 1998. 60 pages.

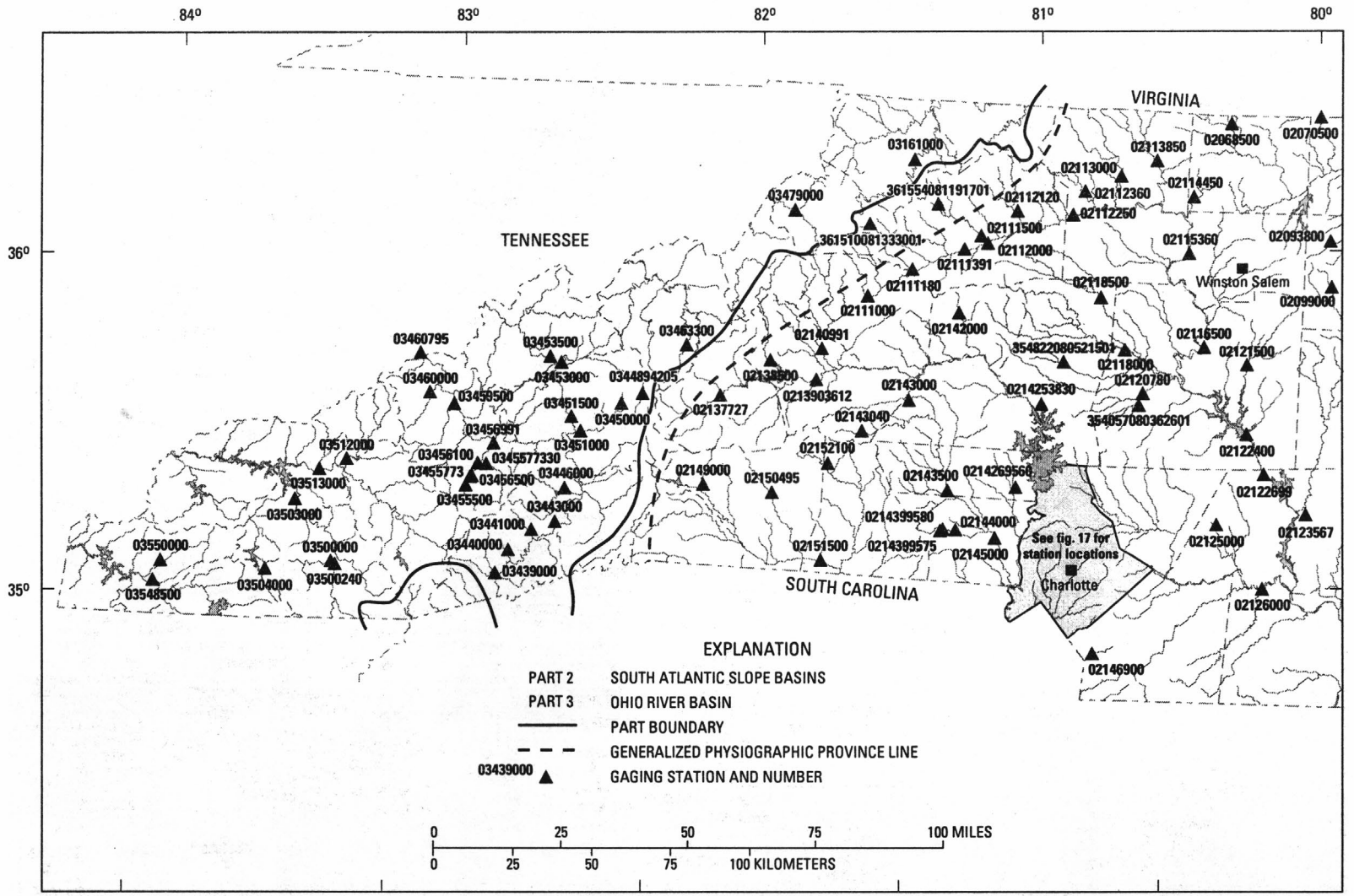


Figure 11.--Locations of gaging stations in western North Carolina.

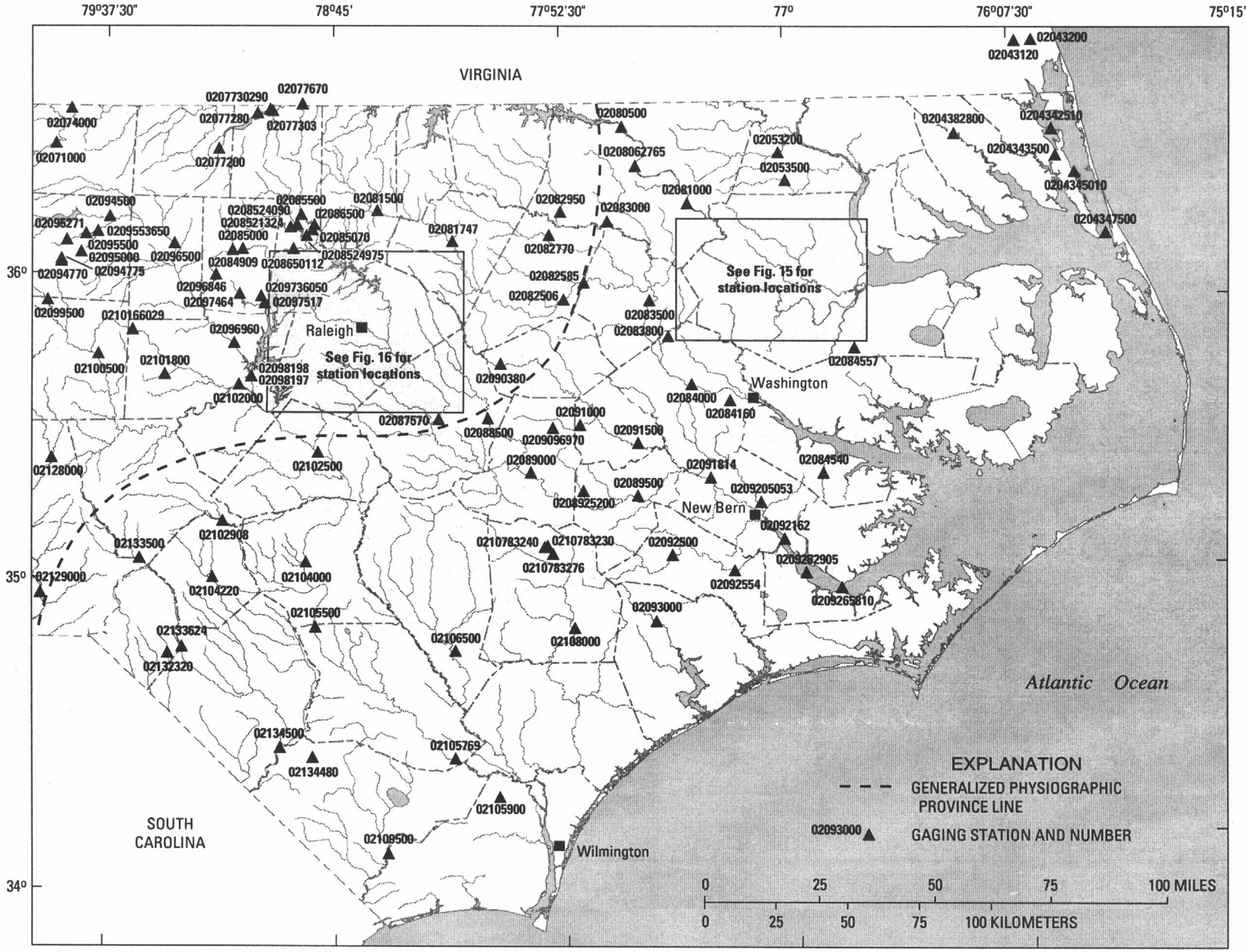


Figure 12.--Locations of gaging stations in eastern North Carolina.

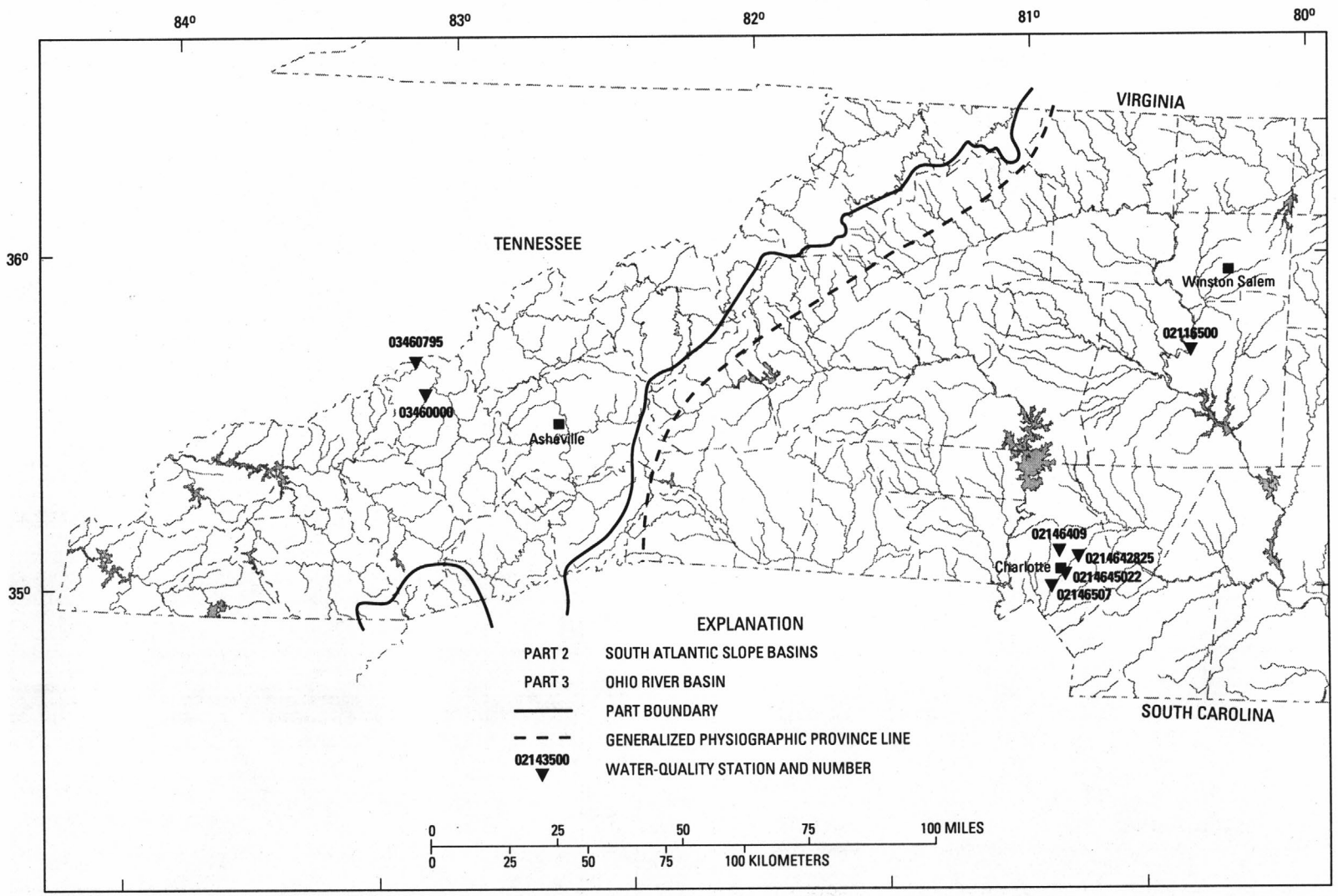


Figure 13.--Locations of water-quality stations in western North Carolina.

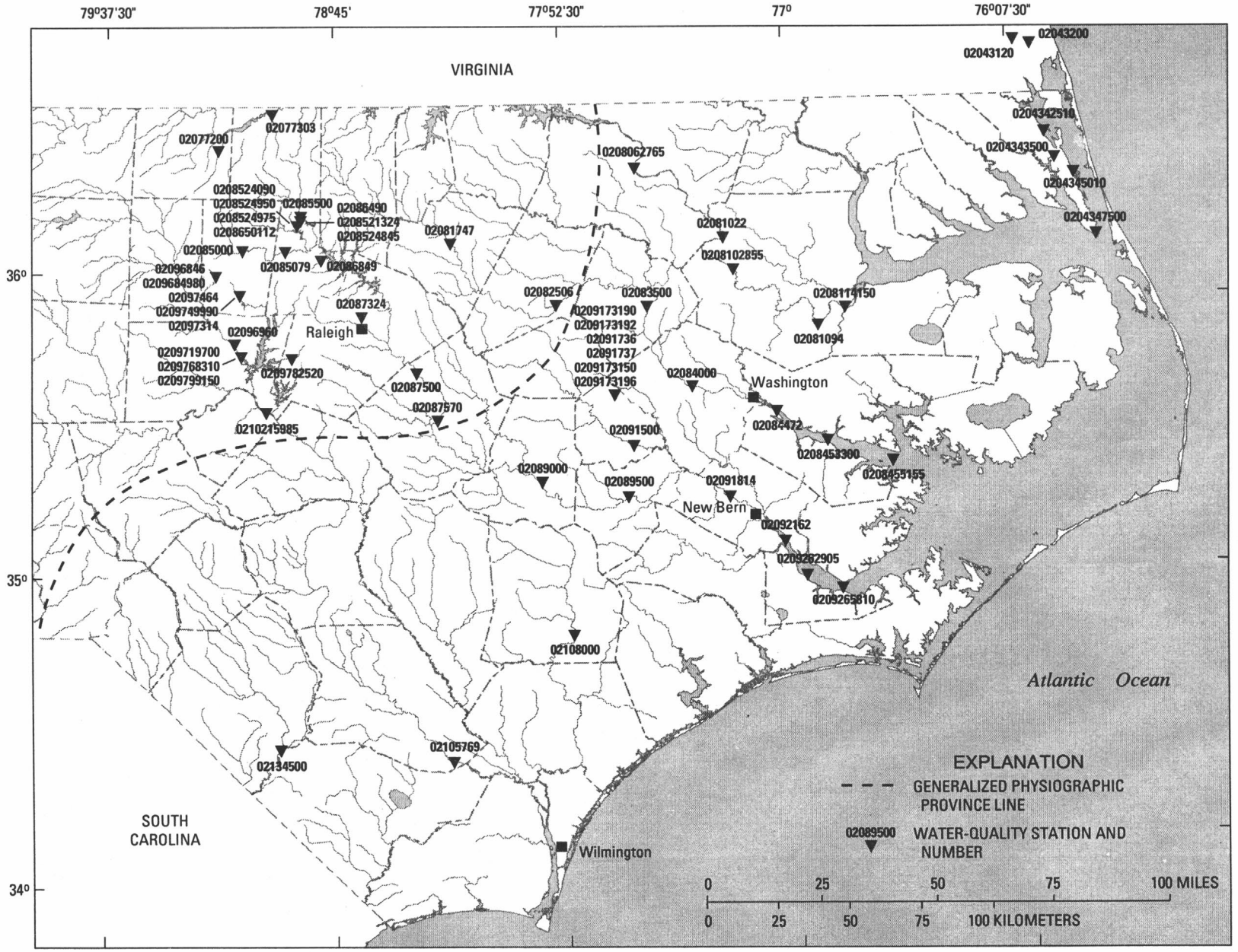


Figure 14.--Locations of water-quality stations in eastern North Carolina.



LOCATION OF SITES IN BERTIE AND MARTIN COUNTIES, NORTH CAROLINA

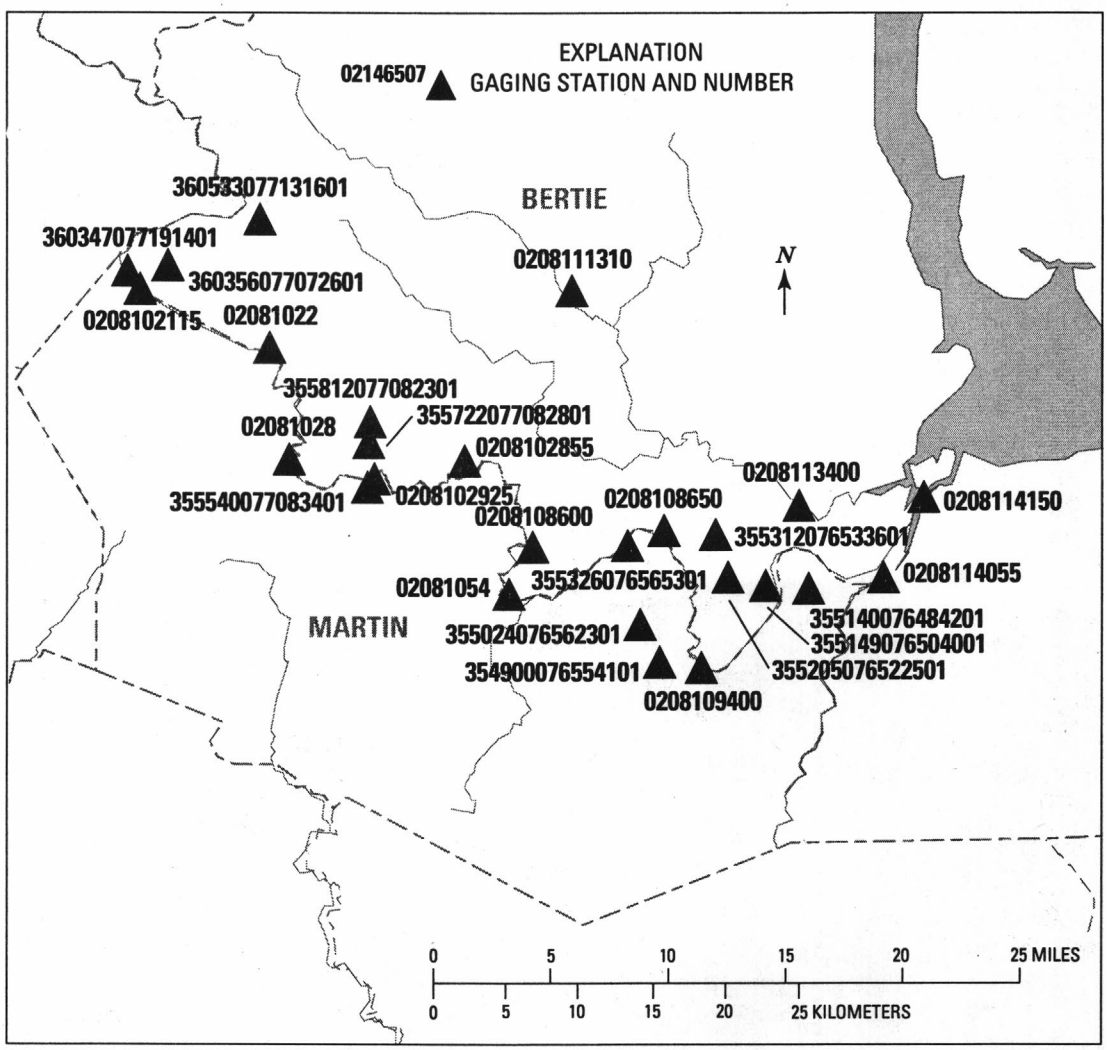


Figure 15.--Locations of gaging stations in Bertie and Martin Counties, North Carolina.



LOCATION OF SITES IN AND AROUND WAKE COUNTY, NORTH CAROLINA

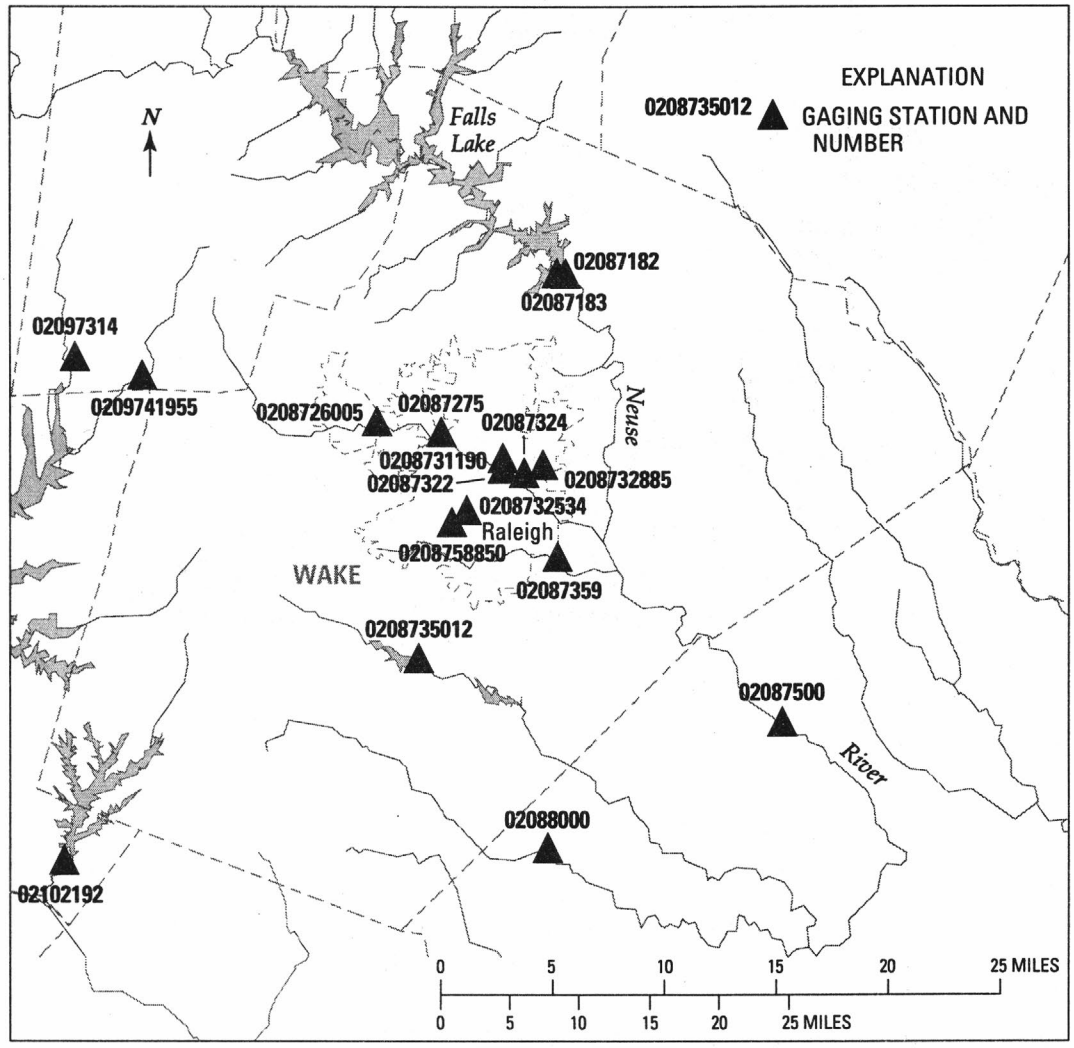


Figure 16.--Locations of gaging stations in and around Wake County, North Carolina.



LOCATION OF SITES IN AND AROUND MECKLENBURG COUNTY, NORTH CAROLINA

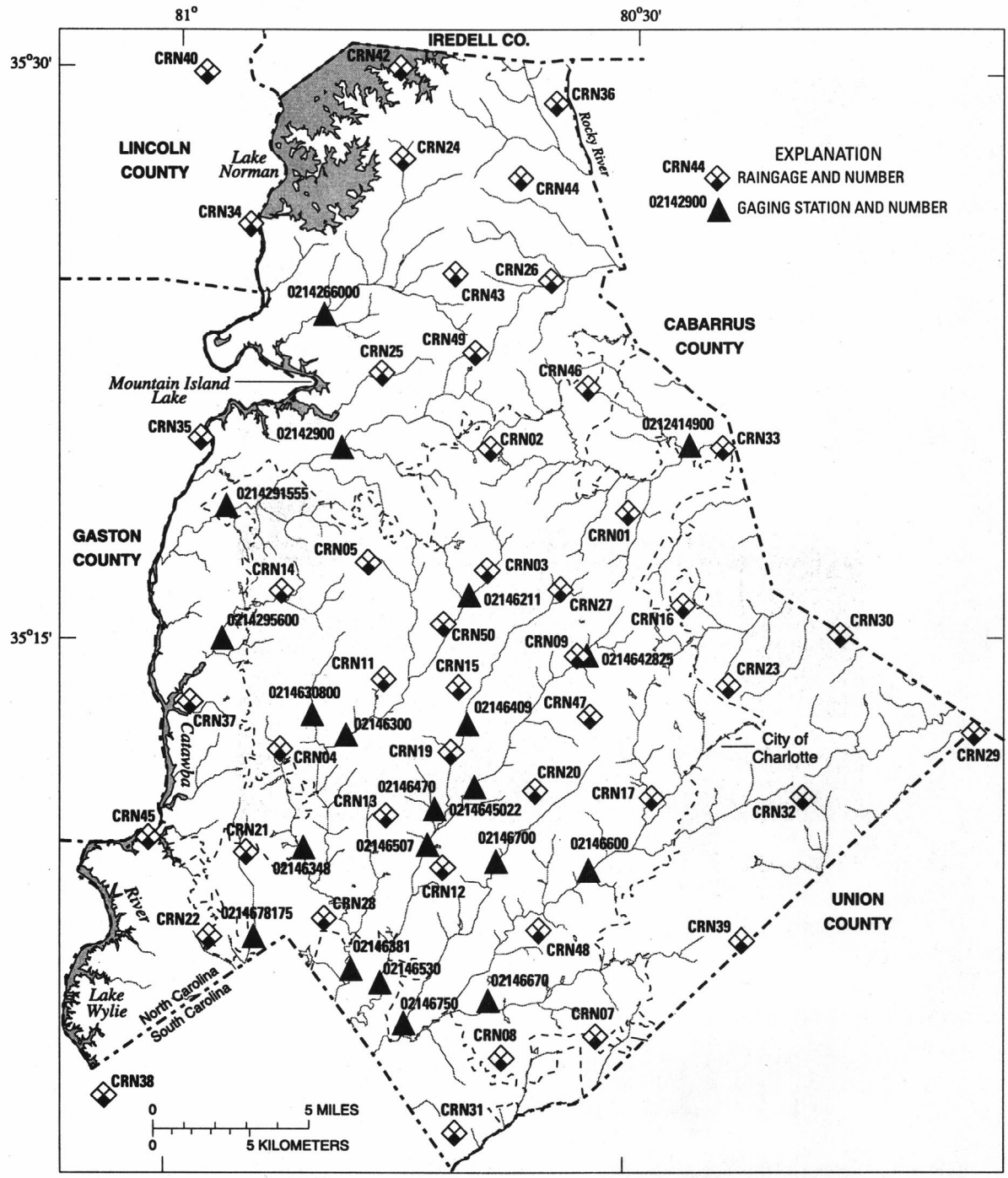


Figure 17.--Locations of gaging stations in and around Mecklenburg County, North Carolina.



President Clinton's helicopter flying over the flooded area near Princeville, N.C., September 1999.

02043120 ALBEMARLE AND CHESAPEAKE CANAL NEAR PRINCESS ANNE, VA

LOCATION.--Lat 36°43'04", long 76°06'02", Virginia Beach City, Virginia, Hydrologic Unit 03010205, attached to north-bank bulkhead approximately 40 ft east of bridge on SR 165.

DRAINAGE AREA.--Indeterminate.

GAGE-HEIGHT RECORDS

PERIOD OF RECORD.--August 1997 to July 1999 (discontinued).

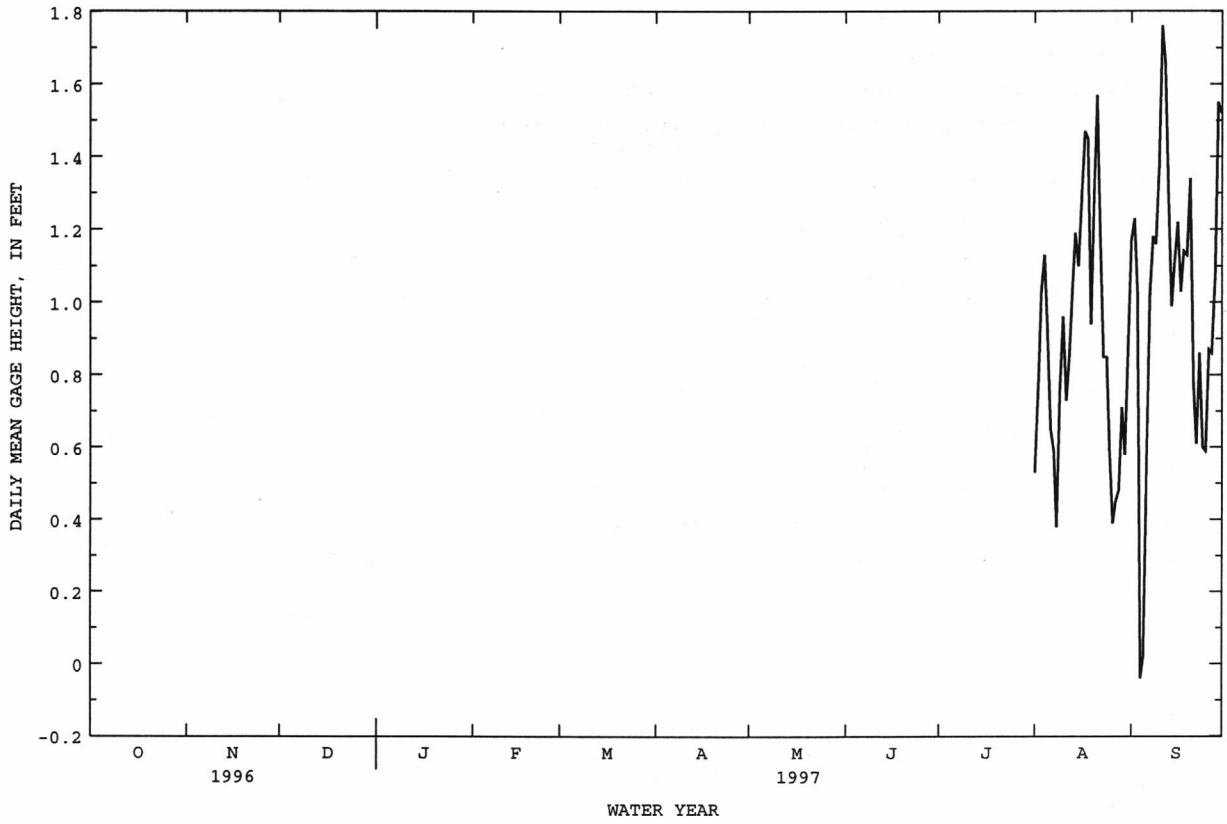
GAGE.--Water-stage recorder. Datum of gage is at sea level.

EXTREMES FOR PERIOD OF RECORD.--Maximum recorded, 2.73 ft, March 9, 1998, minimum recorded, -3.37 ft, May 2, 1999.

GAGE HEIGHT, FEET, WATER YEAR AUGUST 1997 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	.53	1.17
2	---	---	---	---	---	---	---	---	---	---	.78	1.23
3	---	---	---	---	---	---	---	---	---	---	1.03	1.03
4	---	---	---	---	---	---	---	---	---	---	1.13	-.04
5	---	---	---	---	---	---	---	---	---	---	.92	.02
6	---	---	---	---	---	---	---	---	---	---	.65	.58
7	---	---	---	---	---	---	---	---	---	---	.59	1.02
8	---	---	---	---	---	---	---	---	---	---	.38	1.18
9	---	---	---	---	---	---	---	---	---	---	.76	1.16
10	---	---	---	---	---	---	---	---	---	---	.96	1.37
11	---	---	---	---	---	---	---	---	---	---	.73	1.76
12	---	---	---	---	---	---	---	---	---	---	.85	1.66
13	---	---	---	---	---	---	---	---	---	---	1.04	1.30
14	---	---	---	---	---	---	---	---	---	---	1.19	.99
15	---	---	---	---	---	---	---	---	---	---	1.10	1.12
16	---	---	---	---	---	---	---	---	---	---	1.29	1.22
17	---	---	---	---	---	---	---	---	---	---	1.47	1.03
18	---	---	---	---	---	---	---	---	---	---	1.45	1.14
19	---	---	---	---	---	---	---	---	---	---	.94	1.13
20	---	---	---	---	---	---	---	---	---	---	1.31	1.34
21	---	---	---	---	---	---	---	---	---	---	1.57	.78
22	---	---	---	---	---	---	---	---	---	---	1.18	.61
23	---	---	---	---	---	---	---	---	---	---	.85	.86
24	---	---	---	---	---	---	---	---	---	---	.85	.60
25	---	---	---	---	---	---	---	---	---	---	.59	.59
26	---	---	---	---	---	---	---	---	---	---	.39	.87
27	---	---	---	---	---	---	---	---	---	---	.45	.86
28	---	---	---	---	---	---	---	---	---	---	.48	1.08
29	---	---	---	---	---	---	---	---	---	---	.71	1.55
30	---	---	---	---	---	---	---	---	---	---	.58	1.52
31	---	---	---	---	---	---	---	---	---	---	.88	---
MEAN	---	---	---	---	---	---	---	---	---	---	.89	1.02
MAX	---	---	---	---	---	---	---	---	---	---	1.57	1.76
MIN	---	---	---	---	---	---	---	---	---	---	.38	-.04

02043120 ALBEMARLE AND CHESAPEAKE CANAL NEAR PRINCESS ANNE, VA--Continued

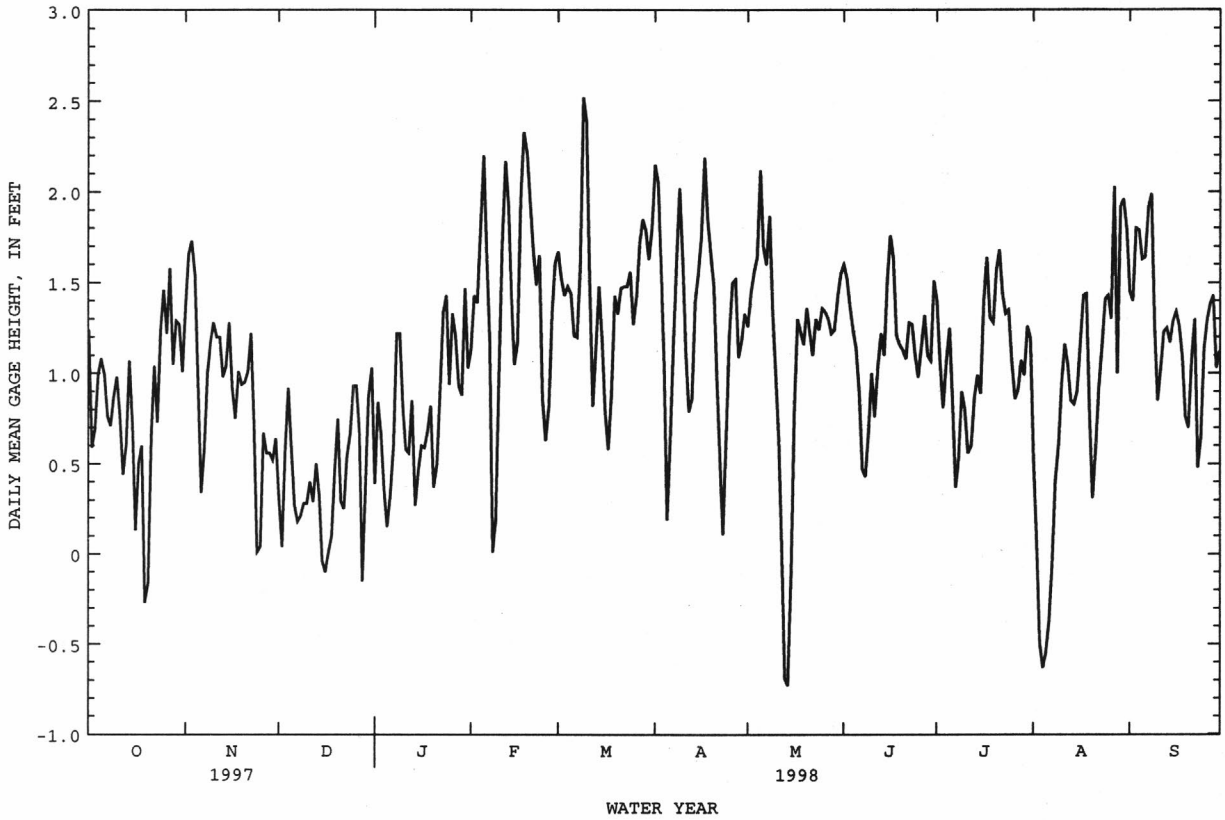


02043120 ALBEMARLE AND CHESAPEAKE CANAL NEAR PRINCESS ANNE, VA--Continued

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.24	1.37	.32	.39	1.13	1.67	2.15	1.26	1.60	1.40	.53	1.45
2	.59	1.66	.04	.84	1.43	1.52	2.05	1.45	1.52	1.07	.05	1.40
3	.69	1.73	.57	.67	1.39	1.43	1.56	1.56	1.37	.81	-.49	1.80
4	.99	1.54	.92	.36	1.78	1.48	1.05	1.64	1.24	1.07	-.63	1.79
5	1.08	.93	.59	.15	2.20	1.44	.19	2.12	1.14	1.25	-.55	1.63
6	.99	.34	.27	.32	1.64	1.21	.63	1.70	.89	.83	-.38	1.64
7	.76	.58	.18	.60	1.18	1.20	1.17	1.60	.47	.37	-.06	1.92
8	.71	1.00	.21	1.22	.01	1.59	1.62	1.87	.43	.53	.40	1.99
9	.87	1.17	.28	1.22	.19	2.52	2.02	1.33	.68	.90	.61	1.26
10	.98	1.28	.28	.82	1.00	2.39	1.62	.99	1.00	.80	.95	.85
11	.77	1.20	.40	.58	1.71	1.52	1.11	.63	.76	.56	1.16	1.03
12	.44	1.20	.29	.56	2.17	.82	.79	.00	1.03	.60	1.05	1.23
13	.61	.98	.50	.85	1.92	1.14	.86	-.69	1.22	.87	.85	1.25
14	1.07	1.04	.33	.27	1.42	1.48	1.40	-.73	1.10	.99	.83	1.17
15	.72	1.28	-.04	.46	1.05	1.19	1.55	-.09	1.52	.89	.90	1.29
16	.13	.92	-.10	.60	1.17	.79	1.75	.81	1.76	1.40	1.17	1.34
17	.50	.75	.01	.59	1.96	.58	2.19	1.30	1.63	1.64	1.43	1.26
18	.60	1.01	.10	.68	2.33	.88	1.85	1.23	1.21	1.31	1.44	1.09
19	-.27	.94	.46	.82	2.21	1.43	1.66	1.16	1.16	1.28	.79	.76
20	-.16	.95	.75	.37	1.94	1.33	1.48	1.36	1.13	1.57	.31	.70
21	.65	1.01	.29	.50	1.68	1.47	.97	1.23	1.08	1.68	.58	1.08
22	1.04	1.22	.25	.91	1.49	1.48	.54	1.10	1.28	1.44	.92	1.30
23	.73	.70	.54	1.34	1.65	1.48	.11	1.30	1.27	1.33	1.16	.48
24	1.23	.01	.67	1.43	.86	1.56	.64	1.24	1.10	1.35	1.41	.64
25	1.46	.04	.93	.94	.63	1.27	1.21	1.36	.98	1.07	1.43	1.13
26	1.22	.67	.93	1.33	.82	1.43	1.50	1.34	1.14	.86	1.30	1.29
27	1.58	.56	.67	1.21	1.34	1.72	1.52	1.30	1.32	.91	2.03	1.38
28	1.05	.56	-.15	.93	1.61	1.85	1.09	1.22	1.10	1.07	1.00	1.43
29	1.29	.52	.35	.88	---	1.79	1.18	1.24	1.07	.99	1.92	1.03
30	1.27	.64	.87	1.47	---	1.63	1.33	1.42	1.51	1.26	1.96	1.12
31	1.01	---	1.03	1.03	---	1.80	---	1.55	---	1.19	1.79	---
MEAN	.83	.93	.41	.79	1.43	1.45	1.29	1.12	1.16	1.07	.83	1.26
MAX	1.58	1.73	1.03	1.47	2.33	2.52	2.19	2.12	1.76	1.68	2.03	1.99
MIN	-.27	.01	-.15	.15	.01	.58	.11	-.73	.43	.37	-.63	.48

02043120 ALBEMARLE AND CHESAPEAKE CANAL NEAR PRINCESS ANNE, VA--Continued

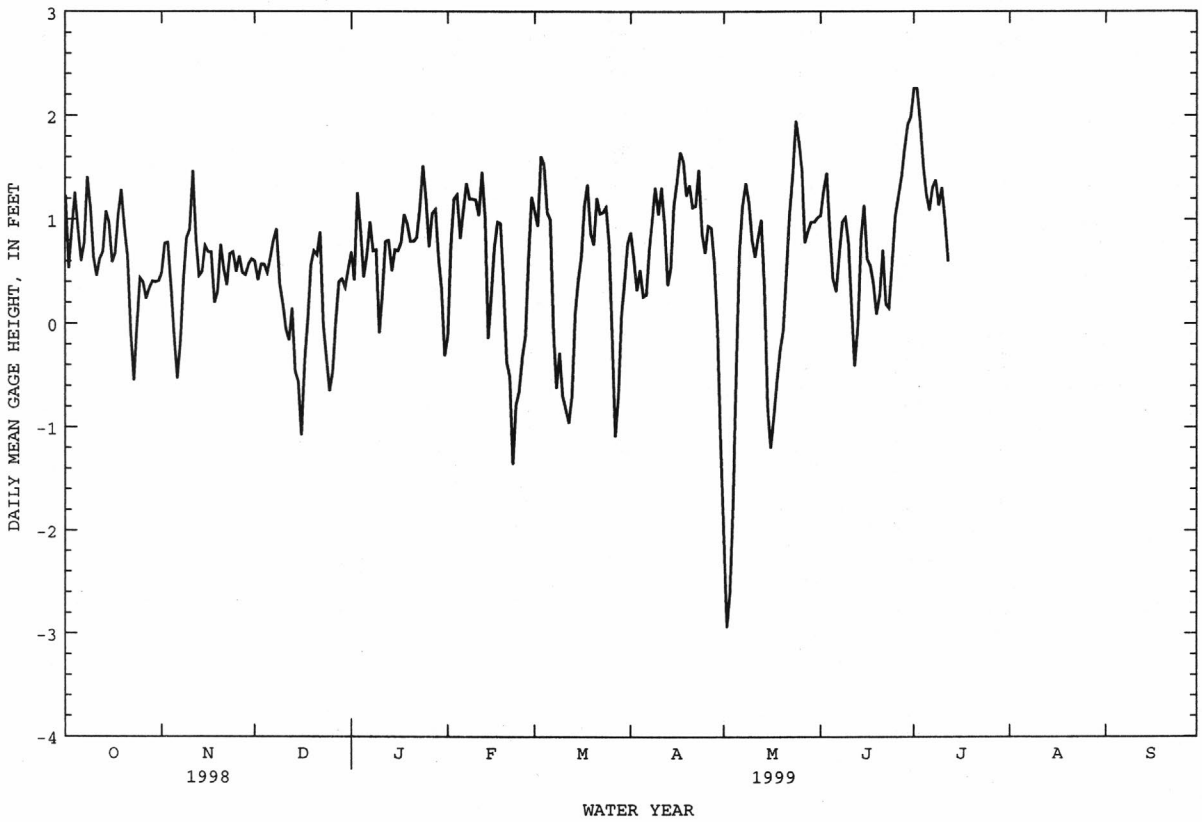


02043120 ALBEMARLE AND CHESAPEAKE CANAL NEAR PRINCESS ANNE, VA--Continued

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1998 TO JULY 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.23	.49	.60	.69	-.12	1.08	.88	-2.04	1.04	2.26	---	---
2	.53	.77	.42	.42	.75	.94	.63	-2.94	1.28	2.26	---	---
3	.91	.78	.57	1.26	1.20	1.61	.32	-2.60	1.45	1.94	---	---
4	1.26	.35	.57	.91	1.24	1.53	.52	-1.72	.88	1.51	---	---
5	.92	-.13	.49	.45	.82	1.07	.26	-.44	.43	1.24	---	---
6	.60	-.53	.63	.65	1.09	1.00	.28	.67	.31	1.09	---	---
7	.78	-.18	.80	.98	1.35	-.06	.72	1.13	.67	1.31	---	---
8	1.41	.41	.91	.70	1.20	-.62	1.00	1.35	.98	1.38	---	---
9	1.12	.82	.37	.71	1.20	-.28	1.31	1.16	1.02	1.14	---	---
10	.64	.90	.18	-.09	1.19	-.70	1.05	.81	.77	1.31	---	---
11	.46	1.47	-.06	.29	1.04	-.82	1.31	.64	.16	1.00	---	---
12	.62	.81	-.16	.79	1.46	-.96	.93	.83	-.41	.60	---	---
13	.69	.46	.15	.80	1.02	-.69	.37	1.00	-.01	---	---	---
14	1.08	.50	-.46	.51	-.14	.10	.54	.35	.83	---	---	---
15	.97	.75	-.56	.71	.28	.42	1.13	-.79	1.14	---	---	---
16	.59	.69	-1.08	.70	.74	.65	1.36	-1.20	.62	---	---	---
17	.68	.69	-.35	.78	.98	1.14	1.65	-.90	.56	---	---	---
18	1.05	.20	.04	1.05	.96	1.34	1.56	-.55	.39	---	---	---
19	1.29	.31	.56	.96	.35	.87	1.23	-.26	.09	---	---	---
20	.92	.76	.70	.79	-.37	.76	1.33	-.07	.28	---	---	---
21	.64	.53	.66	.79	-.51	1.21	1.12	.47	.71	---	---	---
22	-.09	.37	.88	.83	-1.36	1.06	1.13	1.04	.19	---	---	---
23	-.55	.67	.00	1.11	-.78	1.07	1.48	1.44	.15	---	---	---
24	-.01	.69	-.34	1.52	-.65	1.12	.87	1.95	.57	---	---	---
25	.44	.50	-.65	1.20	-.33	.77	.68	1.75	1.03	---	---	---
26	.40	.65	-.47	.74	-.12	-.19	.94	1.48	1.22	---	---	---
27	.24	.49	.02	1.06	.63	-1.09	.92	.78	1.42	---	---	---
28	.34	.47	.40	1.10	1.22	-.70	.57	.89	1.69	---	---	---
29	.41	.57	.43	.64	---	.09	-.04	.98	1.91	---	---	---
30	.40	.62	.35	.33	---	.42	-1.10	.98	1.99	---	---	---
31	.41	---	.53	-.31	---	.77	---	1.02	---	---	---	---
MEAN	.66	.53	.20	.74	.51	.42	.83	.23	.78	---	---	---
MAX	1.41	1.47	.91	1.52	1.46	1.61	1.65	1.95	1.99	---	---	---
MIN	-.55	-.53	-1.08	-.31	-1.36	-1.09	-1.10	-2.94	-.41	---	---	---

02043120 ALBEMARLE AND CHESAPEAKE CANAL NEAR PRINCESS ANNE, VA--Continued



02043120 ALBEMARLE AND CHESAPEAKE CANAL NEAR PRINCESS ANNE, VA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--August 1997 to July 1999 (discontinued).

PERIOD OF DAILY RECORD.--

SALINITY: August 1997 to July 1999.

WATER TEMPERATURE: August 1997 to July 1999.

INSTRUMENTATION.--Water-quality monitor.

REMARKS.--Station operated in cooperation with North Carolina Division of Water Resources.

EXTREMES FOR PERIOD OF RECORD.--

SALINITY: Maximum recorded, 7.2 parts per thousand, December 16, 1998; minimum recorded, 0.0 parts per thousand, February 10, 1998.

WATER TEMPERATURE: Maximum recorded, 31.5°C, July 24, 1998; minimum recorded, 3.8°C, January 8, 1999.

TEMPERATURE, WATER (DEG. C), WATER YEAR AUGUST 1997 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	---	---	---	---	---	---	26.3	25.8	26.0
2	---	---	---	---	---	---	---	---	---	27.6	24.9	26.0
3	---	---	---	---	---	---	---	---	---	26.9	25.8	26.6
4	---	---	---	---	---	---	---	---	---	26.3	24.3	25.3
5	---	---	---	---	---	---	---	---	---	25.0	23.8	24.5
6	---	---	---	---	---	---	---	---	---	24.6	23.6	24.1
7	---	---	---	---	---	---	---	---	---	25.2	23.8	24.3
8	---	---	---	---	---	---	28.0	26.8	27.4	25.1	24.1	24.5
9	---	---	---	---	---	---	27.8	26.7	27.2	25.1	24.5	24.8
10	---	---	---	---	---	---	27.5	26.5	27.0	25.9	24.6	25.1
11	---	---	---	---	---	---	28.0	26.3	27.1	25.5	25.1	25.3
12	---	---	---	---	---	---	29.0	26.8	27.6	25.7	24.7	25.2
13	---	---	---	---	---	---	29.0	27.7	28.2	25.4	24.3	24.9
14	---	---	---	---	---	---	29.7	28.4	28.8	25.5	24.0	24.8
15	---	---	---	---	---	---	30.1	28.7	29.1	25.4	24.4	24.9
16	---	---	---	---	---	---	30.9	29.4	30.0	25.8	24.7	25.0
17	---	---	---	---	---	---	31.2	30.0	30.5	25.9	23.9	25.0
18	---	---	---	---	---	---	31.1	29.9	30.8	25.7	24.7	25.1
19	---	---	---	---	---	---	30.7	28.8	29.7	25.9	24.7	25.2
20	---	---	---	---	---	---	29.1	28.3	28.6	26.2	25.0	25.6
21	---	---	---	---	---	---	28.7	27.6	28.2	25.9	24.7	25.3
22	---	---	---	---	---	---	28.5	27.0	27.8	24.8	23.7	24.3
23	---	---	---	---	---	---	27.6	26.0	26.8	24.7	23.5	24.0
24	---	---	---	---	---	---	27.0	25.9	26.4	24.3	22.9	23.7
25	---	---	---	---	---	---	26.9	25.3	26.2	23.3	22.3	22.8
26	---	---	---	---	---	---	26.9	25.8	26.3	22.9	22.3	22.6
27	---	---	---	---	---	---	27.2	25.7	26.3	22.6	22.1	22.4
28	---	---	---	---	---	---	27.0	26.0	26.3	22.6	22.1	22.3
29	---	---	---	---	---	---	27.2	26.1	26.5	22.8	21.9	22.4
30	---	---	---	---	---	---	27.3	26.3	26.7	22.6	21.8	22.1
31	---	---	---	---	---	---	26.7	25.9	26.3	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	27.6	21.8	24.5

02043120 ALBEMARLE AND CHESAPEAKE CANAL NEAR PRINCESS ANNE, VA--Continued

SALINITY (PARTS PER THOUSAND), WATER YEAR AUGUST 1997 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	---	---	---	---	---	---	3.0	2.3	2.5
2	---	---	---	---	---	---	---	---	---	3.1	2.0	2.4
3	---	---	---	---	---	---	---	---	---	3.3	2.3	2.9
4	---	---	---	---	---	---	---	---	---	4.1	3.1	3.7
5	---	---	---	---	---	---	---	---	---	3.9	3.4	3.6
6	---	---	---	---	---	---	---	---	---	3.6	3.0	3.3
7	---	---	---	---	---	---	---	---	---	3.0	2.9	2.9
8	---	---	---	---	---	---	4.1	3.0	3.7	2.9	2.7	e2.8
9	---	---	---	---	---	---	3.7	3.1	3.5	2.9	2.6	2.8
10	---	---	---	---	---	---	3.3	2.9	3.0	3.1	2.4	2.6
11	---	---	---	---	---	---	3.1	2.8	2.9	2.8	2.1	2.3
12	---	---	---	---	---	---	3.1	2.6	2.8	2.7	2.1	2.3
13	---	---	---	---	---	---	2.8	2.5	2.6	2.9	2.2	2.5
14	---	---	---	---	---	---	2.6	2.4	2.5	3.7	2.4	2.9
15	---	---	---	---	---	---	2.7	2.5	2.6	3.3	2.8	3.0
16	---	---	---	---	---	---	2.6	2.4	2.4	3.3	2.6	2.9
17	---	---	---	---	---	---	2.5	2.2	2.3	3.5	2.9	3.1
18	---	---	---	---	---	---	2.2	2.0	2.1	3.2	2.7	3.0
19	---	---	---	---	---	---	2.3	2.1	2.2	3.2	2.7	2.9
20	---	---	---	---	---	---	2.5	2.0	2.2	3.1	2.5	2.8
21	---	---	---	---	---	---	2.2	2.0	2.1	3.2	2.6	3.0
22	---	---	---	---	---	---	2.5	2.1	2.3	3.3	2.9	3.1
23	---	---	---	---	---	---	2.5	2.0	2.3	3.1	2.8	2.9
24	---	---	---	---	---	---	2.3	2.1	2.2	3.5	2.7	3.3
25	---	---	---	---	---	---	2.2	1.8	2.1	3.5	3.1	3.3
26	---	---	---	---	---	---	2.7	1.8	2.3	3.5	3.0	3.2
27	---	---	---	---	---	---	2.8	2.1	2.5	3.4	2.9	3.2
28	---	---	---	---	---	---	2.8	2.1	2.5	3.7	2.9	3.2
29	---	---	---	---	---	---	2.6	2.4	2.5	2.9	2.5	2.6
30	---	---	---	---	---	---	2.8	2.4	2.6	2.6	2.2	2.4
31	---	---	---	---	---	---	2.9	2.4	2.5	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	4.1	2.0	2.9

e Estimated, partial record.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	22.7	21.5	22.2	15.3	14.6	14.9	10.5	9.8	10.1	6.0	4.2	5.1
2	22.0	20.5	21.2	15.9	15.3	15.5	10.0	8.9	9.5	4.7	4.2	4.5
3	21.0	20.1	20.6	15.8	15.4	15.7	9.3	8.6	8.9	5.5	4.3	4.6
4	21.2	20.0	20.5	15.9	15.2	15.5	9.0	8.7	8.9	5.7	4.9	5.3
5	21.8	20.4	20.9	15.5	14.1	14.9	9.6	8.8	9.1	7.7	5.6	6.1
6	22.8	21.1	21.5	14.7	13.8	14.5	9.0	7.7	8.4	8.7	6.7	7.3
7	23.3	21.6	22.1	14.7	14.2	14.4	7.8	6.9	7.3	10.1	7.9	8.7
8	23.1	22.0	22.5	14.5	14.2	14.4	7.1	6.5	6.8	11.6	9.3	10.6
9	23.5	22.1	22.7	14.3	13.6	13.9	7.0	6.6	6.8	11.9	11.1	11.5
10	23.7	22.6	23.1	13.7	13.2	13.5	7.3	6.6	7.0	11.9	11.1	11.4
11	23.9	23.3	23.5	13.6	13.3	13.5	7.4	7.1	7.2	11.3	10.8	11.1
12	23.9	22.5	23.2	13.5	13.1	13.4	7.6	7.3	7.4	10.9	9.9	10.5
13	23.0	22.3	22.7	13.4	12.4	13.0	7.5	7.2	7.3	10.1	9.9	10.0
14	23.0	22.2	22.6	12.9	12.3	12.7	7.3	6.9	7.1	9.9	8.7	9.2
15	22.7	21.4	22.2	12.5	12.1	12.3	7.4	6.3	6.8	9.1	8.3	8.8
16	21.7	20.5	21.1	12.4	10.9	11.6	7.1	6.4	6.7	9.0	8.4	8.8
17	20.7	20.1	20.5	11.3	10.1	10.7	7.2	6.5	6.8	8.5	7.0	7.9
18	20.5	19.6	20.1	10.3	9.3	9.9	7.1	6.4	6.8	8.2	6.7	7.4
19	20.1	19.2	19.6	10.2	9.1	9.9	6.8	5.8	6.4	7.8	6.5	7.3
20	19.3	18.2	18.7	9.9	9.0	9.5	7.4	6.2	6.8	7.3	6.2	6.7
21	18.6	17.9	18.1	9.7	9.1	9.3	7.4	6.9	7.2	6.8	5.5	6.1
22	18.1	17.3	17.8	11.2	9.7	10.3	7.4	6.8	7.2	6.5	5.3	5.9
23	17.8	16.8	17.3	11.2	10.5	10.9	8.1	7.4	7.6	6.8	4.8	6.1
24	16.8	15.6	16.0	11.2	10.2	10.8	8.1	7.7	7.9	7.5	6.6	7.0
25	16.5	15.5	15.9	10.2	9.0	9.6	9.1	8.1	8.5	7.4	6.9	7.1
26	16.5	16.2	16.4	9.2	8.6	9.0	9.2	8.8	9.0	7.4	6.4	7.2
27	16.8	16.4	16.6	9.2	8.5	8.9	9.2	8.5	9.0	7.4	5.7	6.9
28	16.6	15.0	15.8	9.0	8.4	8.7	8.5	7.4	7.9	8.6	7.3	8.2
29	15.5	14.6	15.0	9.7	8.7	9.1	7.8	6.5	7.5	8.5	6.5	7.7
30	14.8	14.4	14.7	10.0	9.3	9.5	7.1	6.2	6.8	8.2	7.6	7.9
31	14.9	14.5	14.7	---	---	---	6.4	5.9	6.2	7.8	6.5	7.3
MONTH	23.9	14.4	19.7	15.9	8.4	12.0	10.5	5.8	7.6	11.9	4.2	7.7

02043120 ALBEMARLE AND CHESAPEAKE CANAL NEAR PRINCESS ANNE, VA--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	7.2	5.1	6.2	11.4	10.1	10.7	20.0	19.5	19.7	18.4	17.7	18.1
2	6.9	5.0	6.1	11.5	10.9	11.1	20.3	19.3	19.8	19.0	17.6	18.3
3	7.1	6.7	6.9	11.0	10.3	10.8	20.3	18.5	19.4	20.2	18.3	19.2
4	9.0	6.8	7.9	10.7	9.7	10.2	18.5	15.1	17.3	21.2	19.6	20.3
5	9.0	8.3	8.8	10.5	9.5	10.0	15.8	12.7	14.9	21.1	20.2	20.6
6	8.3	7.5	7.9	10.1	9.1	9.7	14.6	11.5	13.1	21.1	20.0	20.7
7	7.6	7.2	7.4	10.2	9.5	9.9	14.5	13.1	13.7	21.0	20.1	20.6
8	7.2	6.2	6.9	11.0	10.0	10.3	16.9	14.0	14.8	21.1	20.4	20.7
9	7.9	5.8	6.7	12.9	11.0	12.2	17.1	16.4	16.8	20.7	19.6	20.2
10	6.9	5.6	6.3	12.5	11.8	12.1	16.9	15.7	16.3	19.8	18.1	18.8
11	7.9	6.7	7.2	11.8	9.7	10.5	16.1	14.7	15.2	19.2	17.1	18.7
12	8.8	7.7	8.2	10.1	7.1	8.6	15.7	14.3	14.9	18.6	17.3	18.0
13	9.3	8.3	8.6	7.9	5.4	6.8	16.0	14.1	15.0	17.7	14.5	16.9
14	8.7	7.6	8.3	8.4	6.3	7.2	15.8	14.9	15.3	17.3	14.4	16.2
15	8.5	6.5	7.6	9.0	7.7	8.2	17.0	15.4	16.0	17.3	15.1	16.0
16	7.8	6.0	6.8	8.8	7.6	8.4	18.9	16.8	17.6	20.0	16.8	18.1
17	9.0	6.9	7.7	8.2	7.4	7.8	19.2	18.2	18.6	20.8	19.3	19.9
18	9.8	8.8	9.1	9.8	7.8	8.4	19.4	17.8	18.6	21.7	20.2	20.8
19	11.2	9.7	10.4	11.1	8.9	9.8	18.4	16.7	17.6	22.7	20.7	21.6
20	11.1	10.4	10.7	12.4	10.2	11.1	18.4	17.6	18.0	23.5	22.3	22.8
21	10.8	10.1	10.4	11.9	11.0	11.4	18.2	17.2	17.8	23.7	22.3	23.0
22	10.7	9.7	10.2	11.4	10.8	11.2	17.6	16.3	17.1	24.5	22.6	23.4
23	10.2	9.5	10.1	11.1	10.3	10.8	16.7	15.5	16.1	24.0	22.6	23.5
24	10.1	8.7	9.5	12.0	10.3	10.9	16.7	14.6	15.7	22.6	21.5	22.2
25	9.6	7.6	8.9	11.7	10.4	11.0	17.9	16.3	16.9	24.3	22.2	22.9
26	9.8	9.0	9.3	13.7	11.0	11.6	18.9	17.5	18.0	25.4	23.4	24.0
27	10.8	9.3	9.6	15.6	12.5	13.6	18.7	17.1	18.1	24.9	23.9	24.4
28	10.2	9.3	9.8	16.6	14.1	15.3	18.0	15.9	16.8	24.8	23.6	24.2
29	---	---	---	17.8	15.8	16.6	18.1	16.1	17.1	26.1	23.7	24.7
30	---	---	---	20.0	17.3	18.1	18.8	17.1	17.8	26.7	25.0	25.7
31	---	---	---	20.4	18.8	19.5	---	---	---	27.1	25.8	26.4
MONTH	11.2	5.0	8.3	20.4	5.4	11.1	20.3	11.5	16.8	27.1	14.4	21.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	27.5	26.7	27.0	29.1	27.8	28.3	29.4	28.3	28.8	27.0	26.0	26.6
2	27.5	26.0	26.7	29.3	27.7	28.3	28.9	28.0	28.4	27.0	25.9	26.6
3	28.6	26.1	26.8	29.3	27.8	28.6	28.8	27.3	28.0	27.8	26.8	27.2
4	27.3	26.3	26.7	29.6	28.0	28.7	29.0	26.6	27.8	27.4	25.9	26.8
5	26.5	25.3	25.9	29.2	28.6	28.9	28.3	27.0	27.6	26.8	25.6	26.1
6	25.3	24.4	24.8	29.3	27.8	28.5	27.5	26.8	27.1	26.7	24.5	25.7
7	24.5	23.5	24.0	30.1	28.1	28.7	27.7	26.7	27.1	28.2	26.6	27.2
8	24.0	22.8	23.4	29.2	28.0	28.4	28.6	27.0	27.6	27.9	26.3	27.2
9	24.2	23.3	23.7	29.8	28.1	28.6	29.4	27.6	28.4	26.4	22.4	24.5
10	23.9	23.2	23.5	29.8	28.2	28.8	29.9	28.3	28.8	23.8	21.1	22.7
11	24.3	23.1	23.6	29.5	28.5	28.9	29.8	28.3	28.8	22.7	20.2	21.7
12	25.9	23.5	24.2	29.5	28.2	28.8	29.7	28.4	29.0	23.4	21.8	22.5
13	26.1	24.8	25.2	29.8	27.9	28.7	30.3	28.7	29.3	24.6	23.1	23.7
14	26.3	25.0	25.6	29.6	27.7	28.6	29.5	28.6	29.1	25.4	23.4	24.2
15	27.3	25.7	26.4	29.6	28.1	28.6	29.1	28.3	28.7	26.4	24.3	25.1
16	27.9	26.8	27.1	29.0	28.3	28.6	28.7	28.1	28.4	26.6	25.6	25.9
17	28.2	27.2	27.5	28.4	27.2	28.1	29.4	27.9	28.5	27.5	26.1	26.6
18	27.8	26.5	27.4	28.1	26.8	27.6	30.0	29.1	29.4	27.2	26.4	26.8
19	27.5	26.8	27.1	29.0	26.0	27.4	29.8	28.0	28.9	26.9	26.1	26.6
20	28.0	26.3	27.0	30.3	28.4	29.0	29.0	26.2	27.8	27.6	26.4	26.9
21	28.5	27.2	27.7	30.9	29.5	30.0	28.4	27.0	27.7	27.5	26.4	26.9
22	28.9	27.9	28.3	30.9	29.6	30.3	28.8	27.2	27.8	27.8	27.0	27.2
23	30.3	28.3	28.8	31.3	30.1	30.6	29.1	27.6	28.3	27.3	26.1	26.7
24	29.2	28.3	28.7	31.5	30.1	30.5	29.4	27.9	28.5	26.2	25.0	25.4
25	29.1	27.2	28.1	30.8	29.5	30.1	29.5	28.5	28.9	25.4	24.4	24.8
26	30.2	27.8	28.6	30.1	28.8	29.4	29.0	28.1	28.6	25.5	24.5	25.0
27	30.2	29.4	29.8	29.6	28.0	28.9	28.1	26.8	27.5	26.2	24.9	25.4
28	30.2	27.7	29.2	30.2	27.9	29.1	26.8	25.1	25.9	26.2	25.3	25.7
29	28.3	26.8	27.5	30.2	27.9	29.3	27.3	25.5	26.1	26.1	25.6	25.8
30	29.0	27.4	28.3	30.9	29.6	30.1	27.1	26.4	26.7	26.2	25.1	25.7
31	---	---	---	30.4	29.1	30.0	26.8	26.2	26.6	---	---	---
MONTH	30.3	22.8	26.6	31.5	26.0	29.0	30.3	25.1	28.1	28.2	20.2	25.6

02043120 ALBEMARLE AND CHESAPEAKE CANAL NEAR PRINCESS ANNE, VA--Continued

SALINITY (PARTS PER THOUSAND), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	2.8	2.2	2.5	4.2	3.4	3.7	2.3	1.6	1.9	1.9	1.2	1.5
2	3.0	2.6	2.8	4.0	3.4	3.6	2.1	1.6	1.8	1.5	1.2	1.4
3	3.0	2.5	2.8	3.7	3.3	3.4	1.7	1.6	1.6	1.6	1.3	1.5
4	2.8	2.2	2.5	3.4	3.0	3.3	1.6	1.5	1.6	1.6	1.2	1.4
5	2.4	2.2	2.3	3.4	2.7	3.0	1.8	1.5	1.6	1.5	1.0	1.4
6	2.2	2.1	2.2	3.5	2.5	3.0	1.9	1.5	1.6	1.5	1.0	1.4
7	2.2	2.1	2.2	3.4	2.8	3.0	1.8	1.5	1.6	1.4	1.2	1.3
8	2.3	2.1	2.2	3.1	2.8	2.9	1.7	1.4	1.5	1.5	1.4	1.4
9	2.4	2.1	2.2	2.9	2.5	2.8	1.9	1.6	1.7	1.4	1.3	1.4
10	2.4	2.0	2.2	3.4	2.5	3.0	2.1	1.6	1.8	1.4	1.2	1.3
11	2.6	2.1	2.4	3.2	2.6	2.9	2.0	1.6	1.8	1.4	1.2	1.3
12	2.8	2.4	2.7	3.1	2.5	2.7	2.0	1.6	1.8	1.4	1.1	1.3
13	2.8	2.4	2.6	3.1	2.4	2.7	1.9	1.6	1.7	1.3	1.2	1.3
14	2.5	2.0	2.2	3.1	2.3	2.6	2.0	1.6	1.7	1.6	1.1	1.4
15	3.0	2.0	2.5	2.6	2.1	2.3	2.1	1.6	1.8	1.6	1.2	1.4
16	3.7	2.7	3.2	3.0	2.0	2.3	2.2	1.7	2.0	2.2	1.3	1.7
17	3.7	2.9	3.2	2.6	1.8	2.1	2.4	1.8	2.1	2.2	1.0	1.9
18	4.1	3.0	3.6	2.1	1.8	1.9	2.3	2.0	2.1	2.3	.8	1.4
19	6.5	3.9	5.3	2.3	1.9	2.0	2.2	1.9	2.0	2.0	1.2	1.6
20	6.5	4.7	5.8	2.2	1.9	2.0	2.0	1.8	1.9	1.9	.9	1.5
21	5.8	5.2	5.5	2.0	1.8	1.9	2.3	1.9	2.0	1.6	.8	1.2
22	5.6	5.2	5.4	1.9	1.9	1.9	2.6	1.8	2.1	1.7	.8	1.2
23	5.8	5.1	5.4	2.1	1.7	1.9	2.5	2.0	2.1	1.5	.7	1.2
24	5.4	5.2	5.2	3.0	1.8	2.3	2.5	1.8	2.2	1.7	1.3	1.5
25	5.2	4.8	5.0	2.5	2.1	2.3	2.5	2.0	2.2	1.9	.9	1.4
26	5.1	4.6	4.8	2.1	1.8	2.0	2.3	2.0	2.1	1.6	.5	1.3
27	5.1	4.3	4.5	2.0	1.7	1.8	2.9	1.9	2.3	1.6	.3	1.2
28	5.3	3.9	4.6	1.8	1.7	1.8	2.8	1.9	2.5	1.9	1.1	1.6
29	4.4	3.8	4.0	1.8	1.6	1.7	2.8	2.0	2.3	1.6	.4	.8
30	4.0	3.4	3.8	1.9	1.6	1.7	2.3	1.5	1.9	.9	.5	.7
31	4.1	3.5	3.8	---	---	---	1.8	1.5	1.7	.9	.4	.7
MONTH	6.5	2.0	3.5	4.2	1.6	2.5	2.9	1.4	1.9	2.3	.3	1.3

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	.8	.2	.5	.2	.2	.2	.2	.2	.2	.2	.2	.2
2	.8	.1	.4	.2	.1	.2	.2	.2	.2	.2	.2	.2
3	.9	.1	.6	.2	.1	.2	.2	.1	.2	.2	.2	.2
4	1.2	.1	.7	.2	.1	.2	.2	.1	.2	.2	.2	.2
5	.3	.1	.1	.2	.1	.2	.2	.1	.2	.2	.2	.2
6	.2	.1	.2	.2	.1	.2	.2	.1	.1	.2	.2	.2
7	.3	.2	.2	.2	.1	.2	.1	.1	.1	.2	.1	.2
8	.4	.1	.3	.2	.2	.2	.1	.1	.1	.2	.2	.2
9	.4	.1	.2	.2	.2	.2	.2	.1	.2	.2	.2	.2
10	.2	.0	.1	.2	.2	.2	.2	.1	.1	.2	.1	.2
11	.2	.1	.1	.2	.1	.2	.1	.1	.1	.5	.1	.3
12	.2	.2	.2	.3	.1	.2	.2	.1	.1	.7	.4	.5
13	.3	.2	.2	.1	.1	.1	.2	.1	.1	1.1	.4	.8
14	.4	.2	.3	.1	.1	.1	.1	.1	.1	1.2	.3	.8
15	.4	.1	.3	.1	.1	.1	.1	.1	.1	.9	.3	.5
16	.3	.1	.2	.1	.1	.1	.2	.1	.1	.7	.4	.5
17	.4	.2	.2	.2	.1	.1	.2	.2	.2	.6	.5	.6
18	.4	.3	.3	.2	.1	.2	.2	.2	.2	.6	.3	.5
19	.4	.3	.3	.2	.1	.1	.2	.2	.2	.5	.3	.4
20	.4	.2	.3	.2	.1	.2	.2	.1	.2	.6	.5	.6
21	.3	.1	.2	.3	.1	.2	.2	.1	.2	.6	.4	.5
22	.3	.1	.2	.3	.1	.2	.2	.2	.2	.5	.3	.4
23	.3	.1	.2	.3	.1	.2	.2	.2	.2	.6	.5	.5
24	.3	.1	.3	.2	.1	.2	.2	.2	.2	.6	.4	.5
25	.3	.1	.2	.2	.1	.2	.2	.2	.2	.6	.4	.5
26	.2	.1	.2	.2	.1	.1	.2	.2	.2	.6	.3	.5
27	.2	.1	.1	.2	.2	.2	.2	.2	.2	.6	.4	.5
28	.2	.1	.2	.2	.2	.2	.2	.2	.2	.5	.4	.4
29	---	---	---	.2	.2	.2	.2	.2	.2	.5	.4	.5
30	---	---	---	.2	.2	.2	.2	.2	.2	.5	.5	.5
31	---	---	---	.2	.2	.2	---	---	---	.5	.4	.5
MONTH	1.2	.0	.3	.3	.1	.2	.2	.1	.2	1.2	.1	.4

02043120 ALBEMARLE AND CHESAPEAKE CANAL NEAR PRINCESS ANNE, VA--Continued

SALINITY (PARTS PER THOUSAND), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	.5	.4	.5	.3	.2	.2	1.3	.8	1.0	1.8	.3	1.2
2	.5	.4	.5	.2	.2	.2	1.7	1.1	1.4	2.0	.7	1.4
3	.5	.4	.4	.2	.2	.2	2.0	1.0	1.6	1.5	1.1	1.3
4	.5	.4	.4	.3	.2	.2	3.3	1.7	2.5	1.4	.7	1.2
5	.4	.4	.4	.3	.3	.3	3.4	2.8	3.1	1.1	.3	.8
6	.4	.3	.4	.3	.2	.2	3.2	2.8	3.0	.7	.2	.5
7	.4	.3	.4	.9	.3	.5	3.1	2.4	2.8	1.1	.7	1.0
8	.4	.4	.4	1.1	.5	.7	2.5	1.9	2.1	1.1	1.0	1.0
9	.4	.4	.4	.6	.4	.5	3.0	1.7	2.0	1.1	.2	.8
10	.4	.4	.4	.7	.4	.6	2.5	1.4	1.9	1.1	.3	.6
11	.4	.4	.4	.8	.5	.7	2.7	1.6	2.1	.5	.1	.3
12	.4	.4	.4	.8	.6	.7	2.6	1.9	2.3	.5	.1	.4
13	.4	.4	.4	.7	.4	.6	2.6	2.1	2.3	.5	.4	.5
14	.4	.4	.4	1.6	.4	.8	2.7	2.1	2.4	.7	.2	.5
15	.4	.4	.4	1.6	1.0	1.3	2.8	2.3	2.5	.8	.6	.7
16	.4	.4	.4	1.3	.9	1.1	2.7	2.0	2.3	1.1	.7	.8
17	.4	.4	.4	1.3	.9	1.1	2.4	1.8	2.1	1.1	.7	1.0
18	.4	.3	.4	1.4	.4	1.0	2.4	1.7	2.0	1.2	.8	1.0
19	.4	.3	.4	1.0	.2	.7	3.0	1.8	2.5	1.7	.9	1.2
20	.4	.3	.3	.9	.8	.8	3.4	2.1	2.9	1.9	1.3	1.6
21	.4	.3	.3	1.1	.7	.8	3.4	2.6	3.1	1.8	1.2	1.5
22	.4	.3	.4	1.1	.7	.8	2.8	2.4	2.6	1.5	1.2	1.3
23	.4	.3	.4	.9	.6	.8	2.5	2.1	2.3	2.3	1.4	1.9
24	.4	.3	.3	.8	.5	.7	2.1	1.6	1.9	2.3	1.7	1.8
25	.3	.3	.3	.7	.6	.6	2.1	1.5	1.7	1.9	1.2	1.6
26	.3	.3	.3	.7	.5	.6	2.2	1.5	1.7	1.4	1.2	1.3
27	.3	.3	.3	1.0	.5	.6	1.8	.7	1.2	1.2	1.0	1.1
28	.3	.2	.3	1.1	.7	.8	2.8	1.4	2.1	1.0	.9	.9
29	.3	.2	.2	1.1	.5	1.0	1.9	1.3	1.6	1.3	.9	1.1
30	.3	.2	.2	.9	.8	.8	1.7	1.3	1.4	1.8	1.1	1.4
31	---	---	---	1.0	.8	.8	1.8	.7	1.4	---	---	---
MONTH	.5	.2	.4	1.6	.2	.7	3.4	.7	2.1	2.3	.1	1.1

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO JULY 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	26.5	25.6	25.9	16.8	15.4	16.2	14.5	13.6	14.0	6.5	5.2	5.9
2	25.8	23.9	24.7	16.4	15.5	16.1	14.1	13.2	13.7	6.3	3.9	5.6
3	24.2	23.5	23.8	16.3	15.4	16.0	14.3	13.4	13.9	7.8	5.3	6.7
4	23.6	22.8	23.2	15.9	14.7	15.3	14.4	13.7	14.0	7.4	6.8	7.1
5	23.0	21.6	22.3	15.1	14.0	14.6	14.7	14.1	14.3	7.1	6.0	6.5
6	22.6	21.3	22.2	14.3	12.6	13.5	15.5	14.6	15.0	6.5	5.5	6.0
7	23.0	21.7	22.3	13.2	12.1	12.7	16.3	15.2	15.6	5.9	5.2	5.6
8	22.9	22.4	22.6	12.7	11.6	12.0	16.7	15.7	16.3	5.8	3.8	5.5
9	22.6	21.7	22.3	12.1	11.4	11.7	16.6	15.3	16.1	7.5	5.5	6.2
10	22.1	21.0	21.7	12.5	10.8	11.7	15.5	14.5	15.1	6.7	6.0	6.4
11	21.9	20.7	21.4	13.5	12.5	13.0	14.9	14.1	14.4	6.1	5.4	5.8
12	21.8	21.0	21.4	13.5	12.9	13.2	14.2	12.8	13.4	5.7	5.3	5.5
13	21.7	21.1	21.4	13.4	12.3	12.9	13.4	12.4	12.8	6.7	5.6	6.0
14	21.7	21.1	21.4	12.9	11.5	12.3	12.9	11.8	12.6	7.0	6.4	6.6
15	21.4	20.9	21.2	13.2	12.2	12.7	12.7	11.5	12.1	7.9	6.9	7.4
16	21.1	20.4	20.7	13.5	12.3	12.9	12.3	10.8	11.8	7.7	7.4	7.6
17	20.7	19.7	20.3	14.2	13.2	13.7	11.5	10.4	11.2	8.3	7.4	7.7
18	20.4	19.6	20.0	14.1	13.5	13.9	10.8	9.4	10.1	9.4	7.7	8.5
19	20.7	19.9	20.2	14.2	12.7	13.5	9.7	8.8	9.3	9.4	8.8	9.1
20	21.0	20.2	20.5	14.6	13.8	14.2	10.5	9.3	9.6	9.7	9.1	9.2
21	20.3	19.2	19.7	14.5	13.9	14.3	11.5	10.0	10.4	9.4	9.0	9.1
22	19.2	17.8	18.7	14.3	13.3	13.9	11.6	10.8	11.1	10.6	9.3	9.6
23	17.9	16.8	17.2	14.0	12.7	13.4	10.9	9.3	10.2	12.5	9.9	11.3
24	17.3	16.0	16.6	14.1	13.4	13.8	10.1	7.9	9.3	12.6	11.8	12.2
25	16.8	15.7	16.3	14.0	12.7	13.4	9.1	7.4	8.5	12.4	11.7	11.9
26	16.7	15.7	16.2	13.9	13.1	13.4	9.2	6.5	8.4	11.8	9.8	11.1
27	17.5	15.9	16.7	13.5	12.6	13.1	8.0	4.4	6.4	10.9	8.9	10.3
28	17.1	15.8	16.7	13.3	12.2	12.8	7.8	6.3	7.1	11.3	9.9	10.6
29	17.4	16.2	16.9	13.2	12.3	12.8	7.8	7.3	7.6	11.9	11.3	11.5
30	17.1	16.3	16.8	13.9	12.5	13.1	7.5	6.7	7.2	11.7	9.4	11.3
31	17.1	16.3	16.7	---	---	---	6.9	5.7	6.5	11.1	7.8	9.5
MONTH	26.5	15.7	20.3	16.8	10.8	13.5	16.7	4.4	11.5	12.6	3.8	8.2

02043120 ALBEMARLE AND CHESAPEAKE CANAL NEAR PRINCESS ANNE, VA--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO JULY 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	9.4	7.3	8.7	9.0	8.0	8.5	14.4	13.1	13.5	15.8	14.5	15.3
2	10.2	8.9	9.6	9.8	8.5	9.1	16.7	14.0	14.6	15.1	12.8	14.5
3	10.5	9.8	10.0	10.7	9.0	9.9	17.8	14.7	16.0	15.1	12.8	14.3
4	10.5	10.1	10.2	10.3	9.3	9.9	18.6	16.1	17.0	16.9	14.2	15.4
5	10.5	9.8	10.2	10.1	9.0	9.6	18.5	17.2	17.6	18.2	16.3	17.1
6	10.1	9.5	9.8	10.4	9.0	9.7	17.9	16.4	17.3	19.8	17.9	18.6
7	10.3	9.3	9.9	10.3	9.6	9.9	19.6	16.8	17.7	21.9	19.1	20.1
8	10.2	9.8	10.1	9.8	8.3	9.1	19.3	18.1	18.6	22.3	20.9	21.6
9	10.2	9.4	9.8	9.0	7.6	8.5	20.6	18.9	19.6	23.4	21.7	22.5
10	10.4	9.9	10.1	8.4	7.7	8.1	20.2	19.0	19.7	24.4	22.6	23.0
11	10.9	9.9	10.4	8.3	7.0	7.8	19.4	18.0	18.7	24.3	22.7	23.4
12	11.7	10.3	10.8	8.6	7.1	8.0	18.2	16.4	17.8	24.8	23.0	23.8
13	11.4	10.7	11.0	8.8	7.2	8.1	17.6	15.4	16.7	24.4	23.4	24.0
14	10.8	8.8	9.6	8.4	7.9	8.1	17.2	15.9	16.5	23.7	21.5	22.8
15	9.3	8.6	8.9	8.5	8.2	8.4	16.8	15.5	16.5	22.1	16.7	20.0
16	9.5	8.5	9.0	9.4	7.6	8.2	17.2	16.2	16.6	19.5	17.6	18.7
17	10.2	9.1	9.5	9.9	8.4	8.7	17.4	16.5	16.9	20.3	17.9	19.1
18	10.6	9.9	10.2	12.0	9.4	10.2	17.1	16.1	16.7	21.3	20.1	20.5
19	10.4	9.9	10.1	12.6	11.1	11.7	17.1	15.8	16.6	21.5	20.9	21.1
20	10.1	9.2	9.8	12.7	11.8	12.2	17.1	15.7	16.4	22.7	20.8	21.7
21	9.8	8.7	9.3	12.4	11.8	12.2	17.4	16.0	16.8	23.3	21.6	22.4
22	9.2	7.2	8.2	12.7	11.8	12.2	18.7	16.6	17.4	24.1	22.1	22.9
23	7.6	6.5	7.1	12.7	11.9	12.3	20.2	18.3	19.0	24.7	23.3	23.9
24	7.2	6.3	6.8	13.2	12.2	12.5	19.9	18.9	19.4	24.6	23.9	24.1
25	6.6	6.0	6.3	14.1	12.9	13.3	19.9	17.6	19.1	24.0	23.4	23.8
26	7.2	6.3	6.7	13.4	11.8	12.9	19.8	18.4	19.2	23.8	22.9	23.4
27	7.8	6.5	6.9	12.7	10.7	11.8	20.3	19.1	19.6	23.7	21.8	23.0
28	8.4	7.3	7.7	11.1	10.2	10.6	19.6	18.0	18.9	23.9	21.9	22.9
29	---	---	---	12.1	10.5	11.2	18.5	16.7	17.6	25.0	22.8	23.8
30	---	---	---	13.9	11.7	12.3	16.8	14.7	16.2	25.7	24.1	24.7
31	---	---	---	14.2	12.2	12.9	---	---	---	26.2	24.6	25.4
MONTH	11.7	6.0	9.2	14.2	7.0	10.3	20.6	13.1	17.5	26.2	12.8	21.2

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	26.8	25.0	25.8	28.3	27.4	27.7	---	---	---	---	---	---
2	27.4	25.9	26.6	28.7	27.3	27.8	---	---	---	---	---	---
3	27.4	26.4	26.9	28.7	27.5	28.0	---	---	---	---	---	---
4	27.5	26.2	26.9	29.1	27.0	28.0	---	---	---	---	---	---
5	26.9	25.7	26.4	29.5	27.0	28.2	---	---	---	---	---	---
6	27.3	25.6	26.4	30.9	28.0	29.3	---	---	---	---	---	---
7	28.1	26.1	26.8	31.2	29.5	30.5	---	---	---	---	---	---
8	29.8	27.0	27.9	30.6	29.2	29.8	---	---	---	---	---	---
9	30.5	28.0	28.8	29.9	27.9	29.1	---	---	---	---	---	---
10	29.1	27.3	28.3	30.4	28.9	29.7	---	---	---	---	---	---
11	27.9	26.2	27.0	30.1	28.1	29.2	---	---	---	---	---	---
12	26.8	24.8	25.6	29.2	26.2	28.1	---	---	---	---	---	---
13	25.9	24.6	25.3	---	---	---	---	---	---	---	---	---
14	26.9	25.0	25.8	---	---	---	---	---	---	---	---	---
15	26.5	25.8	26.1	---	---	---	---	---	---	---	---	---
16	25.9	23.8	24.9	---	---	---	---	---	---	---	---	---
17	24.7	23.3	23.9	---	---	---	---	---	---	---	---	---
18	23.6	22.6	23.2	---	---	---	---	---	---	---	---	---
19	23.4	22.5	23.1	---	---	---	---	---	---	---	---	---
20	23.5	22.2	22.9	---	---	---	---	---	---	---	---	---
21	22.9	22.5	22.7	---	---	---	---	---	---	---	---	---
22	23.9	22.3	22.9	---	---	---	---	---	---	---	---	---
23	24.7	22.7	23.6	---	---	---	---	---	---	---	---	---
24	25.5	23.3	24.3	---	---	---	---	---	---	---	---	---
25	25.9	24.2	25.0	---	---	---	---	---	---	---	---	---
26	27.1	25.2	26.0	---	---	---	---	---	---	---	---	---
27	27.7	26.4	26.9	---	---	---	---	---	---	---	---	---
28	27.8	26.9	27.2	---	---	---	---	---	---	---	---	---
29	28.1	27.1	27.4	---	---	---	---	---	---	---	---	---
30	28.5	27.6	27.9	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	30.5	22.2	25.8	---	---	---	---	---	---	---	---	---

02043120 ALBEMARLE AND CHESAPEAKE CANAL NEAR PRINCESS ANNE, VA--Continued

SALINITY (PARTS PER THOUSAND), WATER YEAR OCTOBER 1998 TO JULY 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	2.0	1.2	1.4	3.2	2.3	2.7	5.0	4.4	4.7	3.0	2.0	2.6
2	2.0	1.6	1.8	3.2	2.6	2.8	5.2	4.3	4.6	3.3	1.4	2.7
3	1.7	1.4	1.6	3.6	2.7	3.2	5.6	4.2	4.5	2.8	2.3	2.5
4	1.4	1.3	1.4	4.3	3.0	3.7	5.1	4.3	4.7	2.9	2.4	2.6
5	1.5	1.1	1.3	4.7	3.9	4.4	5.0	4.5	4.7	2.9	2.3	2.7
6	1.6	1.1	1.3	5.3	4.2	4.7	4.9	4.2	4.4	2.8	1.9	2.3
7	1.6	1.2	1.4	4.8	4.4	4.6	4.8	4.0	4.3	2.3	2.0	2.1
8	1.4	1.2	1.3	4.5	4.2	4.3	4.8	4.0	4.3	2.6	1.3	2.2
9	1.8	1.3	1.6	4.6	4.1	4.3	5.5	4.0	4.8	2.5	2.0	2.3
10	2.2	1.5	1.9	4.7	3.3	4.1	5.3	4.6	4.9	2.8	2.2	2.4
11	2.1	1.6	1.9	4.0	2.8	3.3	5.6	4.6	5.1	2.5	1.9	2.2
12	2.0	1.8	1.9	4.7	3.3	4.1	5.7	4.6	5.1	2.1	1.9	2.0
13	2.2	1.8	1.9	4.8	4.0	4.5	6.1	4.3	5.1	2.1	1.7	2.0
14	1.9	1.7	1.8	5.0	4.2	4.5	6.6	4.3	5.9	2.3	1.8	2.1
15	2.0	1.7	1.9	4.7	4.1	4.3	6.6	4.8	5.7	2.4	1.7	2.0
16	2.3	1.8	2.1	4.6	4.1	4.3	7.2	4.9	6.0	2.3	1.5	1.9
17	2.4	1.9	2.1	4.9	4.0	4.5	5.8	4.5	5.2	2.3	1.2	1.9
18	2.0	1.5	1.8	5.2	4.6	4.9	5.0	4.2	4.5	2.6	1.5	1.8
19	1.6	1.3	1.4	5.1	4.5	4.8	4.5	3.7	4.1	2.2	1.7	2.0
20	1.7	1.3	1.5	4.9	4.1	4.5	4.7	3.3	4.0	2.4	.6	1.9
21	1.7	1.5	1.6	5.1	4.5	4.8	5.0	2.7	3.7	2.1	1.5	1.8
22	2.8	1.6	2.0	5.5	4.4	4.7	4.3	2.8	3.4	2.1	1.4	1.7
23	2.7	2.2	2.4	4.9	4.2	4.5	4.6	3.5	4.2	2.2	1.3	1.7
24	2.3	1.9	2.1	5.2	3.9	4.4	5.0	4.4	4.7	2.3	1.6	1.8
25	1.9	1.6	1.7	5.3	4.2	4.7	5.2	4.2	4.8	2.5	1.4	2.1
26	1.8	1.6	1.7	5.3	4.1	4.7	5.6	2.9	4.7	2.1	.5	1.7
27	2.4	1.7	2.1	5.1	4.6	4.8	4.1	1.3	2.7	1.9	.7	1.4
28	2.6	1.9	2.2	5.1	4.5	4.8	4.1	2.4	3.3	1.4	.7	1.1
29	2.6	1.8	2.3	5.0	4.4	4.7	4.3	3.0	3.7	1.7	1.2	1.5
30	2.7	2.2	2.5	5.0	4.3	4.7	3.6	2.7	3.1	1.8	.8	1.6
31	2.8	2.0	2.5	---	---	---	3.1	2.3	2.9	2.0	.7	1.6
MONTH	2.8	1.1	1.8	5.5	2.3	4.3	7.2	1.3	4.4	3.3	.5	2.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	1.9	1.0	1.5	2.3	1.8	2.1	1.8	1.5	1.7	3.6	2.3	2.8
2	1.7	1.4	1.6	2.1	1.6	1.9	1.9	1.1	1.7	4.7	1.8	3.8
3	1.6	1.1	1.4	1.8	1.6	1.7	2.4	.8	1.8	4.8	1.8	3.8
4	1.6	1.2	1.5	1.9	1.7	1.8	2.1	1.6	1.8	4.2	2.8	3.6
5	2.0	1.3	1.6	2.1	1.2	1.8	2.2	1.2	1.8	3.9	3.1	3.6
6	1.5	1.2	1.3	2.0	1.6	1.8	2.0	1.2	1.7	4.1	3.5	3.8
7	1.6	1.0	1.4	2.8	1.7	2.3	1.8	1.4	1.7	3.8	3.1	3.5
8	1.9	1.4	1.6	3.0	2.2	2.5	1.7	1.4	1.6	3.4	3.0	3.2
9	1.9	1.4	1.6	2.6	1.7	2.2	1.6	1.4	1.5	3.4	2.9	3.2
10	1.8	1.5	1.6	3.0	2.4	2.8	1.9	1.1	1.5	3.5	2.9	3.2
11	2.0	1.3	1.7	3.1	2.4	2.7	1.8	1.0	1.5	3.6	2.9	3.2
12	2.0	1.4	1.6	3.4	2.4	2.8	2.5	1.5	2.1	3.5	3.1	3.2
13	2.2	1.6	1.9	3.0	2.3	2.6	3.0	1.4	2.3	3.6	3.0	3.2
14	2.4	1.8	2.1	2.9	2.3	2.5	2.4	1.3	1.9	4.1	3.0	3.5
15	2.0	1.6	1.8	3.5	2.3	3.0	1.8	.6	1.4	4.6	1.2	3.7
16	2.0	1.7	1.8	3.2	1.1	2.6	1.9	1.3	1.6	5.0	1.6	4.0
17	1.8	1.6	1.7	3.0	1.6	2.3	1.5	1.3	1.4	4.6	2.7	3.7
18	1.9	1.5	1.7	2.2	1.6	1.9	1.6	1.0	1.4	4.8	3.2	3.9
19	2.2	1.3	1.9	2.5	1.4	2.0	1.7	1.0	1.4	4.4	3.7	4.1
20	2.6	1.7	2.2	2.4	.9	1.9	1.3	1.1	1.2	4.2	3.6	3.8
21	2.9	1.9	2.4	2.2	1.3	1.8	1.5	.8	1.2	4.1	3.5	3.7
22	3.1	2.5	2.8	2.1	1.6	1.9	1.3	1.1	1.2	3.7	3.6	3.6
23	2.7	2.1	2.4	2.0	.8	1.7	1.2	1.2	1.2	3.6	3.3	3.5
24	3.0	2.2	2.6	2.1	1.5	1.8	1.5	1.0	1.3	3.3	2.4	2.9
25	2.8	2.1	2.3	2.1	1.5	1.9	1.5	1.0	1.3	3.3	2.6	3.0
26	2.6	2.0	2.3	2.6	1.4	2.2	1.5	1.3	1.4	3.5	2.9	3.3
27	2.1	1.9	2.0	3.0	1.7	2.6	1.5	1.1	1.3	3.9	3.0	3.5
28	2.2	1.8	2.0	2.7	1.7	2.2	1.7	1.2	1.5	3.6	3.0	3.2
29	---	---	---	1.9	1.5	1.7	2.1	1.2	1.8	3.5	3.1	3.3
30	---	---	---	1.8	1.4	1.6	3.0	1.2	2.2	3.7	3.2	3.4
31	---	---	---	1.8	1.4	1.7	---	---	---	3.6	3.1	3.3
MONTH	3.1	1.0	1.9	3.5	.8	2.1	3.0	.6	1.6	5.0	1.2	3.5

02043120 ALBEMARLE AND CHESAPEAKE CANAL NEAR PRINCESS ANNE, VA--Continued

SALINITY (PARTS PER THOUSAND), WATER YEAR OCTOBER 1998 TO JULY 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	3.7	3.1	3.4	3.3	2.6	2.8	---	---	---	---	---	---
2	3.4	2.9	3.2	3.5	2.6	3.0	---	---	---	---	---	---
3	3.3	2.9	3.1	3.9	2.9	3.4	---	---	---	---	---	---
4	3.8	3.1	3.4	3.8	3.2	3.5	---	---	---	---	---	---
5	3.9	3.3	3.7	4.1	3.1	3.4	---	---	---	---	---	---
6	4.0	3.6	3.8	4.0	3.0	3.6	---	---	---	---	---	---
7	3.9	3.5	3.7	4.1	3.2	3.8	---	---	---	---	---	---
8	3.8	3.3	3.5	4.2	3.5	3.9	---	---	---	---	---	---
9	4.0	3.2	3.5	4.0	3.1	3.5	---	---	---	---	---	---
10	4.5	3.4	3.9	3.7	3.1	3.5	---	---	---	---	---	---
11	4.8	3.9	4.4	4.1	3.2	3.7	---	---	---	---	---	---
12	5.4	4.3	4.8	5.0	3.5	4.3	---	---	---	---	---	---
13	5.4	4.6	4.9	---	---	---	---	---	---	---	---	---
14	4.9	3.7	4.4	---	---	---	---	---	---	---	---	---
15	5.2	3.8	4.1	---	---	---	---	---	---	---	---	---
16	5.7	4.1	5.0	---	---	---	---	---	---	---	---	---
17	6.0	4.6	5.4	---	---	---	---	---	---	---	---	---
18	5.9	3.9	5.2	---	---	---	---	---	---	---	---	---
19	6.5	4.6	5.5	---	---	---	---	---	---	---	---	---
20	6.8	5.0	5.8	---	---	---	---	---	---	---	---	---
21	5.8	4.8	5.3	---	---	---	---	---	---	---	---	---
22	6.5	4.5	5.6	---	---	---	---	---	---	---	---	---
23	6.3	5.0	5.7	---	---	---	---	---	---	---	---	---
24	6.3	5.3	5.7	---	---	---	---	---	---	---	---	---
25	6.2	5.0	5.4	---	---	---	---	---	---	---	---	---
26	5.5	4.8	5.1	---	---	---	---	---	---	---	---	---
27	5.4	4.4	4.9	---	---	---	---	---	---	---	---	---
28	5.1	3.7	4.2	---	---	---	---	---	---	---	---	---
29	4.1	3.1	3.5	---	---	---	---	---	---	---	---	---
30	4.0	2.9	3.3	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	6.8	2.9	4.4	---	---	---	---	---	---	---	---	---

02043200 WEST NECK CREEK AT INDIAN RIVER ROAD AT PUNGO, VA

LOCATION.--Lat 36°43'16", long 76°02'03", Virginia Beach City, Virginia, Hydrologic Unit 03010205, on upstream side of bridge on West Neck Road, approximately 0.9 mi west-southwest of Pungo.

DRAINAGE AREA.--Indeterminate.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1998 to July 1999 (discontinued).

GAGE.--Water-stage recorder and acoustic velocity meter. Datum of gage is at sea level. Satellite telemetry at station.

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

DISCHARGE, CUBIC FEET PER SECOND, FOR PERIOD JANUARY 1998 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	87	56	-105	45	17	12	45	e84
2	---	---	---	---	33	66	41	26	-2.8	20	45	e-9.4
3	---	---	---	---	68	56	75	13	46	20	45	e-72
4	---	---	---	---	e364	38	119	10	31	-4.9	42	e10
5	---	---	---	---	---	39	162	-37	34	42	41	e85
6	---	---	---	---	---	44	75	105	29	29	39	7.9
7	---	---	---	---	---	34	24	15	35	41	31	-57
8	---	---	---	---	---	1.2	-47	57	28	22	27	6.9
9	---	---	---	---	---	-116	-56	192	25	31	27	94
10	---	---	---	---	---	183	120	133	32	35	11	32
11	---	---	---	---	e-44	212	88	111	40	48	7.4	-.63
12	---	---	---	---	-48	95	51	118	22	36	18	-10
13	---	---	---	---	124	22	27	150	47	29	32	-6.4
14	---	---	---	---	113	2.7	-10	121	44	27	25	-.59
15	---	---	---	---	67	43	16	73	-8.0	24	17	-13
16	---	---	---	---	27	41	-45	36	17	25	2.5	-23
17	---	---	---	---	17	43	-105	19	44	135	-25	-8.0
18	---	---	---	---	82	76	85	44	55	95	-9.2	9.3
19	---	---	---	---	101	62	-11	23	34	-3.9	36	23
20	---	---	---	---	112	66	60	24	34	-50	43	26
21	---	---	---	---	83	94	43	40	30	-29	17	-2.5
22	---	---	---	---	57	81	78	42	22	8.0	1.8	-2.7
23	---	---	---	---	44	65	103	37	40	-7.6	-9.3	49
24	---	---	---	---	146	22	59	24	113	5.9	-33	21
25	---	---	---	---	100	46	27	22	120	42	-16	-9.4
26	---	---	---	---	62	-3.9	-18	40	29	25	e-8.1	-19
27	---	---	---	---	26	-19	47	43	26	10	e50	-28
28	---	---	---	---	15	-37	52	35	162	3.6	116	-30
29	---	---	---	---	---	33	15	16	116	2.7	10	.23
30	---	---	---	---	---	.95	13	9.3	16	-8.4	102	-17
31	---	---	---	190	---	-72	---	-8.4	---	14	93	---
TOTAL	---	---	---	190	1636	1273.95	983	1577.9	1277.2	678.4	823.1	139.71
MEAN	---	---	---	190	74.4	41.1	32.8	50.9	42.6	21.9	26.6	4.66
MAX	---	---	---	190	364	212	162	192	162	135	116	94
MIN	---	---	---	190	-48	-116	-105	-37	-8.0	-50	-33	-72

STATISTICS OF MONTHLY MEAN DATA FOR PERIOD JANUARY 1998 TO SEPTEMBER 1998

MEAN	---	---	---	---	---	41.1	32.8	50.9	42.6	21.9	26.6	4.66
MAX	---	---	---	---	---	41.1	32.8	50.9	42.6	21.9	26.6	4.66
(WY)	---	---	---	---	---	1998	1998	1998	1998	1998	1998	1998
MIN	---	---	---	---	---	41.1	32.8	50.9	42.6	21.9	26.6	4.66
(WY)	---	---	---	---	---	1998	1998	1998	1998	1998	1998	1998

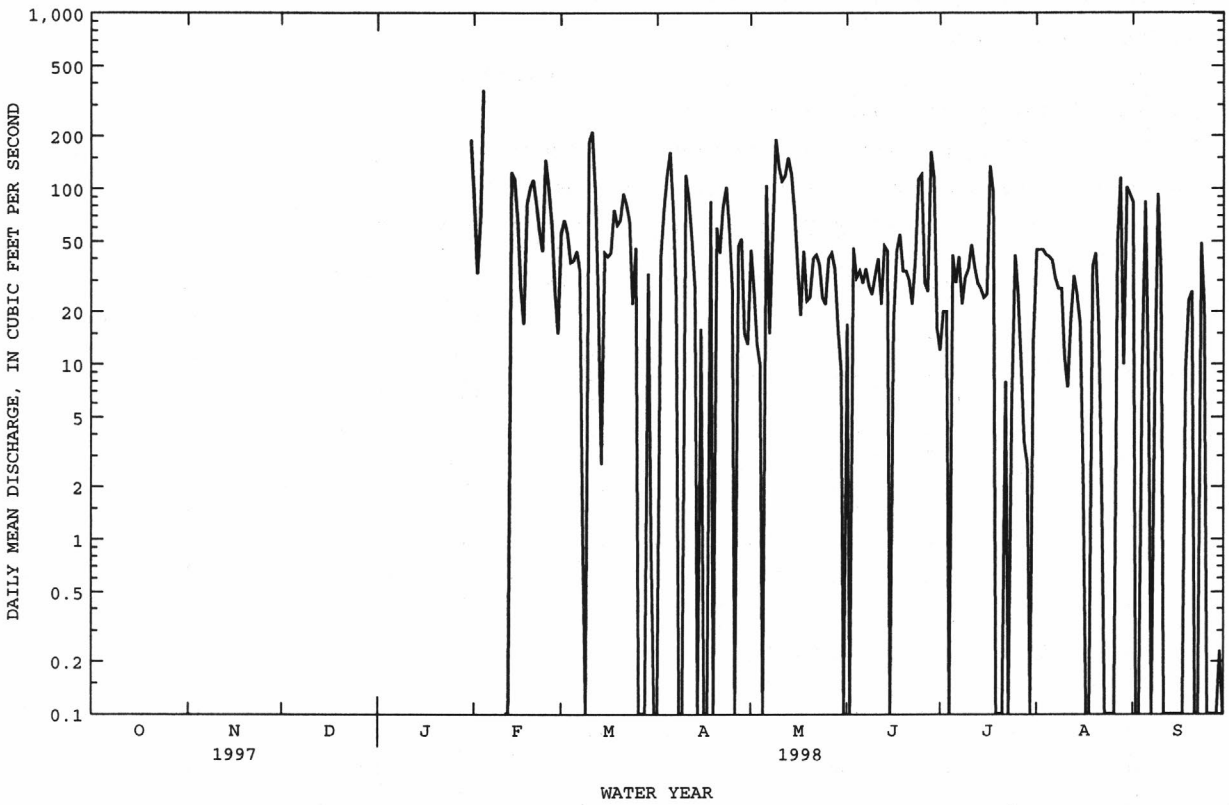
SUMMARY STATISTICS FOR PERIOD JANUARY 1998 TO SEPTEMBER 1998

HIGHEST DAILY MEAN	364	Feb 4
LOWEST DAILY MEAN	-116	Mar 9
ANNUAL SEVEN-DAY MINIMUM	-29	Mar 26
INSTANTANEOUS PEAK FLOW	704	Feb 4
INSTANTANEOUS PEAK STAGE	2.77	Feb 5
INSTANTANEOUS LOW FLOW	-227	Mar 9
10 PERCENT EXCEEDS	106	
50 PERCENT EXCEEDS	29	
90 PERCENT EXCEEDS	-17	

e Estimated.

Note.--Negative values indicate reverse flow.

02043200 WEST NECK CREEK AT INDIAN RIVER ROAD AT PUNGO, VA--Continued



02043200 WEST NECK CREEK AT INDIAN RIVER ROAD AT PUNGO, VA--Continued

DISCHARGE, CUBIC FEET PER SECOND, FOR PERIOD OCTOBER 1998 TO JULY 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	-11	12	-6.7	19	33	39	15	68	-11	e-181	---	---
2	18	14	-3.9	15	13	-5.7	32	87	-36	-44	---	---
3	-15	25	-15	8.8	8.4	-77	29	90	-26	e74	---	---
4	-2.9	-.63	-9.5	36	35	32	e17	57	16	e51	---	---
5	28	9.2	6.2	26	28	19	45	27	17	8.5	---	---
6	11	21	-1.2	-2.3	-7.5	-11	26	1.0	12	e1.8	---	---
7	2.7	7.7	-6.2	-2.6	-8.4	43	---	-8.4	-4.3	-2.1	---	---
8	-40	-3.0	-11	9.5	33	29	---	-18	-12	e-2.6	---	---
9	40	-11	45	17	-1.0	21	-14	6.1	.36	-.85	---	---
10	21	-17	16	34	-.34	57	58	19	23	-17	---	---
11	23	-57	6.2	5.3	-5.1	41	38	15	42	---	---	---
12	21	-4.4	-2.0	-12	-52	37	141	8.9	47	---	---	---
13	26	-15	73	-4.7	60	32	84	9.1	e20	---	---	---
14	14	-20	90	17	32	24	34	57	15	---	---	---
15	28	-26	43	49	16	121	-12	101	---	---	---	---
16	23	-21	e36	27	7.4	88	19	108	---	---	---	---
17	7.7	-11	e31	10	5.1	9.1	-30	62	---	---	---	---
18	-5.7	9.9	27	5.9	45	-15	16	44	---	---	---	---
19	-19	.52	6.8	34	67	12	17	35	---	---	---	---
20	-5.5	.80	9.2	16	79	e16	-2.6	35	---	---	---	---
21	5.7	14	13	12	61	---	15	5.3	---	---	---	---
22	26	-8.4	16	18	65	---	-9.6	-6.8	e53	---	---	---
23	25	-13	26	-4.5	37	---	-25	-33	31	---	---	---
24	11	-13	89	45	47	---	44	-124	e2.8	---	---	---
25	2.5	-18	83	101	43	---	11	22	e-12	---	---	---
26	.26	-3.0	49	46	39	41	-8.0	32	-7.3	---	---	---
27	20	-1.1	31	5.8	6.1	51	15	28	-53	---	---	---
28	17	-17	58	19	3.8	64	27	2.5	e-75	---	---	---
29	17	-24	66	40	---	31	42	-1.3	-84	---	---	---
30	15	-21	58	33	---	17	56	-3.7	e-91	---	---	---
31	13	---	28	46	---	1.3	---	-5.9	---	---	---	---
TOTAL	316.76	-190.41	850.9	669.2	689.46	---	---	718.8	---	---	---	---
MEAN	10.2	-6.35	27.4	21.6	24.6	---	---	23.2	---	---	---	---
MAX	40	25	90	101	79	---	---	108	---	---	---	---
MIN	-40	-57	-15	-12	-52	---	---	-124	---	---	---	---

STATISTICS OF MONTHLY MEAN DATA FOR PERIOD JANUARY 1998 TO JULY 1999

MEAN	10.2	-6.35	27.4	21.6	24.6	41.1	32.8	37.0	42.6	21.9	26.6	4.66
MAX	10.2	-6.35	27.4	21.6	24.6	41.1	32.8	50.9	42.6	21.9	26.6	4.66
(WY)	1999	1999	1999	1999	1999	1998	1998	1998	1998	1998	1998	1998
MIN	10.2	-6.35	27.4	21.6	24.6	41.1	32.8	23.2	42.6	21.9	26.6	4.66
(WY)	1999	1999	1999	1999	1999	1998	1998	1999	1998	1998	1998	1998

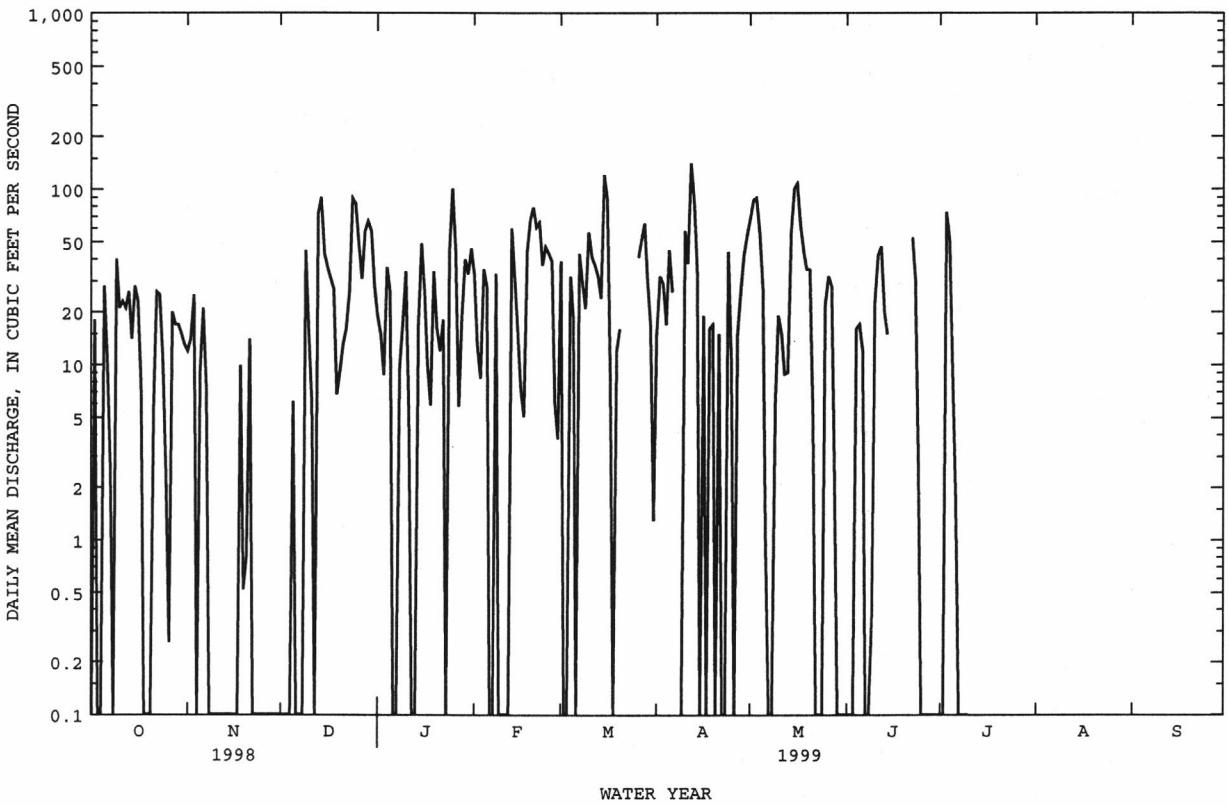
SUMMARY STATISTICS FOR PERIOD OCTOBER 1998 TO JULY 1999

HIGHEST DAILY MEAN	364	Feb 4 1998
LOWEST DAILY MEAN	-181	Jul 1 1999
ANNUAL SEVEN-DAY MINIMUM	-76	Jun 26 1999
INSTANTANEOUS PEAK FLOW	704	Feb 4 1998
INSTANTANEOUS PEAK STAGE	3.04	Jul 1 1999
INSTANTANEOUS LOW FLOW	-269	Jul 1 1999
10 PERCENT EXCEEDS	83	
50 PERCENT EXCEEDS	21	
90 PERCENT EXCEEDS	-17	

e Estimated.

Note.--Negative values indicate reverse flow.

02043200 WEST NECK CREEK AT INDIAN RIVER ROAD AT PUNGO, VA--Continued



02043200 WEST NECK CREEK AT INDIAN RIVER ROAD AT PUNGO, VA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--December 1997 to July 1999 (discontinued).

PERIOD OF DAILY RECORD.--

SALINITY: December 1997 to July 1999.

WATER TEMPERATURE: December 1997 to July 1999.

INSTRUMENTATION.--Water-quality monitor.

REMARKS.--Station operated in cooperation with North Carolina Division of Water Resources.

EXTREMES FOR PERIOD OF RECORD.--

SALINITY: Maximum recorded, 17.5 parts per thousand, November 3, 1998; minimum recorded, 0.1 parts per thousand, several occurrences.

WATER TEMPERATURE: Maximum recorded, 31.2°C, July 23, 24, 1998; minimum recorded, 2.4°C, January 1, 1998.

TEMPERATURE, WATER (DEG. C), WATER YEAR DECEMBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	---	---	---	---	---	---	4.4	2.4	3.5
2	---	---	---	---	---	---	---	---	---	3.9	2.8	3.4
3	---	---	---	---	---	---	---	---	---	5.4	3.8	4.3
4	---	---	---	---	---	---	9.3	8.6	8.9	7.1	4.9	5.8
5	---	---	---	---	---	---	9.9	8.9	9.4	8.8	6.6	7.6
6	---	---	---	---	---	---	9.0	7.4	8.1	12.1	8.6	10.0
7	---	---	---	---	---	---	7.8	5.4	7.3	13.8	11.1	12.2
8	---	---	---	---	---	---	7.3	4.7	6.5	15.7	13.3	14.5
9	---	---	---	---	---	---	6.8	5.7	6.1	15.7	15.1	15.4
10	---	---	---	---	---	---	7.5	6.1	6.4	15.1	11.6	13.0
11	---	---	---	---	---	---	8.5	7.5	7.9	11.7	8.7	10.7
12	---	---	---	---	---	---	8.4	7.9	8.2	10.2	8.5	9.6
13	---	---	---	---	---	---	8.0	7.3	7.6	9.9	9.2	9.5
14	---	---	---	---	---	---	7.5	6.4	7.0	9.9	8.4	8.9
15	---	---	---	---	---	---	6.4	5.7	6.1	9.5	7.9	8.4
16	---	---	---	---	---	---	6.2	5.5	5.9	10.2	7.6	9.4
17	---	---	---	---	---	---	6.7	5.9	6.3	7.6	6.6	6.9
18	---	---	---	---	---	---	6.7	5.7	6.0	7.4	6.5	7.0
19	---	---	---	---	---	---	6.7	5.4	5.9	6.8	5.5	5.8
20	---	---	---	---	---	---	7.2	6.7	7.0	7.1	5.9	6.4
21	---	---	---	---	---	---	7.3	6.8	7.1	6.2	4.9	5.5
22	---	---	---	---	---	---	7.2	6.6	6.8	5.7	4.6	5.2
23	---	---	---	---	---	---	8.6	7.2	8.1	8.2	5.5	6.4
24	---	---	---	---	---	---	8.8	8.3	8.6	10.1	8.2	9.5
25	---	---	---	---	---	---	10.5	8.7	9.7	9.1	7.2	7.7
26	---	---	---	---	---	---	10.4	9.7	10.1	7.3	5.7	6.5
27	---	---	---	---	---	---	10.1	8.0	9.3	7.6	5.7	6.5
28	---	---	---	---	---	---	8.0	5.9	6.9	---	---	---
29	---	---	---	---	---	---	6.6	4.8	5.6	---	---	---
30	---	---	---	---	---	---	6.5	5.8	6.2	---	---	---
31	---	---	---	---	---	---	5.8	4.4	5.1	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

02043200 WEST NECK CREEK AT INDIAN RIVER ROAD AT PUNGO, VA--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR DECEMBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	13.0	12.1	12.5	21.5	20.0	20.5	19.0	17.7	18.3
2	---	---	---	12.5	11.3	11.6	21.4	19.5	20.4	20.0	17.3	18.5
3	---	---	---	11.3	10.4	10.8	20.8	17.9	18.7	21.5	18.6	19.9
4	---	---	---	10.4	9.2	9.7	17.9	12.6	15.1	22.8	20.3	21.4
5	---	---	---	9.9	8.3	9.2	12.6	10.6	11.7	21.6	20.3	20.9
6	---	---	---	9.5	7.9	8.7	13.4	10.2	11.8	21.7	19.7	20.8
7	---	---	---	10.5	9.0	9.5	14.4	12.5	13.1	21.8	19.7	20.7
8	---	---	---	11.9	10.2	10.8	18.0	13.7	15.4	22.3	19.9	21.5
9	---	---	---	14.1	11.9	13.3	18.6	18.0	18.2	19.9	18.1	18.5
10	---	---	---	13.7	11.9	13.0	18.1	14.1	16.1	18.6	17.6	18.1
11	---	---	---	11.9	8.2	9.7	14.8	11.9	13.5	18.3	16.5	17.2
12	---	---	---	8.6	5.4	6.9	14.7	12.1	13.8	16.5	15.6	16.2
13	---	---	---	7.6	4.8	6.3	14.3	12.5	13.2	15.6	14.3	14.8
14	---	---	---	9.9	6.4	8.1	15.9	14.1	15.0	16.2	14.0	15.0
15	---	---	---	9.8	7.9	8.9	17.5	15.1	15.8	18.3	14.8	16.4
16	---	---	---	9.4	7.1	8.3	20.2	17.0	18.7	20.0	16.8	17.7
17	---	---	---	7.9	7.0	7.6	20.2	19.0	19.6	21.1	19.5	20.1
18	---	---	---	11.5	7.8	9.5	20.1	16.7	18.6	22.4	20.7	21.6
19	12.9	11.2	12.0	13.3	11.3	12.2	18.7	15.2	16.5	23.8	21.0	22.1
20	12.3	11.0	11.5	13.3	12.6	12.9	19.1	17.3	18.2	24.8	23.3	24.1
21	11.2	9.6	10.6	13.6	11.8	12.6	18.6	16.0	17.1	24.7	22.5	23.5
22	10.8	9.1	9.8	12.3	11.0	11.4	17.5	14.0	15.8	24.2	22.3	23.3
23	10.5	9.5	10.0	11.2	9.9	10.5	15.1	13.3	14.1	23.8	20.7	22.6
24	10.2	8.8	9.4	11.9	9.3	10.5	16.8	13.9	15.1	21.1	18.8	20.0
25	10.5	8.1	9.3	11.3	9.3	10.2	17.0	15.6	16.0	24.3	20.0	21.3
26	11.0	8.7	10.1	14.3	10.5	11.8	20.7	16.8	18.7	25.4	22.5	23.7
27	10.9	9.7	10.1	17.5	14.3	15.5	20.3	15.9	18.3	24.6	22.6	23.7
28	12.5	10.6	11.3	18.9	16.4	17.5	16.2	12.9	15.2	23.7	22.6	23.1
29	---	---	---	19.6	17.5	18.2	17.9	14.4	15.8	26.7	22.5	23.6
30	---	---	---	21.7	19.0	20.1	19.2	16.1	17.2	28.0	24.7	25.9
31	---	---	---	22.4	20.6	21.3	---	---	---	29.2	26.6	27.8
MONTH	---	---	---	22.4	4.8	11.6	21.5	10.2	16.2	29.2	14.0	20.7

TEMPERATURE, WATER (DEG. C), WATER YEAR DECEMBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	28.5	26.7	27.5	27.4	26.1	26.7	27.6	26.0	26.6	26.7	25.5	26.0
2	28.2	24.2	26.5	26.9	25.1	26.0	27.1	24.9	26.1	26.1	25.0	25.4
3	27.7	24.9	26.0	27.0	25.0	26.0	27.0	25.1	26.1	27.8	25.9	27.0
4	26.3	24.0	25.0	29.0	25.8	27.0	27.1	24.6	25.9	27.2	24.9	25.3
5	25.5	23.5	24.6	28.3	26.3	27.2	26.4	24.5	25.6	25.2	23.6	24.5
6	23.5	21.9	22.9	26.9	24.7	25.8	26.5	24.9	25.6	25.7	23.1	23.9
7	23.2	20.4	22.1	26.8	24.3	25.7	26.9	25.3	26.1	27.8	25.4	26.3
8	22.2	19.5	21.0	25.4	24.3	25.0	27.5	26.2	26.7	27.7	23.3	26.0
9	21.6	20.0	20.7	26.7	25.3	25.8	28.6	27.1	27.7	23.3	20.4	21.4
10	21.4	20.1	20.8	27.8	25.7	26.6	30.0	27.5	28.3	21.1	19.2	20.1
11	21.4	20.3	20.8	27.4	25.3	26.6	29.3	28.1	28.7	20.5	19.4	19.8
12	24.4	21.0	21.9	27.1	25.1	26.0	29.1	28.0	28.3	21.5	20.0	20.5
13	25.0	23.4	24.1	27.1	24.6	25.6	28.5	27.4	28.0	22.8	21.4	22.0
14	24.4	22.1	23.1	27.5	25.1	26.0	28.3	26.8	27.5	24.4	22.4	23.2
15	27.8	23.5	25.6	27.7	25.6	26.2	27.4	26.4	26.9	25.8	23.1	24.2
16	28.0	26.4	26.9	27.9	25.7	27.0	27.8	26.4	26.9	26.4	24.9	25.4
17	26.8	25.6	26.4	26.0	25.0	25.4	30.3	26.9	28.2	27.5	24.8	26.0
18	26.4	24.5	25.4	27.0	24.9	25.9	30.0	28.2	28.9	26.6	25.2	25.8
19	26.1	24.6	25.3	27.6	25.5	26.5	28.4	26.7	27.6	25.7	24.6	25.3
20	25.8	23.8	24.6	30.8	27.5	28.9	26.8	24.2	25.7	25.9	24.0	25.1
21	26.5	24.8	25.6	30.8	29.6	30.1	27.1	24.6	25.4	26.6	24.4	25.2
22	27.6	26.0	26.5	30.6	29.3	29.8	28.0	25.0	26.0	26.6	25.6	25.9
23	27.4	26.3	26.7	31.2	29.7	30.2	29.2	26.5	27.5	25.7	22.9	24.4
24	27.2	24.4	25.8	31.2	29.0	29.7	29.6	27.4	28.5	23.0	21.9	22.4
25	26.6	23.7	25.1	29.6	27.5	28.7	29.3	27.7	28.5	23.4	21.2	22.1
26	27.8	25.5	26.0	28.3	26.0	26.7	28.9	27.6	27.9	23.8	22.3	22.8
27	28.5	27.6	28.0	27.5	25.3	26.0	27.9	25.1	26.9	25.0	23.2	23.7
28	28.7	23.9	25.7	28.1	26.6	27.3	25.1	23.8	24.5	25.1	24.1	24.6
29	25.9	23.3	24.4	29.1	26.7	27.4	25.7	24.6	25.1	25.1	23.8	24.2
30	27.3	25.3	26.0	30.9	28.5	29.4	26.1	25.2	25.6	24.4	22.7	23.8
31	---	---	---	30.5	27.6	29.4	26.5	25.2	25.8	---	---	---
MONTH	28.7	19.5	24.7	31.2	24.3	27.1	30.3	23.8	26.9	27.8	19.2	24.1

02043200 WEST NECK CREEK AT INDIAN RIVER ROAD AT PUNGO, VA--Continued

SALINITY (PARTS PER THOUSAND), WATER YEAR DECEMBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	---	---	---	---	---	---	.6	.5	.6
2	---	---	---	---	---	---	---	---	---	.7	.6	.6
3	---	---	---	---	---	---	---	---	---	.8	.6	.7
4	---	---	---	---	---	---	3.2	2.8	2.9	.7	.6	.6
5	---	---	---	---	---	---	2.8	1.9	2.4	.6	.5	.5
6	---	---	---	---	---	---	2.8	2.2	2.6	.6	.5	.6
7	---	---	---	---	---	---	2.9	1.9	2.7	.7	.5	.6
8	---	---	---	---	---	---	2.8	2.0	2.5	.9	.6	.7
9	---	---	---	---	---	---	2.5	2.0	2.2	.8	.5	.7
10	---	---	---	---	---	---	3.0	2.1	2.6	.7	.4	.6
11	---	---	---	---	---	---	3.7	2.3	3.2	.7	.5	.7
12	---	---	---	---	---	---	5.1	3.0	4.5	.8	.7	.2
13	---	---	---	---	---	---	5.9	4.3	5.6	1.3	.7	1.0
14	---	---	---	---	---	---	7.0	5.2	6.0	3.0	1.1	2.4
15	---	---	---	---	---	---	7.6	5.4	6.7	3.8	1.7	2.4
16	---	---	---	---	---	---	7.8	7.0	7.4	2.7	.2	.6
17	---	---	---	---	---	---	8.3	7.1	7.8	.2	.1	.2
18	---	---	---	---	---	---	8.8	7.4	8.0	.2	.2	.2
19	---	---	---	---	---	---	9.8	7.2	8.9	.3	.2	.3
20	---	---	---	---	---	---	7.2	4.7	5.4	.5	.3	.4
21	---	---	---	---	---	---	6.1	4.6	5.4	.5	.3	.4
22	---	---	---	---	---	---	8.5	6.0	7.4	.5	.4	.4
23	---	---	---	---	---	---	8.6	5.6	7.6	.5	.4	.4
24	---	---	---	---	---	---	5.9	3.0	4.1	.4	.1	.2
25	---	---	---	---	---	---	6.0	3.0	3.9	.2	.2	.2
26	---	---	---	---	---	---	3.5	2.5	3.0	.3	.2	.2
27	---	---	---	---	---	---	2.7	1.7	2.3	.3	.3	.3
28	---	---	---	---	---	---	1.9	.7	1.5	---	---	---
29	---	---	---	---	---	---	1.4	.9	1.2	---	---	---
30	---	---	---	---	---	---	1.1	.5	.6	---	---	---
31	---	---	---	---	---	---	.7	.5	.6	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

SALINITY (PARTS PER THOUSAND), WATER YEAR DECEMBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	.3	.3	.3	.2	.2	.2	.3	.3	.3
2	---	---	---	.4	.3	.3	.2	.2	.2	.3	.3	.3
3	---	---	---	.4	.3	.3	.2	.2	.2	.3	.3	.3
4	---	---	---	.4	.3	.4	.2	.1	.2	.3	.3	.3
5	---	---	---	.3	.3	.3	.2	.1	.2	.3	.2	.3
6	---	---	---	.3	.3	.3	.2	.2	.2	.2	.2	.2
7	---	---	---	.3	.3	.3	.2	.2	.2	.2	.2	.2
8	---	---	---	.3	.3	.3	.2	.2	.2	.2	.2	.2
9	---	---	---	.3	.2	.2	.2	.2	.2	.2	.1	.1
10	---	---	---	.2	.2	.2	.2	.2	.2	.2	.1	.2
11	---	---	---	.2	.2	.2	.2	.2	.2	.2	.2	.2
12	---	---	---	.2	.2	.2	.3	.2	.3	.9	.2	.5
13	---	---	---	.2	.2	.2	.3	.3	.3	2.3	.8	1.4
14	---	---	---	.2	.2	.2	.3	.3	.3	1.4	.9	1.2
15	---	---	---	.2	.2	.2	.3	.3	.3	1.5	.8	1.2
16	---	---	---	.3	.2	.2	.3	.2	.3	1.2	.7	1.1
17	---	---	---	.3	.3	.3	.2	.2	.2	1.1	.9	1.0
18	---	---	---	.3	.2	.2	.3	.2	.2	1.1	.7	.8
19	.1	.1	.1	.2	.1	.2	.3	.2	.3	.8	.7	.8
20	.1	.1	.1	.2	.1	.2	.3	.2	.3	1.0	.8	.9
21	.1	.1	.1	.2	.1	.2	.3	.3	.3	.9	.6	.7
22	.1	.1	.1	.2	.1	.2	.3	.2	.3	.8	.6	.7
23	.1	.1	.1	.2	.2	.2	.3	.1	.2	.8	.6	.7
24	.2	.1	.1	.2	.2	.2	.3	.2	.2	.7	.6	.7
25	.3	.2	.2	.2	.2	.2	.3	.2	.3	.7	.6	.6
26	.4	.3	.3	.2	.2	.2	.3	.2	.3	.7	.5	.6
27	.4	.3	.3	.2	.2	.2	.3	.2	.3	.5	.4	.5
28	.3	.3	.3	.2	.2	.2	.3	.3	.3	.5	.4	.4
29	---	---	---	.2	.2	.2	.3	.3	.3	.6	.4	.4
30	---	---	---	.2	.2	.2	.3	.3	.3	.7	.4	.5
31	---	---	---	.2	.2	.2	---	---	---	.8	.7	.8
MONTH	---	---	---	.4	.1	.2	.3	.1	.2	2.3	.1	.6

02043200 WEST NECK CREEK AT INDIAN RIVER ROAD AT PUNGO, VA--Continued

SALINITY (PARTS PER THOUSAND), WATER YEAR DECEMBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	.8	.5	.7	.3	.3	.3	.7	.6	.7	.7	.7	.7
2	.7	.5	.7	.4	.3	.4	4.3	.7	1.9	.8	.7	.7
3	.7	.6	.6	.4	.4	.4	7.6	2.6	4.8	1.0	.8	.9
4	.6	.5	.5	.4	.4	.4	10.9	6.0	7.7	1.0	.6	.7
5	.6	.5	.5	.4	.4	.4	12.0	7.7	9.3	.7	.4	.5
6	.5	.4	.5	.4	.4	.4	12.6	9.6	10.8	.6	.4	.5
7	.5	.4	.5	.4	.3	.4	13.5	11.4	12.3	1.0	.6	.8
8	.6	.5	.5	.5	.4	.5	14.4	12.1	13.3	1.2	.7	1.0
9	.5	.4	.5	.5	.5	.5	15.0	12.7	13.8	.7	.6	.7
10	.5	.4	.5	.6	.5	.5	14.0	10.0	12.7	.8	.5	.7
11	.5	.4	.5	1.6	.6	1.1	10.9	8.7	9.8	.8	.6	.7
12	.5	.5	.5	2.9	1.5	2.3	9.7	7.6	8.5	.8	.7	.7
13	.5	.4	.5	3.3	2.3	2.9	11.8	7.7	9.0	.8	.7	.7
14	.5	.4	.4	3.1	2.4	2.7	11.5	8.6	10.2	.8	.6	.7
15	.6	.4	.5	3.3	2.0	2.6	11.0	8.5	9.6	.8	.6	.7
16	.6	.5	.6	2.8	1.6	2.1	10.3	8.5	9.3	.9	.7	.8
17	.6	.5	.5	2.6	.6	1.0	8.6	5.6	7.3	.9	.7	.8
18	.5	.5	.5	.7	.6	.7	5.9	4.3	5.1	.9	.7	.8
19	.5	.5	.5	.7	.6	.7	6.1	4.3	4.8	.8	.7	.8
20	.5	.5	.5	.7	.7	.7	11.6	4.1	7.5	1.5	.7	1.1
21	.5	.5	.5	.7	.7	.7	12.8	7.6	10.6	2.9	1.1	2.1
22	.5	.5	.5	.7	.7	.7	9.0	6.9	7.8	1.4	1.1	1.2
23	.5	.5	.5	.7	.7	.7	7.1	5.2	6.4	5.0	1.1	3.4
24	.5	.2	.4	.8	.7	.7	5.3	3.8	4.6	10.6	4.5	8.4
25	.3	.2	.3	.8	.7	.7	3.8	3.4	3.6	9.2	3.4	6.3
26	.3	.3	.3	.7	.5	.5	3.7	3.1	3.4	3.4	2.6	2.9
27	.3	.3	.3	.5	.5	.5	3.2	1.3	1.9	2.6	1.9	2.1
28	.4	.2	.3	.6	.5	.6	1.7	.9	1.2	1.9	1.7	1.8
29	.3	.2	.2	.6	.6	.6	1.4	1.0	1.1	1.7	1.5	1.6
30	.3	.3	.3	.7	.6	.7	1.3	.8	1.0	1.8	1.2	1.6
31	---	---	---	.8	.7	.7	.8	.7	.8	---	---	---
MONTH	.8	.2	.5	3.3	.3	.9	15.0	.6	6.8	10.6	.4	1.5

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO JULY 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	25.1	23.7	24.4	15.1	14.3	14.8	13.9	12.8	13.4	4.1	3.1	3.8
2	23.7	21.2	22.4	14.5	13.8	14.2	13.5	11.6	12.5	3.7	2.6	3.2
3	21.5	18.9	20.5	14.3	13.8	14.1	13.4	12.2	12.6	8.2	3.7	6.2
4	21.0	19.6	20.5	13.8	12.8	13.2	13.3	12.6	12.9	7.7	6.2	6.9
5	19.9	19.2	19.6	12.9	11.4	12.0	13.5	13.0	13.2	6.2	4.0	5.0
6	20.9	19.6	20.2	11.4	10.3	10.6	14.7	13.4	14.0	4.2	2.7	3.5
7	20.8	19.7	20.2	10.4	9.5	9.9	16.0	14.7	15.2	4.6	3.1	3.8
8	21.9	20.6	21.3	10.4	9.7	10.1	16.7	15.9	16.2	5.3	3.9	4.5
9	21.6	19.8	20.4	10.3	9.8	10.1	16.8	13.4	15.4	8.7	5.1	6.3
10	19.8	18.6	19.1	11.9	10.1	10.5	13.4	11.6	12.3	6.9	5.1	6.0
11	19.3	17.8	18.5	14.9	11.9	14.1	12.3	10.7	11.4	5.2	3.3	4.3
12	19.1	18.1	18.5	14.5	12.3	13.1	11.0	10.6	10.8	5.8	4.3	4.9
13	19.0	18.0	18.5	12.9	12.1	12.6	11.5	10.6	11.1	6.8	5.6	6.0
14	19.1	18.4	18.7	12.6	11.5	12.1	11.1	9.4	10.2	8.7	6.5	7.6
15	19.0	17.9	18.6	12.8	11.8	12.4	9.7	8.7	9.3	9.7	8.0	8.9
16	18.2	17.3	17.9	12.7	11.9	12.3	10.3	9.1	9.8	8.9	7.0	8.0
17	17.8	17.1	17.4	14.0	12.3	13.1	9.1	7.6	8.4	8.1	6.9	7.5
18	18.6	16.7	17.5	13.9	12.8	13.3	8.0	6.8	7.4	10.4	7.9	8.9
19	19.8	18.2	18.8	13.0	12.1	12.4	7.3	6.3	6.9	10.1	8.6	9.3
20	20.5	19.4	19.8	13.8	12.5	13.1	9.5	7.2	8.3	9.1	7.9	8.7
21	19.9	17.3	18.8	14.2	13.8	14.1	10.6	9.5	10.0	9.8	8.5	9.0
22	17.7	15.0	16.5	13.9	12.2	12.9	12.2	10.4	11.2	11.4	9.7	10.8
23	15.0	13.8	14.4	13.0	11.7	12.5	10.4	8.0	8.9	13.7	11.3	12.3
24	14.6	13.7	14.2	12.9	12.5	12.7	8.0	5.1	6.5	14.8	13.6	14.3
25	14.8	13.9	14.4	13.0	12.1	12.6	5.6	4.6	5.0	13.6	11.0	11.8
26	15.4	14.8	15.0	12.9	12.1	12.5	5.2	4.5	4.8	11.0	9.2	9.8
27	15.0	14.3	14.7	12.5	11.3	12.0	5.2	3.8	4.5	9.8	7.5	8.8
28	15.5	14.1	14.7	12.2	10.2	11.5	7.1	5.2	6.1	11.4	9.5	10.0
29	16.2	15.3	15.7	12.5	11.6	12.1	8.0	7.1	7.6	11.3	10.4	11.0
30	15.7	14.9	15.3	12.9	11.3	12.1	7.8	5.9	7.1	10.7	9.2	10.1
31	15.6	14.9	15.3	---	---	---	5.9	4.0	4.6	9.4	7.2	7.9
MONTH	25.1	13.7	18.1	15.1	9.5	12.4	16.8	3.8	9.9	14.8	2.6	7.7

02043200 WEST NECK CREEK AT INDIAN RIVER ROAD AT PUNGO, VA--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO JULY 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	8.5	6.9	7.6	10.2	8.8	9.5	---	---	---	---	---	---
2	10.1	8.3	9.0	10.2	9.3	9.8	---	---	---	---	---	---
3	10.8	10.1	10.5	12.8	10.2	11.4	---	---	---	---	---	---
4	11.0	10.5	10.7	11.7	9.5	10.6	---	---	---	---	---	---
5	10.7	9.3	10.1	10.6	7.4	8.5	---	---	---	---	---	---
6	9.9	8.5	9.3	10.7	8.1	9.3	---	---	---	---	---	---
7	10.3	8.6	9.4	10.7	8.4	9.7	---	---	---	---	---	---
8	10.3	9.1	9.7	8.7	6.6	7.7	---	---	---	---	---	---
9	9.7	7.9	8.7	7.3	6.3	6.7	---	---	---	---	---	---
10	9.9	9.2	9.6	7.3	5.8	6.5	---	---	---	---	---	---
11	10.6	8.2	9.6	8.0	5.4	6.9	---	---	---	---	---	---
12	13.1	10.3	11.4	8.7	5.9	7.5	---	---	---	24.3	20.9	22.3
13	12.8	9.4	11.0	8.6	6.7	7.8	---	---	---	23.4	22.0	23.0
14	9.4	7.3	8.3	8.6	8.0	8.3	---	---	---	22.0	19.2	20.2
15	8.1	5.4	7.1	8.5	6.9	7.9	---	---	---	19.3	15.5	17.6
16	8.4	7.0	7.5	8.9	5.6	7.1	---	---	---	16.9	14.9	16.0
17	10.1	8.0	9.1	---	---	---	---	---	---	20.0	16.3	18.0
18	10.8	10.0	10.4	---	---	---	---	---	---	19.7	18.0	18.8
19	10.3	9.3	9.9	---	---	---	---	---	---	20.0	18.8	19.3
20	9.8	8.3	9.0	---	---	---	---	---	---	21.4	19.0	20.1
21	8.6	6.8	7.8	---	---	---	---	---	---	22.0	19.4	20.4
22	7.4	5.5	6.5	---	---	---	---	---	---	24.2	20.8	22.1
23	5.5	4.1	4.9	---	---	---	---	---	---	25.4	23.4	24.3
24	5.2	4.6	5.0	---	---	---	---	---	---	25.4	23.8	24.3
25	6.1	4.7	5.4	---	---	---	---	---	---	23.8	21.3	22.3
26	7.6	5.4	6.5	---	---	---	---	---	---	22.6	20.8	21.5
27	7.7	6.7	7.1	---	---	---	---	---	---	21.7	19.8	20.8
28	10.6	7.5	9.1	---	---	---	---	---	---	22.6	20.1	20.9
29	---	---	---	---	---	---	---	---	---	23.8	21.4	22.0
30	---	---	---	---	---	---	---	---	---	25.5	22.8	23.5
31	---	---	---	---	---	---	---	---	---	26.7	24.3	25.1
MONTH	13.1	4.1	8.6	---	---	---	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	27.0	25.1	25.8	28.3	27.2	27.8	---	---	---	---	---	---
2	27.7	25.5	26.5	28.2	26.8	27.3	---	---	---	---	---	---
3	26.9	25.5	26.0	27.8	26.5	27.1	---	---	---	---	---	---
4	26.6	24.1	25.2	27.7	26.2	26.9	---	---	---	---	---	---
5	25.3	23.2	24.1	27.9	27.4	27.6	---	---	---	---	---	---
6	24.7	23.1	23.8	29.1	27.9	28.3	---	---	---	---	---	---
7	26.6	23.4	24.7	30.4	28.2	29.8	---	---	---	---	---	---
8	28.1	26.3	27.1	28.6	27.6	28.1	---	---	---	---	---	---
9	28.9	27.7	28.2	27.9	26.8	27.3	---	---	---	---	---	---
10	28.5	25.5	27.1	30.3	27.5	29.3	---	---	---	---	---	---
11	25.5	23.4	24.3	29.8	25.8	27.5	---	---	---	---	---	---
12	23.9	22.4	23.1	26.0	23.5	24.8	---	---	---	---	---	---
13	24.8	22.3	23.2	---	---	---	---	---	---	---	---	---
14	27.5	23.6	24.8	---	---	---	---	---	---	---	---	---
15	27.4	25.1	26.2	---	---	---	---	---	---	---	---	---
16	25.1	22.3	23.3	---	---	---	---	---	---	---	---	---
17	22.3	20.7	21.2	---	---	---	---	---	---	---	---	---
18	21.1	19.9	20.3	---	---	---	---	---	---	---	---	---
19	21.4	19.4	20.5	---	---	---	---	---	---	---	---	---
20	21.1	20.2	20.6	---	---	---	---	---	---	---	---	---
21	21.1	20.6	20.8	---	---	---	---	---	---	---	---	---
22	22.6	20.5	21.3	---	---	---	---	---	---	---	---	---
23	23.5	20.4	21.9	---	---	---	---	---	---	---	---	---
24	24.3	20.6	22.1	---	---	---	---	---	---	---	---	---
25	26.4	22.9	24.0	---	---	---	---	---	---	---	---	---
26	28.7	24.9	26.1	---	---	---	---	---	---	---	---	---
27	29.4	27.2	28.2	---	---	---	---	---	---	---	---	---
28	29.0	27.8	28.2	---	---	---	---	---	---	---	---	---
29	28.6	27.2	27.9	---	---	---	---	---	---	---	---	---
30	28.6	27.6	28.1	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	29.4	19.4	24.5	---	---	---	---	---	---	---	---	---

02043200 WEST NECK CREEK AT INDIAN RIVER ROAD AT PUNGO, VA--Continued

SALINITY (PARTS PER THOUSAND), WATER YEAR OCTOBER 1998 TO JULY 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	1.8	1.5	1.8	17.3	15.5	16.2	1.6	1.0	1.2	.5	.4	.5
2	2.0	1.4	1.7	17.4	15.7	16.6	1.3	1.0	1.1	.6	.4	.5
3	2.0	1.6	1.8	17.5	14.7	15.8	1.2	1.1	1.2	.6	.5	.5
4	1.6	1.1	1.5	15.4	4.8	10.4	1.2	.9	1.0	.6	.5	.5
5	1.6	1.1	1.4	8.8	4.7	5.6	1.1	.9	.9	.5	.5	.5
6	1.7	1.0	1.5	9.1	3.1	7.2	1.1	1.0	1.1	.5	.5	.5
7	1.2	.7	.9	10.6	8.5	9.9	1.5	1.0	1.2	.5	.5	.5
8	1.4	.9	1.2	11.9	9.7	10.7	1.2	1.0	1.1	.5	.5	.5
9	1.4	1.0	1.1	9.7	7.7	8.7	2.4	.7	1.4	.5	.5	.5
10	1.8	.9	1.5	7.7	5.1	6.7	4.6	.7	1.8	.6	.4	.5
11	2.7	1.3	1.7	5.1	3.5	4.0	5.1	.7	2.4	.6	.5	.6
12	3.4	2.4	2.7	3.6	3.5	3.5	4.3	1.5	3.8	.6	.6	.6
13	5.5	3.0	4.1	3.6	3.4	3.5	4.1	.3	2.3	.6	.6	.6
14	6.4	5.1	5.7	3.4	2.8	3.3	.6	.3	.5	.6	.6	.6
15	9.2	6.0	7.6	3.0	2.4	2.9	1.0	.5	.7	.7	.6	.6
16	10.1	7.3	e8.8	2.4	2.1	2.2	1.1	.3	.7	.7	.5	.6
17	10.9	7.9	9.7	2.5	1.8	2.1	.8	.5	.6	.5	.5	.5
18	9.5	4.5	6.5	4.6	1.8	2.6	.8	.6	.7	.6	.5	.5
19	4.6	3.5	3.8	6.1	3.2	4.6	.8	.7	.8	.6	.5	.6
20	3.6	2.7	3.2	7.5	4.3	6.0	.8	.6	.7	.6	.6	.6
21	3.1	2.2	2.7	7.1	4.1	5.3	.8	.6	.7	.6	.6	.6
22	4.8	1.2	3.0	7.0	3.6	5.3	.8	.6	.7	.6	.6	.6
23	11.1	4.6	7.8	6.9	2.9	5.3	1.0	.6	.8	.6	.6	.6
24	11.1	8.9	10.4	2.9	2.8	2.9	1.0	.3	.6	.6	.5	.6
25	8.9	5.7	7.0	3.0	2.5	2.8	.4	.3	.3	.5	.4	.4
26	6.3	4.8	5.4	3.1	1.8	2.3	.6	.4	.5	.5	.4	.5
27	9.6	5.0	6.8	2.4	1.8	2.0	.7	.4	.5	.5	.5	.5
28	13.6	5.2	9.9	2.5	1.8	2.1	.6	.4	.5	.6	.5	.5
29	14.1	9.8	11.6	2.2	1.8	2.0	.5	.3	.3	.6	.5	.6
30	14.9	9.7	13.8	1.9	1.4	1.7	.6	.3	.5	.7	.4	.5
31	16.5	12.4	14.8	---	---	---	.5	.4	.4	1.6	.5	1.0
MONTH	16.5	.7	5.2	17.5	1.4	5.8	5.1	.3	1.0	1.6	.4	.6

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	4.1	1.6	3.1	5.3	4.0	4.4	---	---	---	---	---	---
2	3.6	2.9	3.2	4.2	1.7	2.4	---	---	---	---	---	---
3	3.2	2.6	2.8	3.2	1.7	2.7	---	---	---	---	---	---
4	2.6	2.0	2.2	2.2	1.6	1.9	---	---	---	---	---	---
5	2.8	.9	1.7	1.9	1.5	1.8	---	---	---	---	---	---
6	1.4	.8	1.0	1.8	1.4	1.6	---	---	---	---	---	---
7	1.4	.8	1.0	1.7	1.2	1.4	---	---	---	---	---	---
8	1.5	.8	.9	1.2	.8	1.0	---	---	---	---	---	---
9	.9	.8	.8	1.7	1.0	1.2	---	---	---	---	---	---
10	.9	.8	.8	2.3	1.1	1.7	---	---	---	---	---	---
11	1.0	.8	.9	2.8	1.5	2.4	---	---	---	---	---	---
12	1.5	.9	1.2	3.8	1.8	2.9	---	---	---	2.5	2.1	2.3
13	1.4	.8	1.1	4.6	2.9	3.7	---	---	---	2.2	1.6	2.0
14	1.0	.7	.8	5.2	4.1	4.5	---	---	---	4.7	1.7	2.5
15	.9	.7	.8	5.0	.6	1.8	---	---	---	10.7	2.8	6.4
16	.9	.8	.8	.6	.5	.6	---	---	---	3.1	.5	2.1
17	.8	.8	.8	---	---	---	---	---	---	2.4	1.2	1.9
18	.9	.8	.8	---	---	---	---	---	---	2.2	1.2	1.7
19	1.6	.7	1.0	---	---	---	---	---	---	2.2	1.4	1.8
20	2.2	1.3	1.7	---	---	---	---	---	---	2.9	1.6	2.0
21	2.9	1.2	2.1	---	---	---	---	---	---	2.9	2.0	2.2
22	5.1	1.1	3.4	---	---	---	---	---	---	2.2	1.9	2.1
23	5.4	3.9	4.8	---	---	---	---	---	---	2.1	2.0	2.0
24	5.9	3.9	4.6	---	---	---	---	---	---	2.8	2.1	2.4
25	8.4	5.3	7.0	---	---	---	---	---	---	2.3	2.2	2.2
26	8.4	4.0	6.6	---	---	---	---	---	---	2.2	1.7	2.0
27	8.0	6.8	7.4	---	---	---	---	---	---	1.8	1.5	1.6
28	6.9	4.0	5.4	---	---	---	---	---	---	1.7	1.6	1.6
29	---	---	---	---	---	---	---	---	---	1.6	1.5	1.5
30	---	---	---	---	---	---	---	---	---	1.6	1.4	1.5
31	---	---	---	---	---	---	---	---	---	1.7	1.4	1.5
MONTH	8.4	.7	2.5	---	---	---	---	---	---	---	---	---

02043200 WEST NECK CREEK AT INDIAN RIVER ROAD AT PUNGO, VA--Continued

SALINITY (PARTS PER THOUSAND), WATER YEAR OCTOBER 1998 TO JULY 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	1.9	1.5	1.7	2.9	2.5	2.7	---	---	---	---	---	---
2	2.1	1.8	2.0	2.6	2.4	2.5	---	---	---	---	---	---
3	2.3	2.0	2.2	2.5	2.4	2.5	---	---	---	---	---	---
4	2.2	1.5	1.7	2.4	2.3	2.3	---	---	---	---	---	---
5	1.7	1.2	1.4	2.4	2.0	2.2	---	---	---	---	---	---
6	1.8	1.4	1.7	2.5	2.3	2.3	---	---	---	---	---	---
7	1.8	1.5	1.7	2.6	1.9	2.4	---	---	---	---	---	---
8	1.9	1.7	1.8	2.3	1.8	2.1	---	---	---	---	---	---
9	2.0	1.6	1.9	1.8	1.6	1.7	---	---	---	---	---	---
10	1.8	1.4	1.5	2.6	1.7	2.2	---	---	---	---	---	---
11	2.4	1.3	1.6	2.2	1.6	1.7	---	---	---	---	---	---
12	9.5	1.3	4.9	1.7	1.3	1.6	---	---	---	---	---	---
13	12.2	8.8	10.5	---	---	---	---	---	---	---	---	---
14	13.1	5.2	10.1	---	---	---	---	---	---	---	---	---
15	6.3	4.5	5.1	---	---	---	---	---	---	---	---	---
16	11.5	4.5	6.8	---	---	---	---	---	---	---	---	---
17	10.8	7.8	9.0	---	---	---	---	---	---	---	---	---
18	7.8	3.4	4.6	---	---	---	---	---	---	---	---	---
19	5.1	3.3	3.8	---	---	---	---	---	---	---	---	---
20	4.4	3.2	3.7	---	---	---	---	---	---	---	---	---
21	3.9	1.4	2.6	---	---	---	---	---	---	---	---	---
22	2.4	1.4	1.6	---	---	---	---	---	---	---	---	---
23	2.2	1.7	1.8	---	---	---	---	---	---	---	---	---
24	2.2	1.7	1.9	---	---	---	---	---	---	---	---	---
25	2.4	1.6	1.8	---	---	---	---	---	---	---	---	---
26	3.0	1.8	2.2	---	---	---	---	---	---	---	---	---
27	3.9	2.2	3.0	---	---	---	---	---	---	---	---	---
28	4.1	3.4	3.9	---	---	---	---	---	---	---	---	---
29	3.8	3.2	3.4	---	---	---	---	---	---	---	---	---
30	3.2	2.9	3.0	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	13.1	1.2	3.4	---	---	---	---	---	---	---	---	---

e Estimated, partial record.



A flooded chicken farm near Chinquapin, N.C. along the Northeast Cape Fear River, September 1999.

0204342510 CURRITUCK SOUND AT BELL ISLAND, NC

LOCATION.--Lat 36°25'43", long 75°58'02", Currituck County, Hydrologic Unit 03010205, attached to south-bank bulkhead.

DRAINAGE AREA.--Indeterminate.

GAGE-HEIGHT RECORDS

PERIOD OF RECORD.--August 1997 to July 1999 (discontinued).

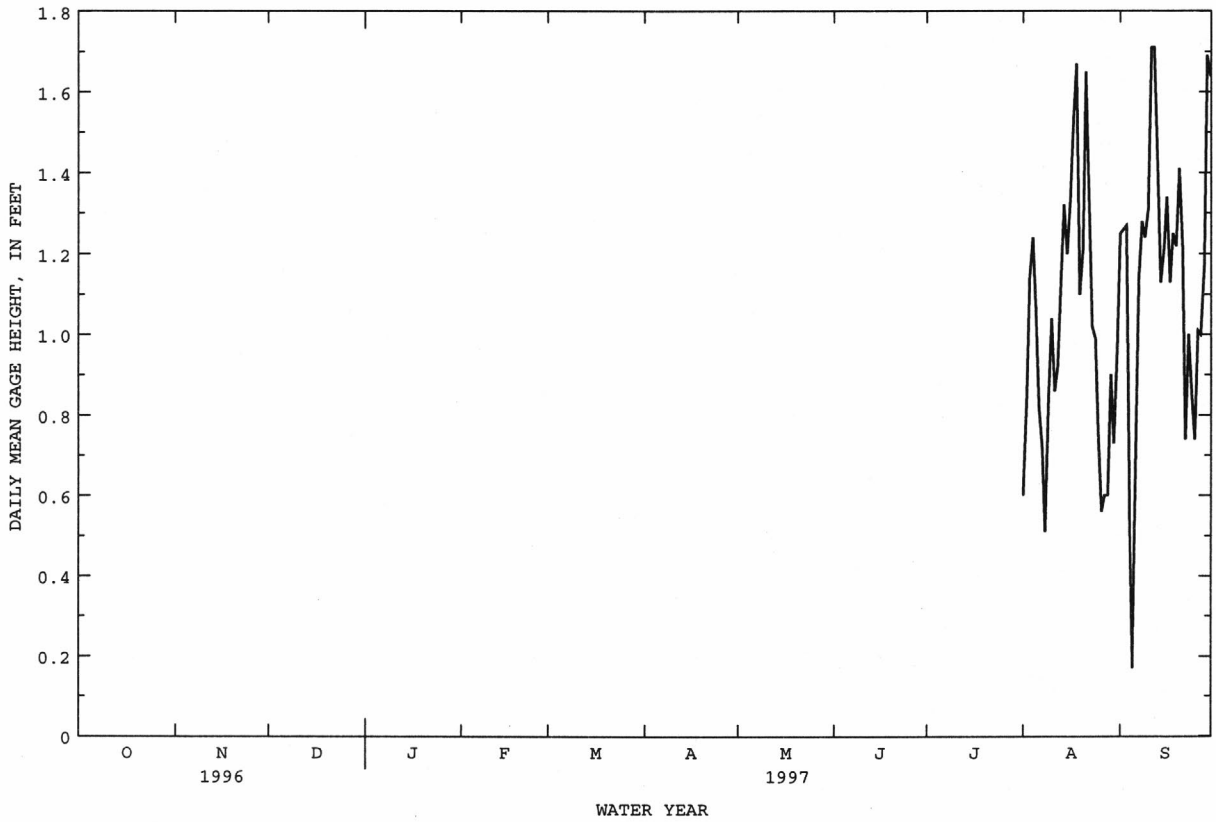
GAGE.--Water-stage recorder. Datum of gage is at sea level.

EXTREMES FOR PERIOD OF RECORD.--Maximum recorded, 3.0 ft, August, 28, 1998, minimum recorded, -1.0 ft, May 4 and 5, 1999.

GAGE HEIGHT, FEET, WATER YEAR AUGUST 1997 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	.60	1.25
2	---	---	---	---	---	---	---	---	---	---	.84	1.26
3	---	---	---	---	---	---	---	---	---	---	1.14	1.27
4	---	---	---	---	---	---	---	---	---	---	1.24	.54
5	---	---	---	---	---	---	---	---	---	---	1.07	.17
6	---	---	---	---	---	---	---	---	---	---	.82	.69
7	---	---	---	---	---	---	---	---	---	---	.72	1.14
8	---	---	---	---	---	---	---	---	---	---	.51	1.28
9	---	---	---	---	---	---	---	---	---	---	.83	1.24
10	---	---	---	---	---	---	---	---	---	---	1.04	1.31
11	---	---	---	---	---	---	---	---	---	---	.86	1.71
12	---	---	---	---	---	---	---	---	---	---	.92	1.71
13	---	---	---	---	---	---	---	---	---	---	1.14	1.43
14	---	---	---	---	---	---	---	---	---	---	1.32	1.13
15	---	---	---	---	---	---	---	---	---	---	1.20	1.21
16	---	---	---	---	---	---	---	---	---	---	1.34	1.34
17	---	---	---	---	---	---	---	---	---	---	1.54	1.13
18	---	---	---	---	---	---	---	---	---	---	1.67	1.25
19	---	---	---	---	---	---	---	---	---	---	1.10	1.22
20	---	---	---	---	---	---	---	---	---	---	1.21	1.41
21	---	---	---	---	---	---	---	---	---	---	1.65	1.22
22	---	---	---	---	---	---	---	---	---	---	1.33	.74
23	---	---	---	---	---	---	---	---	---	---	1.02	1.00
24	---	---	---	---	---	---	---	---	---	---	.99	.85
25	---	---	---	---	---	---	---	---	---	---	.75	.74
26	---	---	---	---	---	---	---	---	---	---	.56	1.01
27	---	---	---	---	---	---	---	---	---	---	.60	1.00
28	---	---	---	---	---	---	---	---	---	---	.60	1.17
29	---	---	---	---	---	---	---	---	---	---	.90	1.69
30	---	---	---	---	---	---	---	---	---	---	.73	1.64
31	---	---	---	---	---	---	---	---	---	---	.95	---
MEAN	---	---	---	---	---	---	---	---	---	---	1.01	1.16
MAX	---	---	---	---	---	---	---	---	---	---	1.67	1.71
MIN	---	---	---	---	---	---	---	---	---	---	.51	.17

0204342510 CURRITUCK SOUND AT BELL ISLAND, NC--Continued

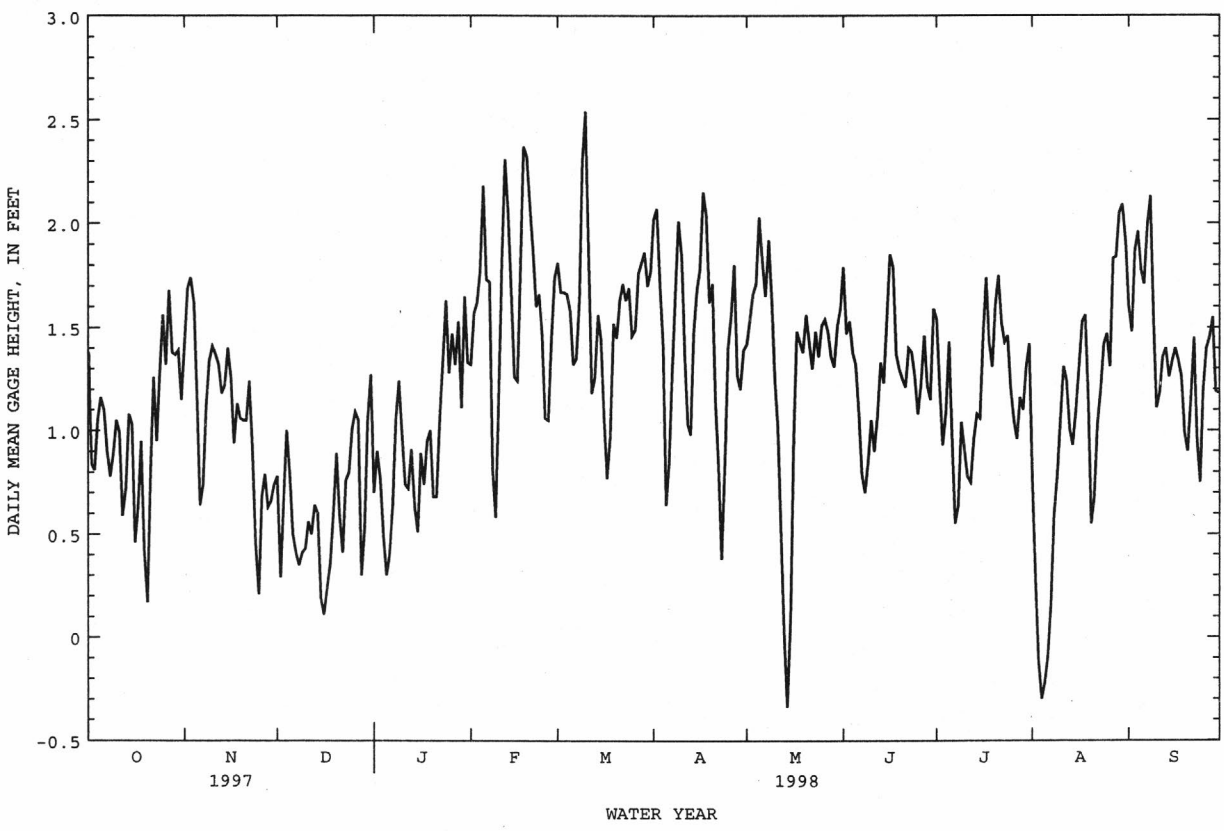


0204342510 CURRITUCK SOUND AT BELL ISLAND, NC--Continued

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.38	1.42	.78	.70	1.32	1.81	2.02	1.42	1.79	1.54	.78	1.60
2	.84	1.69	.29	.90	1.57	1.67	2.07	1.54	1.47	1.22	.28	1.48
3	.81	1.74	.66	.77	1.62	1.67	1.69	1.66	1.53	.93	-.12	1.87
4	1.05	1.62	1.00	.49	1.77	1.66	1.41	1.71	1.38	1.09	-.30	1.96
5	1.16	1.16	.80	.30	2.18	1.58	.64	2.03	1.32	1.43	-.22	1.78
6	1.10	.64	.50	.40	1.73	1.32	.85	1.82	1.08	.96	-.09	1.71
7	.90	.74	.41	.64	1.72	1.35	1.29	1.65	.79	.55	.16	1.99
8	.78	1.12	.35	1.05	.82	1.64	1.67	1.92	.70	.64	.59	2.13
9	.89	1.34	.41	1.24	.58	2.30	2.01	1.63	.85	1.04	.79	1.53
10	1.05	1.41	.43	.98	1.17	2.54	1.84	1.25	1.05	.91	1.06	1.11
11	.99	1.37	.56	.74	1.81	1.87	1.36	1.01	.90	.78	1.31	1.18
12	.59	1.32	.50	.72	2.31	1.18	1.03	.50	1.07	.75	1.24	1.36
13	.72	1.18	.64	.91	2.05	1.26	.98	.02	1.33	.96	1.01	1.40
14	1.08	1.22	.60	.63	1.66	1.56	1.48	-.34	1.23	1.08	.93	1.26
15	1.03	1.40	.19	.51	1.26	1.44	1.68	.09	1.55	1.06	1.09	1.34
16	.46	1.26	.11	.89	1.24	1.06	1.78	.95	1.85	1.46	1.31	1.40
17	.63	.94	.24	.74	1.81	.77	2.15	1.48	1.79	1.74	1.53	1.34
18	.95	1.13	.36	.95	2.37	.97	2.04	1.43	1.37	1.43	1.56	1.26
19	.42	1.06	.60	1.00	2.32	1.52	1.62	1.38	1.30	1.31	1.15	.99
20	.17	1.05	.89	.68	2.08	1.45	1.71	1.56	1.25	1.61	.55	.90
21	.81	1.05	.59	.68	1.86	1.63	1.14	1.43	1.21	1.75	.68	1.16
22	1.26	1.24	.41	1.05	1.60	1.71	.83	1.30	1.40	1.52	1.03	1.45
23	.95	.91	.76	1.33	1.66	1.63	.38	1.48	1.38	1.43	1.20	.96
24	1.28	.46	.80	1.63	1.46	1.69	.84	1.36	1.26	1.46	1.42	.75
25	1.56	.21	1.01	1.28	1.06	1.46	1.40	1.51	1.08	1.21	1.47	1.20
26	1.32	.68	1.09	1.47	1.05	1.49	1.56	1.54	1.22	1.05	1.31	1.40
27	1.68	.79	1.05	1.32	1.46	1.76	1.80	1.48	1.46	.96	1.83	1.45
28	1.38	.63	.30	1.53	1.74	1.81	1.27	1.36	1.22	1.16	1.84	1.55
29	1.37	.66	.52	1.11	---	1.86	1.20	1.31	1.15	1.10	2.05	1.19
30	1.39	.74	1.05	1.65	---	1.70	1.39	1.51	1.59	1.31	2.09	1.18
31	1.15	---	1.27	1.33	---	1.77	---	1.59	---	1.42	1.91	---
MEAN	1.00	1.07	.62	.96	1.62	1.58	1.44	1.31	1.29	1.19	1.01	1.40
MAX	1.68	1.74	1.27	1.65	2.37	2.54	2.15	2.03	1.85	1.75	2.09	2.13
MIN	.17	.21	.11	.30	.58	.77	.38	-.34	.70	.55	-.30	.75

0204342510 CURRITUCK SOUND AT BELL ISLAND, NC--Continued



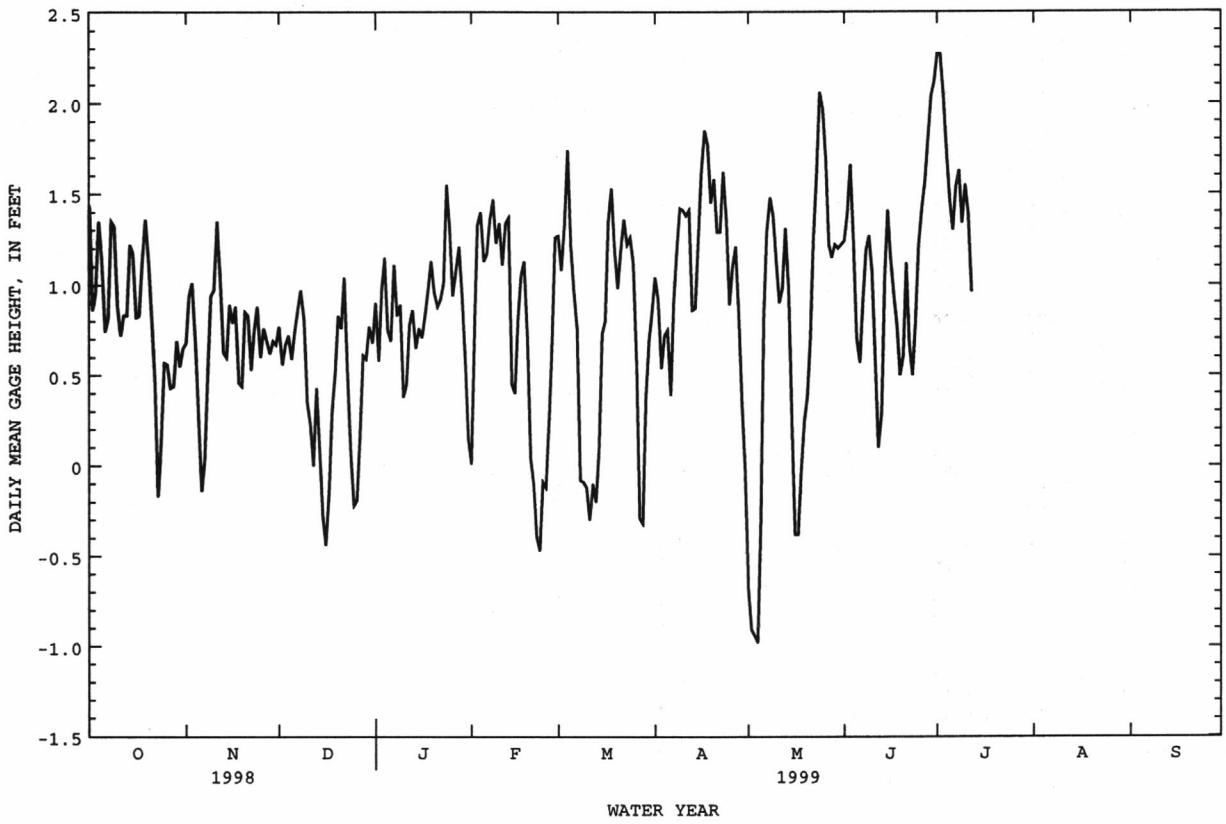
0204342510 CURRITUCK SOUND AT BELL ISLAND, NC--Continued

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1998 TO JULY 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.44	.68	.77	.90	.01	1.27	1.04	-.68	1.24	2.27	---	---
2	.86	.94	.56	.58	.74	1.08	.92	-.91	1.39	2.27	---	---
3	.96	1.01	.67	.97	1.33	1.33	.54	-.94	1.66	2.04	---	---
4	1.35	.68	.72	1.15	1.40	1.74	.72	-.98	1.25	1.72	---	---
5	1.14	.26	.59	.75	1.13	1.21	.75	-.29	.71	1.46	---	---
6	.74	-.14	.74	.69	1.17	.96	.39	.82	.57	1.30	---	---
7	.82	.04	.86	1.11	1.36	.76	.91	1.29	.91	1.54	---	---
8	1.35	.54	.97	.83	1.47	e-.08	1.19	1.48	1.19	1.63	---	---
9	1.32	.94	.81	.89	e1.23	e-.09	1.42	1.38	1.27	1.34	---	---
10	.88	.97	.35	e.38	1.34	-.12	1.41	1.13	1.07	1.55	---	---
11	.72	1.35	.23	.45	1.11	e-.30	1.38	.90	.58	1.39	---	---
12	.83	1.04	.00	.78	1.34	e-.10	1.41	.98	.10	.96	---	---
13	.83	.63	.43	.86	e1.37	e-.20	.86	1.31	.29	---	---	---
14	1.22	.60	.10	.65	.45	e.10	.87	.99	1.02	---	---	---
15	1.17	.89	-.27	.76	.40	.73	1.25	.24	1.41	---	---	---
16	.82	.79	-.44	e.71	.81	e.80	1.62	-.38	1.15	---	---	---
17	.83	.88	-.15	e.83	1.05	e1.35	1.85	-.38	.95	---	---	---
18	1.13	.46	e.30	.97	1.13	1.53	1.77	-.03	.78	---	---	---
19	1.36	.44	e.52	e1.13	.70	1.19	1.45	.24	.50	---	---	---
20	1.13	.85	.83	e.96	e.04	.98	1.58	.38	.61	---	---	---
21	.81	.83	.76	.88	e-.10	1.19	1.29	.70	1.12	---	---	---
22	.46	.53	1.04	.92	e-.39	1.36	1.29	1.24	.67	---	---	---
23	-.17	.75	.51	1.01	-.47	1.22	1.62	1.61	.50	---	---	---
24	.13	.88	.07	1.55	-.09	1.26	1.36	2.06	.80	---	---	---
25	.57	.60	-.22	e1.32	-.12	1.12	.89	1.97	1.21	---	---	---
26	.56	.76	-.19	.94	.26	.56	1.10	1.69	1.41	---	---	---
27	.43	.69	.16	e1.07	.71	-.29	1.21	1.22	1.57	---	---	---
28	.44	.62	.61	1.21	1.26	-.32	.83	1.15	1.81	---	---	---
29	.69	.69	.59	.93	---	.38	.35	1.22	2.04	---	---	---
30	.55	.67	.77	.58	---	.69	-.01	1.20	2.12	---	---	---
31	.65	---	.68	.15	---	.85	---	1.22	---	---	---	---
MEAN	.84	.70	.43	.87	.74	.71	1.11	.70	1.06	---	---	---
MAX	1.44	1.35	1.04	1.55	1.47	1.74	1.85	2.06	2.12	---	---	---
MIN	-.17	-.14	-.44	.15	-.47	-.32	-.01	-.98	.10	---	---	---

e Estimated.

0204342510 CURRITUCK SOUND AT BELL ISLAND, NC--Continued



0204342510 CURRITUCK SOUND AT BELL ISLAND, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--August 1997 to July 1999 (discontinued).

PERIOD OF DAILY RECORD.--

SALINITY: August 1997 to July 1999.

WATER TEMPERATURE: August 1997 to July 1999.

INSTRUMENTATION.--Water-quality monitor.

REMARKS.--Station operated in cooperation with North Carolina Division of Water Resources.

EXTREMES FOR PERIOD OF RECORD.--

SALINITY: Maximum recorded, 5.5 parts per thousand, July 4, 1999; minimum recorded, 0.1 parts per thousand, February 9, 1998.

WATER TEMPERATURE: Maximum recorded, 48.2°C, September 24, 1998; minimum recorded, 0.3°C, February 23, 1999.

TEMPERATURE, WATER (DEG. C), WATER YEAR AUGUST 1997 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	---	---	---	26.7	22.7	24.5	27.2	25.5	26.3
2	---	---	---	---	---	---	28.4	24.2	26.3	28.5	25.6	26.8
3	---	---	---	---	---	---	29.1	25.8	27.4	28.2	23.4	26.7
4	---	---	---	---	---	---	28.9	26.7	27.5	24.5	18.7	21.9
5	---	---	---	---	---	---	28.8	25.6	26.8	23.8	18.5	21.1
6	---	---	---	---	---	---	27.9	25.3	26.6	24.9	20.3	22.3
7	---	---	---	---	---	---	26.1	24.1	25.0	24.7	21.5	23.0
8	---	---	---	---	---	---	26.5	22.7	24.6	26.0	22.5	23.9
9	---	---	---	---	---	---	27.1	23.9	25.4	26.1	24.1	24.8
10	---	---	---	---	---	---	27.2	24.9	25.9	27.1	25.1	25.9
11	---	---	---	---	---	---	28.1	25.3	26.4	26.1	24.5	25.1
12	---	---	---	---	---	---	29.4	26.4	27.6	25.8	24.1	24.8
13	---	---	---	---	---	---	29.6	27.0	28.2	26.4	24.7	25.4
14	---	---	---	---	---	---	29.1	27.0	27.9	26.4	24.1	25.3
15	---	---	---	---	---	---	30.0	27.0	28.2	25.4	24.4	24.8
16	---	---	---	---	---	---	30.8	28.1	29.2	25.6	23.8	24.6
17	---	---	---	---	---	---	31.2	27.9	29.4	26.1	23.7	24.7
18	---	---	---	---	---	---	30.5	27.5	29.2	26.3	24.6	25.4
19	---	---	---	---	---	---	28.8	25.2	26.8	26.8	24.8	25.5
20	---	---	---	---	---	---	27.1	25.0	26.0	27.5	25.3	26.3
21	---	---	---	---	---	---	27.1	24.9	25.7	26.5	21.4	23.4
22	---	---	---	---	---	---	27.4	25.6	26.4	22.7	19.3	21.1
23	---	---	---	---	---	---	28.2	25.1	26.3	24.4	21.1	22.4
24	---	---	---	---	---	---	27.1	24.5	25.7	22.6	19.2	20.6
25	---	---	---	---	---	---	26.5	23.6	25.0	20.0	18.8	19.5
26	---	---	---	---	---	---	26.3	22.8	24.5	21.4	19.1	20.1
27	---	---	---	---	---	---	26.1	23.4	24.7	20.8	19.8	20.3
28	---	---	---	---	---	---	27.4	23.6	25.3	21.8	20.3	21.0
29	---	---	---	---	---	---	26.8	25.2	26.0	23.0	20.8	21.8
30	---	---	---	---	---	---	27.7	24.3	25.9	22.2	20.4	21.4
31	---	---	---	---	---	---	27.0	24.7	25.9	---	---	---
MONTH	---	---	---	---	---	---	31.2	22.7	26.5	28.5	18.5	23.5

0204342510 CURRITUCK SOUND AT BELL ISLAND, NC--Continued

SALINITY (PARTS PER THOUSAND), WATER YEAR AUGUST 1997 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	---	---	---	---	---	---	1.6	1.5	1.6
2	---	---	---	---	---	---	---	---	---	1.6	1.5	1.5
3	---	---	---	---	---	---	---	---	---	1.6	1.5	1.5
4	---	---	---	---	---	---	---	---	---	1.5	1.4	1.4
5	---	---	---	---	---	---	---	---	---	1.5	1.4	1.5
6	---	---	---	---	---	---	---	---	---	1.6	1.5	1.6
7	---	---	---	---	---	---	---	---	---	1.6	1.5	1.6
8	---	---	---	---	---	---	1.4	1.3	1.3	1.6	1.5	1.6
9	---	---	---	---	---	---	1.4	1.4	1.4	1.6	1.4	1.5
10	---	---	---	---	---	---	1.4	1.4	1.4	1.5	1.4	1.5
11	---	---	---	---	---	---	1.4	1.3	1.4	1.5	1.5	1.5
12	---	---	---	---	---	---	1.4	1.3	1.4	1.5	1.4	1.5
13	---	---	---	---	---	---	1.5	1.4	1.4	1.5	1.4	1.5
14	---	---	---	---	---	---	1.4	1.4	1.4	1.5	1.2	1.4
15	---	---	---	---	---	---	1.4	1.3	1.4	1.5	1.4	1.5
16	---	---	---	---	---	---	1.4	1.4	1.4	1.6	1.4	1.5
17	---	---	---	---	---	---	1.4	1.4	1.4	1.5	1.4	1.5
18	---	---	---	---	---	---	1.5	1.4	1.5	1.6	1.5	1.5
19	---	---	---	---	---	---	1.5	1.4	1.4	1.6	1.4	1.5
20	---	---	---	---	---	---	1.5	1.4	1.4	1.6	1.5	1.6
21	---	---	---	---	---	---	1.5	1.4	1.4	1.6	1.5	1.5
22	---	---	---	---	---	---	1.4	1.3	1.4	1.6	1.5	1.5
23	---	---	---	---	---	---	1.4	1.4	1.4	1.6	1.5	1.6
24	---	---	---	---	---	---	1.5	1.4	1.4	1.6	1.5	1.6
25	---	---	---	---	---	---	1.4	1.4	1.4	1.7	1.5	1.6
26	---	---	---	---	---	---	1.5	1.4	1.4	1.6	1.6	1.6
27	---	---	---	---	---	---	1.5	1.4	1.4	1.6	1.6	1.6
28	---	---	---	---	---	---	1.5	1.4	1.4	1.7	1.6	1.7
29	---	---	---	---	---	---	1.6	1.5	1.5	1.7	1.6	1.6
30	---	---	---	---	---	---	1.5	1.4	1.5	1.7	1.6	1.7
31	---	---	---	---	---	---	1.6	1.5	1.5	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	1.7	1.2	1.5

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	22.5	20.5	21.2	16.8	15.4	16.2	12.7	9.4	11.6	4.8	1.5	3.4
2	20.6	17.2	18.9	17.2	15.7	16.3	9.6	6.9	8.4	4.8	1.7	3.3
3	20.1	16.5	17.9	16.7	15.1	15.9	9.6	7.0	8.3	7.3	4.1	5.6
4	22.0	18.0	19.5	16.3	14.5	15.4	10.4	8.8	9.7	9.5	6.0	7.4
5	22.5	20.0	21.0	14.5	12.5	13.7	11.0	9.1	10.2	11.2	7.2	9.0
6	23.0	20.0	21.3	14.2	13.0	13.6	9.1	6.0	7.6	14.2	10.7	12.2
7	23.4	21.8	22.4	15.5	14.2	14.8	6.6	4.2	5.5	15.1	11.9	13.6
8	23.8	21.5	22.5	14.6	13.6	14.0	6.5	4.2	5.5	16.2	14.0	15.3
9	24.8	22.0	23.0	13.6	12.7	13.1	7.2	6.1	6.6	15.7	14.3	15.3
10	24.7	22.5	23.6	13.7	11.9	12.9	8.1	7.1	7.5	14.3	12.3	13.0
11	23.7	21.1	22.6	13.9	12.7	13.3	8.3	7.7	8.0	12.4	10.9	11.8
12	22.4	19.5	20.9	13.6	12.9	13.2	8.3	7.5	7.9	11.5	10.2	10.9
13	22.5	19.9	21.3	12.9	12.0	12.3	8.5	6.4	7.5	11.4	10.2	10.9
14	23.2	21.2	22.2	13.3	12.6	12.9	8.1	5.6	6.9	10.9	7.1	8.4
15	22.8	18.6	21.0	13.2	11.9	12.5	7.4	4.8	6.2	9.5	7.0	8.4
16	19.5	17.1	17.9	12.5	10.7	11.7	8.4	5.2	6.7	9.6	8.3	9.2
17	18.4	17.0	17.7	10.7	8.7	9.8	10.1	6.8	8.2	8.5	7.1	7.5
18	18.3	17.6	18.0	10.3	8.0	9.3	8.4	6.4	7.5	8.9	6.6	7.6
19	17.8	15.6	17.1	9.6	8.4	8.9	9.1	6.3	7.8	7.6	6.1	6.8
20	17.0	12.7	15.3	10.5	7.7	9.0	8.8	7.1	8.0	7.6	5.1	6.4
21	16.5	14.0	15.4	11.5	8.8	9.9	8.9	7.4	8.0	6.4	3.8	5.2
22	16.1	14.5	15.5	14.2	11.5	12.9	8.6	7.2	7.7	6.2	5.4	5.9
23	14.8	12.1	13.7	13.3	12.0	12.6	10.1	8.2	9.1	8.3	5.9	7.0
24	15.8	12.9	14.5	12.0	8.2	10.3	9.7	8.8	9.2	8.4	7.9	8.2
25	17.1	14.7	15.7	8.9	6.2	7.9	12.7	9.7	11.4	8.3	6.6	7.6
26	16.4	15.7	16.0	8.9	6.0	7.6	11.7	10.2	10.9	8.4	7.1	7.7
27	17.2	16.1	16.7	9.9	7.7	8.8	10.8	8.0	10.1	8.9	6.8	7.6
28	16.1	13.1	14.5	10.2	7.7	9.0	9.0	5.2	7.3	8.9	7.6	8.5
29	15.1	12.7	13.6	11.7	9.4	10.3	6.9	4.5	6.0	8.6	6.1	7.4
30	14.4	12.8	13.6	12.8	10.9	11.8	6.7	5.6	6.2	9.1	7.3	7.9
31	15.4	13.5	14.2	---	---	---	6.3	4.5	5.6	7.5	5.8	6.5
MONTH	24.8	12.1	18.3	17.2	6.0	12.0	12.7	4.2	8.0	16.2	1.5	8.6

0204342510 CURRITUCK SOUND AT BELL ISLAND, NC--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	7.3	4.6	6.4	12.0	11.0	11.5	20.1	18.7	19.3	19.8	17.8	18.7
2	8.5	5.9	7.2	11.5	10.8	11.2	21.1	18.5	19.5	21.3	18.4	19.7
3	7.9	7.4	7.7	11.3	10.2	10.8	19.3	16.0	17.6	21.1	18.9	19.9
4	9.3	7.7	8.6	11.3	9.1	10.1	16.1	12.9	15.0	22.2	19.5	20.4
5	9.1	7.6	8.6	11.5	9.3	10.2	13.8	10.0	12.0	21.4	19.2	20.4
6	7.7	6.8	7.2	10.7	8.8	9.7	13.8	9.6	11.7	23.1	20.5	21.4
7	7.6	6.4	6.9	10.9	9.7	10.2	15.6	11.9	13.6	23.5	20.7	21.8
8	6.6	5.3	6.1	12.8	10.8	11.4	18.6	14.4	16.2	23.1	21.1	21.9
9	7.8	4.8	6.2	14.9	12.7	14.1	18.9	17.1	17.7	21.2	19.5	20.3
10	7.9	5.6	7.3	14.5	11.5	13.3	17.7	14.1	15.9	20.5	18.8	19.6
11	9.3	7.5	8.2	12.0	8.4	10.1	15.9	12.8	14.4	19.3	16.4	17.8
12	10.7	8.6	9.7	8.5	6.5	7.1	16.0	12.8	14.3	16.8	14.6	15.9
13	10.2	8.9	9.7	8.9	5.1	6.9	16.5	12.0	14.2	15.5	13.2	14.5
14	9.4	6.8	8.0	9.3	6.4	8.0	15.7	14.2	15.0	20.2	11.8	15.4
15	8.3	5.6	6.9	10.2	7.4	8.8	17.2	14.4	15.5	22.4	13.3	17.3
16	7.8	6.1	7.0	8.6	7.1	7.8	19.9	16.0	17.7	24.4	18.8	21.0
17	10.4	7.8	9.1	7.2	6.7	6.9	20.3	18.4	19.1	22.9	19.6	20.1
18	11.5	9.7	10.5	12.0	7.1	9.3	19.6	16.2	17.7	23.5	19.6	21.0
19	12.1	10.4	11.1	11.8	11.0	11.4	19.3	15.0	17.1	24.2	21.8	22.7
20	11.9	10.8	11.2	11.8	10.3	11.4	20.4	18.1	18.9	22.8	21.4	22.2
21	11.8	10.2	11.1	13.6	10.6	11.7	20.3	16.0	17.6	24.5	21.4	22.5
22	11.7	10.1	11.0	11.8	10.4	11.1	17.2	14.0	15.5	24.4	21.1	22.7
23	11.5	10.0	10.8	12.1	9.6	10.8	16.9	12.4	14.8	23.0	20.5	21.9
24	11.2	9.2	10.0	12.5	10.2	11.2	19.2	14.3	16.5	22.2	19.7	20.8
25	11.4	7.9	9.5	12.7	10.1	11.5	18.9	15.6	17.3	25.3	21.2	22.7
26	11.5	8.5	9.9	15.0	10.8	12.7	20.2	16.6	18.4	25.1	23.5	24.2
27	11.1	9.5	10.2	15.6	13.2	14.4	19.0	15.3	17.1	24.6	23.5	24.1
28	12.8	10.5	11.3	17.4	14.8	16.0	17.5	14.0	15.8	24.9	22.5	23.6
29	---	---	---	17.2	16.0	16.5	18.2	14.7	16.4	27.4	23.2	24.8
30	---	---	---	19.4	16.5	17.5	20.1	16.3	17.8	28.4	25.1	26.6
31	---	---	---	20.6	17.8	19.1	---	---	---	29.7	26.5	27.8
MONTH	12.8	4.6	8.8	20.6	5.1	11.4	21.1	9.6	16.3	29.7	11.8	21.1

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	27.9	26.1	27.0	29.3	27.0	28.1	27.9	24.2	26.2	28.8	27.5	28.0
2	27.1	23.9	25.6	29.2	26.8	27.9	26.5	22.8	24.8	28.4	26.5	27.4
3	28.3	25.1	26.6	29.3	26.2	27.6	26.7	22.7	24.5	27.8	26.2	27.1
4	26.8	23.7	25.4	30.7	26.2	28.2	45.1	21.7	26.3	26.2	25.2	25.6
5	25.6	23.9	24.8	28.3	26.3	27.5	26.8	22.4	24.6	27.0	24.7	25.7
6	23.9	22.2	23.0	28.1	24.9	26.4	26.8	23.5	25.1	27.3	25.0	26.0
7	24.1	21.0	22.4	28.5	24.5	26.4	29.2	24.4	26.6	27.7	25.8	26.6
8	23.8	19.6	21.9	28.1	24.7	26.4	30.7	26.5	28.2	26.9	23.7	25.4
9	23.4	21.2	22.1	28.4	26.2	27.2	31.6	27.8	29.4	23.9	21.8	22.8
10	22.6	20.2	21.5	29.3	26.0	27.5	30.2	28.4	29.4	27.7	21.6	23.9
11	23.7	21.4	22.4	28.9	26.2	27.6	29.8	27.8	28.7	23.7	21.9	22.8
12	26.4	22.7	24.3	28.8	24.8	26.8	31.3	28.6	29.4	24.5	22.6	23.4
13	26.1	24.2	25.3	28.5	25.2	26.6	29.6	27.6	28.6	25.9	22.6	23.9
14	26.4	22.9	24.6	29.0	25.8	27.3	28.3	25.8	27.1	26.3	24.4	25.1
15	27.5	23.6	25.3	29.2	26.4	27.6	27.7	25.6	26.6	28.0	25.3	26.4
16	27.7	25.5	26.4	29.5	27.8	28.5	28.4	26.6	27.4	27.3	26.0	26.6
17	28.5	25.7	26.9	28.5	27.2	27.7	29.5	27.1	28.0	28.3	25.4	26.6
18	29.1	26.0	27.3	29.3	27.1	28.2	30.1	27.5	28.5	28.3	26.4	27.3
19	28.0	26.0	27.0	31.4	27.8	29.4	29.2	24.7	27.5	26.8	25.3	25.9
20	28.4	25.3	26.6	31.5	28.7	30.0	26.2	22.2	24.5	27.2	24.4	25.8
21	29.5	27.1	28.1	30.5	28.9	29.8	27.3	22.6	24.6	28.0	25.2	26.4
22	29.7	27.8	28.4	31.4	28.7	30.0	28.4	24.5	26.2	27.9	26.4	27.0
23	30.1	27.7	28.6	32.1	28.7	30.1	29.3	26.2	27.5	26.4	21.6	24.1
24	29.1	27.1	28.0	30.5	28.5	29.5	29.2	26.1	27.4	48.2	21.1	26.3
25	29.6	26.3	27.7	30.4	28.7	29.5	29.0	26.5	27.6	24.2	21.2	22.4
26	30.9	27.5	29.0	28.9	25.8	27.0	28.0	26.3	27.3	25.1	22.3	23.7
27	30.6	28.3	29.4	27.9	24.4	26.1	26.3	24.5	25.3	25.8	23.2	24.3
28	29.6	26.5	28.0	29.2	26.3	27.4	25.7	23.5	24.6	25.7	23.6	24.5
29	29.6	25.2	27.2	30.0	27.4	28.6	25.8	24.9	25.3	25.3	23.9	24.7
30	30.0	26.7	28.1	31.5	27.6	29.2	27.9	25.2	26.1	25.9	23.9	24.8
31	---	---	---	30.5	26.0	28.9	27.8	26.8	27.3	---	---	---
MONTH	30.9	19.6	26.0	32.1	24.4	28.0	45.1	21.7	26.8	48.2	21.1	25.4

0204342510 CURRITUCK SOUND AT BELL ISLAND, NC--Continued

SALINITY (PARTS PER THOUSAND), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	1.8	1.7	1.7	2.4	2.2	2.3	2.3	1.9	2.1	3.2	2.4	2.8
2	1.8	1.5	1.6	2.4	2.3	2.3	2.0	1.9	2.0	3.0	2.6	2.9
3	1.7	1.6	1.7	2.3	2.3	2.3	2.3	1.9	2.1	3.1	2.7	2.9
4	1.9	1.7	1.7	2.3	2.2	2.3	2.7	2.1	2.4	3.1	2.7	2.9
5	1.9	1.7	1.8	2.2	2.1	2.1	2.5	2.2	2.3	3.0	2.0	2.6
6	1.9	1.7	1.8	2.2	1.9	2.1	2.3	2.2	2.2	2.8	1.8	2.4
7	1.8	1.6	1.7	2.2	2.0	2.1	2.3	2.2	2.3	2.5	1.9	2.2
8	1.8	1.6	1.7	2.1	2.0	2.1	2.3	2.0	2.2	3.0	2.0	2.8
9	1.9	1.7	1.8	2.2	2.1	2.1	2.2	2.1	2.2	3.3	2.6	3.0
10	1.9	1.8	1.8	2.2	2.1	2.1	2.3	2.1	2.2	3.3	2.7	3.0
11	1.8	1.7	1.8	2.1	2.1	2.1	2.2	2.0	2.1	2.9	2.1	2.5
12	1.8	1.7	1.7	2.4	2.1	2.2	2.1	2.0	2.0	2.8	2.0	2.6
13	1.8	1.7	1.7	2.4	2.2	2.3	2.8	2.0	2.3	2.8	2.4	2.6
14	1.8	1.7	1.7	2.8	2.2	2.5	2.8	2.0	2.4	2.5	2.1	2.3
15	1.8	1.7	1.8	2.8	2.2	2.5	2.3	2.0	2.1	2.5	2.0	2.3
16	1.9	1.7	1.8	2.4	2.2	2.2	2.1	2.0	2.0	2.3	1.9	2.1
17	1.8	1.8	1.8	2.4	2.0	2.2	2.4	1.9	2.1	2.1	1.8	2.0
18	1.8	1.7	1.8	2.4	2.2	2.3	2.1	1.8	2.0	2.4	1.8	2.1
19	1.9	1.6	1.7	2.3	2.2	2.3	3.7	1.9	2.9	2.1	1.8	2.0
20	1.8	1.6	1.7	2.3	2.1	2.2	3.8	3.2	3.7	2.1	1.9	1.9
21	1.7	1.6	1.7	2.4	2.2	2.3	3.5	2.7	3.1	1.9	1.7	1.8
22	1.9	1.7	1.8	2.5	2.3	2.4	3.1	2.7	2.9	2.8	1.6	2.3
23	1.9	1.7	1.7	2.4	2.1	2.2	3.0	2.5	2.8	2.9	2.0	2.2
24	3.0	1.8	2.5	2.2	2.0	2.1	2.9	2.8	2.8	3.1	2.0	2.5
25	3.6	2.0	3.0	2.1	2.0	2.1	3.3	2.6	2.9	2.3	1.8	2.0
26	3.0	2.4	2.8	2.2	2.1	2.2	2.8	2.5	2.7	2.7	2.0	2.2
27	3.0	2.4	2.7	2.3	2.1	2.2	3.0	2.4	2.7	2.4	2.0	2.1
28	2.6	2.2	2.4	2.3	2.1	2.2	2.8	2.3	2.5	2.7	2.1	2.4
29	2.4	2.2	2.3	2.3	2.1	2.2	2.6	1.9	2.3	2.2	1.3	1.8
30	2.4	2.3	2.4	2.4	2.2	2.3	3.2	2.1	2.5	2.9	1.7	2.4
31	2.4	2.3	2.4	---	---	---	3.5	3.0	3.3	1.8	1.4	1.6
MONTH	3.6	1.5	2.0	2.8	1.9	2.2	3.8	1.8	2.5	3.3	1.3	2.4

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	1.9	1.3	1.6	1.6	1.1	1.3	.8	.6	.7	.9	.9	.9
2	2.0	1.3	1.5	1.4	.9	1.2	.7	.6	.7	.9	.9	.9
3	2.3	1.7	2.0	1.5	1.1	1.2	.8	.6	.7	.9	.8	.9
4	2.8	2.1	2.4	1.7	1.3	1.5	.8	.6	.7	.9	.9	.9
5	2.2	1.5	e1.8	1.7	1.2	1.5	.9	.7	.8	.9	.8	.9
6	1.5	.6	1.1	1.6	1.4	1.5	.8	.6	.7	.9	.9	.9
7	1.1	.3	.7	1.6	1.3	1.5	.8	.7	.7	.9	.9	.9
8	.9	.2	.5	1.4	.8	1.1	1.0	.8	.9	.9	.8	.9
9	.7	.1	.3	1.9	.9	1.4	.9	.9	.9	.8	.8	.8
10	1.0	.2	.8	1.8	1.4	1.5	.9	.8	.9	.8	.8	.8
11	1.6	.7	.9	1.6	1.5	1.6	.8	.7	.7	.8	.8	.8
12	2.4	1.5	2.2	1.3	1.2	1.2	.8	.7	.8	.9	.8	.8
13	2.6	1.4	2.0	1.2	1.1	1.2	.8	.7	.8	.8	.7	.8
14	2.0	1.1	1.3	1.3	1.0	1.2	.9	.7	.8	.8	.6	.7
15	1.5	1.1	e1.3	1.3	1.0	1.1	.9	.8	.8	.6	.5	.6
16	1.6	.9	1.2	1.1	1.0	1.1	.9	.8	.9	.8	.6	.6
17	2.4	.9	e1.9	1.2	1.1	1.1	.9	.8	.9	.9	.8	.9
18	2.5	2.0	e2.3	1.1	.9	1.0	.9	.8	.8	.9	.8	.8
19	2.3	1.8	e2.0	1.2	.8	1.0	.8	.8	.8	.8	.8	.8
20	2.3	1.3	1.9	1.2	.9	1.1	.8	.8	.8	.8	.8	.8
21	2.0	1.1	1.6	1.1	.8	1.0	.9	.8	.8	.8	.8	.8
22	1.7	1.0	1.4	1.1	1.0	1.0	.9	.9	.9	.8	.8	.8
23	1.4	.9	e1.1	1.1	.9	1.0	.9	.9	.9	.8	.8	.8
24	1.5	1.1	1.3	1.1	.8	1.0	.9	.8	.9	.8	.8	.8
25	1.3	1.0	1.1	1.1	.9	1.0	1.0	.9	.9	.8	.8	.8
26	1.3	.9	1.1	1.0	.9	1.0	1.0	.9	1.0	.8	.8	.8
27	1.6	1.2	1.5	1.0	.6	.9	1.0	.8	.9	.8	.8	.8
28	2.0	1.2	1.6	.9	.7	.8	.9	.8	.9	.8	.8	.8
29	---	---	---	.9	.6	.8	.9	.8	.9	.8	.8	.8
30	---	---	---	.8	.6	.7	.9	.8	.9	.8	.8	.8
31	---	---	---	.8	.6	.7	---	---	---	.8	.8	.8
MONTH	2.8	.1	1.4	1.9	.6	1.1	1.0	.6	.8	.9	.5	.8

0204342510 CURRITUCK SOUND AT BELL ISLAND, NC--Continued

SALINITY (PARTS PER THOUSAND), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	.9	.8	.8	.8	.8	.8	.9	.7	.8	1.0	.9	1.0
2	.9	.8	.8	.8	.7	.8	.8	.7	.8	1.0	1.0	1.0
3	.9	.8	.8	.8	.7	.7	.8	.7	.7	1.0	1.0	1.0
4	.8	.8	.8	.8	.8	.8	.8	.5	.7	1.0	1.0	1.0
5	.8	.8	.8	.8	.8	.8	.8	.7	.8	1.0	.9	1.0
6	.8	.8	.8	.8	.7	.7	.9	.7	.8	1.0	.9	1.0
7	.8	.8	.8	.8	.7	.7	.9	.8	.9	1.0	.9	1.0
8	.8	.8	.8	.9	.7	.8	.9	.9	.9	1.0	1.0	1.0
9	.8	.8	.8	.9	.7	.8	.9	.9	.9	1.0	.9	1.0
10	.8	.8	.8	.9	.8	.8	.9	.9	.9	1.0	.8	.9
11	.8	.8	.8	.8	.8	.8	.9	.9	.9	1.0	.9	.9
12	.9	.8	.8	.9	.8	.8	.9	.9	.9	1.0	.9	1.0
13	.9	.8	.8	.9	.8	.9	.9	.8	.9	1.0	.9	1.0
14	.9	.8	.8	.9	.8	.9	.9	.8	.9	1.0	.9	.9
15	.9	.8	.8	.9	.8	.9	1.0	.9	.9	1.0	.9	1.0
16	.9	.8	.8	.9	.8	.9	.9	.9	.9	1.0	1.0	1.0
17	.9	.8	.8	.9	.8	.9	.9	.9	.9	1.0	.9	1.0
18	.9	.8	.8	.9	.8	.8	.9	.9	.9	1.0	.9	1.0
19	.8	.8	.8	.9	.8	.8	.9	.8	.9	1.0	.9	.9
20	.9	.8	.8	.9	.9	.9	.9	.8	.9	1.0	.9	.9
21	.8	.8	.8	.9	.9	.9	1.0	.9	.9	1.0	.9	1.0
22	.9	.8	.8	.9	.8	.9	1.0	.9	1.0	1.0	.9	1.0
23	.8	.8	.8	.9	.8	.9	1.0	.9	.9	1.0	.9	.9
24	.9	.7	.8	.9	.8	.8	1.0	.9	.9	1.0	.6	.9
25	.8	.7	.7	.9	.8	.8	1.0	.9	.9	1.0	.9	1.0
26	.8	.7	.8	.9	.8	.8	1.0	.9	.9	1.0	1.0	1.0
27	.8	.8	.8	.9	.8	.8	1.1	.9	.9	1.1	1.0	1.0
28	.8	.8	.8	.9	.8	.9	1.0	.9	.9	1.1	1.0	1.0
29	.8	.8	.8	.9	.8	.9	1.1	.9	1.0	1.0	1.0	1.0
30	.8	.8	.8	.9	.8	.9	1.1	1.0	1.0	1.1	1.0	1.0
31	---	---	---	.9	.7	.9	1.1	.9	1.0	---	---	---
MONTH	.9	.7	.8	.9	.7	.8	1.1	.5	.9	1.1	.6	1.0

e Estimated, partial record.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO JULY 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	26.4	23.0	24.9	17.0	14.1	15.7	17.2	15.0	15.6	6.0	2.8	4.7
2	23.0	20.2	21.4	17.0	14.7	16.2	16.4	14.0	15.0	5.2	1.9	3.4
3	24.3	20.3	21.5	16.4	14.3	15.3	16.2	14.1	15.2	10.1	5.1	8.2
4	21.2	20.4	20.8	14.3	11.3	13.4	15.8	14.4	15.2	8.8	6.2	7.3
5	21.4	20.4	20.9	12.4	9.6	11.0	17.1	15.0	15.9	6.3	3.1	4.5
6	22.2	20.0	21.0	11.1	8.3	10.2	18.1	16.0	16.9	5.0	2.3	3.9
7	23.0	19.4	21.1	11.6	7.2	9.5	18.5	16.5	17.4	5.2	2.5	3.8
8	23.1	21.0	22.2	11.1	9.3	10.5	18.8	16.7	17.7	6.2	3.6	4.9
9	22.4	20.7	21.7	12.3	10.9	11.5	18.2	12.5	15.8	9.0	5.8	7.3
10	21.7	19.2	20.5	14.8	10.9	12.9	13.5	10.8	12.2	7.4	3.1	5.5
11	21.6	18.7	20.1	16.4	14.8	15.7	12.7	10.1	11.8	5.4	2.2	3.9
12	20.9	19.1	20.0	15.1	13.6	14.4	10.8	9.5	10.3	5.9	3.3	4.7
13	21.6	19.0	20.3	13.8	12.1	13.0	12.2	10.7	11.5	7.1	4.7	5.8
14	21.9	19.8	20.8	12.8	11.5	12.2	11.3	8.8	10.2	8.8	6.6	7.3
15	21.1	19.3	20.2	14.8	12.1	13.2	11.3	8.2	9.8	10.1	7.9	9.2
16	20.2	18.2	19.0	15.6	13.0	14.2	11.4	7.6	10.1	9.4	7.1	8.3
17	19.8	17.7	18.7	17.6	15.2	15.9	10.2	6.5	8.3	9.5	7.4	8.4
18	21.4	18.1	19.6	15.4	13.2	14.2	8.6	5.5	7.1	12.4	9.0	10.6
19	21.7	19.5	20.4	14.8	12.3	13.5	9.0	5.8	7.7	11.8	10.3	11.2
20	21.4	20.0	20.6	16.0	14.4	15.2	11.3	8.4	9.6	11.1	9.5	10.5
21	20.0	17.3	18.5	15.7	13.1	14.7	12.1	10.6	11.3	13.1	9.9	11.2
22	17.3	13.7	16.1	13.5	11.1	12.6	13.0	9.3	11.8	13.2	11.6	12.3
23	17.6	13.0	15.6	14.7	11.4	13.0	9.8	5.7	7.1	15.8	12.5	14.1
24	17.5	13.8	15.5	15.4	13.7	14.3	7.3	3.1	5.6	15.7	14.0	15.2
25	17.4	14.8	16.0	14.0	12.4	13.4	5.2	2.3	3.7	14.0	12.1	13.1
26	18.9	15.6	16.9	15.1	13.1	13.9	4.8	2.8	3.9	12.1	9.2	10.7
27	19.7	16.1	17.7	14.3	11.9	13.1	6.0	1.2	4.1	11.5	9.1	10.4
28	19.9	16.7	18.1	15.0	11.8	13.1	6.5	5.7	6.1	13.4	10.7	11.8
29	19.2	16.7	17.9	14.9	12.5	13.6	7.1	6.1	6.7	12.5	10.4	11.7
30	18.0	14.8	16.5	15.6	12.8	14.2	7.0	2.9	5.9	11.0	7.8	9.8
31	17.8	15.3	16.5	---	---	---	5.3	2.5	3.6	7.9	5.7	6.6
MONTH	26.4	13.0	19.4	17.6	7.2	13.5	18.8	1.2	10.4	15.8	1.9	8.4

0204342510 CURRITUCK SOUND AT BELL ISLAND, NC--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO JULY 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	9.5	5.6	7.5	10.3	8.2	9.4	17.2	14.4	15.9	12.8	10.6	11.6
2	11.8	8.8	10.3	10.9	7.1	9.3	19.0	15.8	16.9	11.8	10.5	11.1
3	12.1	10.3	11.1	13.1	8.4	10.8	19.0	15.1	16.9	14.6	10.6	12.5
4	11.2	10.2	10.8	11.6	9.3	10.2	21.1	16.2	18.5	19.1	11.6	15.1
5	10.8	8.7	9.7	10.1	7.5	8.9	19.8	14.5	16.8	23.0	13.6	18.8
6	10.5	8.2	9.4	11.8	8.0	10.0	18.5	12.3	15.4	22.1	19.6	20.6
7	10.8	9.4	10.1	11.5	7.5	9.9	20.6	15.9	18.1	23.3	18.8	20.9
8	10.8	8.8	10.1	8.9	1.7	6.5	21.3	18.4	19.6	24.9	21.0	22.8
9	10.5	7.7	9.3	6.6	3.5	5.2	22.1	19.0	20.3	25.2	22.2	23.7
10	12.0	10.0	10.8	6.9	4.7	5.9	20.4	16.7	18.6	24.7	22.0	23.5
11	11.9	9.9	10.9	9.8	2.4	5.9	17.0	14.2	15.0	24.4	21.4	22.9
12	14.1	11.4	12.6	10.7	3.9	7.2	16.7	14.4	15.5	24.6	20.3	22.5
13	13.5	9.8	12.1	9.7	3.7	7.3	17.1	12.8	15.0	23.9	21.9	23.1
14	10.2	5.4	7.8	9.5	6.9	7.6	17.7	13.4	15.7	22.0	16.2	19.2
15	8.7	4.3	6.6	10.0	7.3	8.8	16.5	14.8	15.7	17.8	14.7	15.7
16	11.0	6.8	8.7	11.2	6.5	8.6	19.4	15.9	17.3	18.7	14.4	16.4
17	12.2	8.7	10.3	11.7	8.1	9.8	17.2	15.2	16.3	25.6	16.1	20.2
18	11.6	10.2	11.1	13.5	9.8	11.5	16.7	14.5	15.7	22.3	17.9	19.8
19	11.3	8.7	9.8	12.9	10.2	11.8	17.1	14.5	15.8	23.3	19.0	20.8
20	10.0	6.7	8.6	12.9	9.9	11.5	17.8	14.8	16.0	24.5	19.3	21.7
21	7.8	4.2	6.3	11.9	9.5	10.9	17.1	14.2	15.8	24.7	19.8	22.3
22	6.3	1.2	4.0	14.1	11.0	12.4	20.3	15.4	17.7	23.8	21.0	22.4
23	3.6	.3	2.2	13.8	10.6	12.3	21.4	18.0	19.5	24.6	21.2	22.9
24	4.4	2.0	3.3	17.1	12.8	14.7	19.9	16.5	18.3	23.5	22.5	23.0
25	7.9	3.1	5.2	16.0	12.8	14.8	19.3	15.9	17.5	24.8	21.7	23.1
26	8.3	3.8	6.0	12.8	8.5	10.3	19.8	15.6	17.7	23.3	22.4	22.8
27	9.8	5.8	7.5	9.4	6.2	8.0	19.6	17.1	18.4	23.9	20.2	22.3
28	10.3	8.2	9.3	12.9	5.5	9.0	17.1	14.6	15.5	24.8	21.0	22.7
29	---	---	---	14.9	8.7	11.6	14.7	12.4	13.5	26.9	22.7	24.5
30	---	---	---	15.0	11.7	13.4	14.8	10.8	12.8	27.8	24.0	25.8
31	---	---	---	17.3	12.1	14.5	---	---	---	27.9	24.3	26.0
MONTH	14.1	.3	8.6	17.3	1.7	9.9	22.1	10.8	16.7	27.9	10.5	20.7

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	27.9	23.9	25.8	28.7	26.5	27.5	---	---	---	---	---	---
2	27.6	23.7	25.6	29.1	26.3	27.6	---	---	---	---	---	---
3	26.4	23.9	25.2	29.6	26.5	27.8	---	---	---	---	---	---
4	26.0	23.5	24.9	29.7	26.5	28.0	---	---	---	---	---	---
5	26.5	21.8	24.0	32.1	27.6	29.6	---	---	---	---	---	---
6	27.6	22.0	24.9	33.1	29.9	31.2	---	---	---	---	---	---
7	29.8	24.4	26.8	32.0	28.5	30.2	---	---	---	---	---	---
8	30.1	25.3	27.2	30.3	27.9	29.2	---	---	---	---	---	---
9	30.0	27.2	28.4	31.9	28.0	29.6	---	---	---	---	---	---
10	29.0	24.3	26.5	31.6	28.3	29.7	---	---	---	---	---	---
11	25.1	21.9	23.8	29.7	24.4	26.7	---	---	---	---	---	---
12	23.1	20.2	21.7	24.8	22.9	23.6	---	---	---	---	---	---
13	25.3	20.6	22.9	---	---	---	---	---	---	---	---	---
14	28.7	23.0	25.4	---	---	---	---	---	---	---	---	---
15	26.1	24.0	25.1	---	---	---	---	---	---	---	---	---
16	24.0	20.8	22.4	---	---	---	---	---	---	---	---	---
17	21.2	19.9	20.2	---	---	---	---	---	---	---	---	---
18	21.8	19.5	20.4	---	---	---	---	---	---	---	---	---
19	23.2	18.3	20.8	---	---	---	---	---	---	---	---	---
20	22.4	19.9	21.1	---	---	---	---	---	---	---	---	---
21	23.4	21.5	22.3	---	---	---	---	---	---	---	---	---
22	23.8	20.5	22.2	---	---	---	---	---	---	---	---	---
23	25.5	20.3	22.7	---	---	---	---	---	---	---	---	---
24	26.4	22.2	24.3	---	---	---	---	---	---	---	---	---
25	27.5	23.9	25.6	---	---	---	---	---	---	---	---	---
26	30.1	26.0	27.8	---	---	---	---	---	---	---	---	---
27	29.6	27.5	28.5	---	---	---	---	---	---	---	---	---
28	28.9	27.0	27.9	---	---	---	---	---	---	---	---	---
29	29.0	26.3	27.6	---	---	---	---	---	---	---	---	---
30	28.8	26.9	27.8	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	30.1	18.3	24.7	---	---	---	---	---	---	---	---	---

0204342510 CURRITUCK SOUND AT BELL ISLAND, NC--Continued

SALINITY (PARTS PER THOUSAND), WATER YEAR OCTOBER 1998 TO JULY 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	1.1	1.0	1.0	2.1	1.3	1.6	2.3	2.2	2.2	3.6	2.3	3.2
2	1.0	1.0	1.0	2.1	1.9	2.0	2.2	2.1	2.2	2.9	2.1	2.5
3	1.0	.9	1.0	2.1	1.8	2.0	2.1	2.0	2.0	3.2	2.4	2.9
4	1.0	1.0	1.0	2.0	1.5	1.8	2.1	1.9	2.0	3.2	2.7	2.9
5	1.0	1.0	1.0	1.8	1.5	1.6	2.1	1.9	2.0	3.0	2.4	2.6
6	1.0	1.0	1.0	1.5	1.3	1.3	2.1	1.9	2.0	2.9	2.4	2.7
7	1.0	1.0	1.0	1.4	1.2	1.3	2.1	1.9	2.0	3.0	2.7	2.8
8	1.0	1.0	1.0	2.7	1.4	2.3	2.0	1.9	1.9	2.9	2.5	2.7
9	1.1	1.0	1.0	3.0	1.8	2.4	2.0	1.8	1.9	2.7	2.4	2.6
10	1.0	1.0	1.0	2.2	1.8	2.0	2.0	1.8	1.9	2.5	2.3	2.4
11	1.0	1.0	1.0	3.1	1.8	2.6	2.0	1.8	1.9	2.4	2.2	2.3
12	1.0	1.0	1.0	2.9	2.1	2.6	2.0	1.9	1.9	2.9	2.2	2.6
13	1.0	1.0	1.0	2.5	2.2	2.3	1.9	1.8	1.9	2.8	2.5	2.7
14	1.0	1.0	1.0	2.3	2.3	2.3	1.9	1.7	1.8	2.9	2.4	2.7
15	1.1	1.0	1.1	2.4	2.2	2.3	1.8	1.7	1.8	2.6	2.1	2.2
16	1.1	1.0	1.0	2.3	2.2	2.2	2.0	1.0	1.7	2.3	2.0	2.1
17	1.1	1.0	1.0	2.2	2.1	2.2	2.0	1.8	1.9	2.3	2.0	2.1
18	1.3	1.1	1.1	2.2	1.9	2.0	2.6	2.0	2.2	2.2	2.0	2.1
19	1.6	1.3	1.4	2.1	1.9	2.0	3.5	2.2	2.6	2.2	1.9	2.0
20	1.7	1.4	1.5	2.5	1.9	2.1	3.5	2.3	2.8	2.1	1.8	2.0
21	1.4	1.2	1.3	2.5	1.9	2.2	2.6	2.1	2.2	2.2	1.9	2.0
22	1.3	1.1	1.2	2.2	1.9	2.0	3.4	2.0	2.7	2.1	1.9	2.0
23	1.1	1.0	1.0	2.5	1.9	2.1	2.6	2.2	2.4	2.1	1.9	2.0
24	1.1	1.0	1.1	2.7	2.3	2.5	2.5	1.8	2.2	2.7	2.0	2.3
25	1.3	1.1	1.2	2.4	2.0	2.2	2.2	1.5	1.7	2.1	1.7	1.9
26	1.3	1.2	1.3	2.5	2.3	2.4	1.8	1.2	1.5	1.9	1.7	1.8
27	1.4	1.1	1.3	2.4	2.2	2.3	1.8	1.1	1.5	1.9	1.5	1.7
28	1.3	1.2	1.3	2.3	2.2	2.2	2.2	1.6	1.9	1.8	1.5	1.6
29	1.4	1.3	1.3	2.2	2.1	2.1	1.9	1.6	1.7	1.7	1.4	1.6
30	1.9	1.2	1.4	2.3	2.1	2.2	3.6	1.6	2.7	1.7	1.5	1.6
31	2.0	1.3	1.6	---	---	---	2.8	1.4	2.1	1.7	1.5	1.6
MONTH	2.0	.9	1.1	3.1	1.2	2.1	3.6	1.0	2.0	3.6	1.4	2.3

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	1.7	1.5	1.6	3.4	2.9	3.2	2.9	2.6	2.7	---	---	---
2	2.5	1.6	2.2	3.3	2.9	3.1	3.0	2.5	2.7	---	---	---
3	2.2	1.6	1.9	3.5	2.8	3.1	2.7	2.4	2.5	---	---	---
4	2.3	1.8	2.0	3.7	3.0	3.4	2.5	2.4	2.5	---	---	---
5	2.6	1.8	2.1	3.4	2.7	3.0	2.5	2.2	2.4	---	---	---
6	2.1	1.6	1.9	3.0	2.5	2.7	2.5	2.4	2.4	2.6	2.0	2.4
7	2.4	2.0	2.2	2.9	2.5	2.7	2.8	2.5	2.6	2.6	1.9	2.3
8	2.5	1.9	2.2	3.0	2.4	2.7	2.7	2.5	2.6	2.6	2.0	2.3
9	2.1	1.7	1.8	2.8	2.2	2.5	2.8	2.6	2.7	2.5	2.3	2.5
10	2.2	1.9	2.0	2.7	2.2	2.5	2.6	2.3	2.5	2.5	2.3	2.5
11	2.1	1.5	1.9	2.5	1.7	2.2	2.6	2.3	2.4	2.5	2.4	2.4
12	2.2	1.9	2.1	2.3	1.4	1.7	2.6	2.2	2.3	2.5	2.4	2.5
13	2.2	1.9	2.0	2.1	1.5	1.8	2.5	2.0	2.3	2.6	2.3	2.5
14	2.0	1.8	1.9	3.1	1.6	2.2	2.5	2.0	2.2	2.5	2.3	2.4
15	1.9	1.6	1.8	3.3	2.4	2.7	2.7	2.0	2.4	2.4	2.2	2.3
16	1.9	1.6	1.8	3.4	2.6	3.0	2.7	2.5	2.7	2.2	2.1	2.2
17	2.2	1.8	2.0	3.5	2.9	3.3	2.7	2.4	2.5	2.2	1.9	2.1
18	2.2	1.8	2.0	3.5	3.2	3.4	2.6	2.4	2.5	2.3	2.1	2.2
19	1.9	1.6	1.7	3.4	2.7	3.0	2.5	2.3	2.5	2.6	2.2	2.4
20	1.9	1.5	1.7	3.2	2.8	2.9	2.4	2.3	2.4	2.4	1.9	2.2
21	1.8	1.4	1.6	3.3	2.8	3.0	2.3	2.2	2.3	3.3	2.0	2.6
22	1.8	.9	1.3	3.4	2.8	3.2	2.3	2.0	2.1	4.3	2.7	3.7
23	1.6	.8	1.3	3.1	2.7	3.0	2.2	2.0	2.1	4.4	4.1	4.3
24	1.6	1.0	1.2	3.2	2.8	3.0	2.3	2.1	2.2	4.4	3.7	4.1
25	2.0	1.0	1.2	3.1	2.6	2.9	2.3	2.1	2.3	3.9	3.7	3.8
26	2.1	1.0	1.5	3.0	2.3	2.6	2.3	2.2	2.2	3.8	3.6	3.7
27	2.6	1.9	2.3	2.9	2.3	2.6	2.3	2.3	2.3	3.8	3.1	3.5
28	3.2	2.5	2.9	2.9	1.5	1.9	2.3	2.2	2.3	3.7	3.1	3.4
29	---	---	---	2.4	1.6	2.1	2.2	2.2	2.2	3.5	3.1	3.3
30	---	---	---	2.4	2.3	2.4	2.2	2.0	2.1	3.4	3.1	3.2
31	---	---	---	2.7	2.2	2.4	---	---	---	3.4	3.0	3.2
MONTH	3.2	.8	1.9	3.7	1.4	2.7	3.0	2.0	2.4	---	---	---

0204342510 CURRITUCK SOUND AT BELL ISLAND, NC--Continued

SALINITY (PARTS PER THOUSAND), WATER YEAR OCTOBER 1998 TO JULY 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	3.1	2.9	3.0	3.6	3.3	3.4	---	---	---	---	---	---
2	2.9	2.7	2.8	3.8	3.3	3.5	---	---	---	---	---	---
3	3.3	2.7	2.9	5.4	3.5	4.1	---	---	---	---	---	---
4	3.3	2.8	3.0	5.5	4.9	5.2	---	---	---	---	---	---
5	3.3	3.0	3.1	5.1	4.6	4.8	---	---	---	---	---	---
6	3.4	2.8	3.1	4.8	4.3	4.6	---	---	---	---	---	---
7	3.0	2.8	2.9	4.7	4.4	4.6	---	---	---	---	---	---
8	3.1	2.8	3.0	4.6	4.5	4.5	---	---	---	---	---	---
9	3.3	3.0	3.1	4.6	4.5	4.5	---	---	---	---	---	---
10	3.3	3.0	3.2	4.6	4.4	4.5	---	---	---	---	---	---
11	3.2	3.0	3.1	4.5	4.3	4.4	---	---	---	---	---	---
12	3.5	2.8	3.1	4.5	4.3	4.3	---	---	---	---	---	---
13	3.0	2.6	2.8	---	---	---	---	---	---	---	---	---
14	3.1	2.6	2.9	---	---	---	---	---	---	---	---	---
15	3.4	3.1	3.2	---	---	---	---	---	---	---	---	---
16	3.4	2.8	3.1	---	---	---	---	---	---	---	---	---
17	3.1	2.8	2.9	---	---	---	---	---	---	---	---	---
18	3.4	2.8	3.0	---	---	---	---	---	---	---	---	---
19	3.4	3.0	3.3	---	---	---	---	---	---	---	---	---
20	3.4	3.1	3.2	---	---	---	---	---	---	---	---	---
21	3.2	3.1	3.1	---	---	---	---	---	---	---	---	---
22	3.4	3.0	3.1	---	---	---	---	---	---	---	---	---
23	3.0	3.0	3.0	---	---	---	---	---	---	---	---	---
24	3.2	3.0	3.1	---	---	---	---	---	---	---	---	---
25	3.7	3.1	3.3	---	---	---	---	---	---	---	---	---
26	4.4	3.7	4.1	---	---	---	---	---	---	---	---	---
27	4.4	4.0	4.2	---	---	---	---	---	---	---	---	---
28	4.2	3.6	4.0	---	---	---	---	---	---	---	---	---
29	3.7	3.3	3.4	---	---	---	---	---	---	---	---	---
30	3.5	3.3	3.4	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	4.4	2.6	3.2	---	---	---	---	---	---	---	---	---

0204343500 INTRACOASTAL WATERWAY AT COINJOCK, NC

LOCATION.--Lat 36°20'34", long 75°57'15", Currituck County, Hydrologic Unit 03010205, on west bulkhead in Intracoastal waterway to North River and 0.2 mi south of Coinjock.

DRAINAGE AREA.--Indeterminate.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1998 to July 1999 (discontinued).

GAGE.--Water-stage recorder and acoustic velocity meter. Datum of gage is at sea level. Satellite telemetry at station.

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

DISCHARGE, CUBIC FEET PER SECOND, FOR PERIOD FEBRUARY 1998 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	1430	-377	2080	-1210	2080	5090	---
2	---	---	---	---	---	-787	4960	-2350	-2550	3130	e4070	---
3	---	---	---	---	---	-1740	6300	-730	-422	476	e2340	---
4	---	---	---	---	---	-1130	5220	950	828	-4730	e-2480	---
5	---	---	---	---	---	1860	2210	134	1580	1090	e-3100	---
6	---	---	---	---	---	1980	-4130	4340	2080	3910	e-3850	---
7	---	---	---	---	---	-1430	-3520	169	136	2620	e-4690	---
8	---	---	---	---	---	-2870	-4440	135	-1350	-5580	e-5080	---
9	---	---	---	---	---	-6560	-1230	5030	-2200	-283	e-3840	5090
10	---	---	---	---	---	3810	4920	1560	246	-717	e-5290	1650
11	---	---	---	---	---	6230	3930	3350	829	482	e-1570	-2420
12	---	---	---	---	-3230	2300	1850	138	-4570	-3410	e200	-1690
13	---	---	---	---	3240	-1090	-3880	3900	-209	-2820	e851	1140
14	---	---	---	---	3390	-3040	-5220	-4180	-905	-767	e-1720	261
15	---	---	---	---	1540	4150	-433	-8450	-5370	-1510	e-2830	-353
16	---	---	---	---	-1390	3420	-2520	-8330	-1740	-3360	e-2490	715
17	---	---	---	---	-5480	2870	-2450	-4140	1630	1610	e-4230	1980
18	---	---	---	---	-2580	-4210	7330	196	2450	2970	e-879	3310
19	---	---	---	---	2370	-523	-336	-3650	-118	-1800	e4420	1430
20	---	---	---	---	3220	2250	5150	-1640	317	-4840	1710	-2610
21	---	---	---	---	2180	-3190	5090	-224	-555	171	-4690	-4210
22	---	---	---	---	2830	-1140	4920	145	e-2200	448	-3580	-649
23	---	---	---	---	367	918	-412	-1040	e2500	-950	-3340	4990
24	---	---	---	---	2720	-130	-6590	-2020	e3280	792	-3600	-3740
25	---	---	---	---	-670	3140	-3550	-2060	744	2810	414	-3560
26	---	---	---	---	-3440	-2330	-4120	-1650	-4430	1660	-730	-1310
27	---	---	---	---	-3970	-1430	3580	-1520	-713	-2540	-3870	-788
28	---	---	---	---	-2290	-574	3850	-997	3810	-754	---	1530
29	---	---	---	---	---	3580	-1690	-4970	-2450	-2070	---	4140
30	---	---	---	---	---	2060	-622	-4650	-3040	-2780	---	-2440
31	---	---	---	---	---	-776	---	-3810	---	1270	---	---
TOTAL	---	---	---	---	---	7048	13790	-34284	-13602	-13392	---	---
MEAN	---	---	---	---	---	227	460	-1106	-453	-432	---	---
MAX	---	---	---	---	---	6230	7330	5030	3810	3910	---	---
MIN	---	---	---	---	---	-6560	-6590	-8450	-5370	-5580	---	---

STATISTICS OF MONTHLY MEAN DATA FOR PERIOD FEBRUARY 1998 TO SEPTEMBER 1998

MEAN	---	---	---	---	---	227	460	-1106	-453	-432	---	---
MAX	---	---	---	---	---	227	460	-1106	-453	-432	---	---
(WY)	---	---	---	---	---	1998	1998	1998	1998	1998	---	---
MIN	---	---	---	---	---	227	460	-1106	-453	-432	---	---
(WY)	---	---	---	---	---	1998	1998	1998	1998	1998	---	---

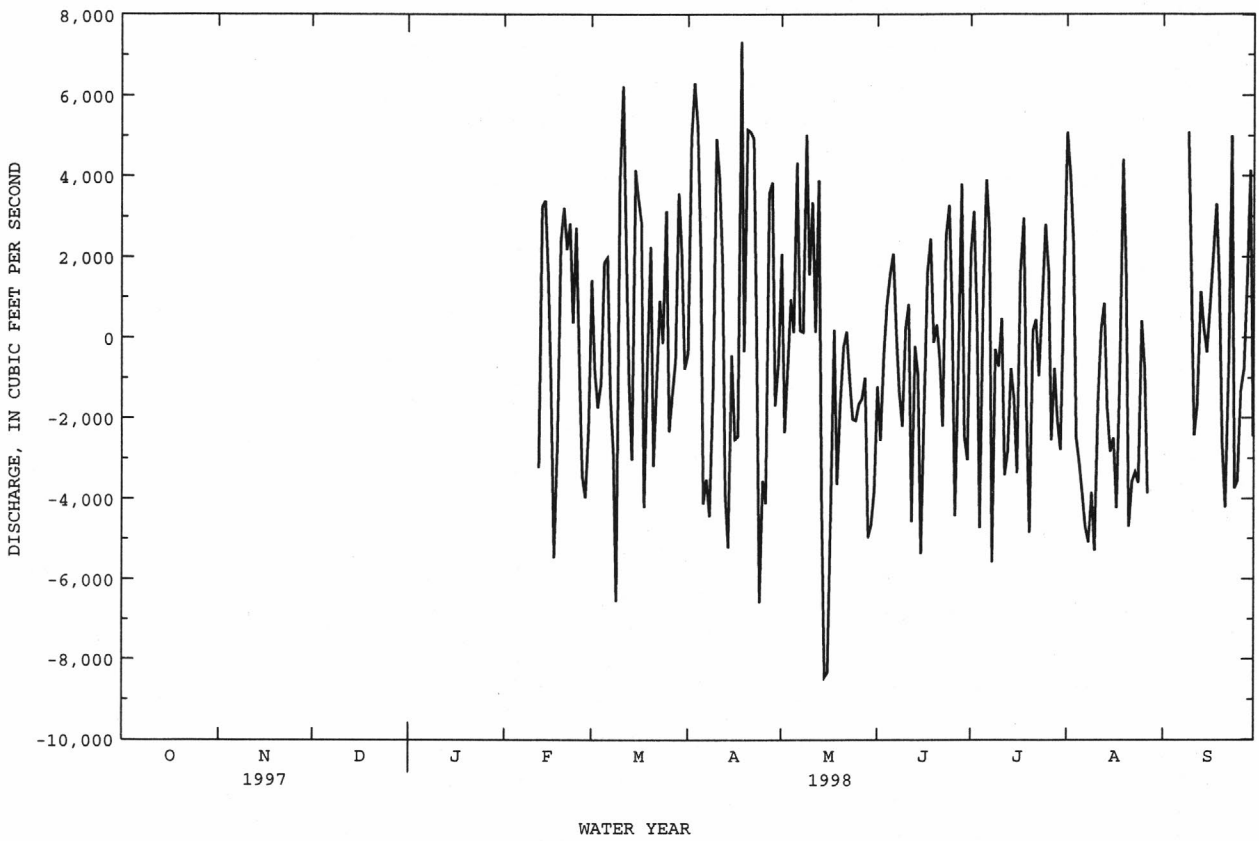
SUMMARY STATISTICS FOR PERIOD FEBRUARY 1998 TO SEPTEMBER 1998

HIGHEST DAILY MEAN	7330	Apr 18 1998
LOWEST DAILY MEAN	-8450	May 15 1998
ANNUAL SEVEN-DAY MINIMUM	-4310	May 14 1998
INSTANTANEOUS PEAK FLOW	15300	Aug 28 1998
INSTANTANEOUS PEAK STAGE	2.91	Aug 28 1998
INSTANTANEOUS LOW FLOW	-10700	May 15 1998
10 PERCENT EXCEEDS	3850	
50 PERCENT EXCEEDS	-574	
90 PERCENT EXCEEDS	-4210	

e Estimated.

Note.--Negative values indicate reverse flow.

0204343500 INTRACOASTAL WATERWAY AT COINJOCK, NC--Continued



0204343500 INTRACOASTAL WATERWAY AT COINJOCK, NC--Continued

DISCHARGE, CUBIC FEET PER SECOND, FOR PERIOD OCTOBER 1998 TO JULY 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e536	-3390	1590	612	-3110	-394	553	6550	-611	-616	---	---
2	---	-3140	657	2290	-7030	94	3710	5020	-2980	4780	---	---
3	---	1890	-1190	-6330	-1970	-5380	554	-4220	588	4880	---	---
4	---	993	973	1540	-1320	764	-4320	-7500	5780	4250	---	---
5	---	1290	-441	2140	1790	6080	4470	-8740	3830	2440	---	---
6	---	-2290	-792	-4030	-4040	-179	-3690	-6440	-2870	-1440	---	---
7	---	-4720	-1850	191	-2110	6780	-3790	-4010	-5190	-3310	---	---
8	---	-4670	422	2810	2950	3000	-2840	-5490	-3350	970	---	---
9	e3650	-2610	5570	134	-2230	-2920	-3050	-389	-1290	-77	---	---
10	1400	-1810	-312	2640	2450	1300	4120	1270	2180	-2580	---	---
11	-1580	-2520	1810	-3200	65	-2980	-900	-422	3690	4710	---	---
12	-2050	4880	-1710	-2720	-3060	-2980	3530	-4630	851	3500	---	---
13	-2870	1650	-1700	1970	5570	-3820	1260	-245	-5840	-268	---	---
14	-3560	-2170	4870	2700	4450	-5740	-3200	6780	-5740	-2220	---	---
15	1880	-470	-1030	-882	-3040	-3350	-4370	7210	219	-2890	---	---
16	679	351	269	-1080	-3180	-3930	-3390	2120	3470	-1340	---	---
17	-2890	956	-6550	1180	-679	-3910	-2040	-5740	-1950	-3040	---	---
18	-3130	2610	-3180	-2240	2490	-824	3350	-4270	725	-2360	---	---
19	-129	-2870	-4090	2090	4780	3110	2640	-5360	1850	961	---	---
20	3360	-3350	-958	1780	210	1410	189	-3860	-4250	1240	---	---
21	1730	2230	-1730	-388	-1980	-3850	3500	-5880	-827	2480	---	---
22	3850	-902	375	1640	1170	959	-2930	-5270	1930	-1270	---	---
23	575	-2870	5210	-3080	-5350	1290	-2660	-4180	-3260	-234	---	---
24	-4710	1870	3300	98	-1220	335	6410	-3400	-4360	-3700	---	---
25	-2650	596	1050	2770	-5780	5020	1390	3660	-4230	-74	---	---
26	33	-1780	-3130	2290	-4110	7140	-4550	4930	-1760	539	---	---
27	459	1840	-4560	-2430	-5110	3660	3890	5140	-2810	-1270	---	---
28	-3720	-1140	-2130	620	-4210	-5000	4770	-1140	-1980	-3320	---	---
29	387	315	-3230	3970	---	-5140	5230	-178	329	---	---	---
30	-3440	-300	-587	1430	---	-2070	7370	-16	1200	---	---	---
31	-1170	---	-3420	3290	---	-3260	---	-218	---	---	---	---
TOTAL	---	-19531	-16494	11805	-33604	-14785	15206	-38918	-26656	---	---	---
MEAN	---	-651	-532	381	-1200	-477	507	-1255	-889	---	---	---
MAX	---	4880	5570	3970	5570	7140	7370	7210	5780	---	---	---
MIN	---	-4720	-6550	-6330	-7030	-5740	-4550	-8740	-5840	---	---	---

STATISTICS OF MONTHLY MEAN DATA FOR PERIOD FEBRUARY 1998 TO JULY 1999

MEAN	---	-651	-532	381	-1200	-125	483	-1181	-671	-432	---	---
MAX	---	-651	-532	381	-1200	227	507	-1106	-453	-432	---	---
(WY)	---	1999	1999	1999	1999	1998	1999	1998	1998	1998	---	---
MIN	---	-651	-532	381	-1200	-477	460	-1255	-889	-432	---	---
(WY)	---	1999	1999	1999	1999	1999	1998	1999	1999	1998	---	---

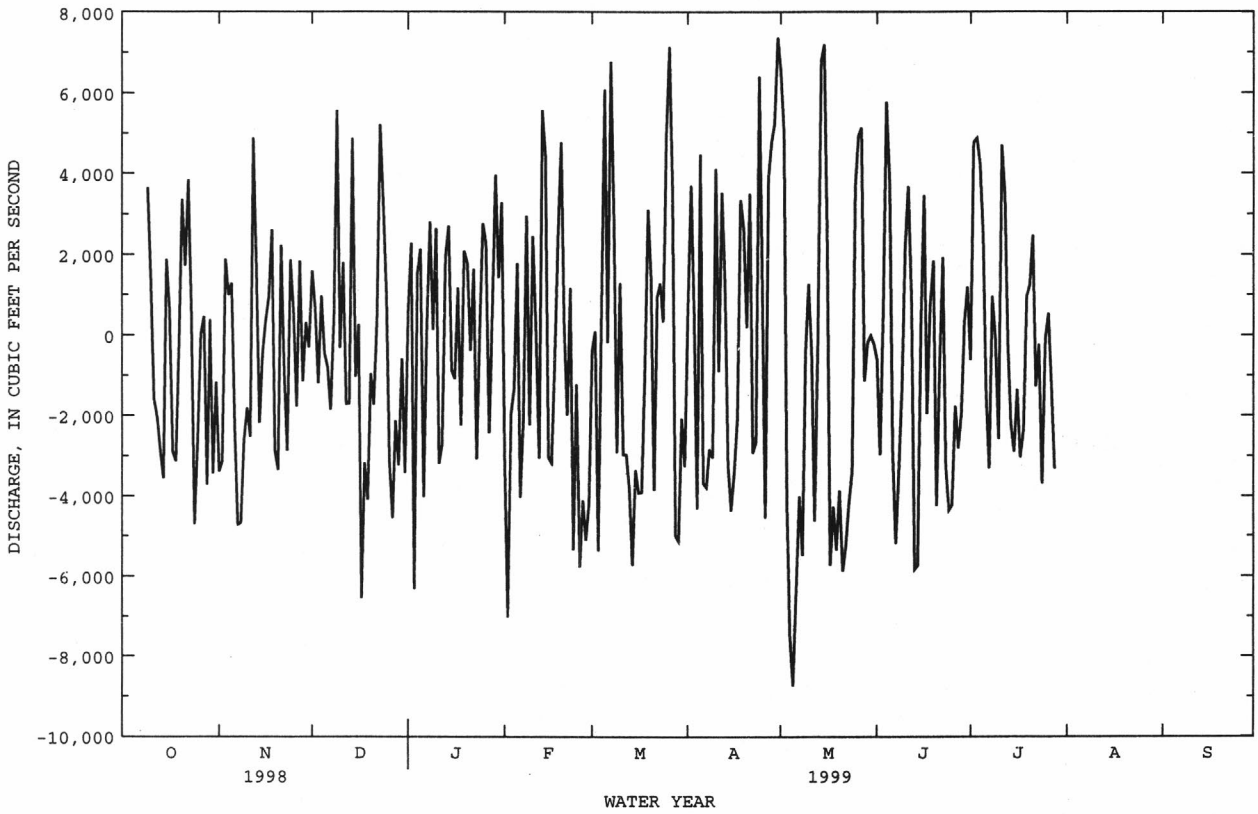
SUMMARY STATISTICS FOR PERIOD OCTOBER 1998 TO JULY 1999

HIGHEST DAILY MEAN	7370	Apr 30 1999
LOWEST DAILY MEAN	-8740	May 5 1999
ANNUAL SEVEN-DAY MINIMUM	-5260	May 3 1999
INSTANTANEOUS PEAK FLOW	15300	Aug 28 1998
INSTANTANEOUS PEAK STAGE	2.91	Aug 28 1998
INSTANTANEOUS LOW FLOW	-11700	Jan 3 1999
10 PERCENT EXCEEDS	3870	
50 PERCENT EXCEEDS	-470	
90 PERCENT EXCEEDS	-4240	

e Estimated.

Note.--Negative values indicate reverse flow.

0204343500 INTRACOASTAL WATERWAY AT COINJOCK, NC--Continued



0204343500 INTRACOASTAL WATERWAY AT COINJOCK, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--August 1997 to July 1999 (discontinued).

PERIOD OF DAILY RECORD.--

SALINITY: August 1997 to July 1999.

WATER TEMPERATURE: August 1997 to July 1999.

INSTRUMENTATION.--Water-quality monitor.

REMARKS.--Station operated in cooperation with North Carolina Division of Water Resources.

EXTREMES FOR PERIOD OF RECORD.--

SALINITY: Maximum recorded, 6.9 parts per thousand, June 29, 1999; minimum recorded, 0.5 parts per thousand, June 16, 1998.

WATER TEMPERATURE: Maximum recorded, 31.6°C, July 6, 1999; minimum recorded, 3.0°C, January 1, 1998.

TEMPERATURE, WATER (DEG. C), WATER YEAR AUGUST 1997 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	---	---	---	---	---	---	27.3	26.5	26.9
2	---	---	---	---	---	---	---	---	---	28.3	26.4	27.1
3	---	---	---	---	---	---	---	---	---	27.5	25.2	26.9
4	---	---	---	---	---	---	---	---	---	25.2	21.4	22.4
5	---	---	---	---	---	---	---	---	---	22.7	20.7	21.6
6	---	---	---	---	---	---	---	---	---	23.9	22.0	23.0
7	---	---	---	---	---	---	---	---	---	24.2	22.8	23.4
8	---	---	---	---	---	---	27.0	25.5	26.1	25.6	23.7	24.7
9	---	---	---	---	---	---	27.4	25.4	26.3	25.8	24.6	25.3
10	---	---	---	---	---	---	27.5	26.6	26.9	26.4	25.6	25.9
11	---	---	---	---	---	---	28.2	26.2	27.1	25.9	25.0	25.2
12	---	---	---	---	---	---	29.1	26.6	27.7	25.6	24.5	25.1
13	---	---	---	---	---	---	28.6	27.3	27.9	26.3	24.9	25.5
14	---	---	---	---	---	---	29.7	27.8	28.7	26.5	25.1	25.7
15	---	---	---	---	---	---	30.3	28.4	29.2	26.2	24.9	25.4
16	---	---	---	---	---	---	30.3	29.0	29.6	26.2	24.9	25.4
17	---	---	---	---	---	---	30.2	29.4	29.8	26.4	25.0	25.6
18	---	---	---	---	---	---	30.5	29.0	30.0	26.2	25.2	25.7
19	---	---	---	---	---	---	29.0	27.1	28.0	26.5	25.3	25.7
20	---	---	---	---	---	---	28.2	27.1	27.7	26.9	25.4	26.2
21	---	---	---	---	---	---	27.9	26.9	27.3	26.9	22.8	24.4
22	---	---	---	---	---	---	27.5	26.5	27.0	23.6	21.9	22.5
23	---	---	---	---	---	---	27.3	25.7	26.5	24.3	22.5	23.4
24	---	---	---	---	---	---	27.3	25.7	26.4	24.3	20.4	22.0
25	---	---	---	---	---	---	27.0	25.4	26.2	21.6	20.3	20.8
26	---	---	---	---	---	---	26.5	25.5	26.0	22.0	21.1	21.5
27	---	---	---	---	---	---	27.2	25.5	26.2	22.0	21.3	21.6
28	---	---	---	---	---	---	27.5	25.4	26.6	22.3	21.1	21.6
29	---	---	---	---	---	---	26.8	26.0	26.4	22.8	21.9	22.3
30	---	---	---	---	---	---	27.1	25.9	26.5	22.6	21.5	22.0
31	---	---	---	---	---	---	27.5	26.0	26.7	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	28.3	20.3	24.2

0204343500 INTRACOASTAL WATERWAY AT COINJOCK, NC--Continued

SALINITY (PARTS PER THOUSAND), WATER YEAR AUGUST 1997 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	---	---	---	---	---	---	2.1	2.0	2.0
2	---	---	---	---	---	---	---	---	---	2.0	1.9	2.0
3	---	---	---	---	---	---	---	---	---	2.0	1.6	1.9
4	---	---	---	---	---	---	---	---	---	1.7	1.6	1.6
5	---	---	---	---	---	---	---	---	---	1.7	1.6	1.6
6	---	---	---	---	---	---	---	---	---	2.0	1.7	1.9
7	---	---	---	---	---	---	---	---	---	2.1	1.9	2.0
8	---	---	---	---	---	---	1.5	1.4	1.5	2.1	1.9	2.0
9	---	---	---	---	---	---	1.6	1.4	1.5	2.1	1.8	2.0
10	---	---	---	---	---	---	1.6	1.5	1.6	2.0	1.8	1.9
11	---	---	---	---	---	---	1.6	1.5	1.5	2.3	2.0	2.2
12	---	---	---	---	---	---	1.5	1.5	1.5	2.3	1.9	2.1
13	---	---	---	---	---	---	1.6	1.5	1.6	1.9	1.7	1.8
14	---	---	---	---	---	---	1.7	1.6	1.7	1.7	1.7	1.7
15	---	---	---	---	---	---	1.6	1.5	1.6	1.8	1.7	1.7
16	---	---	---	---	---	---	1.7	1.6	1.6	2.1	1.7	1.8
17	---	---	---	---	---	---	1.8	1.7	1.7	1.8	1.7	1.7
18	---	---	---	---	---	---	1.9	1.6	1.8	1.9	1.7	1.8
19	---	---	---	---	---	---	1.6	1.5	1.5	1.9	1.8	1.8
20	---	---	---	---	---	---	1.7	1.5	1.6	2.1	1.8	1.9
21	---	---	---	---	---	---	1.9	1.6	1.7	2.2	1.7	1.8
22	---	---	---	---	---	---	1.6	1.6	1.6	1.8	1.7	1.7
23	---	---	---	---	---	---	1.6	1.5	1.6	2.0	1.7	1.8
24	---	---	---	---	---	---	1.6	1.5	1.6	2.0	1.7	1.8
25	---	---	---	---	---	---	1.6	1.5	1.5	1.9	1.7	1.8
26	---	---	---	---	---	---	1.6	1.5	1.6	2.1	1.9	2.1
27	---	---	---	---	---	---	1.6	1.5	1.6	2.2	2.0	2.1
28	---	---	---	---	---	---	1.6	1.5	1.6	2.6	1.9	2.1
29	---	---	---	---	---	---	1.7	1.6	1.7	2.8	2.6	2.7
30	---	---	---	---	---	---	1.8	1.7	1.7	2.7	2.5	2.6
31	---	---	---	---	---	---	2.0	1.7	1.9	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	2.8	1.6	1.9

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	22.4	21.1	21.8	16.4	14.6	15.6	11.5	10.8	11.2	5.2	3.0	3.7
2	21.5	19.1	19.9	17.0	15.9	16.4	10.8	9.3	10.0	4.6	3.4	3.9
3	20.5	18.5	19.5	16.6	16.0	16.3	9.8	8.9	9.3	5.2	3.6	4.3
4	21.5	19.7	20.4	16.0	15.2	15.7	10.3	9.2	9.7	6.4	4.8	5.5
5	22.6	21.1	21.7	15.5	14.2	14.6	10.7	10.1	10.4	7.6	6.1	6.7
6	22.9	21.6	22.4	14.2	13.7	14.0	10.5	8.0	8.7	10.0	7.0	8.6
7	23.8	21.9	22.7	15.0	14.1	14.6	8.0	6.8	7.2	11.4	9.9	10.7
8	23.7	22.7	23.1	14.6	14.2	14.5	7.2	6.5	6.8	12.5	10.9	11.6
9	24.6	22.9	23.6	14.3	13.7	14.0	7.0	6.3	6.7	13.4	12.3	12.8
10	24.2	23.3	23.7	14.2	13.2	13.7	7.3	6.9	7.0	13.2	12.5	12.9
11	24.2	22.6	23.5	14.2	13.6	14.0	7.5	7.3	7.4	12.6	11.5	11.9
12	22.6	21.8	22.0	14.1	13.5	13.7	7.6	7.4	7.5	11.6	11.2	11.4
13	23.4	21.8	22.5	13.7	12.5	13.0	7.7	6.9	7.4	11.4	11.0	11.3
14	23.9	22.4	23.1	13.5	12.6	13.1	7.5	6.1	6.8	11.2	7.7	9.0
15	23.7	19.9	22.0	13.2	12.8	12.9	6.4	5.4	5.9	9.3	7.7	8.4
16	19.9	18.3	19.1	12.9	11.4	12.1	6.6	6.0	6.3	9.5	8.8	9.3
17	19.8	18.4	19.3	11.4	9.5	10.2	7.4	6.4	6.9	8.8	8.2	8.3
18	19.8	18.6	19.4	10.3	9.4	9.9	7.0	6.3	6.7	8.2	7.8	8.1
19	18.6	17.0	17.8	10.2	8.9	9.5	7.2	6.1	6.7	7.8	6.9	7.4
20	17.6	16.5	17.0	9.5	8.7	9.0	7.2	6.2	6.7	6.9	6.4	6.7
21	17.9	16.7	17.3	10.2	8.8	9.5	7.8	7.1	7.4	6.8	5.7	6.3
22	17.4	16.7	17.1	12.5	10.2	11.6	7.9	7.1	7.4	6.2	5.7	5.9
23	16.7	15.5	16.2	12.6	12.1	12.3	8.3	7.9	8.0	7.5	6.1	6.8
24	16.0	15.2	15.6	12.1	10.1	11.2	9.0	7.9	8.4	7.9	7.4	7.7
25	17.4	15.7	16.2	10.1	8.2	9.3	10.4	8.8	9.7	7.8	7.0	7.4
26	17.2	16.7	16.8	9.7	9.0	9.4	10.8	9.9	10.3	7.8	6.6	7.2
27	17.6	17.0	17.3	9.8	9.1	9.4	10.1	9.1	9.9	7.9	7.0	7.4
28	17.1	14.7	15.3	9.8	8.6	9.3	9.1	7.5	8.0	8.5	7.5	8.1
29	15.5	14.5	15.0	10.6	9.5	10.0	7.6	7.4	7.5	8.2	7.0	7.6
30	15.3	14.5	15.0	11.4	10.5	10.8	7.4	6.4	6.9	8.0	7.5	7.8
31	14.8	14.2	14.5	---	---	---	6.4	5.2	6.0	8.0	6.9	7.6
MONTH	24.6	14.2	19.4	17.0	8.2	12.3	11.5	5.2	7.9	13.4	3.0	8.1

0204343500 INTRACOASTAL WATERWAY AT COINJOCK, NC--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	7.4	6.2	6.9	12.0	11.8	11.9	20.5	20.0	20.2	18.6	17.7	18.2
2	8.0	6.3	7.2	11.9	11.7	11.8	21.0	19.6	20.3	20.4	18.2	19.4
3	7.9	7.4	7.6	11.7	11.0	11.4	20.3	17.7	18.8	21.7	19.6	20.5
4	9.1	7.9	8.5	11.5	10.3	10.7	17.7	14.3	16.3	21.9	20.7	21.1
5	9.2	8.2	8.8	11.5	10.1	10.7	14.3	11.8	12.6	21.7	20.2	20.9
6	8.2	7.8	8.0	10.7	9.9	10.3	14.6	12.1	13.3	22.8	20.7	21.7
7	7.8	6.7	7.4	11.2	10.2	10.6	16.2	13.4	14.7	23.0	21.6	22.2
8	6.7	5.8	6.2	12.1	11.1	11.5	17.9	15.0	16.4	23.0	22.1	22.5
9	7.0	5.8	6.4	13.2	12.1	12.7	17.9	17.2	17.5	22.5	20.1	21.1
10	7.9	6.3	7.1	13.5	12.3	12.8	17.8	15.7	16.9	20.3	19.3	19.8
11	8.6	7.6	8.1	12.3	9.8	10.6	16.3	14.6	15.4	19.9	17.1	18.5
12	9.8	8.5	9.1	9.8	7.4	8.2	16.1	14.8	15.6	17.2	15.3	16.8
13	9.9	9.1	9.5	9.3	7.0	8.2	16.8	14.7	15.7	15.4	13.8	14.3
14	9.5	8.0	8.7	10.0	8.0	9.1	15.9	15.3	15.6	15.9	13.5	14.6
15	8.1	6.7	7.3	10.4	8.7	9.4	17.9	15.3	16.3	17.5	15.3	16.5
16	8.1	6.7	7.2	9.6	8.1	8.8	19.2	16.9	18.0	19.6	17.1	18.3
17	9.8	8.1	9.0	8.1	6.9	7.3	19.5	18.2	18.8	20.9	18.8	19.8
18	10.9	9.6	10.2	9.9	7.0	8.4	19.5	17.4	18.6	23.0	20.8	21.6
19	11.8	10.3	11.0	11.0	9.9	10.3	18.6	16.5	17.5	24.3	21.8	22.9
20	12.2	11.4	11.8	11.4	10.9	11.1	19.6	18.2	18.8	24.2	23.0	23.5
21	12.2	11.3	11.8	12.8	11.2	11.9	18.8	17.1	18.0	24.2	23.0	23.4
22	11.8	10.7	11.3	12.1	11.5	11.8	17.9	15.1	16.2	24.4	22.8	23.6
23	11.6	10.6	11.1	12.0	10.8	11.4	15.6	13.7	14.6	24.3	22.9	23.5
24	11.5	9.5	10.4	12.4	11.4	11.7	17.3	15.0	16.2	23.4	22.7	23.0
25	9.9	8.9	9.4	12.3	10.7	11.5	18.5	16.5	17.4	24.7	22.5	23.5
26	10.8	9.2	10.0	13.8	11.6	12.6	19.3	17.9	18.5	26.4	23.9	24.9
27	11.1	9.9	10.5	15.3	13.0	13.9	18.5	16.3	17.5	26.2	25.0	25.4
28	12.1	10.9	11.4	17.1	14.4	15.9	17.4	15.4	16.4	25.2	24.5	25.0
29	---	---	---	19.0	16.2	17.5	18.0	16.7	17.4	26.8	24.6	25.5
30	---	---	---	20.1	18.2	19.1	18.4	16.9	17.6	27.0	25.5	26.2
31	---	---	---	20.9	19.5	20.0	---	---	---	28.0	26.2	27.0
MONTH	12.2	5.8	9.0	20.9	6.9	11.7	21.0	11.8	16.9	28.0	13.5	21.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	27.9	26.6	27.2	29.2	28.3	28.9	27.1	25.5	26.1	28.8	28.0	28.4
2	27.2	25.7	26.5	29.1	27.9	28.5	25.5	24.0	24.8	29.0	27.9	28.5
3	27.6	26.0	26.9	28.9	27.8	28.3	24.8	23.3	24.1	28.5	27.4	27.9
4	27.2	25.5	26.1	29.5	28.0	28.6	25.2	23.3	24.2	27.4	26.5	26.8
5	26.2	25.4	25.9	28.5	27.7	28.3	25.2	24.2	24.7	27.1	25.9	26.5
6	25.5	23.8	24.4	28.1	26.3	27.2	25.6	24.6	25.1	27.5	26.5	26.9
7	23.8	22.5	23.2	27.6	25.8	26.8	26.1	25.0	25.5	27.7	26.5	27.1
8	23.5	22.4	22.9	27.8	26.0	27.0	27.5	25.5	26.4	27.7	25.0	26.4
9	23.1	22.0	22.6	28.6	27.1	27.6	28.4	26.5	27.4	25.0	22.9	23.5
10	24.1	22.2	22.9	29.5	27.6	28.4	29.4	27.5	28.4	22.9	21.1	21.9
11	24.1	22.9	23.4	28.4	27.7	28.1	29.9	28.2	28.9	23.8	21.5	22.5
12	25.8	23.3	24.5	28.5	27.1	27.7	29.7	29.1	29.3	24.2	22.8	23.4
13	26.4	25.2	25.7	29.1	26.8	27.8	29.5	28.5	29.0	26.1	23.8	24.7
14	27.0	25.6	26.1	30.0	27.6	28.2	29.8	28.8	29.2	26.9	24.9	25.5
15	27.3	25.6	26.6	29.1	27.8	28.3	29.0	27.9	28.3	27.4	25.4	26.1
16	27.9	26.0	26.9	28.7	28.0	28.4	28.6	27.9	28.2	27.6	26.3	26.8
17	28.7	27.2	27.9	28.3	27.7	28.0	29.4	27.9	28.6	27.9	26.5	27.2
18	28.5	27.2	27.9	29.2	27.3	28.2	30.1	28.8	29.5	28.2	27.2	27.6
19	28.4	27.1	27.8	30.0	28.4	29.2	29.9	26.6	28.3	27.6	26.4	26.7
20	27.9	26.3	27.1	30.3	28.5	29.4	26.6	24.7	25.5	27.3	26.3	26.7
21	28.7	27.1	27.7	30.9	29.5	30.1	27.2	24.6	25.9	28.0	26.4	27.2
22	29.5	28.1	28.7	31.4	29.6	30.5	28.2	25.7	26.8	27.9	27.0	27.4
23	29.7	28.2	29.0	31.5	30.4	30.9	28.5	26.9	27.7	27.6	24.0	25.3
24	29.3	28.0	28.7	31.0	30.3	30.6	28.3	27.1	27.6	24.8	22.8	23.8
25	29.1	27.4	28.1	30.5	29.5	30.0	28.6	27.0	27.8	25.3	23.3	24.3
26	30.3	28.1	29.2	29.9	27.3	28.3	28.3	27.4	27.7	25.1	23.8	24.5
27	31.3	29.4	30.1	28.6	27.0	27.8	27.4	25.4	26.6	25.7	25.0	25.3
28	30.6	28.1	29.4	28.7	27.6	28.0	25.6	24.2	24.9	26.5	24.8	25.6
29	29.4	27.4	28.3	30.0	28.0	28.8	27.4	25.3	26.1	25.7	24.8	25.3
30	29.7	28.4	29.0	30.6	28.7	29.6	27.8	26.6	27.3	25.4	25.0	25.2
31	---	---	---	30.3	27.1	29.3	28.8	27.4	28.0	---	---	---
MONTH	31.3	22.0	26.7	31.5	25.8	28.6	30.1	23.3	27.0	29.0	21.1	25.8

0204343500 INTRACOASTAL WATERWAY AT COINJOCK, NC--Continued

SALINITY (PARTS PER THOUSAND), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	2.6	2.3	2.5	3.3	3.1	3.2	3.4	2.9	3.1	4.8	4.2	4.5
2	2.3	2.0	2.1	3.4	3.3	3.4	3.1	2.9	3.0	4.5	4.4	4.5
3	2.2	2.0	2.1	3.4	3.3	3.4	4.1	3.1	3.6	4.5	4.2	4.3
4	2.3	2.2	2.3	3.4	3.0	3.2	4.4	4.1	4.2	4.2	3.6	3.9
5	2.3	2.2	2.3	3.0	2.5	2.8	4.3	3.8	4.0	3.7	3.4	3.6
6	2.3	2.2	2.2	2.6	2.2	2.4	3.8	3.1	3.4	3.6	3.4	3.5
7	2.2	2.0	2.1	2.6	2.2	2.4	3.8	3.3	3.5	3.6	3.5	3.5
8	2.0	2.0	2.0	3.0	2.6	2.8	3.6	3.2	3.4	4.2	3.6	3.9
9	2.1	2.0	2.0	3.3	3.0	3.2	3.6	3.4	3.6	4.2	3.8	4.1
10	2.1	2.0	2.1	3.6	3.3	3.4	3.8	3.4	3.5	4.0	3.4	3.5
11	2.2	2.0	2.1	3.6	3.4	3.5	4.0	3.7	3.8	3.5	3.2	3.4
12	2.0	2.0	2.0	3.6	3.4	3.4	4.0	3.8	3.9	3.3	3.2	3.2
13	2.1	2.0	2.0	3.4	2.9	3.3	4.4	3.8	4.1	3.6	3.2	3.4
14	2.5	2.1	2.4	3.3	2.9	3.2	4.4	3.9	4.2	3.5	2.9	3.1
15	2.4	1.9	2.3	3.4	3.3	3.3	3.9	3.5	3.7	3.1	2.8	2.9
16	1.9	1.9	1.9	3.4	3.3	3.3	3.9	3.7	3.9	3.3	3.0	3.2
17	2.7	1.9	2.1	3.3	3.0	3.2	4.6	3.9	4.3	3.1	2.8	3.0
18	3.0	2.4	2.8	3.5	3.1	3.3	4.7	4.6	4.6	3.4	3.1	3.3
19	2.4	1.9	2.1	3.4	3.1	3.3	5.0	4.5	4.9	3.5	3.1	3.3
20	3.0	1.9	2.4	3.3	3.2	3.2	5.0	4.7	4.8	3.2	2.9	3.1
21	3.5	3.0	3.2	3.3	3.1	3.2	4.9	4.5	4.8	3.8	2.8	3.2
22	3.7	3.4	3.5	3.9	3.1	3.4	4.5	4.2	4.4	3.9	3.7	3.8
23	3.6	3.2	3.4	3.1	2.8	2.9	4.7	4.4	4.7	4.2	3.7	4.0
24	3.8	3.4	3.7	2.9	2.6	2.8	4.7	4.3	4.6	4.3	3.7	4.1
25	3.9	3.7	3.8	2.9	2.5	2.7	4.7	4.5	4.6	4.1	3.2	3.7
26	3.8	3.5	3.6	4.1	2.8	3.6	4.6	4.4	4.6	3.3	2.9	3.1
27	3.8	3.6	3.7	4.2	3.7	4.0	4.6	4.1	4.5	3.6	3.2	3.4
28	3.7	3.4	3.6	3.7	3.5	3.5	4.1	3.5	3.8	3.4	2.9	3.1
29	3.5	3.5	3.5	3.6	3.2	3.5	4.3	3.8	4.1	2.9	2.4	2.7
30	3.6	3.5	3.5	3.3	3.0	3.2	5.0	4.3	4.8	3.0	2.6	2.9
31	3.5	3.2	3.3	---	---	---	4.9	4.6	4.7	2.9	2.4	2.8
MONTH	3.9	1.9	2.7	4.2	2.2	3.2	5.0	2.9	4.1	4.8	2.4	3.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	3.1	2.2	2.5	2.2	1.8	2.0	1.1	1.0	1.1	1.0	1.0	1.0
2	3.1	2.6	2.8	2.1	1.7	1.9	1.2	.9	1.1	1.0	1.0	1.0
3	3.4	2.7	3.1	2.0	1.7	1.9	1.1	.8	1.0	1.0	1.0	1.0
4	2.9	2.4	2.6	2.0	1.5	1.8	1.0	.7	.8	1.0	1.0	1.0
5	3.2	2.3	2.7	2.0	1.6	1.8	1.1	.9	1.0	1.0	.9	1.0
6	2.5	2.1	2.4	2.0	1.8	1.9	1.0	.9	1.0	1.0	.9	.9
7	2.7	2.0	2.5	1.9	1.8	1.9	1.1	1.0	1.0	.9	.9	.9
8	2.2	1.2	1.6	1.9	1.8	1.8	1.2	1.0	1.1	.9	.9	.9
9	2.3	1.2	1.5	2.4	1.9	2.3	1.2	1.2	1.2	.9	.9	.9
10	3.2	2.1	2.6	2.4	2.0	2.2	1.2	1.1	1.2	.9	.8	.9
11	3.6	2.5	3.0	2.2	1.7	1.9	1.1	1.0	1.1	.9	.8	.8
12	3.6	3.1	3.3	1.8	1.6	1.7	1.1	1.0	1.0	.9	.8	.8
13	3.5	3.0	3.3	1.7	1.5	1.6	1.1	1.0	1.0	.9	.8	.8
14	3.5	2.7	3.1	1.8	1.5	1.7	1.2	1.1	1.2	.8	.8	.8
15	2.9	2.5	2.7	1.7	1.6	1.6	1.2	1.2	1.2	.9	.8	.9
16	2.8	2.1	2.4	1.6	1.4	1.5	1.3	1.1	1.2	.8	.8	.8
17	2.8	1.9	2.3	1.4	1.2	1.3	1.3	1.3	1.3	.8	.8	.8
18	3.0	2.7	2.9	1.4	1.1	1.3	1.3	1.2	1.2	.8	.8	.8
19	3.0	2.6	2.8	1.5	1.3	1.4	1.2	1.1	1.1	.8	.8	.8
20	2.6	2.2	2.5	1.4	1.2	1.3	1.2	1.1	1.1	.8	.7	.7
21	2.4	1.9	2.2	1.3	1.1	1.2	1.1	1.0	1.0	.8	.7	.8
22	2.1	1.7	1.9	1.4	1.0	1.2	1.0	.9	1.0	.8	.8	.8
23	1.9	1.6	1.7	1.3	1.1	1.2	.9	.9	.9	.8	.8	.8
24	1.7	1.5	1.6	1.2	1.0	1.2	1.0	.9	1.0	.8	.8	.8
25	1.6	1.4	1.6	1.3	1.2	1.2	1.0	1.0	1.0	.8	.7	.7
26	1.6	1.3	1.5	1.3	1.0	1.2	1.0	1.0	1.0	.8	.7	.7
27	1.9	1.6	1.8	1.2	1.1	1.1	1.1	1.0	1.0	.8	.8	.8
28	1.9	1.6	1.8	1.2	1.0	1.1	1.0	1.0	1.0	.8	.8	.8
29	---	---	---	1.2	1.0	1.1	1.0	1.0	1.0	.9	.8	.8
30	---	---	---	1.2	1.0	1.1	1.0	1.0	1.0	.8	.7	.8
31	---	---	---	1.1	1.0	1.1	---	---	---	.8	.7	.7
MONTH	3.6	1.2	2.4	2.4	1.0	1.5	1.3	.7	1.1	1.0	.7	.8

0204343500 INTRACOASTAL WATERWAY AT COINJOCK, NC--Continued

SALINITY (PARTS PER THOUSAND), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	.8	.6	.7	.9	.8	.8	1.0	.9	1.0	1.0	.9	1.0
2	.9	.8	.8	.9	.9	.9	1.0	.9	.9	1.3	1.0	1.0
3	.9	.8	.8	.9	.9	.9	1.0	.9	.9	1.7	1.3	1.6
4	.9	.8	.9	.9	.9	.9	1.0	.9	.9	1.5	1.2	1.4
5	.9	.9	.9	.9	.8	.8	1.0	.9	.9	1.4	1.0	1.2
6	.9	.9	.9	.9	.9	.9	.9	.8	.9	1.3	1.0	1.1
7	.9	.9	.9	.9	.9	.9	.8	.8	.8	1.6	1.3	1.5
8	.9	.8	.8	.9	.9	.9	.8	.8	.8	2.1	1.1	1.6
9	.8	.8	.8	.9	.9	.9	.8	.8	.8	1.2	1.0	1.1
10	.8	.8	.8	.9	.9	.9	.8	.8	.8	1.0	1.0	1.0
11	.8	.8	.8	.9	.9	.9	.8	.8	.8	1.1	1.0	1.0
12	.8	.8	.8	.9	.9	.9	.8	.8	.8	1.2	1.1	1.1
13	.8	.7	.7	.9	.8	.9	.8	.8	.8	1.2	1.1	1.1
14	.8	.8	.8	.9	.8	.8	.8	.8	.8	1.1	1.0	1.0
15	.8	.6	.7	.9	.8	.9	.8	.8	.8	1.0	1.0	1.0
16	.6	.5	.6	.8	.8	.8	.8	.8	.8	1.1	1.0	1.1
17	.7	.6	.6	.8	.7	.8	.8	.8	.8	1.0	1.0	1.0
18	.8	.7	.8	.9	.8	.8	.8	.8	.8	1.0	.9	1.0
19	.8	.8	.8	.9	.8	.9	.9	.8	.8	1.0	.9	.9
20	.9	.8	.8	.8	.8	.8	.9	.9	.9	1.0	.9	1.0
21	.9	.8	.9	.9	.8	.8	.9	.8	.9	1.4	1.0	1.1
22	.8	.8	.8	.9	.9	.9	.8	.8	.8	1.7	1.4	1.6
23	.9	.8	.9	.9	.9	.9	.9	.8	.9	1.5	1.0	1.1
24	.9	.9	.9	.9	.9	.9	1.0	.9	.9	1.5	1.0	1.1
25	.9	.9	.9	.9	.9	.9	1.0	.9	.9	2.3	1.5	2.1
26	.9	.8	.9	1.0	.9	.9	.9	.9	.9	2.3	2.1	2.2
27	.9	.8	.8	1.0	.9	.9	1.0	.9	.9	2.2	2.0	2.1
28	.9	.9	.9	.9	.9	.9	1.1	.8	.9	2.4	2.0	2.1
29	.9	.8	.9	.9	.9	.9	1.2	1.0	1.1	2.1	1.5	1.7
30	.9	.8	.8	.9	.9	.9	1.3	1.1	1.2	1.8	1.4	1.6
31	---	---	---	1.0	.9	.9	1.1	1.0	1.0	---	---	---
MONTH	.9	.5	.8	1.0	.7	.9	1.3	.8	.9	2.4	.9	1.3

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO JULY 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	26.2	24.6	25.4	16.8	15.7	16.3	15.2	13.9	14.5	5.3	4.2	4.8
2	24.6	21.3	22.0	16.5	15.6	16.1	15.2	14.4	14.7	4.5	3.3	3.7
3	23.2	21.3	22.2	16.3	14.9	15.7	15.0	14.6	14.7	8.0	4.4	6.8
4	22.7	22.1	22.3	15.1	13.1	14.3	15.6	14.5	14.9	7.6	6.8	7.1
5	22.2	21.0	21.5	13.2	10.7	11.9	15.6	14.9	15.2	6.8	4.4	5.3
6	21.7	20.4	21.0	11.0	9.9	10.6	16.4	15.4	15.9	4.9	3.7	4.3
7	22.4	21.1	21.8	11.5	10.4	10.9	17.1	15.8	16.4	5.0	3.9	4.4
8	22.6	21.5	22.0	11.2	10.5	10.9	17.7	16.4	17.0	5.0	4.2	4.5
9	22.3	21.2	21.7	11.6	10.8	11.2	17.8	14.3	16.4	6.8	5.0	5.9
10	21.2	20.1	20.6	13.3	11.4	12.1	14.3	13.4	13.7	6.8	4.6	5.2
11	21.1	19.9	20.4	14.3	12.9	13.7	13.7	11.6	13.0	5.2	4.7	4.9
12	20.7	20.0	20.3	14.3	13.7	14.0	12.0	10.7	11.4	5.9	4.4	5.2
13	21.2	20.2	20.7	13.7	12.9	13.2	12.9	12.0	12.6	6.6	5.4	5.9
14	21.4	20.1	20.8	13.0	12.6	12.8	12.3	9.6	10.7	7.8	6.5	7.0
15	21.1	19.9	20.5	14.0	12.7	13.2	10.2	9.4	9.7	8.6	7.7	8.2
16	20.5	19.6	20.1	14.0	13.3	13.6	10.5	10.1	10.3	8.7	7.9	8.4
17	20.2	18.8	19.6	15.7	13.9	14.8	10.9	10.0	10.3	8.8	7.6	8.1
18	20.6	18.9	19.8	15.5	13.9	14.4	10.0	9.0	9.3	10.0	8.6	9.3
19	20.9	19.7	20.2	14.8	13.4	14.1	9.7	8.7	9.2	10.4	9.4	9.8
20	20.9	20.4	20.7	15.2	14.5	14.8	10.7	9.6	9.9	10.7	9.8	10.2
21	20.7	18.4	19.2	15.0	14.0	14.6	11.5	9.9	10.8	11.6	10.4	10.9
22	18.4	14.7	16.9	14.0	13.2	13.6	12.0	11.0	11.6	12.5	10.9	11.7
23	14.7	12.2	13.1	14.3	12.8	13.7	11.3	7.7	9.0	13.9	12.3	13.1
24	16.2	13.7	14.9	14.9	13.8	14.3	7.7	5.8	6.8	13.9	13.2	13.6
25	16.7	15.4	15.9	14.2	13.4	13.7	5.8	4.6	4.9	13.9	13.0	13.3
26	17.2	16.2	16.7	14.2	13.5	13.9	5.4	4.6	5.1	13.1	11.2	11.7
27	17.6	16.6	17.2	13.8	12.9	13.4	6.5	4.8	5.6	12.5	10.9	11.7
28	17.8	16.4	17.2	13.4	12.4	12.9	6.8	6.2	6.6	13.2	12.0	12.6
29	17.7	16.9	17.3	13.8	13.2	13.5	7.2	6.8	7.0	12.9	11.7	12.3
30	17.6	16.3	17.0	13.9	12.9	13.3	7.2	6.1	6.7	12.0	10.1	11.5
31	17.0	16.4	16.7	---	---	---	6.3	4.9	5.4	10.1	7.1	8.0
MONTH	26.2	12.2	19.5	16.8	9.9	13.5	17.8	4.6	10.9	13.9	3.3	8.4

0204343500 INTRACOASTAL WATERWAY AT COINJOCK, NC--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO JULY 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	8.7	7.0	7.7	8.8	8.0	8.2	14.5	12.7	13.5	12.1	10.8	11.4
2	10.4	8.7	9.7	9.3	8.0	8.6	17.1	14.0	15.6	11.4	10.9	11.1
3	10.9	9.9	10.4	10.7	9.1	9.9	17.1	16.0	16.5	12.3	11.0	11.7
4	10.8	10.3	10.6	10.2	8.9	9.5	18.9	16.9	17.8	14.1	12.2	13.1
5	10.6	9.5	10.0	9.7	8.2	9.0	18.6	16.3	17.2	15.5	13.5	14.5
6	10.2	9.3	9.9	10.7	8.8	9.8	17.6	15.8	16.5	17.8	15.4	16.6
7	10.6	9.8	10.2	10.6	8.0	9.7	18.9	16.6	17.6	20.3	17.4	18.4
8	10.4	9.5	10.1	8.0	5.4	6.4	20.2	17.9	18.8	21.8	19.8	20.8
9	10.3	9.1	9.7	7.0	5.7	6.4	20.5	19.4	20.0	23.3	20.9	22.1
10	11.3	10.1	10.6	6.9	5.8	6.1	20.3	18.4	19.2	23.6	22.5	23.0
11	11.6	10.3	10.9	7.5	5.7	6.4	19.0	17.0	18.0	23.4	22.3	22.8
12	12.5	11.4	12.0	8.0	6.2	7.0	17.1	15.5	16.4	23.8	22.6	23.1
13	12.5	10.7	11.9	8.1	6.6	7.3	15.5	13.8	14.5	23.4	22.7	23.0
14	10.7	7.1	8.1	8.0	7.3	7.5	16.3	14.5	15.3	22.7	17.5	20.2
15	8.9	6.5	7.6	8.4	7.8	8.2	16.4	15.3	15.8	17.5	15.1	15.9
16	9.9	8.1	8.9	9.2	7.3	8.1	17.6	16.0	16.7	16.2	14.6	15.2
17	10.5	9.1	9.7	10.5	8.0	9.2	16.8	16.2	16.4	18.4	15.5	17.0
18	11.1	10.4	10.7	11.7	9.4	10.2	16.2	15.0	15.6	19.6	18.0	18.6
19	10.4	9.4	9.9	12.1	10.9	11.6	16.1	14.9	15.5	20.0	18.6	19.3
20	9.4	8.1	8.7	11.6	10.5	11.3	17.3	15.4	16.1	21.1	19.1	19.9
21	8.9	7.3	8.6	12.0	10.9	11.6	16.8	15.3	16.1	21.8	19.6	20.7
22	7.3	3.8	4.9	12.5	11.4	11.9	19.3	16.4	17.4	23.7	20.5	21.9
23	5.5	4.4	5.1	12.6	11.4	11.9	19.7	18.2	18.9	23.5	21.6	22.5
24	5.2	4.8	5.0	14.1	11.9	12.9	19.7	17.7	18.5	23.3	22.3	22.7
25	5.8	4.5	5.2	14.5	13.2	14.0	18.4	16.9	17.6	23.2	21.8	22.5
26	6.6	5.2	5.8	13.5	9.1	11.1	19.1	17.3	18.2	23.1	22.1	22.4
27	7.1	5.6	6.4	9.1	7.4	8.0	19.0	18.1	18.5	22.5	21.0	21.8
28	8.2	6.6	7.5	9.4	7.2	8.3	18.3	14.8	16.4	23.9	21.5	22.6
29	---	---	---	11.5	9.0	10.3	14.8	12.8	13.6	25.1	22.1	23.6
30	---	---	---	12.3	10.5	11.2	13.2	11.5	12.4	25.2	23.9	24.5
31	---	---	---	13.2	11.5	12.4	---	---	---	25.7	24.5	25.1
MONTH	12.5	3.8	8.8	14.5	5.4	9.5	20.5	11.5	16.7	25.7	10.8	19.6

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	25.9	24.9	25.4	27.8	26.7	27.3	---	---	---	---	---	---
2	26.0	24.8	25.2	27.9	26.4	27.2	---	---	---	---	---	---
3	26.1	24.5	25.3	28.7	26.5	27.6	---	---	---	---	---	---
4	25.7	24.2	24.9	29.4	27.2	28.3	---	---	---	---	---	---
5	25.0	23.1	24.0	30.8	28.3	29.5	---	---	---	---	---	---
6	25.7	23.9	24.8	31.6	29.9	30.7	---	---	---	---	---	---
7	27.4	24.7	25.9	31.4	29.8	30.5	---	---	---	---	---	---
8	28.8	25.8	27.0	30.4	29.5	30.0	---	---	---	---	---	---
9	29.1	27.2	28.0	30.2	28.8	29.5	---	---	---	---	---	---
10	28.8	25.4	27.2	30.5	29.4	29.9	---	---	---	---	---	---
11	25.4	23.8	24.3	30.0	25.8	27.6	---	---	---	---	---	---
12	24.0	21.6	22.2	---	---	---	---	---	---	---	---	---
13	24.3	22.2	23.3	---	---	---	---	---	---	---	---	---
14	26.3	23.9	24.9	---	---	---	---	---	---	---	---	---
15	25.5	24.8	25.2	---	---	---	---	---	---	---	---	---
16	24.9	21.7	23.4	---	---	---	---	---	---	---	---	---
17	21.9	21.5	21.7	---	---	---	---	---	---	---	---	---
18	21.9	21.1	21.6	---	---	---	---	---	---	---	---	---
19	22.1	20.6	21.3	---	---	---	---	---	---	---	---	---
20	22.4	21.0	21.7	---	---	---	---	---	---	---	---	---
21	22.8	21.9	22.2	---	---	---	---	---	---	---	---	---
22	23.1	21.5	22.2	---	---	---	---	---	---	---	---	---
23	24.4	21.7	22.9	---	---	---	---	---	---	---	---	---
24	25.2	22.7	24.1	---	---	---	---	---	---	---	---	---
25	26.4	24.0	25.1	---	---	---	---	---	---	---	---	---
26	28.0	25.2	26.3	---	---	---	---	---	---	---	---	---
27	27.9	26.7	27.3	---	---	---	---	---	---	---	---	---
28	27.9	26.8	27.3	---	---	---	---	---	---	---	---	---
29	28.4	27.1	27.7	---	---	---	---	---	---	---	---	---
30	28.0	27.1	27.5	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	29.1	20.6	24.7	---	---	---	---	---	---	---	---	---

0204343500 INTRACOASTAL WATERWAY AT COINJOCK, NC--Continued

SALINITY (PARTS PER THOUSAND), WATER YEAR OCTOBER 1998 TO JULY 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	2.0	1.7	1.9	4.0	3.6	3.8	3.9	3.5	3.8	4.7	3.9	4.5
2	1.7	1.2	1.3	4.1	4.0	4.0	3.5	3.2	3.4	4.5	4.0	4.2
3	1.8	1.3	1.6	4.1	3.9	4.0	3.6	3.3	3.5	4.6	4.2	4.4
4	2.2	1.8	2.0	3.9	3.3	3.7	3.6	3.2	3.5	4.6	4.3	4.4
5	2.0	1.3	1.6	3.5	2.9	3.2	3.3	3.0	3.1	4.3	4.2	4.2
6	1.3	1.2	1.2	3.5	2.6	3.0	3.5	3.2	3.4	4.4	3.9	4.1
7	1.5	1.1	1.2	4.2	3.5	3.9	3.7	3.2	3.5	4.7	4.4	4.6
8	2.5	1.5	2.1	4.4	4.2	4.2	3.7	2.8	3.4	4.4	4.1	4.2
9	2.5	1.5	1.9	4.6	4.3	4.5	3.0	2.5	2.7	4.1	3.7	4.0
10	1.5	1.2	1.3	4.8	4.4	4.6	2.6	2.4	2.5	3.9	3.6	3.7
11	1.5	1.2	1.3	5.1	4.8	5.0	2.7	2.3	2.5	3.8	3.7	3.8
12	1.9	1.5	1.7	5.0	4.5	4.7	2.8	2.2	2.5	4.5	3.8	4.2
13	2.6	1.9	2.1	4.5	3.9	4.2	3.8	2.8	3.3	4.4	3.9	4.2
14	3.2	2.6	2.9	4.4	3.9	4.1	3.3	2.3	2.6	3.9	3.6	3.7
15	3.0	2.7	2.9	4.7	4.4	4.5	2.6	2.3	2.4	3.6	3.4	3.5
16	2.8	2.2	2.5	4.5	4.1	4.2	2.7	2.1	2.3	3.5	3.3	3.4
17	2.9	2.2	2.6	4.4	3.9	4.2	4.7	2.7	3.9	3.4	3.2	3.4
18	3.3	2.9	3.1	3.9	3.2	3.5	4.8	4.4	4.6	3.6	3.2	3.4
19	3.5	3.3	3.4	4.0	3.2	3.6	5.0	4.7	4.9	3.6	3.2	3.3
20	3.3	2.6	2.9	4.6	4.0	4.3	4.9	4.7	4.8	3.2	3.1	3.2
21	2.6	2.3	2.4	4.6	4.3	4.4	4.8	3.9	4.4	3.2	3.1	3.2
22	2.3	1.8	2.1	4.3	3.9	4.1	5.0	4.0	4.8	3.2	2.9	3.0
23	1.8	1.4	1.6	4.6	4.3	4.5	4.4	3.8	4.2	3.1	2.8	2.9
24	2.8	1.8	2.3	4.8	4.5	4.7	3.8	3.3	3.5	3.4	3.0	3.2
25	3.1	2.8	3.0	4.5	4.0	4.2	3.4	2.5	3.1	3.0	2.7	2.8
26	3.1	3.0	3.1	4.4	4.1	4.3	3.7	2.8	3.4	2.7	2.5	2.6
27	3.1	2.8	3.0	4.4	3.8	4.2	4.9	3.7	4.4	2.7	2.5	2.6
28	3.4	2.9	3.0	4.0	3.7	3.9	5.0	4.7	4.9	2.7	2.6	2.6
29	3.6	3.4	3.5	4.1	3.9	4.0	4.9	4.2	4.5	2.6	2.4	2.5
30	3.7	3.3	3.4	3.9	3.6	3.7	4.7	4.4	4.5	2.4	2.1	2.4
31	3.7	3.6	3.7	---	---	---	4.6	3.9	4.3	2.2	1.9	2.0
MONTH	3.7	1.1	2.3	5.1	2.6	4.1	5.0	2.1	3.6	4.7	1.9	3.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	2.3	1.9	2.0	4.0	3.7	3.9	3.1	2.9	3.1	2.2	1.8	1.9
2	3.7	2.3	3.0	3.9	3.7	3.8	3.0	2.8	2.9	2.0	1.7	1.8
3	3.7	3.4	3.6	4.0	3.6	3.8	2.8	2.7	2.8	2.3	1.7	1.9
4	3.6	3.0	3.2	3.9	3.8	3.9	2.8	2.7	2.8	2.8	2.3	2.6
5	3.5	3.0	3.3	3.9	3.6	3.8	2.8	2.6	2.7	2.7	2.5	2.6
6	3.4	2.8	3.2	3.6	3.3	3.5	2.8	2.5	2.7	2.6	2.4	2.5
7	3.7	3.4	3.5	3.6	3.0	3.3	3.0	2.7	2.9	2.5	2.4	2.4
8	3.9	3.4	3.6	3.1	2.8	3.0	3.1	2.8	3.1	2.5	2.4	2.4
9	3.5	3.3	3.3	3.2	2.9	3.1	3.4	2.8	3.1	2.6	2.4	2.5
10	3.5	3.3	3.4	3.2	3.0	3.1	3.3	2.9	3.1	2.7	2.5	2.6
11	3.3	3.2	3.3	3.4	3.1	3.2	3.0	2.6	2.9	2.7	2.6	2.6
12	3.5	3.1	3.2	3.6	3.4	3.5	2.9	2.8	2.8	2.6	2.5	2.6
13	3.5	3.0	3.2	3.8	3.6	3.7	2.8	2.6	2.7	2.6	2.4	2.5
14	3.1	2.6	2.8	3.8	3.7	3.8	2.7	2.6	2.6	2.6	2.4	2.5
15	2.9	2.6	2.8	3.8	3.5	3.7	3.3	2.7	2.9	2.4	2.2	2.3
16	3.3	2.9	3.1	3.7	3.5	3.6	3.5	3.0	3.3	2.2	2.1	2.1
17	3.5	3.3	3.5	3.7	3.4	3.6	3.6	3.1	3.4	2.6	2.1	2.4
18	3.4	2.9	3.3	3.6	3.4	3.5	3.4	3.2	3.3	3.2	2.6	2.7
19	2.9	2.5	2.7	3.6	3.5	3.5	3.3	3.0	3.1	5.2	3.2	4.5
20	2.5	2.3	2.4	3.6	3.5	3.5	3.0	2.8	3.0	5.3	4.6	4.9
21	3.0	2.5	2.8	3.5	3.4	3.5	3.0	2.7	2.8	6.1	5.2	5.7
22	2.8	2.4	2.6	3.5	3.4	3.5	2.8	2.7	2.8	6.1	4.6	5.4
23	3.6	2.6	3.1	3.5	3.4	3.4	2.9	2.8	2.9	6.0	5.5	5.8
24	3.7	3.4	3.6	3.4	3.4	3.4	2.9	2.4	2.7	6.0	5.8	6.0
25	4.0	3.2	3.7	3.4	3.0	3.2	2.5	2.4	2.5	6.0	5.7	5.8
26	4.0	3.4	3.8	3.0	2.4	2.7	2.8	2.5	2.6	5.8	4.9	5.3
27	4.0	3.7	3.9	2.5	2.3	2.4	2.8	2.6	2.7	4.9	4.2	4.5
28	4.0	3.9	4.0	2.6	2.3	2.5	2.6	2.3	2.5	4.4	4.2	4.3
29	---	---	---	3.0	2.5	2.9	2.4	2.1	2.2	4.5	4.3	4.4
30	---	---	---	3.1	2.7	3.0	2.3	1.7	2.1	4.5	4.2	4.4
31	---	---	---	3.1	2.7	2.9	---	---	---	4.6	3.9	4.3
MONTH	4.0	1.9	3.2	4.0	2.3	3.4	3.6	1.7	2.8	6.1	1.7	3.5

0204343500 INTRACOASTAL WATERWAY AT COINJOCK, NC--Continued

SALINITY (PARTS PER THOUSAND), WATER YEAR OCTOBER 1998 TO JULY 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	4.4	3.9	4.1	6.8	4.8	6.0	---	---	---	---	---	---
2	4.8	4.1	4.5	6.7	4.6	5.3	---	---	---	---	---	---
3	5.2	4.5	4.9	4.9	4.4	4.5	---	---	---	---	---	---
4	4.5	3.4	3.9	4.5	4.2	4.3	---	---	---	---	---	---
5	3.5	3.1	3.2	4.7	4.5	4.6	---	---	---	---	---	---
6	3.6	3.0	3.2	4.8	4.6	4.8	---	---	---	---	---	---
7	4.2	3.5	3.9	5.0	4.7	4.9	---	---	---	---	---	---
8	4.9	4.2	4.6	5.0	4.7	4.9	---	---	---	---	---	---
9	5.1	4.4	4.8	4.9	4.7	4.8	---	---	---	---	---	---
10	4.4	3.6	3.9	5.0	4.8	4.9	---	---	---	---	---	---
11	3.6	3.2	3.4	4.9	4.6	4.7	---	---	---	---	---	---
12	3.2	3.0	3.1	---	---	---	---	---	---	---	---	---
13	5.0	3.2	3.8	---	---	---	---	---	---	---	---	---
14	5.7	5.0	5.4	---	---	---	---	---	---	---	---	---
15	5.8	5.6	5.7	---	---	---	---	---	---	---	---	---
16	5.6	4.6	5.1	---	---	---	---	---	---	---	---	---
17	5.0	4.5	4.8	---	---	---	---	---	---	---	---	---
18	5.0	4.2	4.8	---	---	---	---	---	---	---	---	---
19	4.4	3.7	4.1	---	---	---	---	---	---	---	---	---
20	5.0	3.7	4.2	---	---	---	---	---	---	---	---	---
21	5.4	5.0	5.2	---	---	---	---	---	---	---	---	---
22	5.1	4.0	4.4	---	---	---	---	---	---	---	---	---
23	5.1	4.2	4.7	---	---	---	---	---	---	---	---	---
24	6.2	5.1	5.9	---	---	---	---	---	---	---	---	---
25	6.7	6.1	6.3	---	---	---	---	---	---	---	---	---
26	6.7	5.9	6.5	---	---	---	---	---	---	---	---	---
27	6.4	6.0	6.3	---	---	---	---	---	---	---	---	---
28	6.8	6.4	6.7	---	---	---	---	---	---	---	---	---
29	6.9	6.3	6.7	---	---	---	---	---	---	---	---	---
30	6.4	5.3	6.1	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	6.9	3.0	4.8	---	---	---	---	---	---	---	---	---

0204345010 CURRITUCK SOUND AT POPLAR BRANCH, NC

LOCATION.--Lat 36°17'14", long 75°53'02", Currituck County, Hydrologic Unit 03010205, at Poplar Branch Landing at Poplar Branch.

DRAINAGE AREA.--Indeterminate.

GAGE-HEIGHT RECORDS

PERIOD OF RECORD.--August 1997 to July 1999 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is at sea level.

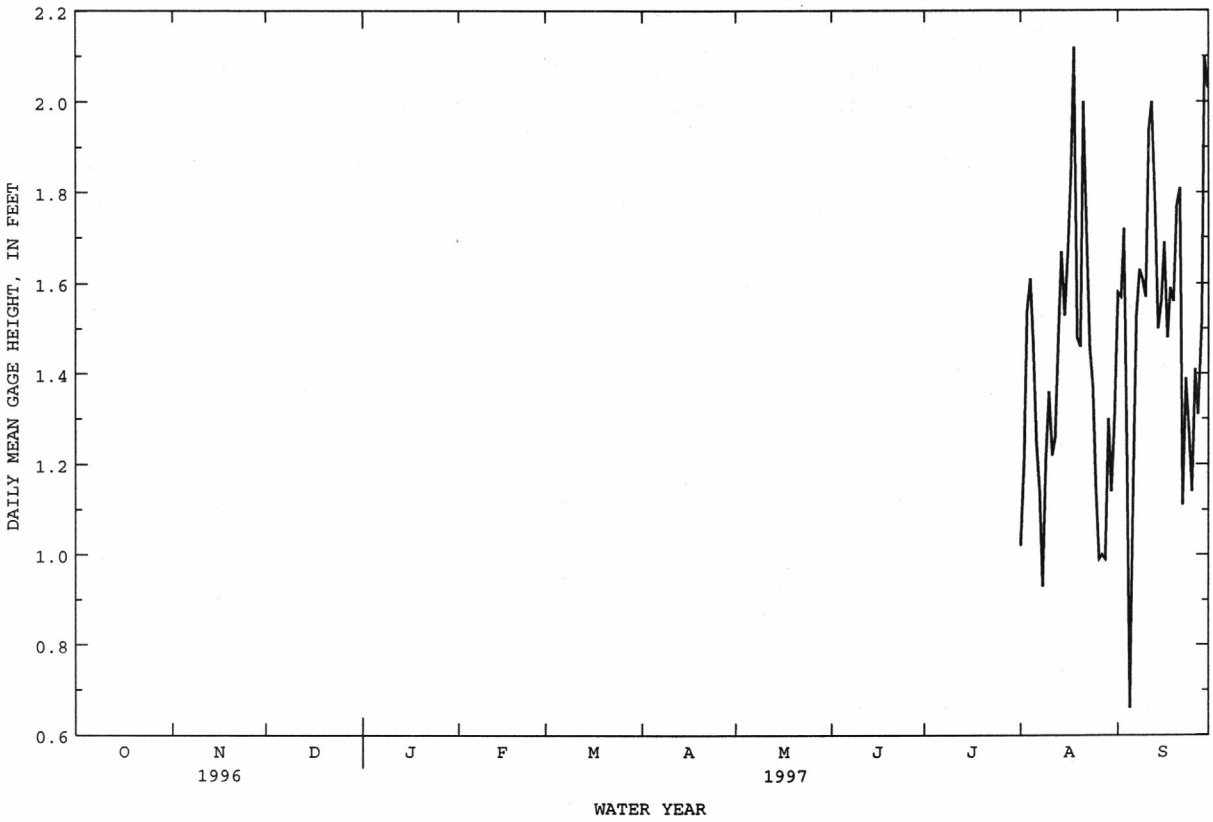
EXTREMES FOR PERIOD OF RECORD.--Maximum recorded, 4.82 ft, August 28, 1998, minimum recorded, -1.30 ft, May 3, 1999.

GAGE HEIGHT, FEET, WATER YEAR AUGUST 1997 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	1.02	1.58
2	---	---	---	---	---	---	---	---	---	---	1.21	1.57
3	---	---	---	---	---	---	---	---	---	---	1.54	1.72
4	---	---	---	---	---	---	---	---	---	---	1.61	1.22
5	---	---	---	---	---	---	---	---	---	---	1.47	.66
6	---	---	---	---	---	---	---	---	---	---	1.25	1.13
7	---	---	---	---	---	---	---	---	---	---	1.14	1.53
8	---	---	---	---	---	---	---	---	---	---	.93	1.63
9	---	---	---	---	---	---	---	---	---	---	1.21	1.61
10	---	---	---	---	---	---	---	---	---	---	1.36	e1.57
11	---	---	---	---	---	---	---	---	---	---	1.22	1.94
12	---	---	---	---	---	---	---	---	---	---	1.26	2.00
13	---	---	---	---	---	---	---	---	---	---	1.49	1.78
14	---	---	---	---	---	---	---	---	---	---	1.67	1.50
15	---	---	---	---	---	---	---	---	---	---	1.53	1.56
16	---	---	---	---	---	---	---	---	---	---	1.67	1.69
17	---	---	---	---	---	---	---	---	---	---	1.85	1.48
18	---	---	---	---	---	---	---	---	---	---	2.12	1.59
19	---	---	---	---	---	---	---	---	---	---	1.48	1.56
20	---	---	---	---	---	---	---	---	---	---	1.46	1.77
21	---	---	---	---	---	---	---	---	---	---	2.00	1.81
22	---	---	---	---	---	---	---	---	---	---	1.71	1.11
23	---	---	---	---	---	---	---	---	---	---	1.46	1.39
24	---	---	---	---	---	---	---	---	---	---	1.37	1.27
25	---	---	---	---	---	---	---	---	---	---	1.15	1.14
26	---	---	---	---	---	---	---	---	---	---	.99	1.41
27	---	---	---	---	---	---	---	---	---	---	1.00	1.31
28	---	---	---	---	---	---	---	---	---	---	.99	1.51
29	---	---	---	---	---	---	---	---	---	---	1.30	2.10
30	---	---	---	---	---	---	---	---	---	---	1.14	2.03
31	---	---	---	---	---	---	---	---	---	---	1.31	---
MEAN	---	---	---	---	---	---	---	---	---	---	1.38	1.54
MAX	---	---	---	---	---	---	---	---	---	---	2.12	2.10
MIN	---	---	---	---	---	---	---	---	---	---	.93	.66

e Estimated.

0204345010 CURRITUCK SOUND AT POPLAR BRANCH, NC--Continued

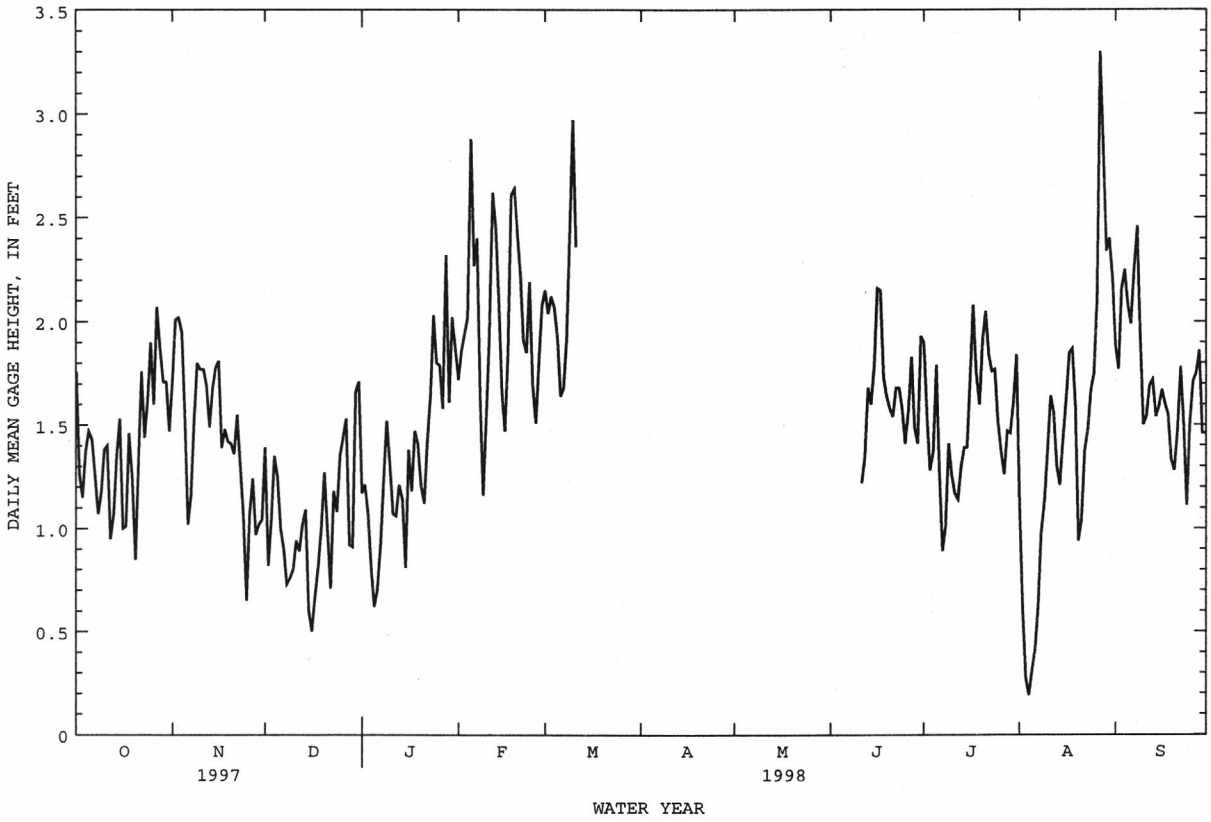


0204345010 CURRITUCK SOUND AT POPLAR BRANCH, NC--Continued

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.76	1.72	1.39	1.17	1.72	2.15	---	---	---	1.90	1.12	1.88
2	1.26	2.01	.82	1.21	1.86	2.04	---	---	---	1.55	.60	1.77
3	1.15	2.02	1.04	1.07	1.94	2.12	---	---	---	1.28	.27	2.16
4	1.37	1.95	1.35	.81	2.02	2.07	---	---	---	1.37	.19	2.25
5	1.47	1.54	1.25	.62	2.88	1.92	---	---	---	1.79	.31	2.08
6	1.43	1.02	1.00	.70	2.27	1.64	---	---	---	1.27	.41	1.99
7	1.25	1.16	.90	.92	2.40	1.68	---	---	---	.89	.62	2.26
8	1.07	1.52	.73	1.24	1.64	1.92	---	---	---	1.01	.98	2.46
9	1.17	1.80	.76	1.52	1.16	2.45	---	---	---	1.41	1.13	1.92
10	1.38	1.77	.80	1.31	1.53	2.97	---	---	---	1.26	1.38	1.50
11	1.40	1.77	.94	1.07	1.94	2.36	---	---	1.22	1.17	1.64	1.54
12	.95	1.69	.89	1.06	2.62	---	---	---	1.34	1.14	1.56	1.69
13	1.07	1.49	1.02	1.21	2.45	---	---	---	1.68	1.30	1.30	1.72
14	1.36	1.68	1.09	1.14	2.10	---	---	---	1.60	1.39	1.21	1.54
15	1.53	1.78	.60	.81	1.66	---	---	---	1.79	1.39	1.43	1.59
16	1.00	1.81	.50	1.38	1.47	---	---	---	2.16	1.73	1.63	1.67
17	1.01	1.39	.67	1.18	1.86	---	---	---	2.15	2.08	1.85	1.60
18	1.46	1.48	.81	1.47	2.61	---	---	---	1.73	1.75	1.87	1.55
19	1.25	1.42	1.00	1.41	2.64	---	---	---	1.64	1.60	1.59	1.33
20	.85	1.41	1.27	1.21	2.42	---	---	---	1.58	1.91	.94	1.28
21	1.33	1.36	.99	1.12	2.23	---	---	---	1.54	2.05	1.04	1.48
22	1.76	1.55	.71	1.42	1.91	---	---	---	1.68	1.84	1.37	1.78
23	1.44	1.30	1.18	1.64	1.85	---	---	---	1.68	1.76	1.48	1.51
24	1.62	1.06	1.08	2.03	2.19	---	---	---	1.58	1.77	1.67	1.11
25	1.90	.65	1.35	1.80	1.69	---	---	---	1.41	1.52	1.75	1.51
26	1.60	1.07	1.44	1.79	1.51	---	---	---	1.56	1.37	2.11	1.71
27	2.07	1.24	1.53	1.58	1.82	---	---	---	1.83	1.26	3.30	1.75
28	1.87	.97	.92	2.32	2.08	---	---	---	1.49	1.47	2.85	1.86
29	1.71	1.02	.91	1.61	---	---	---	---	1.41	1.46	2.34	1.46
30	1.71	1.04	1.66	2.02	---	---	---	---	1.93	1.61	2.40	1.46
31	1.47	---	1.71	1.87	---	---	---	---	---	1.84	2.20	---
MEAN	1.41	1.46	1.04	1.35	2.02	---	---	---	---	1.52	1.44	1.71
MAX	2.07	2.02	1.71	2.32	2.88	---	---	---	---	2.08	3.30	2.46
MIN	.85	.65	.50	.62	1.16	---	---	---	---	.89	.19	1.11

0204345010 CURRITUCK SOUND AT POPLAR BRANCH, NC--Continued

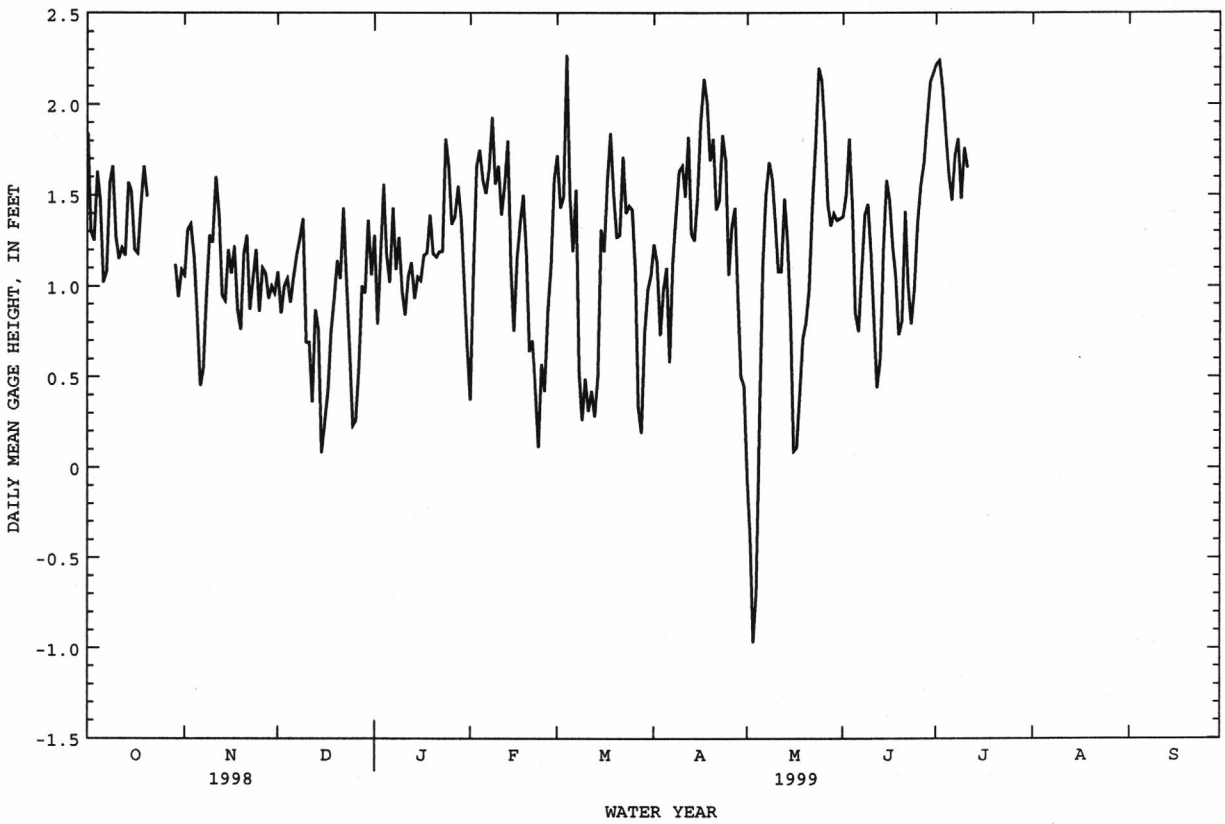


0204345010 CURRITUCK SOUND AT POPLAR BRANCH, NC--Continued

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1998 TO JULY 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.84	1.06	1.08	1.28	.37	1.72	1.23	-.06	1.38	2.22	---	---
2	1.30	1.31	.85	.79	1.09	1.43	1.13	-.39	1.50	2.24	---	---
3	1.25	1.34	1.00	1.17	1.66	1.49	.73	-.97	1.81	2.08	---	---
4	1.63	1.16	1.04	1.56	1.75	2.27	.98	-.69	1.44	1.83	---	---
5	1.48	.83	.91	1.17	1.58	1.50	1.10	.25	.85	1.61	---	---
6	1.02	.45	1.05	1.02	1.51	1.19	.58	1.11	.75	1.47	---	---
7	1.08	.55	1.17	1.43	1.64	1.53	1.14	1.50	1.08	1.72	---	---
8	1.57	.96	1.26	1.09	1.93	.53	1.39	1.68	1.39	1.81	---	---
9	1.66	1.28	1.37	1.27	1.56	.26	1.63	1.59	1.45	1.48	---	---
10	1.27	1.24	.69	.97	1.66	.49	1.66	1.35	1.18	1.76	---	---
11	1.15	1.60	.69	.84	1.39	.31	1.49	1.08	.81	1.65	---	---
12	1.21	1.39	.36	1.05	1.56	.42	1.82	1.08	.44	---	---	---
13	1.17	.95	.87	1.13	1.80	.28	1.29	1.48	.60	---	---	---
14	1.57	.92	.76	.93	1.11	.50	1.25	1.25	1.21	---	---	---
15	1.52	1.20	.08	1.05	.75	1.31	1.49	.80	1.58	---	---	---
16	1.20	1.07	.24	1.03	1.15	1.19	1.91	.09	1.47	---	---	---
17	1.18	1.22	.42	1.17	1.35	1.58	2.14	.11	1.22	---	---	---
18	1.43	.87	.75	1.18	1.50	1.84	2.01	.41	1.05	---	---	---
19	1.66	.76	.93	1.39	1.16	1.50	1.69	.71	.73	---	---	---
20	1.49	1.18	1.14	1.18	.64	1.27	1.81	.80	.81	---	---	---
21	---	1.28	1.04	1.16	.70	1.28	1.42	.98	1.41	---	---	---
22	---	.87	1.43	1.19	.43	1.71	1.47	1.44	1.00	---	---	---
23	---	1.04	1.03	1.19	.11	1.40	1.83	1.79	.79	---	---	---
24	---	1.20	.64	1.81	.57	1.44	1.69	2.20	.98	---	---	---
25	---	.86	.23	1.66	.42	1.42	1.06	2.13	1.34	---	---	---
26	---	1.10	.26	1.34	.87	1.07	1.33	1.85	1.55	---	---	---
27	---	1.07	.55	1.38	1.12	.33	1.43	1.45	1.68	---	---	---
28	---	.93	1.00	1.55	1.59	.19	.93	1.33	1.91	---	---	---
29	1.12	1.00	.96	1.37	---	.74	.50	1.40	2.12	---	---	---
30	.94	.96	1.36	1.01	---	.98	.45	1.36	2.17	---	---	---
31	1.09	---	1.06	.66	---	1.06	---	1.37	---	---	---	---
MEAN	---	1.05	.85	1.19	1.18	1.10	1.35	.98	1.26	---	---	---
MAX	---	1.60	1.43	1.81	1.93	2.27	2.14	2.20	2.17	---	---	---
MIN	---	.45	.08	.66	.11	.19	.45	-.97	.44	---	---	---

0204345010 CURRITUCK SOUND AT POPLAR BRANCH, NC--Continued



0204345010 CURRITUCK SOUND AT POPLAR BRANCH, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--August 1997 to July 1999 (discontinued).

PERIOD OF DAILY RECORD.--

SALINITY: August 1997 to July 1999.

WATER TEMPERATURE: August 1997 to July 1999.

INSTRUMENTATION.--Water-quality monitor.

REMARKS.--Station operated in cooperation with North Carolina Division of Water Resources.

EXTREMES FOR PERIOD OF RECORD.--

SALINITY: Maximum recorded, 8.9 parts per thousand, July 3, 1999; minimum recorded, 0.5 parts per thousand, Feb. 9, 1998 and Mar. 20, 1998.

WATER TEMPERATURE: Maximum recorded, 33.9°C, July 5, 1999; minimum recorded, 1.1°C, February 23, 1999.

TEMPERATURE, WATER (DEG. C), WATER YEAR AUGUST 1997 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	---	---	---	---	---	---	27.8	26.2	27.0
2	---	---	---	---	---	---	---	---	---	29.2	26.3	27.6
3	---	---	---	---	---	---	---	---	---	28.2	24.3	26.9
4	---	---	---	---	---	---	---	---	---	24.3	19.5	21.0
5	---	---	---	---	---	---	---	---	---	23.6	18.5	20.7
6	---	---	---	---	---	---	---	---	---	22.0	20.7	21.4
7	---	---	---	---	---	---	---	---	---	22.6	21.1	21.8
8	---	---	---	---	---	---	26.2	22.3	24.2	24.6	21.6	22.7
9	---	---	---	---	---	---	27.8	24.2	25.9	27.0	2.6	24.4
10	---	---	---	---	---	---	27.0	25.1	26.1	e26.1	e24.6	e25.4
11	---	---	---	---	---	---	30.0	25.2	27.3	25.4	24.3	24.7
12	---	---	---	---	---	---	30.5	26.7	28.6	26.7	24.2	25.3
13	---	---	---	---	---	---	28.4	26.9	27.5	27.7	25.5	26.4
14	---	---	---	---	---	---	28.7	26.8	27.6	27.7	25.8	26.7
15	---	---	---	---	---	---	29.9	27.6	28.6	26.6	25.2	25.7
16	---	---	---	---	---	---	30.1	28.3	28.9	26.2	24.5	25.3
17	---	---	---	---	---	---	29.7	28.2	28.9	27.9	24.8	26.0
18	---	---	---	---	---	---	29.7	28.0	28.9	27.3	25.2	26.2
19	---	---	---	---	---	---	29.2	25.4	27.3	28.6	25.4	26.7
20	---	---	---	---	---	---	27.8	26.2	26.8	27.5	25.9	26.4
21	---	---	---	---	---	---	27.8	25.7	26.5	26.2	21.2	23.3
22	---	---	---	---	---	---	28.3	26.3	27.3	23.2	19.4	21.4
23	---	---	---	---	---	---	27.7	25.7	26.7	23.1	21.9	22.3
24	---	---	---	---	---	---	27.6	25.3	26.4	22.2	19.0	20.5
25	---	---	---	---	---	---	26.6	24.5	25.5	20.0	18.9	19.3
26	---	---	---	---	---	---	26.1	23.9	24.9	22.8	19.3	20.7
27	---	---	---	---	---	---	26.9	24.0	25.3	22.1	20.8	21.2
28	---	---	---	---	---	---	28.5	24.7	26.4	21.8	20.8	21.2
29	---	---	---	---	---	---	27.7	25.9	26.8	22.1	21.3	21.7
30	---	---	---	---	---	---	28.2	25.0	26.5	22.2	20.6	21.5
31	---	---	---	---	---	---	28.3	25.8	27.0	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	29.2	2.6	23.7

e Estimated, partial record.

0204345010 CURRITUCK SOUND AT POPLAR BRANCH, NC--Continued

SALINITY (PARTS PER THOUSAND), WATER YEAR AUGUST 1997 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	---	---	---	---	---	---	2.6	2.3	2.4
2	---	---	---	---	---	---	---	---	---	2.6	2.5	2.6
3	---	---	---	---	---	---	---	---	---	2.7	2.3	2.6
4	---	---	---	---	---	---	---	---	---	2.3	1.7	1.9
5	---	---	---	---	---	---	---	---	---	2.0	1.9	1.9
6	---	---	---	---	---	---	---	---	---	2.3	1.9	2.1
7	---	---	---	---	---	---	---	---	---	2.4	2.3	2.3
8	---	---	---	---	---	---	1.9	1.8	1.8	2.6	2.4	2.5
9	---	---	---	---	---	---	2.0	1.9	1.9	2.7	2.5	2.6
10	---	---	---	---	---	---	2.0	2.0	2.0	e2.7	e2.6	e2.6
11	---	---	---	---	---	---	2.0	2.0	2.0	2.8	2.6	2.7
12	---	---	---	---	---	---	2.1	2.0	2.0	3.4	2.8	3.0
13	---	---	---	---	---	---	2.2	2.1	2.1	3.0	2.7	2.9
14	---	---	---	---	---	---	2.3	2.2	2.2	2.8	2.7	2.8
15	---	---	---	---	---	---	2.3	2.3	2.3	2.7	2.6	2.6
16	---	---	---	---	---	---	2.3	2.3	2.3	2.6	2.5	2.6
17	---	---	---	---	---	---	2.5	2.3	2.3	2.6	2.5	2.5
18	---	---	---	---	---	---	2.7	2.4	2.6	2.6	2.5	2.5
19	---	---	---	---	---	---	2.6	2.1	2.3	2.7	2.5	2.6
20	---	---	---	---	---	---	2.2	2.1	2.2	2.7	2.6	2.7
21	---	---	---	---	---	---	2.3	2.1	2.2	2.8	2.6	2.7
22	---	---	---	---	---	---	2.2	2.2	2.2	2.7	2.3	2.5
23	---	---	---	---	---	---	2.2	2.1	2.1	2.5	2.4	2.4
24	---	---	---	---	---	---	2.2	2.1	2.1	2.5	2.4	2.5
25	---	---	---	---	---	---	2.1	2.1	2.1	2.4	2.3	2.4
26	---	---	---	---	---	---	2.1	2.1	2.1	2.4	2.3	2.3
27	---	---	---	---	---	---	2.2	2.1	2.1	2.4	2.3	2.3
28	---	---	---	---	---	---	2.3	2.1	2.2	2.6	2.4	2.5
29	---	---	---	---	---	---	2.4	2.3	2.3	2.9	2.5	2.7
30	---	---	---	---	---	---	2.4	2.3	2.3	3.0	2.8	2.9
31	---	---	---	---	---	---	2.4	2.3	2.3	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	3.4	1.7	2.5

e Estimated, partial record.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	22.6	20.8	21.6	16.4	15.6	16.1	11.6	10.1	11.3	5.4	3.5	4.2
2	21.4	18.4	19.3	17.1	15.9	16.5	10.1	8.8	9.4	4.2	2.8	3.5
3	20.6	17.4	18.9	16.9	15.8	16.4	9.8	8.2	8.9	5.4	3.4	4.4
4	20.2	19.0	19.5	16.4	15.3	15.9	9.9	9.0	9.5	7.6	5.1	6.3
5	20.5	19.3	19.9	15.4	13.5	14.1	10.7	9.5	10.1	10.1	7.0	8.4
6	25.7	20.1	22.2	14.2	13.1	13.5	9.5	7.5	8.6	11.0	9.0	9.9
7	26.1	21.6	23.7	15.1	14.1	14.6	7.5	5.9	6.7	13.2	10.2	11.9
8	25.2	23.7	24.5	14.6	14.0	14.3	7.1	5.5	6.4	14.5	12.9	13.5
9	25.5	22.9	24.0	14.0	13.4	13.7	7.0	5.8	6.4	13.9	13.3	13.7
10	24.2	23.3	23.7	14.6	12.9	13.7	7.5	6.7	7.1	13.3	12.2	12.6
11	23.7	22.1	23.1	14.1	13.3	13.8	7.9	7.0	7.5	12.2	10.9	11.5
12	22.7	20.4	21.5	13.8	13.2	13.5	8.0	7.6	7.8	11.7	10.4	11.0
13	24.4	20.9	22.6	13.2	12.3	12.6	7.9	7.1	7.5	11.2	10.5	10.8
14	23.6	22.5	22.9	13.2	12.6	12.9	7.6	5.5	6.5	10.5	6.0	7.6
15	22.7	19.3	21.4	13.7	12.6	13.0	6.5	4.7	5.5	8.0	5.9	6.8
16	19.4	18.3	18.7	13.1	11.1	12.1	8.0	5.4	6.6	8.9	8.0	8.5
17	19.1	18.0	18.5	11.1	9.4	10.1	9.0	7.2	7.8	8.3	7.6	7.8
18	19.0	18.4	18.8	9.6	8.5	9.2	7.8	6.7	7.3	8.1	7.3	7.7
19	18.4	16.4	17.7	9.7	8.6	9.1	7.8	6.7	7.2	7.7	5.5	6.8
20	17.1	15.3	16.3	9.8	8.4	9.1	8.0	7.1	7.6	6.6	5.4	5.9
21	17.2	15.4	16.3	10.9	8.7	9.7	8.2	7.3	7.7	7.2	5.1	6.0
22	16.8	14.8	16.4	13.6	10.9	11.8	8.5	7.3	7.7	6.0	5.3	5.7
23	14.8	12.0	13.6	13.6	12.8	13.3	9.1	8.2	8.6	7.5	5.8	6.5
24	15.1	13.3	14.2	12.8	10.2	11.5	9.5	8.2	8.7	8.1	7.0	7.5
25	16.1	14.9	15.3	10.2	8.1	9.2	10.9	9.5	10.3	7.6	7.0	7.3
26	16.5	15.8	16.1	8.8	7.9	8.4	11.7	9.9	10.7	8.3	6.7	7.5
27	17.3	16.4	16.9	10.2	8.4	9.2	11.2	8.5	10.3	8.8	6.9	7.6
28	16.7	14.4	15.3	9.8	8.7	9.3	8.5	7.3	7.8	8.9	7.6	8.3
29	15.0	13.4	14.1	11.7	9.4	10.3	7.5	6.5	6.9	8.6	6.8	7.5
30	16.3	13.5	14.8	12.3	11.4	11.8	6.8	6.1	6.4	8.8	7.2	7.9
31	16.3	14.9	15.6	---	---	---	6.5	5.4	6.0	7.8	6.3	6.8
MONTH	26.1	12.0	18.9	17.1	7.9	12.3	11.7	4.7	8.0	14.5	2.8	8.1

0204345010 CURRITUCK SOUND AT POPLAR BRANCH, NC--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	8.3	6.2	7.0	12.5	11.3	11.8	20.2	19.1	19.7	18.4	17.6	17.9
2	8.5	6.4	7.4	12.2	11.1	11.6	20.5	19.3	19.8	19.9	17.8	18.8
3	8.4	7.4	7.8	11.3	10.6	11.0	19.5	16.8	18.1	21.7	18.6	19.7
4	9.7	8.4	9.1	10.6	9.5	10.0	16.8	13.0	15.5	22.4	20.2	21.0
5	9.2	8.3	9.0	12.0	9.2	10.6	13.0	13.9	11.8	21.4	19.8	20.5
6	8.3	6.8	7.5	11.3	9.5	10.2	15.0	10.5	12.5	21.2	20.5	20.8
7	7.0	6.5	6.8	11.1	10.0	10.5	16.7	12.7	14.5	24.6	20.5	22.0
8	6.9	5.8	6.4	12.5	10.6	11.2	16.7	14.2	15.4	22.9	21.8	22.2
9	8.2	5.2	6.5	14.1	12.5	13.5	17.7	16.3	16.9	21.9	20.2	21.0
10	7.4	6.3	6.9	13.6	12.1	13.1	17.4	14.2	16.2	20.8	19.5	20.1
11	9.3	7.4	8.1	12.1	9.7	10.5	16.0	13.1	14.4	19.9	15.9	17.8
12	10.3	9.1	9.7	9.7	9.4	8.3	16.1	13.6	14.8	15.9	14.5	15.2
13	9.9	9.2	9.6	8.8	6.2	7.6	17.1	13.5	15.2	14.5	12.8	13.4
14	9.7	7.4	8.0	9.3	7.5	8.3	16.0	14.8	15.1	15.4	12.3	13.6
15	7.5	5.0	6.3	10.6	7.7	9.1	17.6	14.5	15.5	17.8	13.6	15.3
16	8.0	6.0	6.9	9.8	7.4	8.5	18.6	16.4	17.3	21.3	16.0	17.8
17	10.7	8.0	9.4	7.4	6.1	6.4	19.8	18.0	18.8	19.5	18.2	18.8
18	10.9	9.8	10.4	10.1	6.3	8.2	19.5	16.6	18.1	23.3	19.5	21.2
19	11.2	10.3	10.8	11.6	10.1	10.9	17.9	15.3	16.7	23.0	21.3	21.9
20	12.5	10.9	11.6	12.4	11.2	11.8	20.3	17.7	18.8	22.4	21.3	21.8
21	11.8	11.0	11.4	12.3	11.1	11.6	18.9	16.7	17.8	22.8	21.4	21.9
22	12.5	10.2	11.3	11.8	11.0	11.4	17.4	14.1	15.6	24.4	21.0	22.7
23	11.5	10.0	10.8	12.6	10.4	11.4	16.5	12.7	14.3	23.3	21.3	22.5
24	11.0	9.6	10.2	12.3	11.2	11.6	15.7	14.3	15.0	23.0	20.3	21.4
25	10.3	8.8	9.6	12.7	9.7	11.2	16.5	14.7	15.6	23.4	21.4	22.0
26	11.9	8.9	10.2	13.0	11.3	12.1	18.7	16.1	17.4	26.1	22.3	23.8
27	11.1	9.9	10.4	15.3	12.6	13.9	18.0	15.1	16.9	25.5	24.2	24.7
28	11.7	10.5	11.0	16.9	14.3	15.6	18.1	14.1	15.9	26.0	23.2	24.5
29	---	---	---	18.5	16.1	17.0	18.9	15.7	17.3	28.2	24.0	25.9
30	---	---	---	19.9	17.4	18.4	18.1	16.8	17.5	28.2	25.2	26.3
31	---	---	---	20.4	18.4	19.4	---	---	---	27.7	26.2	26.8
MONTH	12.5	5.0	8.9	20.4	6.1	11.5	20.5	10.5	16.3	28.2	12.3	20.8

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	28.0	25.9	26.8	29.4	26.7	27.9	26.9	24.0	25.4	30.4	28.8	29.6
2	27.3	25.3	26.4	29.1	27.3	28.2	25.0	23.0	23.9	28.9	27.0	27.6
3	29.1	25.6	27.0	29.6	26.6	27.9	25.4	22.5	23.7	27.8	26.4	27.3
4	27.5	24.9	26.0	29.2	27.1	28.0	25.8	22.6	24.2	26.4	25.4	25.6
5	26.0	24.8	25.5	27.9	26.6	27.5	26.2	23.4	24.8	27.5	24.9	26.0
6	24.8	22.8	23.8	27.9	25.0	26.4	26.7	24.5	25.5	26.8	25.2	25.9
7	23.3	21.8	22.6	27.7	25.0	26.2	27.5	25.4	26.4	26.8	25.6	26.1
8	23.0	20.9	22.0	26.8	25.4	26.2	30.4	26.4	28.0	26.2	24.5	25.5
9	23.9	21.7	22.7	29.1	26.0	27.2	32.0	28.3	29.9	25.1	21.6	22.9
10	23.9	20.6	22.3	30.9	26.7	28.5	31.9	28.8	30.1	23.5	21.2	22.4
11	25.4	22.6	23.9	29.4	26.9	27.8	31.3	29.0	30.0	24.9	21.4	23.0
12	26.6	23.7	24.6	28.7	25.5	27.0	31.1	29.5	30.2	23.6	22.4	22.9
13	25.5	24.4	25.0	30.0	25.9	27.8	30.3	28.2	29.4	27.4	22.7	24.7
14	25.1	23.8	24.5	29.5	26.5	28.0	28.8	26.7	27.7	28.2	25.3	26.6
15	26.8	24.2	25.2	30.5	27.1	28.5	29.8	26.2	27.8	28.7	25.6	27.1
16	27.0	25.2	25.8	28.8	27.6	28.2	29.6	27.9	28.6	27.8	26.2	26.8
17	27.2	25.6	26.1	27.9	27.2	27.5	28.8	28.0	28.4	29.8	26.2	27.9
18	28.7	26.1	27.3	30.8	27.3	28.8	31.5	28.1	29.4	28.8	26.8	27.9
19	27.6	26.0	26.8	29.9	28.5	29.2	30.4	25.3	28.2	26.8	25.7	26.2
20	29.3	25.5	27.1	29.8	28.3	29.0	25.9	22.6	24.3	28.3	25.2	26.5
21	29.3	26.1	27.5	30.0	28.4	29.2	28.5	23.7	25.7	28.7	26.3	27.2
22	29.4	27.1	28.3	30.2	28.9	29.5	27.7	24.9	26.0	27.5	26.6	26.9
23	30.5	27.7	29.0	30.6	29.2	29.8	27.7	25.4	26.1	27.0	21.3	23.8
24	29.5	27.8	28.6	30.9	28.9	29.9	27.2	25.7	26.3	23.8	19.5	21.5
25	31.2	27.0	28.8	30.1	28.6	29.4	---	---	---	25.2	21.9	23.2
26	29.7	28.2	28.9	28.6	24.8	26.4	---	---	---	23.3	22.6	22.8
27	31.1	27.8	29.1	27.7	24.1	25.9	---	---	---	24.0	22.2	23.1
28	29.7	27.1	28.6	29.9	26.2	27.6	---	---	---	27.7	23.2	25.0
29	28.8	26.0	27.1	28.6	27.3	27.8	25.4	24.4	24.9	27.1	24.5	25.9
30	28.2	26.9	27.5	30.4	27.6	28.6	28.8	25.1	26.8	25.1	24.0	24.6
31	---	---	---	29.0	26.0	28.1	31.0	27.6	29.1	---	---	---
MONTH	31.2	20.6	26.2	30.9	24.1	28.0	---	---	---	30.4	19.5	25.4

0204345010 CURRITUCK SOUND AT POPLAR BRANCH, NC--Continued

SALINITY (PARTS PER THOUSAND), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	3.0	2.8	3.0	2.9	2.7	2.8	2.4	2.1	2.2	2.5	2.3	2.4
2	2.8	2.7	2.8	3.1	2.8	2.9	2.2	2.1	2.2	2.4	2.3	2.3
3	2.8	2.7	2.8	3.2	3.0	3.1	2.2	2.2	2.2	2.4	2.2	2.4
4	2.9	2.7	2.8	3.2	3.0	3.2	2.8	2.2	2.5	2.4	2.2	2.3
5	2.9	2.8	2.9	3.0	2.4	2.7	2.8	2.6	2.7	2.2	2.0	2.2
6	3.2	2.8	2.9	2.4	2.2	2.3	2.7	2.6	2.7	2.2	2.0	2.1
7	3.4	3.1	3.2	2.5	2.2	2.4	2.7	2.6	2.6	2.1	2.1	2.1
8	3.1	2.8	2.9	2.6	2.5	2.5	2.6	2.3	2.4	2.2	2.0	2.1
9	3.0	2.8	2.9	2.8	2.6	2.7	2.3	2.2	2.2	2.9	2.0	2.4
10	3.2	3.0	3.0	2.8	2.7	2.8	2.2	2.0	2.1	2.9	2.3	2.6
11	3.3	3.0	3.1	2.8	2.6	2.7	2.2	1.9	2.0	2.6	2.1	2.3
12	3.0	2.7	2.8	2.9	2.6	2.8	2.1	1.9	2.0	2.3	2.1	2.2
13	2.8	2.6	2.7	2.9	2.3	2.7	2.4	2.0	2.1	2.3	2.1	2.2
14	2.9	2.4	2.6	2.5	2.4	2.5	2.6	2.1	2.3	2.2	2.0	2.1
15	2.6	2.4	2.5	2.8	2.5	2.6	2.2	2.0	2.2	2.0	1.9	2.0
16	2.5	2.4	2.5	2.7	2.7	2.7	2.0	1.9	1.9	2.0	1.3	1.7
17	2.4	2.0	2.2	2.7	2.5	2.7	2.0	1.9	1.9	1.9	1.6	1.8
18	2.3	2.1	2.2	2.5	2.4	2.5	2.0	1.9	2.0	2.0	1.7	1.9
19	2.2	1.8	2.0	2.5	2.4	2.5	2.1	1.9	2.0	2.0	1.4	1.8
20	2.0	1.9	1.9	2.5	2.5	2.5	2.3	2.1	2.3	2.0	1.4	1.8
21	2.2	2.0	2.1	2.5	2.4	2.5	2.4	2.2	2.3	2.0	1.9	2.0
22	2.6	2.2	2.5	2.8	2.4	2.6	2.3	2.1	2.2	2.1	1.9	2.0
23	2.4	2.2	2.3	2.6	2.3	2.4	2.2	2.1	2.1	2.1	1.9	2.0
24	2.7	2.2	2.5	2.3	2.3	2.3	2.2	1.9	2.0	2.3	2.0	2.2
25	3.2	2.6	3.0	2.3	2.1	2.2	2.3	2.0	2.2	2.2	2.1	2.1
26	3.2	3.0	3.1	2.3	2.2	2.2	2.3	2.2	2.3	2.2	1.7	2.0
27	3.2	3.0	3.2	2.5	2.3	2.5	2.4	2.0	2.2	1.9	1.6	1.7
28	3.2	3.2	3.2	2.5	2.5	2.5	2.0	1.7	1.9	2.1	1.6	2.0
29	3.2	3.0	3.1	2.5	2.4	2.4	2.0	1.8	1.9	2.0	1.9	1.9
30	3.0	3.0	3.0	2.4	2.2	2.3	2.4	1.9	2.1	2.0	1.6	1.9
31	3.1	2.8	3.0	---	---	---	2.5	2.4	2.5	1.9	1.4	1.6
MONTH	3.4	1.8	2.7	3.2	2.1	2.6	2.8	1.7	2.2	2.9	1.3	2.1

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	2.0	1.7	1.9	1.7	1.3	1.5	1.2	.9	1.1	1.2	1.2	1.2
2	2.0	1.8	1.9	1.6	1.2	1.4	1.2	1.0	1.2	1.2	1.2	1.2
3	2.1	1.6	1.9	1.6	1.3	1.5	1.2	.8	1.1	1.2	1.2	1.2
4	1.9	1.6	1.7	1.7	1.3	1.5	1.1	1.0	1.1	1.2	1.2	1.2
5	1.9	1.3	1.8	1.7	1.1	1.5	1.1	1.0	1.0	1.2	1.1	1.2
6	1.9	1.2	1.5	1.6	1.1	1.2	1.0	.8	.9	1.1	1.0	1.1
7	1.5	1.1	1.4	1.4	1.1	1.3	1.0	.8	.9	1.2	1.0	1.1
8	1.1	.7	.8	1.4	1.1	1.3	1.1	1.0	1.1	1.2	1.1	1.2
9	1.5	.5	.8	1.6	1.2	1.4	1.2	1.0	1.1	1.2	1.1	1.1
10	1.7	1.2	1.6	1.8	1.4	1.6	1.2	1.1	1.1	1.1	1.0	1.1
11	1.8	1.5	1.6	1.7	1.1	1.5	1.1	1.0	1.0	1.0	.8	.9
12	1.8	1.5	1.7	1.3	1.0	1.2	1.1	1.0	1.0	1.0	.9	.9
13	1.8	1.4	1.7	1.1	1.0	1.1	1.2	1.0	1.1	.9	.9	.9
14	1.7	1.1	1.4	1.2	1.0	1.1	1.2	1.1	1.2	.9	.9	.9
15	1.7	1.2	1.3	1.2	1.0	1.1	1.2	1.1	1.2	1.0	.9	.9
16	1.6	1.3	1.4	1.0	1.0	1.0	1.2	1.1	1.2	1.1	1.0	1.0
17	1.7	1.5	1.6	1.0	.9	.9	1.3	1.1	1.2	1.1	1.1	1.1
18	1.8	1.4	1.6	1.0	.9	1.0	1.2	1.1	1.2	1.1	1.1	1.1
19	1.8	1.5	1.7	1.0	.9	.9	1.2	1.2	1.2	1.1	1.0	1.1
20	1.8	1.6	1.8	.9	.5	.7	1.3	1.2	1.2	1.0	.9	1.0
21	1.7	1.5	1.7	1.0	.6	1.0	1.3	1.2	1.2	1.0	.9	1.0
22	1.7	1.4	1.6	1.1	1.0	1.0	1.3	1.2	1.2	1.0	.9	1.0
23	1.6	1.5	1.6	1.1	.7	.9	1.2	1.1	1.2	1.0	1.0	1.0
24	1.6	1.5	1.6	1.1	.8	1.0	1.1	1.1	1.1	1.0	1.0	1.0
25	1.6	1.5	1.6	1.1	.8	.9	1.2	1.1	1.1	1.0	.9	1.0
26	1.6	1.3	1.5	1.0	.8	1.0	1.2	1.2	1.2	1.0	.9	1.0
27	1.6	1.3	1.5	1.1	.8	1.0	1.2	1.2	1.2	1.0	.8	.9
28	1.7	1.4	1.6	1.2	.8	1.0	1.2	1.2	1.2	.9	.8	.9
29	---	---	---	1.2	.9	1.1	1.2	1.2	1.2	1.0	.8	.9
30	---	---	---	1.2	1.0	1.1	1.2	1.2	1.2	.9	.8	.9
31	---	---	---	1.2	.9	1.1	---	---	---	.9	.8	.9
MONTH	2.1	.5	1.6	1.8	.5	1.2	1.3	.8	1.1	1.2	.8	1.0

0204345010 CURRITUCK SOUND AT POPLAR BRANCH, NC--Continued

SALINITY (PARTS PER THOUSAND), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	.9	.8	.9	.9	.9	.9	1.0	1.0	1.0	2.9	2.1	2.7
2	1.0	.8	.9	.9	.9	.9	1.0	.9	1.0	2.5	1.6	1.9
3	1.0	.9	1.0	.9	.9	.9	1.0	.9	.9	2.4	1.8	2.0
4	1.0	1.0	1.0	.9	.9	.9	1.0	1.0	1.0	2.4	2.1	2.2
5	1.1	1.0	1.0	.9	.9	.9	1.0	1.0	1.0	2.5	1.9	2.2
6	1.1	1.0	1.0	.9	.9	.9	1.1	1.0	1.0	2.1	1.6	1.8
7	1.1	1.1	1.1	.9	.9	.9	1.0	1.0	1.0	2.9	1.8	2.1
8	1.1	1.0	1.1	.9	.9	.9	1.0	1.0	1.0	3.3	2.7	2.9
9	1.1	1.1	1.1	.9	.9	.9	1.1	1.0	1.0	3.3	1.6	2.1
10	1.1	.9	1.0	1.0	.9	.9	1.1	1.1	1.1	1.9	1.6	1.8
11	1.0	1.0	1.0	1.0	.9	1.0	1.1	1.1	1.1	1.9	1.8	1.9
12	1.0	1.0	1.0	1.0	.9	1.0	1.2	1.1	1.1	2.3	1.9	2.0
13	1.0	.9	1.0	1.0	.8	1.0	1.1	1.1	1.1	2.3	2.1	2.2
14	1.0	.8	.9	1.0	1.0	1.0	1.1	1.1	1.1	2.2	1.7	2.0
15	1.0	.8	.9	1.0	1.0	1.0	1.1	1.1	1.1	2.2	1.9	2.1
16	1.0	.8	.9	1.1	1.0	1.0	1.1	1.1	1.1	2.4	2.2	2.3
17	1.0	.9	1.0	1.1	1.0	1.0	1.4	1.1	1.2	2.5	1.9	2.3
18	1.0	.9	1.0	1.0	.9	1.0	1.5	1.2	1.4	2.3	1.9	2.2
19	1.0	1.0	1.0	1.1	1.0	1.0	1.5	1.4	1.4	e2.2	e1.8	e2.1
20	1.0	.9	1.0	1.0	1.0	1.0	1.4	1.2	1.3	2.0	1.7	1.9
21	1.0	.9	1.0	1.1	1.0	1.0	1.2	1.1	1.1	1.9	1.6	1.7
22	1.0	.9	1.0	1.1	1.0	1.0	1.2	1.1	1.1	3.2	1.9	2.5
23	1.0	.9	1.0	1.1	1.0	1.0	1.3	1.2	1.2	2.9	1.7	2.5
24	1.0	.9	.9	1.0	1.0	1.0	1.8	1.2	1.5	1.9	1.4	1.5
25	.9	.9	.9	1.0	.9	1.0	e2.0	e1.8	e1.9	2.4	1.6	1.8
26	1.0	.9	.9	.9	.9	.9	---	---	---	e3.2	e2.0	e2.6
27	1.0	.9	1.0	1.0	.8	.9	---	---	---	e3.5	e2.7	e3.1
28	1.0	.9	1.0	1.0	.9	1.0	2.8	2.2	2.4	3.5	2.8	3.2
29	1.0	.9	1.0	1.0	1.0	1.0	3.7	2.6	3.2	e3.5	e2.2	e2.9
30	.9	.9	.9	1.0	.8	1.0	3.5	3.3	3.4	e2.5	e2.2	e2.4
31	---	---	---	1.0	.8	.9	3.6	2.8	3.2	---	---	---
MONTH	1.1	.8	1.0	1.1	.8	1.0	---	---	---	3.5	1.4	2.2

e Estimated, partial record.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO JULY 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	24.9	23.3	24.5	16.8	14.9	15.9	17.0	13.8	15.1	5.8	4.4	5.0
2	23.3	19.4	21.0	17.1	15.3	16.0	16.1	14.9	15.4	5.5	2.7	3.8
3	22.5	19.5	21.0	16.2	14.1	15.0	15.3	14.2	14.8	8.4	5.5	7.4
4	21.5	20.9	21.2	14.1	11.4	13.0	15.0	14.3	14.7	8.0	6.8	7.6
5	21.3	20.7	21.0	11.4	9.6	10.5	15.5	14.5	14.9	6.9	4.4	5.4
6	23.2	19.9	21.1	9.8	8.4	9.2	16.2	14.9	15.4	5.1	3.6	4.3
7	22.7	19.1	20.8	10.5	8.3	9.4	17.2	15.6	16.4	5.6	3.2	4.0
8	22.2	21.1	21.6	10.5	8.7	9.8	17.6	16.7	17.2	5.8	4.6	5.1
9	21.9	21.0	21.5	11.6	9.8	10.6	17.5	12.4	15.4	7.7	5.7	6.7
10	21.5	19.9	20.7	13.5	10.5	11.8	13.0	10.7	12.0	7.1	4.2	5.3
11	21.7	19.4	20.6	14.4	12.8	13.9	12.1	10.3	11.5	5.2	3.9	4.6
12	21.7	19.6	20.6	14.3	12.6	13.6	10.6	8.3	9.5	5.5	3.8	4.6
13	23.1	19.8	21.2	12.6	12.0	12.3	11.3	10.4	10.9	6.5	4.9	5.7
14	21.8	20.2	20.7	12.4	11.6	12.1	11.1	8.8	10.0	8.8	6.4	7.5
15	21.1	19.0	20.0	14.1	12.0	12.7	9.8	7.8	8.9	9.9	8.3	9.2
16	19.7	17.9	18.8	15.0	12.8	13.9	11.3	9.8	10.5	9.1	8.0	8.5
17	20.2	16.8	18.4	16.9	14.0	15.0	10.3	9.2	9.8	9.6	7.5	8.5
18	19.2	18.4	18.8	16.2	13.6	14.5	9.3	8.1	8.7	11.0	9.0	10.0
19	20.0	18.5	19.3	14.7	12.1	13.6	9.3	7.8	8.6	11.0	10.0	10.6
20	21.1	19.6	20.2	14.6	14.1	14.4	11.8	8.9	10.0	11.7	9.8	10.7
21	---	---	---	14.7	13.1	14.1	12.7	11.2	11.7	11.7	10.7	11.1
22	---	---	---	13.2	11.4	12.4	12.3	10.5	11.6	14.0	11.0	12.1
23	---	---	---	13.4	11.5	12.5	10.5	6.3	7.4	15.5	12.5	13.9
24	---	---	---	15.8	13.2	14.2	6.6	4.5	5.8	15.3	14.3	14.9
25	---	---	---	14.5	13.0	13.8	4.7	3.1	3.8	14.3	12.1	12.9
26	---	---	---	14.2	13.2	13.6	5.1	3.9	4.4	12.2	9.3	10.6
27	---	---	---	13.8	12.4	13.1	6.1	4.2	5.3	11.5	10.0	10.8
28	---	---	---	13.8	12.3	13.0	7.4	5.5	6.4	12.3	11.1	11.7
29	18.9	17.1	17.9	13.6	12.3	13.0	7.4	6.8	7.1	12.2	10.8	11.6
30	17.3	15.6	16.3	13.9	12.6	13.3	6.8	5.6	6.4	10.8	8.8	10.0
31	17.2	15.7	16.4	---	---	---	5.8	4.6	5.1	8.8	5.1	6.1
MONTH	---	---	---	17.1	8.3	13.0	17.6	3.1	10.5	15.5	2.7	8.4

0204345010 CURRITUCK SOUND AT POPLAR BRANCH, NC--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO JULY 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	7.7	4.9	6.1	9.4	8.2	8.8	14.8	12.8	13.8	11.8	10.8	11.3
2	9.9	7.5	8.9	9.8	8.0	8.8	18.8	14.3	16.5	11.6	11.1	11.3
3	12.3	9.4	10.6	12.2	8.2	10.1	20.0	15.7	17.8	15.2	10.9	12.9
4	11.5	10.1	10.6	11.1	9.3	10.1	18.6	16.8	17.8	20.6	12.6	16.3
5	10.7	9.3	10.0	11.2	7.2	9.3	18.1	14.5	16.2	19.9	15.6	17.5
6	9.9	9.1	9.5	11.1	8.2	9.9	17.6	12.5	14.8	18.8	16.9	17.5
7	10.4	9.0	9.8	11.0	7.4	9.9	21.4	15.6	17.5	20.5	18.2	19.0
8	10.4	9.0	10.1	7.4	4.0	6.0	19.8	17.6	18.3	22.3	19.8	21.1
9	9.6	7.7	8.9	6.1	4.6	5.2	20.5	18.5	19.4	25.7	22.0	23.5
10	12.9	9.4	11.0	6.0	5.0	5.5	19.8	17.1	18.5	25.4	22.6	23.9
11	12.5	10.7	11.6	8.2	4.4	6.2	17.6	15.2	15.9	25.0	22.9	23.8
12	13.4	11.5	12.4	8.6	5.3	7.0	16.8	15.0	15.9	24.8	21.8	23.2
13	13.2	10.3	12.4	9.3	6.2	7.7	15.8	13.4	14.9	25.8	22.7	24.0
14	10.3	7.1	8.4	9.1	7.6	8.0	15.5	13.5	14.5	23.7	16.0	19.8
15	8.8	6.5	7.6	9.3	7.8	8.7	16.2	14.1	15.1	16.0	14.3	14.8
16	8.9	7.3	8.1	9.4	7.0	8.0	17.6	15.9	16.5	17.1	14.1	15.5
17	10.5	8.2	9.5	9.2	7.3	8.3	17.1	16.1	16.5	22.4	16.2	18.9
18	11.1	10.1	10.6	11.9	8.9	10.3	16.8	14.9	15.9	20.7	18.9	19.8
19	11.0	9.1	10.0	14.2	9.9	11.7	17.1	14.8	15.8	21.6	19.2	20.1
20	9.4	7.8	8.5	14.5	9.9	11.8	17.3	15.3	16.3	24.3	19.6	21.5
21	7.8	5.8	6.8	12.3	11.1	11.6	19.2	14.0	16.9	24.2	20.3	22.1
22	5.8	2.6	4.0	12.6	11.2	11.8	18.8	17.2	18.0	22.1	20.8	21.4
23	2.9	1.1	2.3	14.3	10.3	12.4	20.5	17.9	19.1	23.2	21.4	22.2
24	3.7	2.4	3.0	14.8	13.0	13.8	20.0	16.8	18.5	23.3	22.2	22.8
25	4.9	3.3	4.0	14.8	13.2	14.2	20.4	16.8	18.4	24.3	22.4	23.3
26	6.6	3.5	4.9	13.2	7.5	9.8	19.0	17.6	18.3	23.2	22.5	22.7
27	7.9	4.5	6.1	7.5	6.5	6.8	19.8	17.7	18.5	24.5	20.9	22.7
28	8.6	7.0	7.9	10.5	6.4	8.1	17.9	13.9	15.7	26.4	21.9	23.9
29	---	---	---	12.9	8.4	10.3	13.9	11.7	12.6	27.4	23.6	25.3
30	---	---	---	16.8	10.2	12.7	13.3	10.7	11.9	25.7	24.2	25.0
31	---	---	---	13.7	11.8	12.8	---	---	---	26.1	23.9	24.9
MONTH	13.4	1.1	8.3	16.8	4.0	9.5	21.4	10.7	16.5	27.4	10.8	20.4

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	26.2	24.1	25.1	28.6	26.8	27.6	---	---	---	---	---	---
2	26.4	24.1	25.2	28.7	27.1	27.8	---	---	---	---	---	---
3	25.4	24.3	24.9	29.9	27.0	28.2	---	---	---	---	---	---
4	26.9	23.3	25.0	29.9	27.9	28.8	---	---	---	---	---	---
5	26.7	22.7	24.4	33.9	28.1	30.3	---	---	---	---	---	---
6	28.4	24.1	26.0	32.9	30.5	31.4	---	---	---	---	---	---
7	27.1	25.6	26.2	30.8	29.2	29.9	---	---	---	---	---	---
8	30.9	25.0	26.7	30.6	28.4	29.4	---	---	---	---	---	---
9	30.9	25.8	27.9	31.0	29.0	30.0	---	---	---	---	---	---
10	29.4	24.9	27.3	30.2	29.0	29.5	---	---	---	---	---	---
11	25.0	22.9	23.8	29.3	23.8	26.4	---	---	---	---	---	---
12	23.0	21.0	21.5	---	---	---	---	---	---	---	---	---
13	23.6	20.8	22.0	---	---	---	---	---	---	---	---	---
14	25.3	23.0	23.9	---	---	---	---	---	---	---	---	---
15	25.7	24.2	24.9	---	---	---	---	---	---	---	---	---
16	24.4	20.9	22.7	---	---	---	---	---	---	---	---	---
17	20.9	19.5	20.0	---	---	---	---	---	---	---	---	---
18	22.4	19.3	20.6	---	---	---	---	---	---	---	---	---
19	23.7	19.2	21.4	---	---	---	---	---	---	---	---	---
20	22.4	20.5	21.3	---	---	---	---	---	---	---	---	---
21	22.9	21.5	22.1	---	---	---	---	---	---	---	---	---
22	24.8	20.5	22.5	---	---	---	---	---	---	---	---	---
23	25.8	22.0	23.8	---	---	---	---	---	---	---	---	---
24	27.1	23.5	25.3	---	---	---	---	---	---	---	---	---
25	27.8	24.5	26.0	---	---	---	---	---	---	---	---	---
26	29.7	25.6	27.3	---	---	---	---	---	---	---	---	---
27	28.2	27.0	27.5	---	---	---	---	---	---	---	---	---
28	28.3	26.8	27.5	---	---	---	---	---	---	---	---	---
29	28.2	26.9	27.5	---	---	---	---	---	---	---	---	---
30	28.2	27.1	27.6	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	30.9	19.2	24.6	---	---	---	---	---	---	---	---	---

0204345010 CURRITUCK SOUND AT POPLAR BRANCH, NC--Continued

SALINITY (PARTS PER THOUSAND), WATER YEAR OCTOBER 1998 TO JULY 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	2.7	2.4	2.5	2.3	2.2	2.2	2.4	2.1	2.2	2.2	1.8	2.0
2	2.5	1.8	2.2	2.6	2.3	2.4	2.4	2.0	2.2	2.0	1.7	1.8
3	2.1	1.6	1.9	2.4	2.2	2.3	2.3	1.9	2.1	2.0	1.8	1.9
4	2.8	1.9	2.3	2.3	1.9	2.1	2.2	2.0	2.1	2.2	1.9	2.0
5	2.7	2.2	2.6	1.9	1.8	1.8	2.3	1.9	2.1	2.1	1.7	1.9
6	2.4	1.7	2.2	1.8	1.8	1.8	2.3	2.0	2.2	1.9	1.8	1.8
7	2.2	1.8	2.0	1.8	1.7	1.8	2.5	2.1	2.2	2.3	1.8	2.0
8	2.5	2.2	2.3	2.1	1.8	1.9	2.8	2.5	2.6	2.0	1.8	2.0
9	2.7	2.1	2.5	2.2	1.9	2.1	2.9	2.0	2.4	e2.0	e1.9	e2.0
10	2.5	2.1	2.4	2.3	1.9	2.2	2.0	1.6	1.9	1.9	1.6	1.7
11	2.6	2.1	2.4	3.1	2.0	2.5	2.0	1.8	1.9	1.8	1.7	1.7
12	2.6	2.1	2.5	3.1	2.5	2.9	1.9	1.5	1.8	1.9	1.7	1.8
13	2.7	2.4	2.6	2.5	2.3	2.4	2.0	1.8	1.9	2.0	1.9	1.9
14	2.8	2.5	2.7	2.4	2.3	2.3	1.9	1.7	1.8	2.1	2.0	2.1
15	2.8	2.4	2.6	2.6	2.3	2.4	e1.8	e1.7	e1.8	2.1	1.7	2.0
16	2.6	2.5	2.6	2.6	2.5	2.5	e1.8	e1.5	e1.7	2.1	1.8	1.9
17	2.5	2.1	2.2	2.6	2.4	2.5	1.9	1.7	1.8	2.0	1.8	1.9
18	2.8	2.4	2.7	2.5	2.4	2.4	1.9	1.6	1.7	2.1	2.0	2.0
19	3.0	2.8	2.8	2.4	2.0	2.2	e1.9	e1.7	e1.9	2.2	1.9	2.0
20	3.1	2.8	2.9	2.4	2.1	2.2	---	---	e2.1	2.1	1.8	1.9
21	---	---	---	2.4	2.0	2.1	---	---	e2.2	2.1	1.8	1.9
22	---	---	---	2.1	1.9	2.1	3.1	2.4	2.7	2.1	1.8	2.0
23	---	---	---	2.1	1.7	2.0	2.5	1.8	2.1	2.1	1.8	2.0
24	---	---	---	2.2	1.8	2.1	1.9	1.5	1.7	2.4	2.0	2.2
25	---	---	---	2.2	1.9	2.1	1.5	1.2	1.3	2.2	1.7	1.9
26	---	---	---	2.2	1.9	2.1	1.9	1.2	1.5	1.9	1.4	1.7
27	---	---	---	2.2	1.9	2.1	2.0	1.8	1.9	1.9	1.7	1.8
28	e2.2	e2.0	e2.1	2.3	1.7	2.1	e2.0	e1.5	e1.8	1.9	1.8	1.9
29	2.3	2.1	2.2	2.3	1.9	2.1	e1.9	e1.7	e1.8	1.9	1.7	1.8
30	2.2	2.0	2.1	2.3	2.0	2.2	e1.9	e1.8	e1.9	1.9	1.6	1.7
31	2.2	2.1	2.2	---	---	---	1.9	1.8	1.8	1.7	1.6	1.7
MONTH	---	---	---	3.1	1.7	2.2	---	---	2.0	2.4	1.4	1.9

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	2.0	1.7	1.8	2.7	2.5	2.5	2.2	1.6	2.0	2.2	2.1	2.2
2	2.1	1.9	2.0	2.8	2.5	2.7	2.2	1.5	1.8	2.2	2.0	2.1
3	2.1	1.8	1.9	3.4	2.5	2.8	1.9	1.3	1.7	2.0	1.4	1.7
4	2.1	1.7	1.9	3.6	3.4	3.6	2.1	1.7	1.9	1.8	1.0	1.5
5	1.9	1.7	1.8	3.6	2.8	3.2	2.1	1.8	2.0	1.9	1.5	1.8
6	2.0	1.7	1.9	3.2	2.6	2.9	2.1	1.9	2.0	2.3	1.8	2.1
7	2.0	1.8	1.9	2.8	2.6	2.7	2.2	1.9	2.0	2.4	1.8	2.2
8	2.3	1.8	2.1	2.6	2.5	2.6	2.3	1.8	2.1	4.6	2.2	3.1
9	2.2	1.9	2.0	2.5	2.3	2.4	2.4	1.9	2.1	6.2	3.2	4.6
10	2.3	1.8	2.0	2.4	2.2	2.2	2.4	2.0	2.3	3.9	3.1	3.3
11	2.1	1.9	2.0	2.2	2.0	2.1	2.5	2.0	2.1	3.6	2.9	3.2
12	2.2	1.9	2.0	2.1	2.0	2.1	2.7	1.9	2.3	3.2	2.8	3.0
13	2.2	1.8	2.1	2.1	1.9	2.0	2.0	1.8	1.9	4.0	3.0	3.4
14	2.0	1.9	2.0	2.3	2.0	2.1	2.0	1.8	1.9	3.5	3.0	3.3
15	1.9	1.8	1.9	2.3	1.9	2.2	2.1	1.8	2.0	3.0	2.2	2.5
16	2.0	1.8	1.9	2.3	2.1	2.2	2.6	1.9	2.3	2.2	1.8	2.0
17	2.3	1.9	2.1	2.2	2.1	2.1	3.3	2.5	2.9	2.0	1.8	1.9
18	2.5	2.0	2.3	2.4	2.2	2.3	3.3	3.0	3.2	2.0	1.8	1.9
19	2.3	1.8	2.0	2.3	2.0	2.2	3.2	2.8	3.1	2.4	1.9	2.1
20	1.9	1.6	1.8	2.3	2.0	2.2	2.9	2.4	2.6	2.7	2.0	2.3
21	1.9	1.6	1.7	2.6	2.1	2.3	2.7	2.1	2.5	3.2	2.6	2.9
22	1.7	1.7	1.7	2.5	2.3	2.4	2.6	2.0	2.3	4.6	3.0	3.8
23	1.9	1.7	1.8	2.5	2.2	2.3	2.8	2.2	2.4	5.8	4.6	5.3
24	2.0	1.8	1.9	2.5	2.2	2.3	2.8	2.2	2.5	7.0	5.7	6.2
25	2.3	1.8	2.0	2.3	2.1	2.3	2.5	2.1	2.2	7.2	6.0	6.6
26	2.4	2.1	2.3	2.2	1.9	2.1	2.3	2.0	2.2	6.9	6.4	6.6
27	2.4	2.1	2.2	2.1	1.4	1.7	2.3	2.1	2.2	6.8	6.0	6.3
28	2.6	2.1	2.3	2.3	1.9	2.1	2.3	2.1	2.2	7.5	5.8	6.5
29	---	---	---	2.3	1.8	2.0	2.2	2.1	2.2	7.3	5.8	6.4
30	---	---	---	2.1	1.7	1.9	2.1	2.1	2.1	6.5	6.2	6.3
31	---	---	---	2.1	1.6	1.9	---	---	---	6.6	6.3	6.3
MONTH	2.6	1.6	2.0	3.6	1.4	2.3	3.3	1.3	2.2	7.5	1.0	3.7

0204345010 CURRITUCK SOUND AT POPLAR BRANCH, NC--Continued

SALINITY (PARTS PER THOUSAND), WATER YEAR OCTOBER 1998 TO JULY 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	7.2	6.1	6.4	8.1	6.7	7.2	---	---	---	---	---	---
2	6.9	6.2	6.4	8.3	6.8	7.4	---	---	---	---	---	---
3	7.4	6.5	6.9	8.9	7.2	7.6	---	---	---	---	---	---
4	7.7	5.9	6.6	8.5	6.9	7.4	---	---	---	---	---	---
5	6.4	5.6	5.8	8.4	7.3	7.7	---	---	---	---	---	---
6	6.3	5.2	5.7	8.4	7.0	7.6	---	---	---	---	---	---
7	6.3	5.3	5.8	7.7	7.1	7.4	---	---	---	---	---	---
8	6.4	5.8	6.0	7.7	7.3	7.4	---	---	---	---	---	---
9	7.2	6.2	6.4	8.5	7.0	7.5	---	---	---	---	---	---
10	7.4	6.2	6.6	7.8	7.1	7.3	---	---	---	---	---	---
11	6.6	6.2	6.3	7.9	6.3	6.9	---	---	---	---	---	---
12	7.2	4.6	6.3	---	---	---	---	---	---	---	---	---
13	5.1	4.1	4.4	---	---	---	---	---	---	---	---	---
14	5.9	5.1	5.5	---	---	---	---	---	---	---	---	---
15	6.6	5.8	6.1	---	---	---	---	---	---	---	---	---
16	6.2	5.9	6.1	---	---	---	---	---	---	---	---	---
17	6.0	4.9	5.2	---	---	---	---	---	---	---	---	---
18	4.9	4.2	4.6	---	---	---	---	---	---	---	---	---
19	5.1	4.3	4.6	---	---	---	---	---	---	---	---	---
20	4.9	3.6	4.1	---	---	---	---	---	---	---	---	---
21	5.0	3.0	3.9	---	---	---	---	---	---	---	---	---
22	3.5	2.8	3.1	---	---	---	---	---	---	---	---	---
23	3.3	2.9	3.0	---	---	---	---	---	---	---	---	---
24	3.9	3.2	3.5	---	---	---	---	---	---	---	---	---
25	5.6	3.8	4.8	---	---	---	---	---	---	---	---	---
26	6.6	5.3	5.8	---	---	---	---	---	---	---	---	---
27	6.7	5.7	6.2	---	---	---	---	---	---	---	---	---
28	7.2	5.9	6.5	---	---	---	---	---	---	---	---	---
29	7.1	6.4	6.8	---	---	---	---	---	---	---	---	---
30	7.6	6.5	7.0	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	7.7	2.8	5.5	---	---	---	---	---	---	---	---	---

e Estimated, partial record.

0204347490 CURRITUCK SOUND NEAR POINT HARBOR, NC

LOCATION.--Lat 36°04'52", long 75°47'28", Currituck County, Hydrologic Unit 03010205, at upstream side of bridge (US-158) and 1.5 mi east of Point Harbor.

DRAINAGE AREA.--Indeterminate.

GAGE-HEIGHT RECORDS

PERIOD OF RECORD.--August 1997 to March 1999 (discontinued).

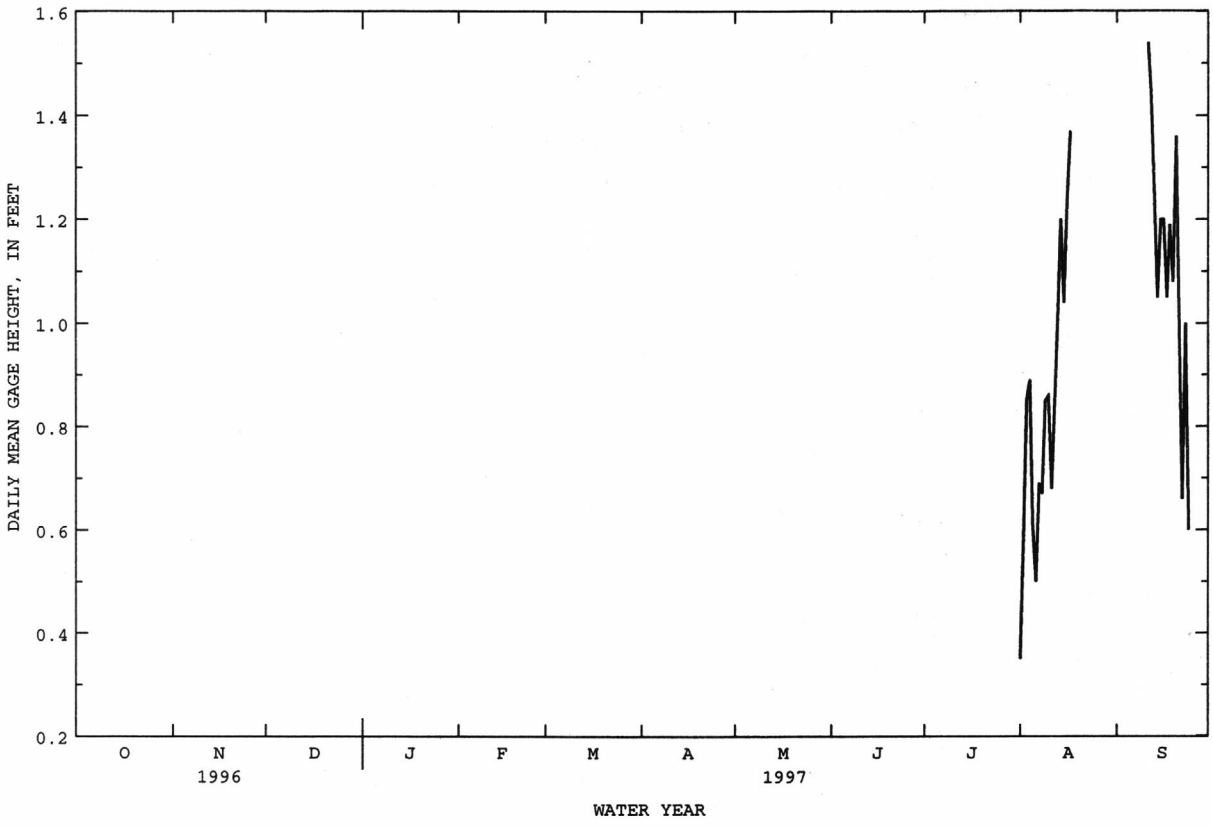
GAGE.--Water-stage recorder. Datum of gage is at sea level.

EXTREMES FOR PERIOD OF RECORD.--Maximum recorded, 3.86 ft, August 28, 1998, minimum recorded, -0.48 ft, December 16, 1998.

GAGE HEIGHT, FEET, WATER YEAR AUGUST 1997 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	.35	---
2	---	---	---	---	---	---	---	---	---	---	.60	---
3	---	---	---	---	---	---	---	---	---	---	.85	---
4	---	---	---	---	---	---	---	---	---	---	.89	---
5	---	---	---	---	---	---	---	---	---	---	.61	---
6	---	---	---	---	---	---	---	---	---	---	.50	---
7	---	---	---	---	---	---	---	---	---	---	.69	---
8	---	---	---	---	---	---	---	---	---	---	.67	---
9	---	---	---	---	---	---	---	---	---	---	.85	---
10	---	---	---	---	---	---	---	---	---	---	.86	---
11	---	---	---	---	---	---	---	---	---	---	.68	1.54
12	---	---	---	---	---	---	---	---	---	---	.84	1.44
13	---	---	---	---	---	---	---	---	---	---	1.02	1.25
14	---	---	---	---	---	---	---	---	---	---	1.20	1.05
15	---	---	---	---	---	---	---	---	---	---	1.04	1.20
16	---	---	---	---	---	---	---	---	---	---	1.24	1.20
17	---	---	---	---	---	---	---	---	---	---	1.37	1.05
18	---	---	---	---	---	---	---	---	---	---	---	1.19
19	---	---	---	---	---	---	---	---	---	---	---	1.08
20	---	---	---	---	---	---	---	---	---	---	---	1.36
21	---	---	---	---	---	---	---	---	---	---	---	.97
22	---	---	---	---	---	---	---	---	---	---	---	.66
23	---	---	---	---	---	---	---	---	---	---	---	1.00
24	---	---	---	---	---	---	---	---	---	---	---	.60
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MEAN	---	---	---	---	---	---	---	---	---	---	---	---
MAX	---	---	---	---	---	---	---	---	---	---	---	---
MIN	---	---	---	---	---	---	---	---	---	---	---	---

0204347490 CURRITUCK SOUND NEAR POINT HARBOR, NC--Continued

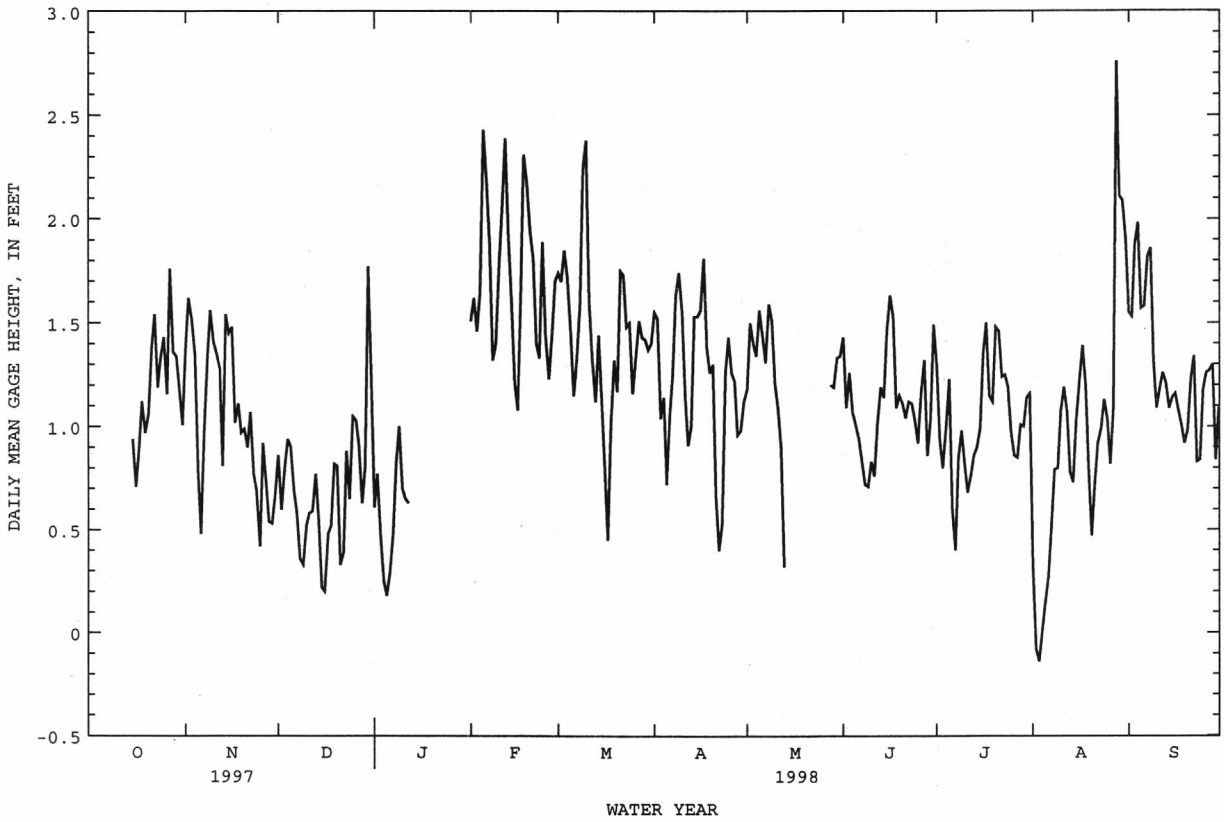


0204347490 CURRITUCK SOUND NEAR POINT HARBOR, NC--Continued

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	1.38	.86	.61	1.51	1.74	1.55	1.18	1.43	1.30	.33	1.55
2	---	1.62	.60	.77	1.62	1.70	1.52	1.50	1.09	.94	-.08	1.53
3	---	1.52	.80	.47	1.46	1.85	1.04	1.40	1.26	.80	-.14	1.88
4	---	1.35	.94	.25	1.65	1.72	1.14	1.34	1.07	1.00	.01	1.98
5	---	.78	.90	.18	2.43	1.46	.72	1.56	1.01	1.23	.15	1.57
6	---	.48	.69	.29	2.19	1.15	1.04	1.44	.94	.60	.27	1.58
7	---	.98	.58	.48	1.89	1.33	1.25	1.31	.83	.40	.52	1.82
8	---	1.33	.36	.83	1.32	1.58	1.63	1.59	.72	.85	.79	1.86
9	---	1.56	.33	1.00	1.40	2.24	1.74	1.51	.71	.98	.80	1.32
10	---	1.41	.52	.70	1.76	2.38	1.55	1.21	.83	.82	1.08	1.09
11	---	1.35	.58	.65	2.04	1.60	1.15	1.09	.76	.68	1.19	1.18
12	---	1.28	.59	.63	2.39	1.31	.91	.90	1.02	.76	1.07	1.26
13	---	.81	.77	---	1.92	1.12	1.00	.32	1.19	.86	.78	1.21
14	---	1.54	.55	---	1.60	1.44	1.53	---	1.14	.90	.73	1.09
15	.94	1.45	.22	---	1.21	1.12	1.53	---	1.46	.99	1.03	1.14
16	.71	1.48	.20	---	1.08	.80	1.56	---	1.63	1.35	1.22	1.16
17	.90	1.02	.48	---	1.62	.45	1.81	---	1.53	1.50	1.39	1.08
18	1.12	1.11	.52	---	2.31	1.01	1.38	---	1.09	1.15	1.20	1.01
19	.97	.97	.82	---	2.17	1.32	1.26	---	1.15	1.12	.79	.92
20	1.06	.99	.81	---	1.94	1.17	1.30	---	1.11	1.48	.47	.98
21	1.38	.90	.33	---	1.81	1.75	.66	---	1.04	1.46	.72	1.23
22	1.54	1.07	.39	---	1.40	1.73	.40	---	1.12	1.24	.92	1.34
23	1.19	.77	.88	---	1.33	1.48	.53	---	1.11	1.25	.99	.83
24	1.33	.69	.65	---	1.89	1.50	1.26	---	1.03	1.19	1.13	.84
25	1.43	.42	1.05	---	1.44	1.16	1.43	---	.92	.97	1.04	1.18
26	1.16	.92	1.03	---	1.23	1.34	1.26	---	1.16	.86	.82	1.26
27	1.76	.73	.91	---	1.44	1.51	1.22	---	1.32	.85	1.09	1.27
28	1.36	.54	.63	---	1.70	1.43	.96	1.20	.86	1.01	2.76	1.30
29	1.34	.53	.80	---	---	1.42	.98	1.19	1.03	1.00	2.11	.84
30	1.17	.68	1.77	---	---	1.37	1.12	1.33	1.49	1.14	2.09	1.09
31	1.01	---	1.25	---	---	1.40	---	1.34	---	1.16	1.90	---
MEAN	---	1.06	.70	---	1.71	1.44	1.21	---	1.10	1.03	.94	1.28
MAX	---	1.62	1.77	---	2.43	2.38	1.81	---	1.63	1.50	2.76	1.98
MIN	---	.42	.20	---	1.08	.45	.40	---	.71	.40	-.14	.83

0204347490 CURRITUCK SOUND NEAR POINT HARBOR, NC--Continued

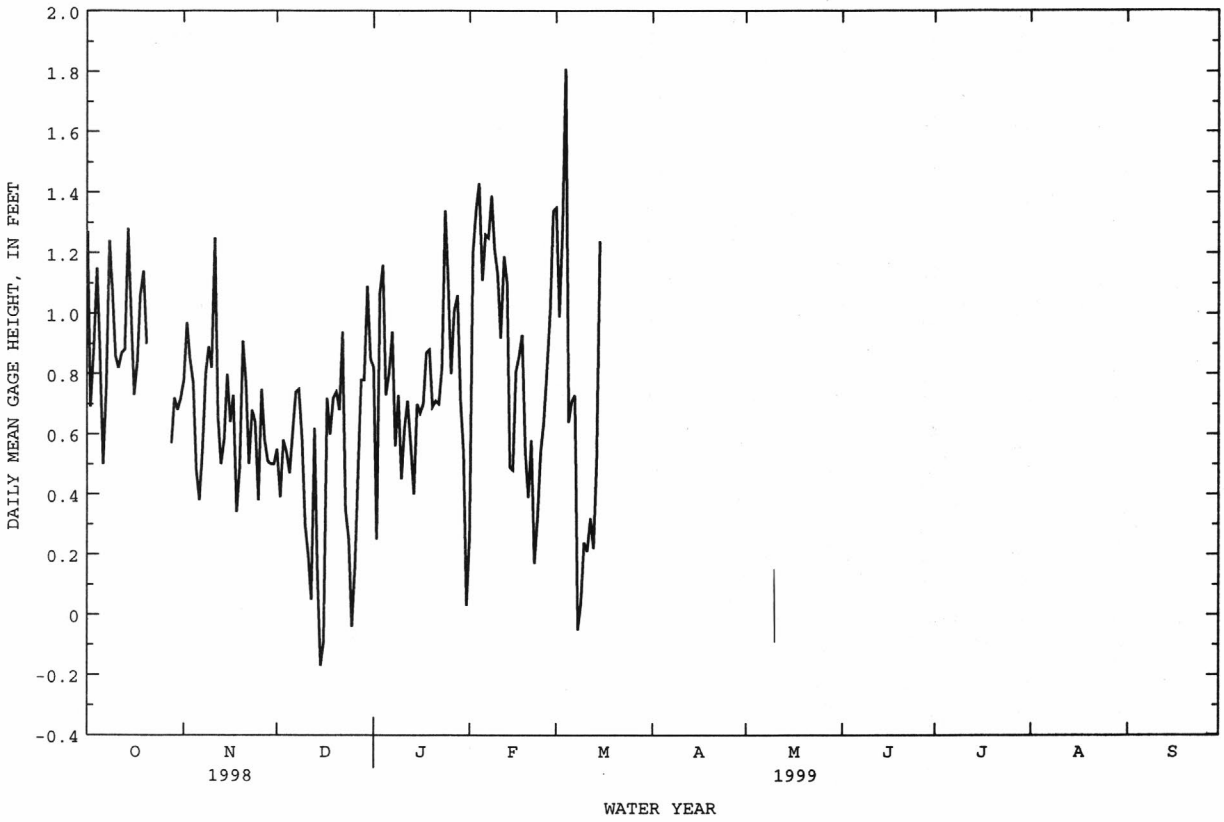


0204347490 CURRITUCK SOUND NEAR POINT HARBOR, NC--Continued

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1998 TO MARCH 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.27	.78	.55	.82	.26	1.35	---	---	---	---	---	---
2	.69	.97	.39	.25	1.20	.99	---	---	---	---	---	---
3	.88	.85	.58	1.07	1.34	1.28	---	---	---	---	---	---
4	1.15	.77	.54	1.16	1.43	1.81	---	---	---	---	---	---
5	.88	.48	.47	.73	1.11	.64	---	---	---	---	---	---
6	.50	.38	.61	.80	1.26	.71	---	---	---	---	---	---
7	.75	.55	.74	.94	1.25	.73	---	---	---	---	---	---
8	1.24	.80	.75	.56	1.39	-.05	---	---	---	---	---	---
9	1.08	.89	.58	.73	1.21	.04	---	---	---	---	---	---
10	.86	.82	.30	.45	1.13	.24	---	---	---	---	---	---
11	.82	1.25	.20	.62	.92	.21	---	---	---	---	---	---
12	.87	.66	.05	.71	1.19	.32	---	---	---	---	---	---
13	.88	.50	.62	.57	1.10	.22	---	---	---	---	---	---
14	1.28	.58	.14	.40	.49	.52	---	---	---	---	---	---
15	1.02	.80	-.17	.70	.48	1.24	---	---	---	---	---	---
16	.73	.64	-.09	.67	.81	---	---	---	---	---	---	---
17	.84	.73	.72	.70	.86	---	---	---	---	---	---	---
18	1.06	.34	.60	.87	.93	---	---	---	---	---	---	---
19	1.14	.49	.72	.88	.54	---	---	---	---	---	---	---
20	.90	.91	.74	.69	.39	---	---	---	---	---	---	---
21	---	.77	.68	.71	.58	---	---	---	---	---	---	---
22	---	.50	.94	.70	.17	---	---	---	---	---	---	---
23	---	.68	.35	.82	.32	---	---	---	---	---	---	---
24	---	.64	.25	1.34	.54	---	---	---	---	---	---	---
25	---	.38	-.04	1.11	.64	---	---	---	---	---	---	---
26	---	.75	.16	.80	.82	---	---	---	---	---	---	---
27	---	.58	.49	1.01	1.01	---	---	---	---	---	---	---
28	.57	.51	.78	1.06	1.34	---	---	---	---	---	---	---
29	.72	.50	.78	.71	---	---	---	---	---	---	---	---
30	.68	.50	1.09	.54	---	---	---	---	---	---	---	---
31	.72	---	.85	.03	---	---	---	---	---	---	---	---
MEAN	---	.67	.50	.75	.88	---	---	---	---	---	---	---
MAX	---	1.25	1.09	1.34	1.43	---	---	---	---	---	---	---
MIN	---	.34	-.17	.03	.17	---	---	---	---	---	---	---

0204347490 CURRITUCK SOUND NEAR POINT HARBOR, NC--Continued



0204347490 CURRITUCK SOUND NEAR POINT HARBOR, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--August 1997 to March 1999 (discontinued).

PERIOD OF DAILY RECORD.--

SALINITY: August 1997 to March 1999.

WATER TEMPERATURE: August 1997 to March 1999.

INSTRUMENTATION.--Water-quality monitor.

REMARKS.--Station operated in cooperation with North Carolina Division of Water Resources.

EXTREMES FOR PERIOD OF RECORD.--

SALINITY: Maximum recorded, 20.3 parts per thousand, August 28, 1998; minimum recorded, 0.3 parts per thousand, April 8, 9, 1998.

WATER TEMPERATURE: Maximum recorded, 31.6°C, August 12, 1998; minimum recorded, 1.6°C, February 23, 1999.

TEMPERATURE, WATER (DEG. C), WATER YEAR AUGUST 1997 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	---	---	---	---	---	---	27.2	25.6	26.4
2	---	---	---	---	---	---	---	---	---	27.9	25.8	26.9
3	---	---	---	---	---	---	---	---	---	28.3	24.5	27.0
4	---	---	---	---	---	---	---	---	---	24.5	19.6	21.1
5	---	---	---	---	---	---	---	---	---	22.4	19.0	20.6
6	---	---	---	---	---	---	---	---	---	23.1	21.4	22.4
7	---	---	---	---	---	---	---	---	---	23.7	22.2	22.7
8	---	---	---	---	---	---	---	---	---	23.9	22.0	22.8
9	---	---	---	---	---	---	26.7	23.6	24.9	24.9	22.9	23.8
10	---	---	---	---	---	---	26.2	24.5	25.2	25.4	23.7	24.5
11	---	---	---	---	---	---	28.7	24.6	26.4	24.8	24.0	24.2
12	---	---	---	---	---	---	27.6	26.2	26.9	26.0	23.5	24.7
13	---	---	---	---	---	---	27.0	25.7	26.1	26.8	24.7	25.7
14	---	---	---	---	---	---	26.9	25.4	26.2	27.1	24.8	25.9
15	---	---	---	---	---	---	29.4	26.6	27.7	25.8	25.0	25.4
16	---	---	---	---	---	---	28.9	27.2	28.1	26.4	24.4	25.3
17	---	---	---	---	---	---	29.1	27.8	28.4	27.5	24.8	26.0
18	---	---	---	---	---	---	29.9	26.7	28.3	27.5	25.2	26.3
19	---	---	---	---	---	---	28.4	24.6	26.5	28.9	25.7	27.2
20	---	---	---	---	---	---	27.0	25.3	26.2	27.5	26.0	26.4
21	---	---	---	---	---	---	27.8	25.6	26.5	26.4	21.0	23.2
22	---	---	---	---	---	---	28.7	26.0	27.2	22.7	19.9	21.4
23	---	---	---	---	---	---	29.3	25.5	27.1	24.2	21.9	22.7
24	---	---	---	---	---	---	27.8	25.8	26.7	22.9	19.8	20.8
25	---	---	---	---	---	---	26.0	23.9	25.1	20.7	19.7	20.2
26	---	---	---	---	---	---	25.8	23.5	24.6	22.9	20.2	21.5
27	---	---	---	---	---	---	25.5	23.7	24.6	22.0	20.7	21.0
28	---	---	---	---	---	---	27.3	23.7	25.5	22.3	20.8	21.5
29	---	---	---	---	---	---	27.9	25.4	26.4	23.6	22.0	22.5
30	---	---	---	---	---	---	27.8	25.2	26.4	23.0	21.2	22.3
31	---	---	---	---	---	---	27.8	25.3	26.4	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	28.9	19.0	23.7

0204347490 CURRITUCK SOUND NEAR POINT HARBOR, NC--Continued

SALINITY (PARTS PER THOUSAND), WATER YEAR AUGUST 1997 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	---	---	---	---	---	---	4.3	4.2	4.2
2	---	---	---	---	---	---	---	---	---	5.8	4.2	4.4
3	---	---	---	---	---	---	---	---	---	6.3	4.3	5.5
4	---	---	---	---	---	---	---	---	---	4.3	3.7	4.0
5	---	---	---	---	---	---	---	---	---	4.0	3.3	3.6
6	---	---	---	---	---	---	---	---	---	4.5	3.7	4.4
7	---	---	---	---	---	---	---	---	---	5.8	4.0	4.7
8	---	---	---	---	---	---	---	---	---	6.2	5.3	5.6
9	---	---	---	---	---	---	3.3	3.0	3.1	5.4	4.7	5.1
10	---	---	---	---	---	---	3.1	3.0	3.1	5.7	4.9	5.1
11	---	---	---	---	---	---	3.1	3.0	3.1	7.9	5.0	6.8
12	---	---	---	---	---	---	3.1	3.1	3.1	7.9	6.9	7.3
13	---	---	---	---	---	---	3.5	3.0	3.2	7.0	6.2	6.5
14	---	---	---	---	---	---	4.0	3.5	3.8	6.3	5.5	5.7
15	---	---	---	---	---	---	4.0	3.6	3.7	6.2	5.6	5.9
16	---	---	---	---	---	---	4.2	3.6	3.9	6.1	5.8	5.9
17	---	---	---	---	---	---	4.2	3.9	4.1	5.9	5.6	5.8
18	---	---	---	---	---	---	4.9	3.8	4.2	6.7	5.7	6.1
19	---	---	---	---	---	---	4.0	3.8	3.9	6.0	5.4	5.7
20	---	---	---	---	---	---	4.6	3.8	4.2	7.2	5.8	6.7
21	---	---	---	---	---	---	5.1	4.3	4.8	7.0	5.9	6.4
22	---	---	---	---	---	---	4.8	4.1	4.4	5.9	4.7	5.2
23	---	---	---	---	---	---	4.1	3.9	4.0	6.4	4.8	5.3
24	---	---	---	---	---	---	4.1	3.8	3.9	6.4	4.9	5.3
25	---	---	---	---	---	---	4.0	3.9	3.9	5.2	4.6	4.9
26	---	---	---	---	---	---	3.9	3.6	3.7	5.3	5.1	5.2
27	---	---	---	---	---	---	3.8	3.3	3.5	5.2	4.8	5.0
28	---	---	---	---	---	---	3.5	3.1	3.2	5.4	4.4	5.0
29	---	---	---	---	---	---	4.0	3.4	3.7	7.7	5.1	6.9
30	---	---	---	---	---	---	3.6	3.3	3.4	8.8	7.1	8.0
31	---	---	---	---	---	---	4.3	3.5	3.9	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	8.8	3.3	5.5

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	22.7	21.1	21.8	16.8	16.3	16.5	12.0	10.2	11.5	5.7	4.2	4.9
2	21.4	18.2	19.5	17.2	16.3	16.8	10.5	9.3	9.9	4.9	3.0	4.1
3	21.3	18.0	19.5	17.7	16.0	16.9	10.4	8.9	9.7	5.9	4.3	5.1
4	21.6	20.2	20.9	16.9	15.7	16.4	11.0	9.7	10.3	6.8	4.0	5.5
5	21.9	20.3	21.1	15.9	14.3	15.1	11.4	9.3	10.5	7.8	4.8	6.3
6	23.1	20.9	21.7	15.3	14.0	14.7	9.4	7.2	8.6	8.1	6.4	7.1
7	25.6	21.3	23.3	16.0	15.2	15.6	7.4	6.2	6.7	10.9	7.7	9.2
8	25.2	23.1	24.1	15.7	14.7	15.3	7.1	5.5	6.3	12.4	10.9	11.8
9	24.3	23.1	23.7	14.7	13.3	14.1	7.2	5.7	6.6	12.5	11.6	12.1
10	23.5	22.9	23.2	14.9	13.6	14.2	7.9	7.0	7.4	12.0	11.2	11.5
11	23.7	21.8	22.9	14.6	13.8	14.2	8.2	7.6	7.9	12.0	10.6	11.4
12	22.7	20.6	21.6	14.3	13.6	13.9	8.4	7.9	8.2	11.5	10.4	11.0
13	24.1	21.0	22.5	13.6	12.9	13.2	8.7	7.4	8.2	---	---	---
14	23.7	22.6	23.0	14.4	13.6	14.0	8.6	6.0	7.2	---	---	---
15	22.9	19.6	21.5	13.9	12.8	13.4	7.1	5.4	6.3	---	---	---
16	20.4	19.2	19.7	13.4	11.3	12.4	8.4	6.3	7.3	---	---	---
17	20.1	19.2	19.7	11.5	9.4	10.4	9.5	7.9	8.5	---	---	---
18	20.3	19.2	19.8	11.5	8.5	10.4	8.2	7.4	7.7	---	---	---
19	19.2	17.3	18.5	10.4	8.8	9.5	8.7	7.3	8.1	---	---	---
20	18.3	16.7	17.6	11.5	9.5	10.6	8.6	7.4	8.1	---	---	---
21	18.3	16.7	17.5	11.8	9.1	10.6	9.0	7.8	8.4	---	---	---
22	17.7	15.2	17.0	13.6	11.4	12.6	9.1	7.9	8.4	---	---	---
23	15.4	13.5	14.5	14.2	12.4	13.6	9.9	9.0	9.3	---	---	---
24	16.4	14.1	15.4	12.4	10.1	11.6	9.9	8.6	9.1	---	---	---
25	17.8	15.8	16.6	10.7	8.6	9.7	11.6	9.9	10.5	---	---	---
26	17.5	16.9	17.1	9.9	9.0	9.5	12.1	10.4	11.2	---	---	---
27	17.8	16.9	17.3	10.5	7.5	9.6	11.4	9.5	10.6	---	---	---
28	16.9	15.1	15.8	10.3	6.8	9.1	9.5	8.1	8.6	---	---	---
29	16.8	13.7	15.4	11.5	10.1	10.8	8.5	7.2	7.8	---	---	---
30	17.3	13.6	15.8	12.3	11.1	11.7	8.4	6.7	7.6	---	---	---
31	16.7	14.7	15.9	---	---	---	7.0	5.7	6.5	---	---	---
MONTH	25.6	13.5	19.5	17.7	6.8	12.9	12.1	5.4	8.5	---	---	---

0204347490 CURRITUCK SOUND NEAR POINT HARBOR, NC--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	8.1	7.0	7.6	12.4	11.5	12.0	19.6	18.7	19.2	18.4	17.4	17.8
2	8.8	7.0	7.9	12.3	11.6	11.9	20.0	18.0	18.9	20.1	17.8	18.7
3	9.2	8.3	8.7	12.1	11.0	11.7	19.0	16.9	17.9	20.4	18.8	19.4
4	10.5	9.0	9.7	11.5	10.2	10.9	17.5	13.0	16.2	21.8	19.3	20.3
5	10.0	8.8	9.5	12.7	10.0	11.4	13.2	12.0	12.6	20.5	19.3	19.7
6	8.9	7.5	8.1	11.5	9.9	10.7	17.0	11.8	14.0	21.6	19.8	20.8
7	8.1	7.3	7.7	11.6	10.5	11.1	15.7	13.5	14.3	23.6	20.6	21.8
8	7.7	6.5	7.2	12.4	11.3	11.8	17.9	15.0	16.4	22.1	21.2	21.7
9	8.0	6.1	7.0	13.5	12.4	13.0	17.9	16.8	17.4	21.8	20.5	21.3
10	8.3	6.4	7.4	13.1	11.7	12.6	17.4	14.3	16.2	20.6	19.7	20.2
11	9.5	7.9	8.6	11.7	9.8	10.7	16.1	13.5	14.6	19.7	15.8	17.6
12	10.7	8.8	9.6	9.8	8.1	9.0	15.4	13.4	14.4	15.8	14.6	15.5
13	9.9	9.3	9.6	10.6	7.4	8.8	16.7	13.0	14.8	14.6	13.3	13.8
14	9.5	7.7	8.4	9.8	8.5	9.1	16.0	14.9	15.2	---	---	---
15	8.1	6.1	7.3	10.8	8.3	9.6	16.1	14.9	15.5	---	---	---
16	8.3	6.9	7.5	10.0	7.8	8.8	19.2	15.8	17.3	---	---	---
17	10.3	8.2	9.4	7.8	7.0	7.2	19.4	18.5	18.9	---	---	---
18	11.0	9.5	10.1	11.5	7.2	9.4	19.2	16.8	17.9	---	---	---
19	11.2	9.8	10.3	11.7	10.6	11.3	18.7	16.4	17.4	---	---	---
20	11.5	10.5	11.1	12.4	11.1	11.7	20.5	17.9	19.1	---	---	---
21	12.0	10.7	11.3	13.0	11.6	12.3	18.4	16.1	17.3	---	---	---
22	12.1	10.2	11.1	13.1	11.6	12.3	16.8	14.1	15.3	---	---	---
23	12.2	10.7	11.4	13.6	11.6	12.4	15.3	12.4	13.8	---	---	---
24	11.5	9.8	10.6	12.6	11.8	12.2	17.2	14.1	15.5	---	---	---
25	11.0	9.2	10.1	12.9	10.4	11.7	17.2	16.2	16.7	---	---	---
26	11.4	9.1	10.3	13.8	11.4	12.3	19.2	17.0	17.9	---	---	---
27	11.2	10.2	10.8	14.4	13.2	13.5	18.9	14.7	17.0	---	---	---
28	12.3	11.0	11.4	16.4	13.6	14.7	17.5	14.3	15.8	26.0	23.4	24.6
29	---	---	---	17.4	15.7	16.3	18.2	14.8	16.3	26.5	23.7	25.0
30	---	---	---	18.0	16.4	17.0	18.2	16.5	17.3	27.0	24.8	25.6
31	---	---	---	19.6	17.2	18.3	---	---	---	27.9	25.2	26.4
MONTH	12.3	6.1	9.3	19.6	7.0	11.8	20.5	11.8	16.4	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	27.3	25.9	26.5	29.6	27.4	28.4	27.0	24.5	25.7	29.3	27.7	28.5
2	26.7	24.8	25.9	30.0	27.6	28.6	25.2	22.7	24.1	28.1	27.0	27.5
3	28.4	25.6	26.8	30.2	27.5	28.6	25.5	22.6	23.9	27.7	26.1	27.2
4	27.4	24.8	26.0	29.2	27.6	28.2	25.8	22.6	24.2	26.1	25.4	25.7
5	26.1	24.6	25.4	28.0	26.5	27.6	25.5	23.1	24.3	26.9	25.2	26.0
6	24.8	22.6	23.7	27.7	25.1	26.4	27.6	24.2	25.2	26.3	25.2	25.7
7	24.0	21.7	22.7	26.9	25.4	26.1	27.7	25.1	26.3	27.2	25.4	26.3
8	24.1	21.4	22.7	27.8	25.4	26.6	29.5	26.4	27.8	26.7	24.3	25.8
9	23.8	21.5	22.5	28.5	26.7	27.5	30.8	27.7	29.1	24.3	22.4	23.2
10	23.6	21.2	22.3	29.7	26.7	28.0	29.4	27.8	28.7	23.1	21.4	22.2
11	25.5	22.5	24.1	28.5	26.4	27.4	30.5	27.3	28.8	25.5	21.5	23.2
12	26.4	23.7	24.7	28.7	25.4	26.9	31.6	28.0	29.8	25.0	23.0	23.9
13	25.9	24.9	25.3	29.3	25.6	27.3	30.1	28.2	29.2	26.3	22.6	24.4
14	26.2	24.3	25.2	29.0	25.8	27.3	28.4	26.7	27.5	27.9	24.7	26.1
15	26.6	25.1	25.7	29.5	26.9	27.9	29.6	26.2	27.8	27.5	25.3	26.1
16	27.3	25.9	26.5	28.4	27.4	28.0	30.3	27.7	28.7	27.3	25.7	26.3
17	28.3	26.5	27.3	28.0	26.8	27.5	30.3	27.8	28.5	28.9	25.8	27.3
18	29.4	27.1	28.1	30.4	27.4	28.8	31.1	27.9	29.2	28.7	26.7	27.6
19	28.5	26.8	27.6	30.4	28.5	29.5	30.1	24.8	28.0	27.3	25.9	26.7
20	28.1	26.1	27.1	29.6	28.7	29.1	25.7	23.5	24.5	27.4	25.5	26.4
21	29.4	27.1	27.8	30.1	28.8	29.3	29.2	23.4	25.8	27.7	25.5	26.7
22	29.2	27.2	28.2	31.1	29.0	29.9	26.8	25.1	25.8	27.4	26.4	26.8
23	31.1	27.7	29.2	30.6	29.5	30.0	27.8	25.2	26.2	26.6	20.7	23.6
24	30.1	28.7	29.4	31.3	29.0	29.9	28.2	26.2	27.0	23.4	20.1	21.6
25	31.2	27.9	29.4	29.8	28.0	29.1	28.6	26.6	27.5	24.2	22.1	23.2
26	29.3	28.5	28.9	28.1	25.4	26.6	27.7	26.1	26.8	24.6	23.4	23.9
27	29.8	28.2	28.9	27.8	25.0	26.3	26.1	24.7	25.4	25.0	23.1	24.0
28	29.3	27.4	28.6	30.2	26.5	27.9	25.9	24.4	24.9	26.2	24.5	25.1
29	28.3	26.5	27.4	30.5	28.3	28.9	26.6	24.9	25.7	25.8	24.3	25.0
30	29.0	27.3	28.0	31.2	28.4	29.5	29.4	26.2	27.2	25.4	24.4	24.9
31	---	---	---	30.1	26.0	28.9	30.0	26.6	28.2	---	---	---
MONTH	31.2	21.2	26.4	31.3	25.0	28.1	31.6	22.6	26.8	29.3	20.1	25.4

0204347490 CURRITUCK SOUND NEAR POINT HARBOR, NC--Continued

SALINITY (PARTS PER THOUSAND), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	7.2	6.6	7.0	8.1	5.7	6.6	5.7	4.4	4.9	7.0	6.8	6.9
2	7.1	5.4	6.2	7.8	7.3	7.5	4.9	4.1	4.4	6.9	5.3	5.8
3	5.4	5.1	5.3	8.9	7.6	8.1	5.6	4.2	4.8	5.9	5.3	5.7
4	6.1	5.2	5.8	8.3	7.6	8.0	5.9	5.6	5.8	5.7	3.7	4.4
5	6.0	5.8	5.9	7.9	7.1	7.4	5.7	5.2	5.5	4.3	3.5	3.9
6	5.9	5.7	5.8	7.1	4.5	6.3	5.3	4.4	4.9	5.2	3.8	4.5
7	5.9	5.2	5.6	5.8	4.4	5.2	4.6	4.1	4.2	5.4	4.9	5.2
8	5.2	5.0	5.1	6.2	5.8	6.0	4.1	3.8	3.9	5.9	5.1	5.4
9	5.6	5.2	5.3	6.8	6.2	6.5	4.0	3.7	3.8	6.0	5.6	5.8
10	6.4	5.5	6.1	7.0	6.5	6.7	4.2	3.7	3.8	5.9	5.4	5.6
11	6.3	5.5	6.0	6.7	5.6	6.0	4.2	3.8	4.0	5.7	5.3	5.5
12	5.5	4.8	5.1	5.9	5.6	5.7	3.8	3.7	3.8	5.6	5.2	5.4
13	5.3	4.8	4.9	5.7	5.3	5.5	5.2	3.8	4.3	---	---	---
14	5.8	5.3	5.6	9.6	5.4	8.0	5.2	3.8	4.3	---	---	---
15	5.7	5.0	5.5	9.4	7.4	8.3	3.8	3.6	3.7	---	---	---
16	5.2	4.7	4.9	8.2	7.2	7.7	3.6	3.5	3.6	---	---	---
17	4.9	4.0	4.5	7.5	6.5	7.1	3.8	3.4	3.5	---	---	---
18	5.4	4.2	4.9	7.1	6.0	6.7	4.0	3.4	3.7	---	---	---
19	4.3	3.5	3.9	6.9	5.3	5.8	6.0	3.6	5.4	---	---	---
20	5.3	4.3	4.9	7.0	5.5	6.2	5.8	5.7	5.7	---	---	---
21	5.2	4.9	5.0	6.2	5.3	5.7	5.7	5.5	5.6	---	---	---
22	5.5	4.9	5.2	7.5	5.7	6.6	5.5	4.4	4.9	---	---	---
23	5.3	5.0	5.0	5.9	4.7	5.7	7.1	5.3	6.3	---	---	---
24	8.6	5.0	6.4	4.9	4.6	4.8	6.1	4.7	5.0	---	---	---
25	8.8	6.6	7.7	5.9	4.6	4.8	6.6	5.3	6.1	---	---	---
26	8.4	7.2	7.5	6.7	5.9	6.4	6.5	4.9	5.8	---	---	---
27	9.4	8.4	8.9	6.3	4.9	6.2	5.3	4.9	5.1	---	---	---
28	9.0	7.3	8.3	6.0	4.3	5.1	5.0	4.5	4.7	---	---	---
29	8.7	6.4	7.8	5.7	4.4	5.2	7.3	4.4	5.1	---	---	---
30	8.3	6.7	7.3	5.3	4.1	4.5	7.1	6.5	6.9	---	---	---
31	6.9	5.6	5.9	---	---	---	7.0	6.7	6.9	---	---	---
MONTH	9.4	3.5	5.9	9.6	4.1	6.3	7.3	3.4	4.9	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	4.5	3.6	4.1	1.9	1.8	1.9	.9	.7	.8	.6	.5	.5
2	3.9	3.5	3.6	1.9	1.9	1.9	.7	.5	.6	.6	.5	.5
3	3.7	3.0	3.4	1.9	1.9	1.9	.8	.6	.7	.5	.5	.5
4	3.7	2.6	3.1	2.2	1.9	2.1	1.0	.8	.9	.6	.5	.5
5	4.3	3.0	3.6	2.1	2.0	2.0	1.3	.9	1.1	1.0	.5	.7
6	3.2	2.5	2.8	2.0	1.9	1.9	1.0	.4	.6	.9	.7	.7
7	2.5	1.9	2.3	2.0	1.6	1.9	.6	.5	.5	.8	.7	.7
8	2.0	1.7	1.9	1.8	1.6	1.8	.6	.3	.4	.9	.8	.8
9	1.8	1.7	1.7	1.7	1.3	1.6	.8	.3	.6	.9	.7	.8
10	3.3	1.7	2.0	1.4	1.0	1.2	.8	.5	.6	.8	.7	.7
11	3.8	2.6	3.4	1.5	1.3	1.4	.5	.4	.5	.7	.5	.6
12	2.6	2.0	2.2	1.7	1.4	1.6	.6	.5	.6	.7	.5	.6
13	2.7	2.0	2.4	1.7	1.6	1.6	.7	.6	.6	.6	.6	.6
14	3.3	2.3	2.5	1.8	1.6	1.7	.6	.5	.5	---	---	---
15	3.3	2.9	3.1	1.7	1.6	1.7	.5	.4	.4	---	---	---
16	3.1	2.2	2.8	1.7	1.6	1.6	.5	.4	.5	---	---	---
17	2.9	1.9	2.6	1.7	1.5	1.6	.5	.4	.4	---	---	---
18	2.7	2.0	2.1	1.8	1.1	1.5	.5	.4	.4	---	---	---
19	2.2	1.9	2.1	1.3	1.0	1.1	.5	.5	.5	---	---	---
20	2.4	2.1	2.3	1.1	1.0	1.0	.5	.4	.5	---	---	---
21	2.6	2.4	2.5	1.3	1.0	1.1	.5	.5	.5	---	---	---
22	2.5	2.4	2.5	1.5	1.3	1.3	.6	.5	.6	---	---	---
23	2.6	2.2	2.5	1.4	1.1	1.3	.7	.5	.6	---	---	---
24	2.6	2.4	2.5	1.3	1.0	1.2	.6	.4	.5	---	---	---
25	2.6	2.5	2.5	1.3	1.0	1.2	.8	.4	.6	---	---	---
26	2.6	2.4	2.4	1.0	.8	.9	.7	.5	.6	---	---	---
27	2.4	1.9	2.1	.8	.7	.8	.8	.4	.6	---	---	---
28	2.0	1.8	1.8	.8	.7	.7	.7	.6	.6	1.5	1.3	1.4
29	---	---	---	.8	.7	.8	.6	.6	.6	1.5	1.2	1.4
30	---	---	---	.9	.8	.9	.6	.6	.6	1.3	.9	1.1
31	---	---	---	1.1	.9	.9	---	---	---	1.1	.8	.9
MONTH	4.5	1.7	2.6	2.2	.7	1.4	1.3	.3	.6	---	---	---

0204347490 CURRITUCK SOUND NEAR POINT HARBOR, NC--Continued

SALINITY (PARTS PER THOUSAND), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	1.1	.8	.9	1.2	1.1	1.1	1.2	1.1	1.2	8.6	5.7	7.2
2	1.0	1.0	1.0	1.2	1.1	1.2	1.2	1.2	1.2	7.9	5.8	6.9
3	1.0	.9	1.0	1.2	1.1	1.2	1.2	1.2	1.2	8.0	6.7	7.7
4	1.1	1.0	1.0	1.2	1.1	1.2	1.2	1.2	1.2	7.5	7.0	7.2
5	1.1	1.0	1.0	1.2	1.1	1.1	1.2	1.2	1.2	7.7	7.4	7.5
6	1.3	1.1	1.1	1.2	1.1	1.2	1.2	1.1	1.2	8.0	7.0	7.6
7	1.3	1.2	1.3	1.2	1.2	1.2	1.1	.9	1.1	7.9	6.7	7.5
8	1.3	1.2	1.3	1.2	1.0	1.1	1.1	.8	.9	7.5	6.7	7.1
9	1.3	1.1	1.2	1.0	.9	1.0	1.1	1.0	1.1	7.4	7.0	7.4
10	1.1	1.0	1.1	1.0	.9	1.0	7.5	.9	3.9	7.5	6.3	7.3
11	1.1	1.1	1.1	1.1	.9	1.1	11.5	3.4	5.7	7.4	6.7	7.1
12	1.1	1.0	1.1	1.1	.9	1.0	6.6	3.0	4.0	7.1	6.6	6.9
13	1.1	1.0	1.1	1.0	.9	1.0	3.9	2.9	3.7	6.9	6.5	6.7
14	1.1	1.1	1.1	1.0	.9	1.0	4.0	3.7	3.8	6.7	6.2	6.5
15	1.1	1.0	1.1	1.1	.9	1.0	4.0	3.0	3.8	6.8	5.7	6.5
16	1.1	1.0	1.1	1.1	1.0	1.0	5.8	2.6	3.8	6.8	5.7	6.5
17	1.1	1.1	1.1	1.3	.9	1.1	10.9	4.7	8.3	6.7	5.3	6.3
18	1.1	1.1	1.1	1.1	1.0	1.1	8.1	5.9	7.3	6.5	5.5	6.3
19	1.2	1.1	1.1	1.2	1.1	1.1	7.9	6.8	7.5	6.4	5.7	6.0
20	1.2	1.1	1.2	1.4	1.2	1.4	6.9	4.5	5.5	5.8	4.9	5.4
21	1.2	1.1	1.2	1.7	1.2	1.5	4.6	4.0	4.4	6.1	5.0	5.7
22	1.2	1.1	1.1	1.7	1.5	1.6	4.9	4.3	4.6	6.2	5.5	5.8
23	1.1	1.1	1.1	1.7	1.5	1.6	4.9	4.0	4.6	6.0	5.3	5.6
24	1.2	1.1	1.1	1.8	1.3	1.6	5.4	4.0	4.9	5.4	4.3	4.7
25	1.2	1.1	1.1	1.6	1.2	1.5	5.7	5.2	5.5	5.6	5.3	5.5
26	1.2	1.1	1.1	1.4	1.3	1.3	6.6	5.2	5.9	5.8	5.4	5.6
27	1.1	1.1	1.1	1.4	1.3	1.3	12.5	5.8	9.0	5.8	5.5	5.7
28	1.2	1.1	1.1	1.4	1.0	1.1	20.3	11.3	16.7	5.8	5.5	5.6
29	1.2	1.1	1.1	1.3	1.0	1.2	17.0	10.8	14.6	5.9	5.6	5.7
30	1.2	1.1	1.1	1.2	.8	1.0	14.0	10.3	12.2	5.9	5.6	5.8
31	---	---	---	1.1	.8	.9	14.8	7.9	11.1	---	---	---
MONTH	1.3	.8	1.1	1.8	.8	1.2	20.3	.8	5.2	8.6	4.3	6.4

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO MARCH 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	25.3	23.2	24.7	17.1	15.6	16.4	15.9	14.4	15.1	6.4	4.5	5.4
2	23.2	19.6	21.0	17.9	15.9	17.0	15.4	13.2	14.6	6.1	3.6	4.6
3	22.8	20.6	21.7	17.2	15.0	16.0	15.3	14.3	14.9	8.4	6.1	7.8
4	22.9	21.7	22.2	15.0	12.4	13.9	15.7	14.6	15.1	8.1	7.1	7.5
5	22.5	21.4	21.9	12.4	10.6	11.6	15.8	15.0	15.5	7.1	4.6	5.8
6	22.0	20.3	21.1	11.7	10.1	11.0	16.7	15.3	16.0	4.6	3.0	4.2
7	22.4	20.1	21.3	12.6	10.1	11.4	17.3	15.8	16.5	5.3	3.8	4.5
8	22.3	21.5	21.9	12.3	11.1	11.7	17.7	16.6	17.1	5.6	4.2	4.9
9	22.2	21.4	21.9	12.1	10.8	11.7	17.3	12.2	15.2	7.0	5.1	6.0
10	21.8	20.3	21.0	13.3	10.8	12.0	13.7	11.6	12.9	6.2	4.4	5.0
11	21.7	20.0	20.8	15.2	13.3	14.4	13.1	9.8	11.9	5.3	4.3	4.8
12	21.7	20.0	20.9	14.7	13.2	14.0	11.2	9.5	10.4	6.0	4.4	5.2
13	22.3	20.1	21.1	13.2	12.5	12.9	12.7	11.0	11.8	6.8	5.7	6.2
14	21.1	20.1	20.6	13.7	12.4	12.9	11.6	8.9	10.3	6.7	5.3	6.1
15	20.8	19.2	20.0	14.3	13.1	13.7	10.9	8.1	9.5	7.9	6.3	7.4
16	19.8	17.5	18.5	16.3	11.8	14.1	11.5	10.6	11.0	8.1	6.9	7.5
17	19.8	17.5	18.5	16.3	14.1	15.0	11.1	9.6	10.3	9.5	7.5	8.3
18	20.8	18.3	19.5	15.1	13.3	14.0	9.7	8.5	9.1	9.5	8.5	8.9
19	21.0	19.7	20.3	14.7	13.0	14.0	9.4	8.1	8.8	10.1	8.5	9.3
20	20.9	20.1	20.4	14.8	14.4	14.6	11.9	9.4	10.6	11.3	8.7	9.9
21	---	---	---	14.8	13.1	14.1	11.9	11.0	11.4	10.9	9.8	10.4
22	---	---	---	13.7	11.7	12.7	11.8	10.3	11.2	13.1	10.5	11.6
23	---	---	---	14.3	12.4	13.3	10.3	8.0	8.5	13.9	11.8	12.8
24	---	---	---	15.2	13.6	14.4	8.5	5.5	7.4	13.8	12.4	13.0
25	---	---	---	14.6	13.0	13.7	5.5	4.3	4.7	12.8	11.6	12.3
26	---	---	---	14.7	13.5	14.0	5.4	4.5	4.9	11.9	9.6	10.7
27	---	---	---	14.3	12.9	13.5	6.4	4.1	5.2	11.1	10.2	10.8
28	19.3	17.6	18.4	13.8	12.4	13.1	7.6	6.4	7.1	12.3	10.9	11.5
29	18.7	16.7	18.0	13.9	13.1	13.5	8.1	7.1	7.5	11.9	10.4	11.4
30	17.9	16.0	16.9	14.8	13.4	14.0	8.2	5.8	7.4	10.7	8.1	9.9
31	17.2	15.8	16.5	---	---	---	5.9	5.1	5.6	8.1	6.1	6.6
MONTH	---	---	---	17.9	10.1	13.6	17.7	4.1	10.9	13.9	3.0	8.1

0204347490 CURRITUCK SOUND NEAR POINT HARBOR, NC--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO MARCH 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	9.2	5.9	7.2	8.7	7.1	7.8	---	---	---	---	---	---
2	10.6	9.1	9.8	9.6	7.5	8.3	---	---	---	---	---	---
3	11.0	9.6	10.3	11.5	9.0	10.1	---	---	---	---	---	---
4	10.5	9.8	10.2	10.3	8.8	9.5	---	---	---	---	---	---
5	10.2	9.0	9.6	9.7	7.2	8.6	---	---	---	---	---	---
6	9.8	9.2	9.5	11.0	8.3	9.6	---	---	---	---	---	---
7	10.7	9.1	9.9	10.7	7.3	9.7	---	---	---	---	---	---
8	10.6	8.8	10.1	7.8	4.4	6.2	---	---	---	---	---	---
9	10.1	8.4	9.3	6.1	4.9	5.5	---	---	---	---	---	---
10	11.7	10.0	10.8	6.2	5.4	5.8	---	---	---	---	---	---
11	11.9	9.8	11.0	7.8	4.9	6.2	---	---	---	---	---	---
12	12.9	11.1	12.0	8.2	5.2	6.6	---	---	---	---	---	---
13	12.7	10.4	11.9	7.7	5.2	6.7	---	---	---	---	---	---
14	10.4	8.0	8.9	8.6	7.0	7.6	---	---	---	---	---	---
15	9.8	6.7	8.0	8.6	7.4	8.1	---	---	---	---	---	---
16	10.0	7.9	8.9	---	---	---	---	---	---	---	---	---
17	11.5	9.2	10.1	---	---	---	---	---	---	---	---	---
18	10.8	9.9	10.4	---	---	---	---	---	---	---	---	---
19	10.7	8.7	9.7	---	---	---	---	---	---	---	---	---
20	8.9	7.6	8.3	---	---	---	---	---	---	---	---	---
21	7.8	5.7	7.0	---	---	---	---	---	---	---	---	---
22	6.3	2.7	4.8	---	---	---	---	---	---	---	---	---
23	3.4	1.6	2.7	---	---	---	---	---	---	---	---	---
24	3.9	3.3	3.6	---	---	---	---	---	---	---	---	---
25	5.7	3.3	4.6	---	---	---	---	---	---	---	---	---
26	7.2	5.4	6.3	---	---	---	---	---	---	---	---	---
27	8.7	6.2	7.3	---	---	---	---	---	---	---	---	---
28	8.6	7.2	8.0	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	12.9	1.6	8.6	---	---	---	---	---	---	---	---	---

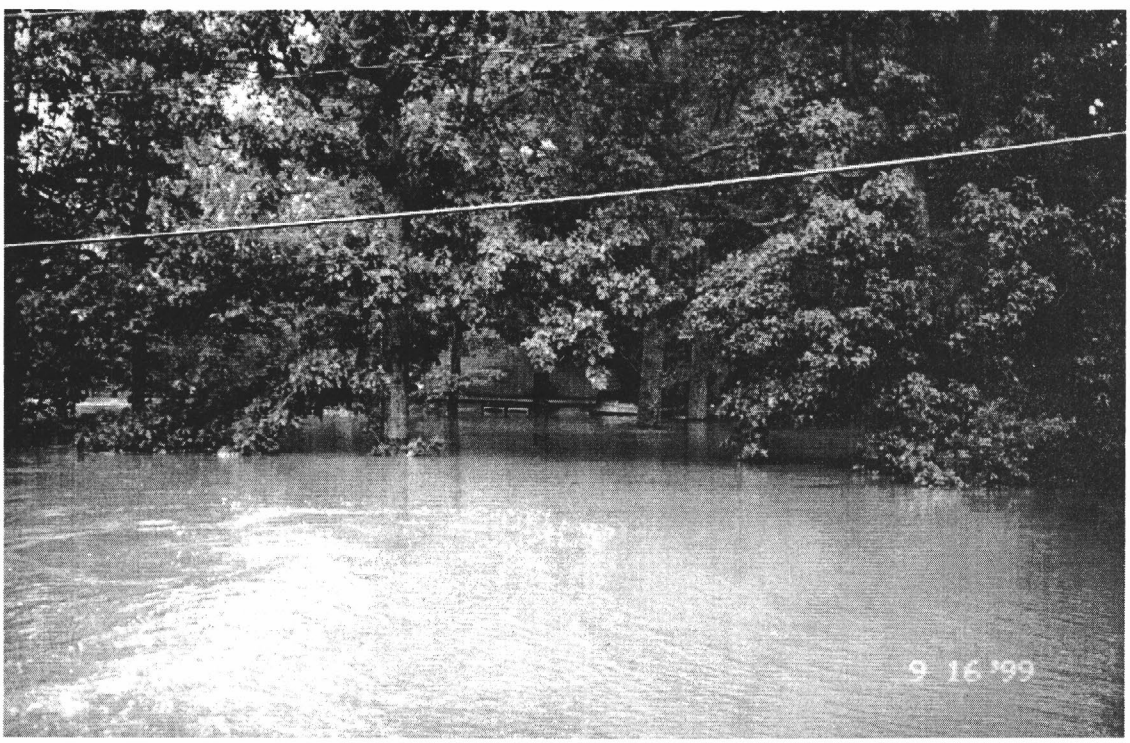
SALINITY (PARTS PER THOUSAND), WATER YEAR OCTOBER 1998 TO MARCH 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	5.7	5.4	5.5	6.3	5.5	5.8	6.7	6.5	6.6	5.8	5.2	5.5
2	5.8	5.6	5.8	6.8	5.8	6.3	6.6	4.9	5.5	5.2	4.6	4.9
3	5.7	5.5	5.6	6.2	5.2	5.6	6.4	5.6	6.1	6.3	4.9	5.5
4	6.2	5.4	5.7	5.2	4.7	5.0	7.0	5.7	6.5	6.3	5.5	5.9
5	6.1	5.5	5.7	4.7	4.4	4.5	6.7	6.0	6.6	6.0	5.6	5.8
6	5.5	5.1	5.4	5.3	4.0	4.4	6.8	6.5	6.6	5.8	5.2	5.6
7	5.5	4.9	5.2	6.4	4.7	5.5	6.8	6.4	6.6	5.8	5.7	5.7
8	6.0	5.3	5.6	6.3	6.2	6.3	7.1	6.5	6.8	5.7	4.4	4.8
9	6.1	5.5	5.7	6.4	6.2	6.3	7.0	6.4	6.7	5.5	4.6	5.1
10	5.5	5.3	5.4	6.8	6.0	6.2	6.4	5.4	5.9	5.4	4.5	4.7
11	5.5	5.1	5.3	8.1	6.5	7.0	5.8	5.1	5.4	5.9	5.4	5.7
12	5.4	5.0	5.2	9.2	6.4	7.2	5.7	3.8	4.4	5.7	5.5	5.6
13	5.0	4.9	5.0	6.4	5.1	5.5	5.5	3.8	5.1	5.9	5.3	5.8
14	5.1	4.9	5.0	10.0	5.0	5.8	5.0	3.6	4.0	5.7	3.1	3.8
15	5.2	5.0	5.1	11.2	8.1	9.3	3.6	2.9	3.2	5.0	3.7	4.5
16	5.0	4.9	4.9	9.0	5.9	7.0	5.4	1.2	3.4	4.9	4.5	4.7
17	4.9	4.7	4.7	8.2	7.2	7.7	5.7	4.9	5.5	5.3	4.6	4.9
18	6.0	4.7	5.3	7.4	5.5	6.5	5.0	3.9	4.2	5.6	4.7	5.1
19	6.1	5.6	5.8	5.5	4.7	5.0	5.4	4.4	5.0	5.8	5.1	5.5
20	6.3	5.9	6.0	8.0	5.0	6.8	5.3	4.8	5.2	5.2	4.7	4.9
21	---	---	---	7.8	7.0	7.5	5.1	4.5	4.7	5.2	4.8	5.0
22	---	---	---	7.0	5.1	5.9	6.8	5.1	6.0	5.2	4.8	5.0
23	---	---	---	7.0	5.5	6.4	5.3	4.4	4.8	5.2	5.1	5.2
24	---	---	---	6.9	6.5	6.8	4.5	4.1	4.3	5.4	5.0	5.2
25	---	---	---	6.5	6.3	6.4	4.1	3.5	3.8	5.0	4.7	4.9
26	---	---	---	6.8	6.5	6.7	3.5	3.1	3.4	4.9	4.2	4.4
27	---	---	---	6.7	6.1	6.5	5.3	3.0	3.6	5.0	4.4	4.9
28	5.7	4.0	4.4	6.4	6.0	6.1	5.5	4.1	5.2	5.1	4.5	4.9
29	6.1	4.5	5.5	6.5	6.3	6.4	5.5	3.9	4.6	5.0	3.8	4.6
30	6.2	4.4	5.1	6.6	6.4	6.5	5.6	5.3	5.5	3.9	3.6	3.8
31	6.1	5.2	5.7	---	---	---	5.6	5.3	5.5	3.7	2.6	3.4
MONTH	---	---	---	11.2	4.0	6.3	7.1	1.2	5.2	6.3	2.6	5.0

0204347490 CURRITUCK SOUND NEAR POINT HARBOR, NC--Continued

SALINITY (PARTS PER THOUSAND), WATER YEAR OCTOBER 1998 TO MARCH 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	5.0	2.1	3.0	5.4	4.9	5.2	---	---	---	---	---	---
2	5.0	4.1	4.6	5.1	4.6	5.0	---	---	---	---	---	---
3	4.8	4.5	4.7	7.4	4.2	5.0	---	---	---	---	---	---
4	5.4	4.7	5.1	7.5	6.7	7.1	---	---	---	---	---	---
5	5.3	4.4	4.9	7.1	4.8	6.1	---	---	---	---	---	---
6	5.3	4.4	5.0	5.2	4.4	4.9	---	---	---	---	---	---
7	5.4	5.2	5.3	5.1	4.5	4.8	---	---	---	---	---	---
8	5.4	5.0	5.3	5.0	3.5	4.7	---	---	---	---	---	---
9	5.2	4.6	5.0	3.8	3.4	3.5	---	---	---	---	---	---
10	5.3	4.6	5.0	3.8	3.4	3.6	---	---	---	---	---	---
11	4.8	4.2	4.4	3.7	3.1	3.4	---	---	---	---	---	---
12	5.4	4.5	4.7	3.5	3.0	3.2	---	---	---	---	---	---
13	5.4	5.0	5.3	3.1	2.9	3.0	---	---	---	---	---	---
14	5.0	4.7	4.9	3.9	2.9	3.4	---	---	---	---	---	---
15	5.1	3.7	4.5	3.9	3.8	3.9	---	---	---	---	---	---
16	5.2	4.3	4.8	---	---	---	---	---	---	---	---	---
17	4.8	4.1	4.4	---	---	---	---	---	---	---	---	---
18	4.6	4.1	4.3	---	---	---	---	---	---	---	---	---
19	4.6	4.3	4.5	---	---	---	---	---	---	---	---	---
20	4.3	3.6	4.0	---	---	---	---	---	---	---	---	---
21	4.2	3.2	3.6	---	---	---	---	---	---	---	---	---
22	3.9	2.6	3.0	---	---	---	---	---	---	---	---	---
23	3.1	2.6	2.8	---	---	---	---	---	---	---	---	---
24	3.8	2.5	2.9	---	---	---	---	---	---	---	---	---
25	4.5	2.5	3.8	---	---	---	---	---	---	---	---	---
26	4.6	4.5	4.5	---	---	---	---	---	---	---	---	---
27	4.5	4.1	4.2	---	---	---	---	---	---	---	---	---
28	4.9	4.1	4.3	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	5.4	2.1	4.4	---	---	---	---	---	---	---	---	---



Floodwaters from the Tar River reach the roof of this home near the USGS gage below the reservoir.

0204382800 PASQUOTANK RIVER NEAR SOUTH MILLS, NC

LOCATION.--Lat 36°25'18", long 76°20'34", 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 mi^2.

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

REVISED RECORDS.--WDR NC-98-1: Datum of gage.

GAGE.--Water-stage recorder and acoustic velocity meter. Datum of gage is 4.52 ft below sea level from topographic map. Satellite telemetry at station.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	3.7	20	135	127	114	110	109	27	-20	23	e7.0
2	3.0	6.8	17	114	114	98	118	109	24	31	18	e7.0
3	.13	13	17	91	140	71	115	108	30	30	14	e10
4	13	15	19	149	148	114	111	107	e25	23	9.8	114
5	14	12	16	139	153	102	113	105	e19	18	6.5	479
6	10	11	16	106	133	87	102	109	e13	10	17	514
7	10	7.6	26	101	132	91	104	111	e12	9.7	14	484
8	3.2	4.1	38	97	135	80	98	100	16	17	4.2	507
9	57	6.9	38	101	125	77	94	105	23	14	26	452
10	33	5.4	28	106	128	85	110	94	16	13	9.0	515
11	23	1.9	27	101	115	79	126	81	13	19	-4.4	618
12	19	9.6	19	88	96	80	299	72	6.7	6.4	18	543
13	16	6.5	48	89	131	77	318	81	2.3	10	-2.0	446
14	17	5.5	83	87	109	71	278	78	6.4	18	.56	382
15	18	7.4	68	118	94	111	231	77	14	18	39	425
16	12	6.2	62	164	93	124	215	83	16	19	19	981
17	10	17	61	149	94	114	197	80	21	9.4	7.6	1200
18	14	17	59	125	98	120	191	80	24	12	21	1250
19	17	13	51	152	105	121	193	73	18	18	13	1290
20	15	28	55	152	103	106	173	73	13	17	8.0	1190
21	11	26	53	146	102	84	178	61	22	10	46	1060
22	12	18	52	141	98	118	165	58	20	13	46	934
23	6.0	19	51	123	87	109	150	51	17	20	29	830
24	5.2	20	94	147	91	108	161	19	17	24	20	696
25	7.0	14	166	252	84	114	145	68	13	87	15	604
26	11	27	167	249	89	114	135	66	16	43	15	536
27	8.9	25	152	221	80	110	140	48	8.6	29	8.7	469
28	5.5	21	147	204	83	109	129	40	11	22	23	415
29	13	21	179	194	---	110	122	38	4.1	21	14	376
30	3.4	19	179	173	---	113	117	34	-11	17	e11	320
31	8.7	---	152	150	---	105	---	29	---	16	e9.0	---
TOTAL	411.03	407.6	2160	4364	3087	3116	4738	2347	457.1	594.5	497.96	17654.0
MEAN	13.3	13.6	69.7	141	110	101	158	75.7	15.2	19.2	16.1	588
MAX	57	28	179	252	153	124	318	111	30	87	46	1290
MIN	.13	1.9	16	87	80	71	94	19	-11	-20	-4.4	7.0

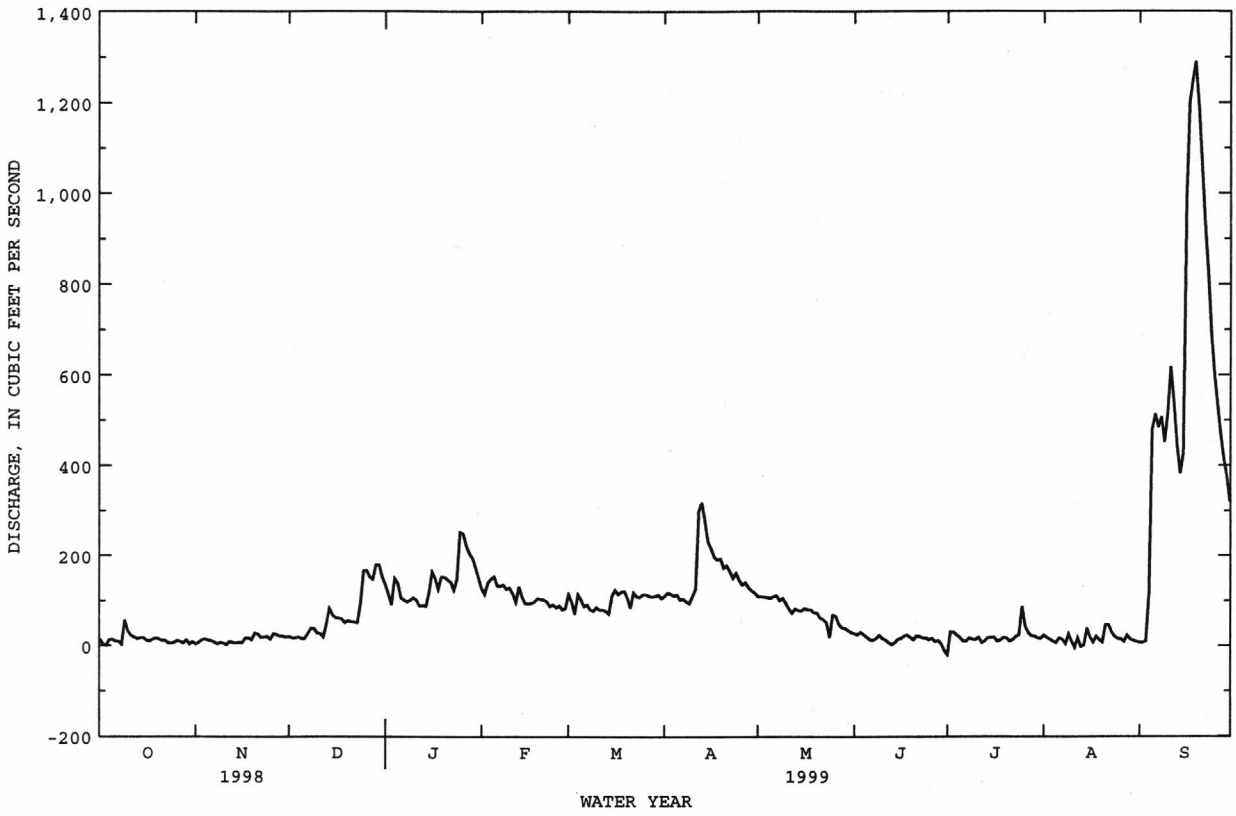
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 1999, BY WATER YEAR (WY)

MEAN	61.4	60.2	87.6	154	218	186	160	104	39.2	66.2	55.7	203
MAX	197	158	172	189	367	277	183	127	71.9	145	172	588
(WY)	1997	1997	1997	1998	1998	1998	1998	1996	1996	1996	1996	1999
MIN	13.3	13.6	18.2	107	110	101	126	75.7	15.2	19.2	15.6	25.2
(WY)	1999	1999	1996	1996	1999	1999	1997	1999	1999	1999	1997	1998

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1996 - 1999	
ANNUAL TOTAL	41946.13		39834.19			
ANNUAL MEAN	115		109		115	
HIGHEST ANNUAL MEAN					119	1998
LOWEST ANNUAL MEAN					109	1999
HIGHEST DAILY MEAN	572	Feb 5	1290	Sep 19	1290	Sep 19 1999
LOWEST DAILY MEAN	-80	Aug 27	-20	Jul 1	-80	Aug 27 1998
ANNUAL SEVEN-DAY MINIMUM	-6.1	Aug 22	3.1	Jun 25	-6.1	Aug 22 1998
INSTANTANEOUS PEAK FLOW			1330	Sep 19	1330	Sep 19 1999
INSTANTANEOUS PEAK STAGE			9.85	Sep 19	9.85	Sep 19 1999
INSTANTANEOUS LOW FLOW			-75	Aug 19	-240	Sep 6 1996
10 PERCENT EXCEEDS	305		195		228	
50 PERCENT EXCEEDS	57		61		96	
90 PERCENT EXCEEDS	11		8.7		14	

e Estimated.
Note.--Negative values indicate reverse flow.

0204382800 PASQUOTANK RIVER NEAR SOUTH MILLS, NC--Continued



02053200 POTECASI CREEK NEAR UNION, NC

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

DRAINAGE AREA.--225 mi^2.

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

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

GAGE.--Water-stage recorder. Datum of gage is 3.53 ft above sea level. Prior to Dec. 1, 1958, nonrecording gage at same site and datum. Satellite telemetry at station.

REMARKS.--Records fair except those below 50 ft^3/s, period Nov. 2 to Dec. 13, due to beaver activity and those for estimated daily discharges which are poor. Maximum discharge for current water year and period of record from rating curve extended above 5,800 ft^3/s on basis of discharge/conveyance ratios of peak flow; gage height from outside floodmarks. Minimum discharge for current water year also occurred Aug. 14.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.9	2.4	41	131	444	202	103	36	3.9	14	1.7	5.7
2	4.6	2.7	37	116	330	216	132	32	4.1	16	1.6	5.0
3	4.4	24	34	224	266	174	127	31	4.5	10	1.5	5.9
4	13	32	36	545	226	195	105	29	4.6	6.5	1.4	137
5	19	32	33	484	200	229	114	27	4.5	4.5	1.4	969
6	18	26	31	382	183	215	129	25	4.4	3.4	1.5	1150
7	13	20	29	379	163	198	107	22	4.3	2.9	1.5	980
8	16	18	28	378	148	171	127	22	4.0	3.0	1.4	1010
9	49	18	38	336	134	144	94	18	3.8	2.7	1.3	939
10	50	16	36	287	122	135	87	15	3.7	2.4	1.3	978
11	32	21	35	247	110	128	98	12	3.7	2.4	1.4	1220
12	15	26	30	200	103	117	137	11	3.6	4.1	1.3	1070
13	7.8	28	49	165	176	107	143	10	3.8	7.2	1.1	978
14	4.9	31	88	145	212	103	120	11	4.0	41	1.3	897
15	3.6	37	86	288	154	305	115	22	5.5	79	2.9	864
16	2.9	38	64	688	131	480	168	17	11	32	2.4	e4600
17	2.8	41	60	698	119	359	191	22	27	14	2.1	e15200
18	2.7	43	57	787	133	283	146	33	34	9.3	1.9	e12100
19	2.8	45	50	974	257	269	121	41	20	6.7	1.8	e8900
20	2.8	46	47	960	265	257	109	40	14	5.0	1.8	e6670
21	2.7	46	43	829	275	233	95	31	11	3.7	4.4	e5060
22	2.8	46	43	683	267	230	83	22	9.8	6.4	10	e3790
23	2.8	45	43	554	255	264	70	15	8.5	4.4	7.4	2730
24	3.0	45	e80	590	233	227	59	11	7.0	3.2	5.0	1840
25	3.1	45	220	1190	202	197	47	7.7	5.8	4.0	8.2	1200
26	3.4	48	204	1390	175	184	37	7.9	6.2	3.7	22	774
27	e3.8	48	138	1360	151	175	30	6.1	6.6	2.9	18	493
28	4.5	46	136	1250	139	165	25	4.8	6.4	2.5	17	337
29	2.8	44	191	1050	---	142	27	4.3	6.4	2.3	12	296
30	2.4	42	190	821	---	123	35	4.3	5.9	2.1	8.3	261
31	2.5	---	153	610	---	108	---	4.2	---	1.9	7.2	---
TOTAL	303.0	1002.1	2350	18741	5573	6335	2981	594.3	242.0	303.2	152.1	75459.6
MEAN	9.77	33.4	75.8	605	199	204	99.4	19.2	8.07	9.78	4.91	2515
MAX	50	48	220	1390	444	480	191	41	34	79	22	15200
MIN	2.4	2.4	28	116	103	103	25	4.2	3.6	1.9	1.1	5.0
CFSM	.04	.15	.34	2.69	.88	.91	.44	.09	.04	.04	.02	11.2
IN.	.05	.17	.39	3.10	.92	1.05	.49	.10	.04	.05	.03	12.48

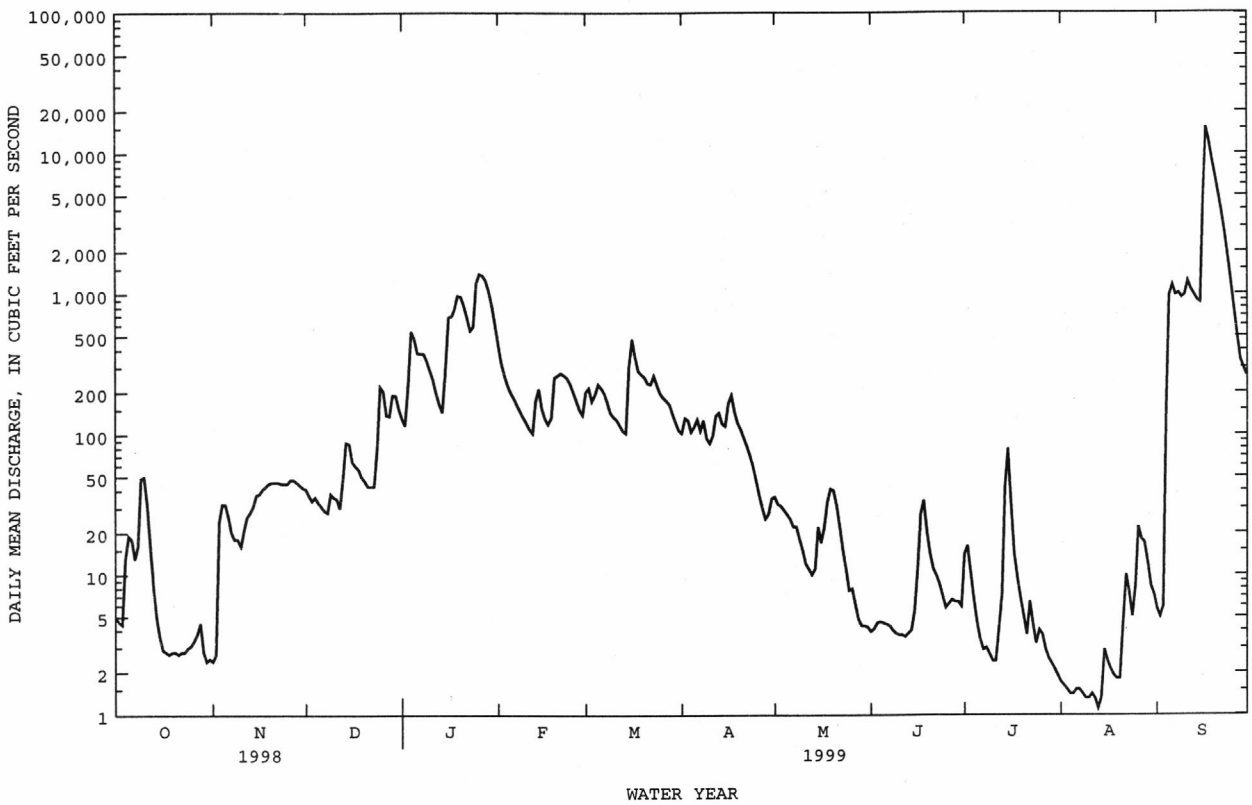
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 1999, BY WATER YEAR (WY)

MEAN	114	99.8	203	417	496	474	300	150	106	104	156	143
MAX	1108	619	619	957	1135	1439	994	925	700	531	1131	2515
(WY)	1960	1986	1990	1987	1960	1989	1983	1979	1979	1975	1992	1999
MIN	2.12	5.64	12.0	51.3	54.9	46.7	27.7	5.36	4.71	2.32	2.50	1.65
(WY)	1995	1982	1995	1981	1991	1988	1995	1994	1986	1983	1987	1995

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1959 - 1999	
ANNUAL TOTAL	90069.7		114036.3			
ANNUAL MEAN	247		312		229	
HIGHEST ANNUAL MEAN					458	1979
LOWEST ANNUAL MEAN					73.0	1981
HIGHEST DAILY MEAN	2890	Feb 7	15200	Sep 17	15200	Sep 17 1999
LOWEST DAILY MEAN	2.4	Oct 30	1.1	Aug 13	.30	Jun 30 1959
ANNUAL SEVEN-DAY MINIMUM	2.8	Oct 17	1.3	Aug 8	.51	Jun 25 1959
INSTANTANEOUS PEAK FLOW			17000*	Sep 17	17000*	Sep 17 1999
INSTANTANEOUS PEAK STAGE			28.90*	Sep 17	28.90*	Sep 17 1999
INSTANTANEOUS LOW FLOW			1.1*	Aug 13	.20	Jul 1 1959
ANNUAL RUNOFF (CFSM)	1.10		1.39		1.02	
ANNUAL RUNOFF (INCHES)	14.89		18.85		13.83	
10 PERCENT EXCEEDS	830		598		651	
50 PERCENT EXCEEDS	49		38		75	
90 PERCENT EXCEEDS	3.8		2.8		5.3	

e Estimated.
* See REMARKS.

02053200 POTECASI CREEK NEAR UNION, NC--Continued



02053500 AHOSKIE CREEK AT AHOSKIE, NC

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

DRAINAGE AREA.--63.3 mi^2.

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

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

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

REMARKS.--Records poor. Entire basin above station canalized since July 1964. Excavation began downstream in July 1962 and reached the station in December 1962. Reach was recanalized beginning in September 1984 and completed October 1984. Minimum discharge since canalization also occurred Oct. 9, 1988. Prior to canalization, no flow occurred periodically.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.9	2.2	3.0	12	37	69	34	13	4.8	4.3	2.8	4.4
2	3.1	2.3	2.9	9.8	37	49	46	12	4.4	3.7	3.0	3.9
3	2.5	3.9	2.9	291	39	41	37	11	4.7	3.6	2.8	4.2
4	7.6	3.6	2.9	207	36	58	35	11	4.4	3.6	2.7	161
5	8.9	3.4	2.9	65	37	44	39	10	4.0	3.3	2.5	540
6	4.7	2.9	2.9	42	35	37	32	9.6	3.7	3.2	2.3	601
7	3.1	2.6	2.9	34	33	34	29	9.1	3.7	3.1	2.1	992
8	2.8	2.5	2.9	30	31	30	27	9.1	3.8	2.8	2.1	425
9	13	2.6	3.9	29	30	29	26	8.5	3.8	2.4	2.2	138
10	12	2.6	3.4	34	28	30	31	8.0	3.5	2.4	2.3	402
11	5.8	2.6	3.1	31	27	31	31	7.5	3.3	2.7	2.2	344
12	4.0	2.4	3.0	27	29	29	40	7.9	3.1	4.2	2.1	111
13	3.3	2.5	8.2	25	68	27	33	7.6	3.3	3.2	2.1	58
14	2.9	2.8	15	24	44	28	28	12	3.5	42	5.3	79
15	2.7	2.7	7.4	303	37	252	25	18	5.5	44	3.5	471
16	2.6	2.9	8.7	236	34	136	27	15	9.2	16	7.1	3530
17	2.6	9.4	12	86	31	79	25	12	58	7.7	4.5	7710
18	2.6	6.5	7.1	130	76	54	22	10	36	5.3	3.5	4740
19	2.5	4.2	5.5	133	99	42	20	8.9	15	4.3	3.4	2680
20	2.5	4.0	4.7	68	66	36	19	7.7	8.2	3.7	2.9	1710
21	2.4	3.3	4.3	49	52	33	17	7.0	6.2	3.7	4.4	779
22	2.4	3.3	4.3	40	42	63	16	6.6	5.3	5.6	4.0	336
23	2.3	3.2	5.5	35	37	55	15	6.3	4.8	5.4	7.5	189
24	2.4	3.1	40	409	34	42	15	6.2	4.4	4.4	6.6	132
25	2.3	3.1	69	669	32	37	14	5.9	4.5	4.1	8.7	107
26	2.3	4.1	26	323	31	36	13	5.7	4.4	3.3	49	93
27	2.3	5.1	17	123	30	40	13	5.5	4.2	3.1	23	83
28	2.3	4.0	26	77	33	38	13	5.3	4.2	3.1	19	134
29	2.3	3.4	38	57	---	34	13	5.0	4.2	3.4	11	125
30	2.2	3.2	22	46	---	31	14	4.8	4.3	2.6	8.6	134
31	2.2	---	16	40	---	28	---	4.8	---	2.6	5.6	---
TOTAL	118.5	104.4	373.4	3684.8	1145	1572	749	271.0	232.4	206.8	208.8	26816.5
MEAN	3.82	3.48	12.0	119	40.9	50.7	25.0	8.74	7.75	6.67	6.74	894
MAX	13	9.4	69	669	99	252	46	18	58	44	49	7710
MIN	2.2	2.2	2.9	9.8	27	27	13	4.8	3.1	2.4	2.1	3.9
CFSM	.06	.05	.19	1.88	.65	.80	.39	.14	.12	.11	.11	14.1
IN.	.07	.06	.22	2.17	.67	.92	.44	.16	.14	.12	.12	15.76

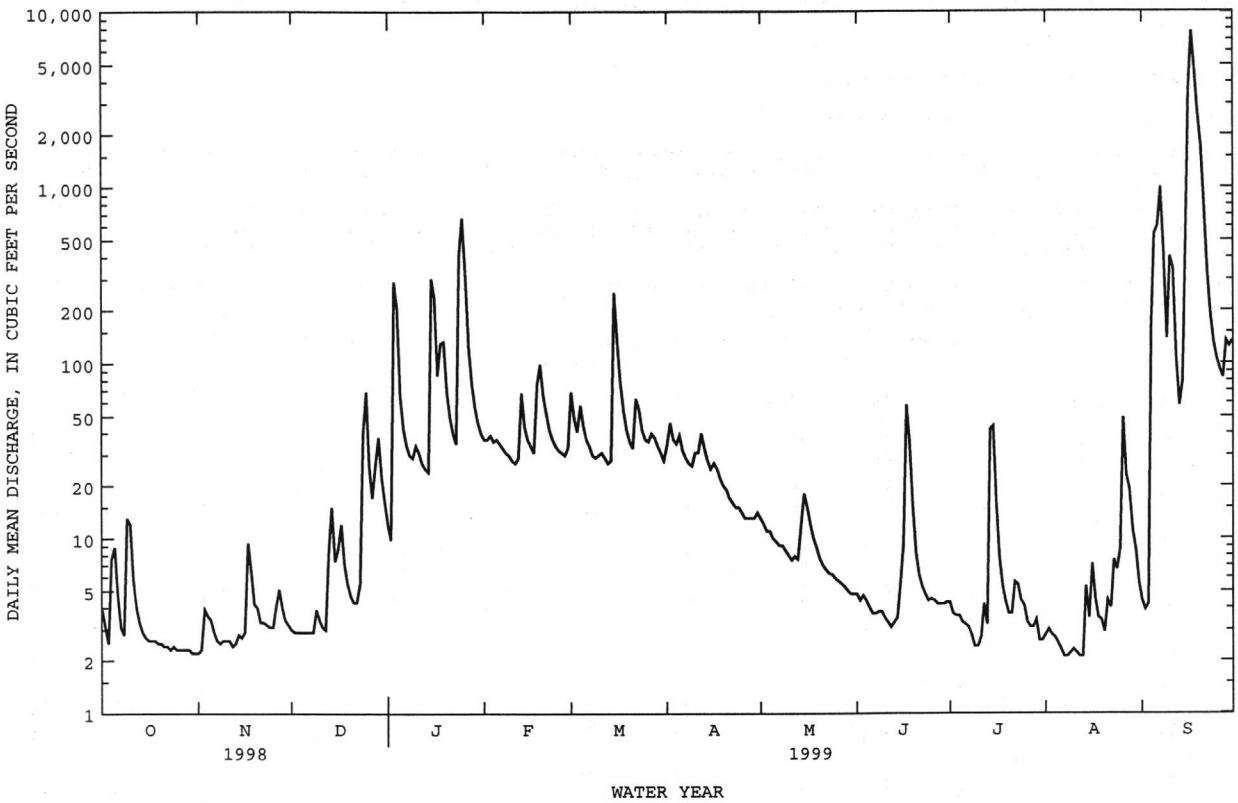
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1999*, BY WATER YEAR (WY)

MEAN	36.1	22.8	47.2	105	127	128	73.1	45.9	31.8	32.2	46.0	46.5
MAX	297	120	177	260	343	303	243	238	112	126	381	894
(WY)	1972	1986	1990	1979	1998	1989	1983	1979	1979	1975	1992	1999
MIN	3.01	3.21	3.10	7.66	18.9	17.3	8.73	4.21	5.43	3.55	3.59	3.41
(WY)	1977	1982	1995	1981	1968	1988	1985	1986	1986	1987	1983	1980

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1964 - 1999*	
ANNUAL TOTAL	27230.8		35482.6			
ANNUAL MEAN	74.6		97.2		61.5	
HIGHEST ANNUAL MEAN					109	1979
LOWEST ANNUAL MEAN					14.7	1981
HIGHEST DAILY MEAN	1600	Feb 6	7710	Sep 17	7710	Sep 17 1999
LOWEST DAILY MEAN	2.2	Oct 30	2.1	Aug 7	.61	Oct 8 1988
ANNUAL SEVEN-DAY MINIMUM	2.3	Oct 26	2.2	Aug 7	.85	Sep 27 1988
INSTANTANEOUS PEAK FLOW			8570	Sep 17	8570	Sep 17 1999
INSTANTANEOUS PEAK STAGE			17.32	Sep 17	17.32	Sep 17 1999
INSTANTANEOUS LOW FLOW			1.8	Nov 2	.45*	Oct 8 1988
ANNUAL RUNOFF (CFSM)	1.18		1.54		.97	
ANNUAL RUNOFF (INCHES)	16.00		20.85		13.21	
10 PERCENT EXCEEDS	170		95		136	
50 PERCENT EXCEEDS	23		9.1		17	
90 PERCENT EXCEEDS	2.9		2.6		4.2	

* Canalized period only (1964-1999). See REMARKS.

02053500 AHOSKIE CREEK AT AHOSKIE, NC--Continued



02068500 DAN RIVER NEAR FRANCISCO, NC

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

DRAINAGE AREA.--129 mi^2.

PERIOD OF RECORD.--August 1924 to September 1987. December 1991 to current year. Monthly discharge only for some periods, published in WSP 1303.

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

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

REMARKS.--Records good except those for discharges above 1,000 ft^3/s, which are fair. Since 1938, considerable diurnal fluctuation and regulation by Talbott and Townes Reservoirs (stations 02067800 and 02067820, respectively) and Pinnacles Hydroelectric Plant in Virginia, 28 mi upstream.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	122	58	59	e65	137	220	213	174	83	e100	135	40
2	55	59	58	67	244	130	178	154	94	e150	77	28
3	53	62	56	262	151	144	159	145	100	e100	49	28
4	59	59	58	153	140	205	153	111	107	e120	52	21
5	75	58	58	e220	131	157	150	109	76	e90	52	106
6	69	58	59	173	136	138	124	132	74	e80	42	265
7	76	58	58	102	134	133	117	132	79	e70	41	104
8	e150	58	59	81	132	128	121	118	150	e68	41	117
9	e100	60	99	88	129	142	121	109	130	e64	43	127
10	78	61	90	e88	116	159	136	111	120	66	38	83
11	73	e90	80	80	108	145	122	105	128	95	33	54
12	70	e80	85	99	110	136	151	104	76	110	93	50
13	75	e76	427	94	113	134	122	98	74	162	86	49
14	73	e70	207	85	105	157	121	380	79	124	110	77
15	78	e68	183	119	116	207	126	391	81	94	47	253
16	87	e66	134	105	106	175	141	150	87	84	29	157
17	75	e64	74	101	107	156	123	125	99	73	22	67
18	70	59	94	161	203	153	120	165	83	129	75	61
19	72	60	71	149	174	147	121	404	80	131	55	61
20	70	63	66	125	156	143	113	260	84	80	62	61
21	65	61	63	116	146	172	111	181	82	81	54	65
22	59	59	63	111	148	177	114	132	73	88	35	100
23	58	59	e110	128	146	136	123	127	66	101	29	59
24	71	71	e200	566	136	136	118	120	62	149	60	51
25	57	59	119	278	114	132	87	114	77	98	227	54
26	58	76	109	186	111	142	92	113	124	71	261	54
27	54	59	97	159	111	141	116	110	104	82	98	61
28	53	55	79	177	151	137	130	103	105	69	76	136
29	57	56	78	230	---	135	142	118	137	107	70	325
30	59	58	76	158	---	135	263	122	114	92	53	464
31	60	---	84	125	---	132	---	108	---	99	47	---
TOTAL	2231	1900	3153	4651	3811	4684	4028	4825	2828	3027	2192	3178
MEAN	72.0	63.3	102	150	136	151	134	156	94.3	97.6	70.7	106
MAX	150	90	427	566	244	220	263	404	150	162	261	464
MIN	53	55	56	65	105	128	87	98	62	64	22	21
†	-2	+6	-1	+15	+3	-1	0	+21	-11	-15	-12	+35

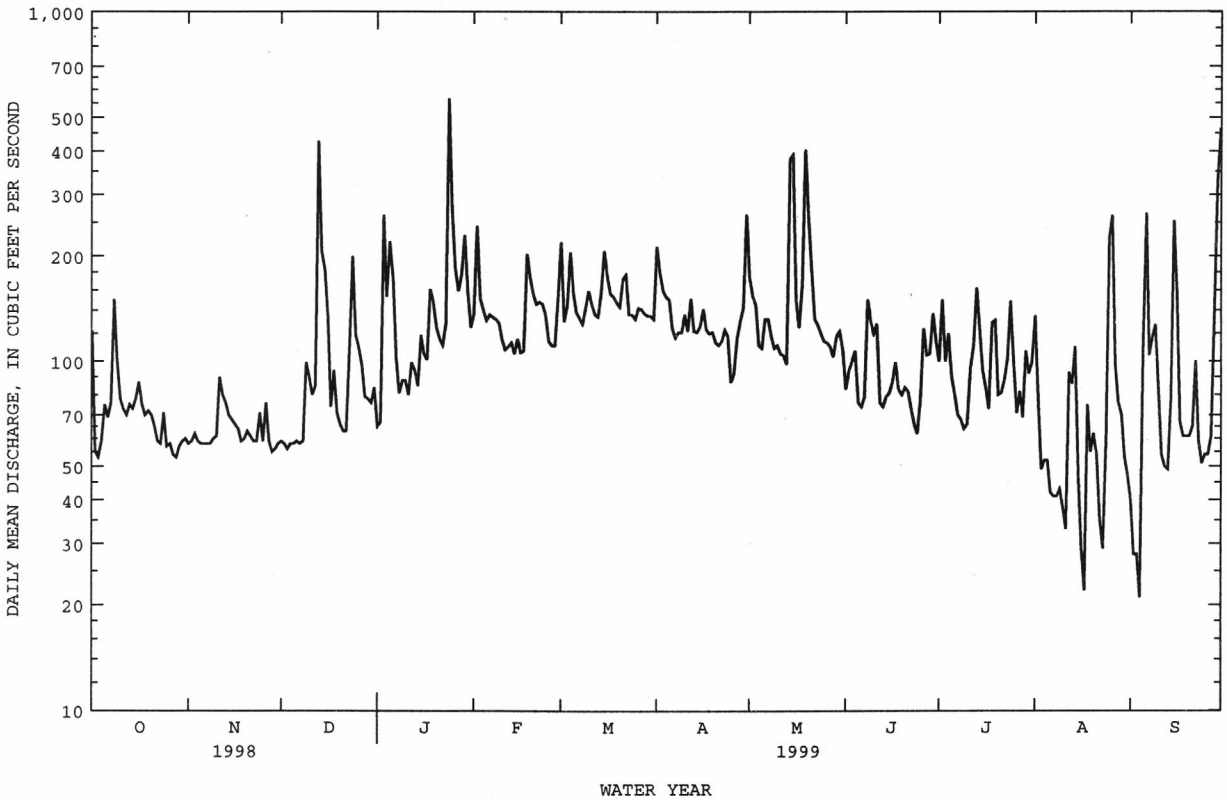
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1999*@, BY WATER YEAR (WY)

MEAN	150	157	178	201	224	264	271	222	198	168	167	149
MAX	543	327	479	424	463	571	677	405	438	373	514	630
(WY)	1938	1980	1997	1978	1960	1993	1980	1949	1972	1938	1940	1979
MIN	49.7	61.3	77.5	76.2	94.9	94.2	120	109	78.3	54.8	52.5	50.4
(WY)	1964	1954	1998	1956	1956	1981	1967	1986	1967	1986	1981	1968

02068500 DAN RIVER NEAR FRANCISCO, NC--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1938 - 1999*@	
ANNUAL TOTAL	70378		40508			
ANNUAL MEAN	193		111	‡114	196	(UNADJUSTED)
HIGHEST ANNUAL MEAN					300	1960
LOWEST ANNUAL MEAN					97.5	1956
HIGHEST DAILY MEAN	1520	Apr 17	566	Jan 24	6830	Sep 22 1979
LOWEST DAILY MEAN	42	Sep 13	21	Sep 4	21	Sep 4 1999
ANNUAL SEVEN-DAY MINIMUM	50	Sep 24	41	Aug 29	28	Aug 24 1981
INSTANTANEOUS PEAK FLOW			944	Jan 24	21200	Aug 17 1985
INSTANTANEOUS PEAK STAGE			3.10	Jan 24	19.50	Aug 17 1985
INSTANTANEOUS LOW FLOW			15	Sep 4	7.1	Sep 8 1932
10 PERCENT EXCEEDS	389		168		319	
50 PERCENT EXCEEDS	146		101		157	
90 PERCENT EXCEEDS	59		57		84	

e Estimated.
† Change in contents, equivalent in cubic feet per second, in Talbott and Townes Reservoirs by City of Danville, Virginia.
‡ Adjusted for change in contents.
* Regulated period only (1938-1999). See REMARKS.
@ See PERIOD OF RECORD.



02070500 MAYO RIVER NEAR PRICE, NC

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

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

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

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

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

REMARKS.--Records good except those for estimated daily discharges, which are poor. Minimum discharge for current water year also occurred Aug. 20.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	101	126	130	185	231	265	285	356	135	125	107	83
2	91	126	128	184	527	225	369	267	129	229	91	80
3	87	133	128	275	415	220	275	227	128	153	83	76
4	95	138	128	431	320	267	244	206	124	174	75	71
5	109	136	130	e240	276	236	220	194	119	125	74	471
6	130	134	131	e185	254	228	208	188	119	103	72	775
7	145	131	131	e210	244	222	202	184	116	89	69	363
8	244	131	134	e190	237	206	196	217	113	130	65	227
9	221	135	243	e190	219	206	193	180	107	114	62	226
10	147	138	191	e195	213	212	190	165	102	94	62	325
11	133	198	151	e180	206	205	195	157	99	130	59	193
12	127	205	144	e175	205	196	236	152	111	149	55	155
13	125	149	793	e160	204	190	190	147	103	296	53	137
14	125	140	459	e155	191	211	182	868	98	211	54	127
15	122	138	251	e180	187	461	188	621	102	178	67	142
16	121	135	206	e195	187	411	232	334	117	146	65	222
17	126	135	185	e185	189	315	193	261	150	124	58	144
18	124	131	170	e230	321	278	180	223	136	122	55	122
19	121	129	162	e400	315	252	178	442	107	204	48	116
20	120	132	161	265	267	237	177	337	105	130	62	112
21	116	132	158	234	237	276	172	255	135	120	122	112
22	112	127	157	217	218	310	170	220	137	277	77	142
23	107	128	151	275	209	253	166	202	122	139	64	119
24	e110	130	e234	1120	211	243	160	188	106	134	92	105
25	e119	130	320	666	208	239	157	174	106	152	394	101
26	118	137	228	390	205	222	156	171	141	111	570	98
27	120	139	212	312	198	210	166	166	142	91	207	161
28	120	130	204	276	222	203	192	155	136	109	145	505
29	123	130	200	251	---	199	265	149	197	395	119	862
30	125	130	194	233	---	193	601	143	134	221	101	1750
31	126	---	188	218	---	188	---	138	---	134	88	---
TOTAL	3910	4133	6402	8602	6916	7579	6538	7687	3676	4909	3315	8122
MEAN	126	138	207	277	247	244	218	248	123	158	107	271
MAX	244	205	793	1120	527	461	601	868	197	395	570	1750
MIN	87	126	128	155	187	188	156	138	98	89	48	71
CFSM	.52	.57	.85	1.15	1.02	1.01	.90	1.02	.51	.65	.44	1.12
IN.	.60	.64	.98	1.32	1.06	1.17	1.01	1.18	.57	.75	.51	1.25

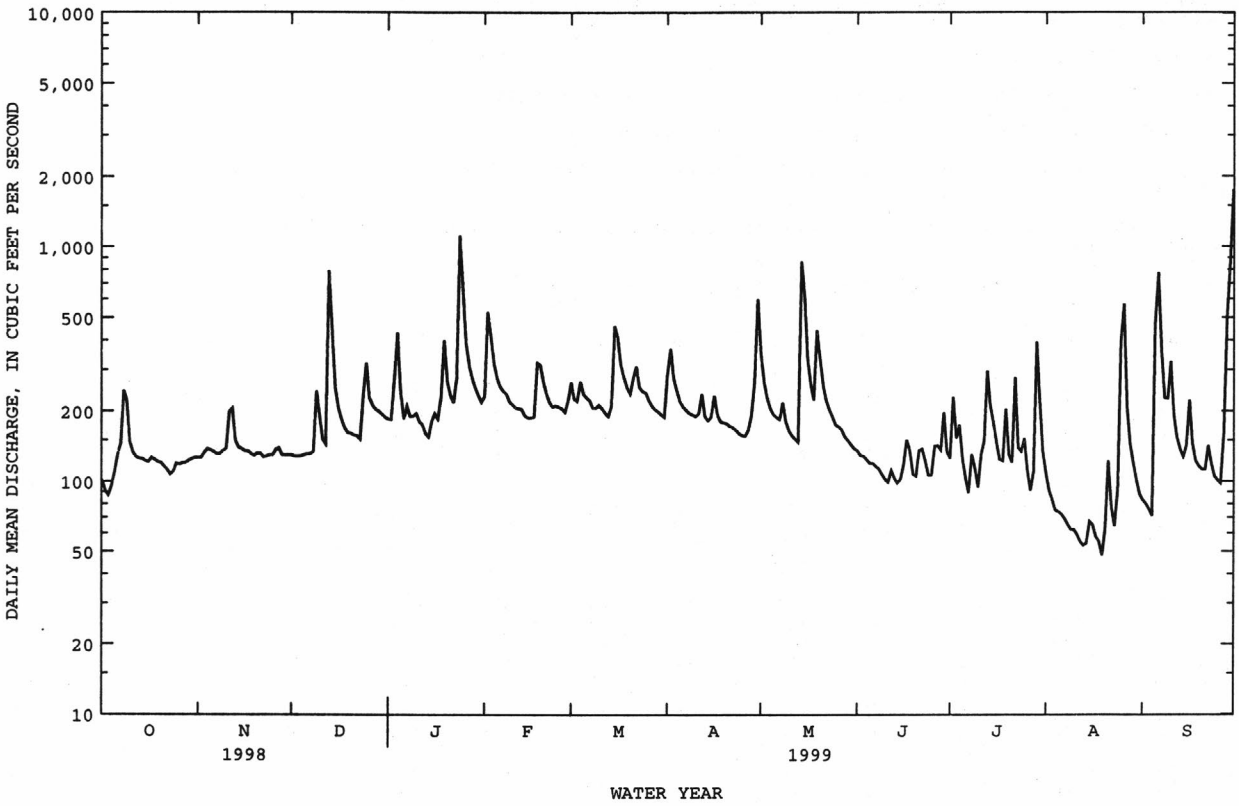
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 1999,@ BY WATER YEAR (WY)

MEAN	276	247	294	365	400	430	397	328	291	256	258	247
MAX	1250	578	661	1022	900	982	694	659	654	609	943	1002
(WY)	1938	1958	1997	1936	1960	1994	1958	1949	1943	1949	1940	1945
MIN	84.5	95.9	118	112	139	221	175	157	123	103	89.9	62.0
(WY)	1932	1932	1956	1956	1931	1940	1967	1956	1999	1966	1930	1954

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1929 - 1999@	
ANNUAL TOTAL	123880		71789			
ANNUAL MEAN	339		197		315	
HIGHEST ANNUAL MEAN					479	1949
LOWEST ANNUAL MEAN					170	1956
HIGHEST DAILY MEAN	3780	Jan 28	1750	Sep 30	11400	Sep 18 1945
LOWEST DAILY MEAN	87	Oct 3	48	Aug 19	35	Oct 8 1954
ANNUAL SEVEN-DAY MINIMUM	95	Sep 28	57	Aug 13	45	Sep 19 1956
INSTANTANEOUS PEAK FLOW			3310	Sep 29	30000	Oct 19 1937
INSTANTANEOUS PEAK STAGE			5.16	Sep 29	14.00	Oct 19 1937
INSTANTANEOUS LOW FLOW			46*	Aug 19	32	Oct 8 1954
ANNUAL RUNOFF (CFSM)	1.40		.81		1.30	
ANNUAL RUNOFF (INCHES)	19.04		11.04		17.70	
10 PERCENT EXCEEDS	617		302		500	
50 PERCENT EXCEEDS	240		165		236	
90 PERCENT EXCEEDS	120		100		127	

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

02070500 MAYO RIVER NEAR PRICE, NC--Continued



02071000 DAN RIVER NEAR WENTWORTH, NC

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

DRAINAGE AREA.--1,053 mi^2, revised

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

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

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

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Slight fluctuation and regulation at low flow caused by Talbott and Townes Reservoirs (stations 02067800 and 02067820). Maximum gage height for period of record, from high-water mark in gage well. Minimum discharge for current water year also occurred Aug. 19.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	310	337	386	509	719	799	875	2760	477	489	347	230
2	342	339	385	487	1220	801	1530	1400	437	531	348	219
3	352	350	383	991	1500	700	1070	1070	423	604	297	203
4	327	371	386	1690	1050	824	898	873	427	502	253	186
5	352	381	391	899	884	883	818	761	418	524	222	743
6	371	377	398	706	802	773	766	704	391	459	226	1880
7	391	370	402	826	770	734	717	686	383	e390	218	1040
8	413	365	402	725	755	682	685	670	367	e550	201	637
9	651	367	591	730	720	660	670	662	418	e450	197	423
10	509	374	710	735	695	692	657	581	402	354	194	808
11	395	392	508	666	665	689	654	551	407	389	196	476
12	367	577	467	626	644	656	679	532	506	459	175	362
13	356	498	1610	601	644	626	659	517	418	759	199	367
14	352	418	2220	583	620	661	605	4730	367	745	215	347
15	349	405	946	640	591	1250	612	4830	361	596	231	457
16	342	401	727	757	591	1450	743	1590	392	485	211	1170
17	348	400	628	671	597	1070	691	1100	458	418	193	558
18	355	395	516	914	798	909	610	882	515	385	156	322
19	343	386	503	1530	1210	820	591	913	452	453	167	264
20	340	387	493	1000	990	761	591	1150	391	491	199	248
21	337	395	478	811	880	929	575	869	399	420	222	251
22	329	388	463	722	789	1330	563	742	442	1060	277	349
23	314	379	460	729	741	1000	555	696	443	519	205	330
24	308	383	640	4160	734	861	553	675	405	e510	176	238
25	318	407	1150	3210	714	825	533	610	376	e580	591	214
26	337	404	797	1520	675	768	505	570	380	e510	1580	203
27	336	428	671	1130	654	728	528	569	453	e740	573	279
28	332	407	642	954	675	700	634	539	472	e660	296	1560
29	331	388	595	877	---	679	875	507	465	e900	272	1210
30	329	386	568	843	---	661	5430	494	545	648	290	4400
31	333	---	527	745	---	644	---	488	---	418	258	---
TOTAL	11169	11855	20043	31987	22327	25565	25872	33721	12790	16998	9185	19974
MEAN	360	395	647	1032	797	825	862	1088	426	548	296	666
MAX	651	577	2220	4160	1500	1450	5430	4830	545	1060	1580	4400
MIN	308	337	383	487	591	626	505	488	361	354	156	186
CFSM	.34	.38	.61	.98	.76	.78	.82	1.03	.40	.52	.28	.63
IN.	.39	.42	.71	1.13	.79	.90	.91	1.19	.45	.60	.32	.71

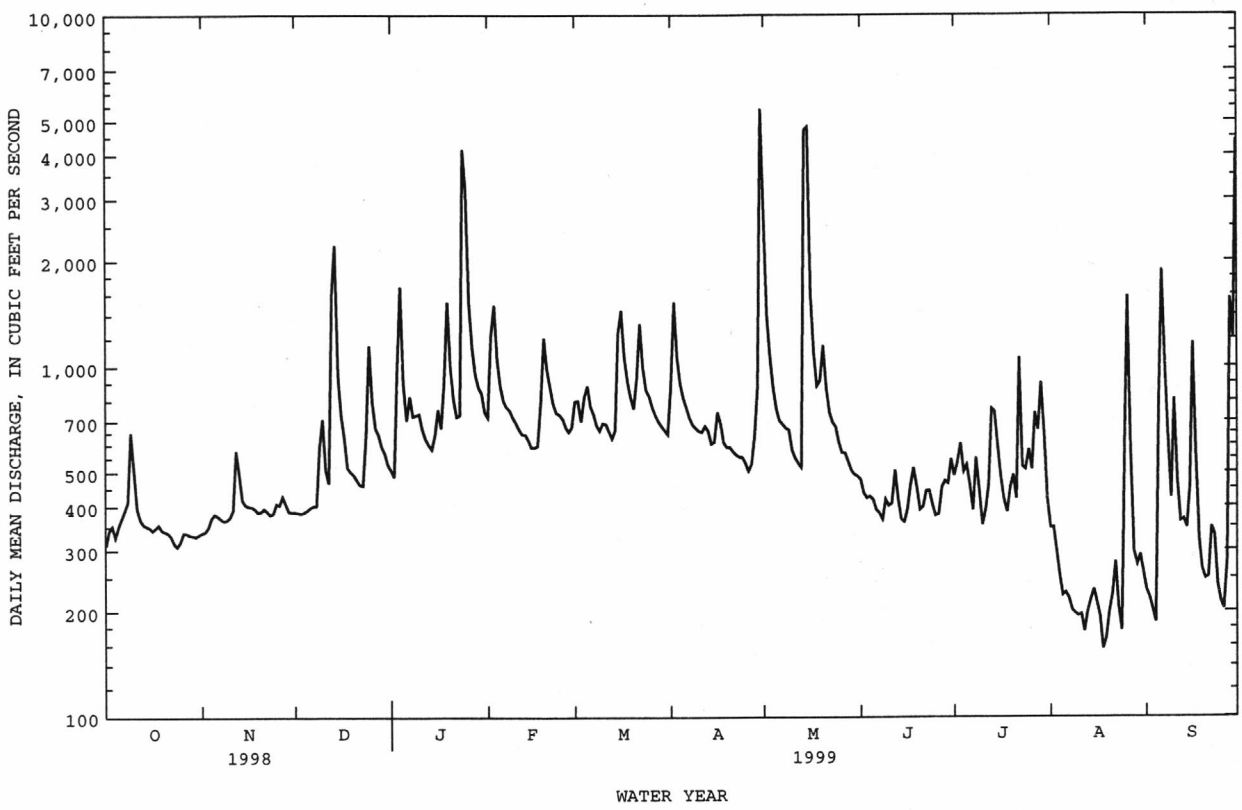
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1999, BY WATER YEAR (WY)

MEAN	905	917	1147	1420	1633	1890	1702	1319	1097	913	832	856
MAX	3676	2963	2458	3274	4308	5345	4951	3149	4220	2345	3067	3667
(WY)	1960	1958	1997	1978	1960	1975	1987	1972	1972	1949	1940	1979
MIN	237	297	422	392	771	661	592	515	333	268	218	166
(WY)	1954	1954	1956	1956	1941	1985	1985	1981	1986	1986	1981	1954

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1940 - 1999	
ANNUAL TOTAL	444989		241486			
ANNUAL MEAN	1219		662		1218	
HIGHEST ANNUAL MEAN					1985	1960
LOWEST ANNUAL MEAN					587	1981
HIGHEST DAILY MEAN	15600	Jan 28	5430	Apr 30	47800	Jun 22 1972
LOWEST DAILY MEAN	289	Sep 15	156	Aug 18	107	Oct 2 1954
ANNUAL SEVEN-DAY MINIMUM	318	Sep 10	196	Aug 13	126	Oct 6 1954
INSTANTANEOUS PEAK FLOW			11000	May 14	54200	Jun 22 1972
INSTANTANEOUS PEAK STAGE			14.47	May 14	31.60*	Jun 22 1972
INSTANTANEOUS LOW FLOW			146*	Aug 18	65	Oct 8 1954
ANNUAL RUNOFF (CFSM)	1.16		.63		1.16	
ANNUAL RUNOFF (INCHES)	15.72		8.53		15.72	
10 PERCENT EXCEEDS	2320		1020		2040	
50 PERCENT EXCEEDS	764		533		836	
90 PERCENT EXCEEDS	342		297		416	

e Estimated.
* See REMARKS.

02071000 DAN RIVER NEAR WENTWORTH, NC--Continued



02074000 SMITH RIVER AT EDEN, NC

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

DRAINAGE AREA.--538 mi^2.

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

REVISED RECORDS.--WSP 1433: 1946.

GAGE.--Water-stage recorder. Datum of gage is 539.56 ft above sea level. 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 ft^3). Additional regulation by hydroelectric plant at Martinsville, Virginia, 18 mi upstream. Maximum discharge prior to regulation: 45,600 ft^3/s, Aug. 15, 1940, from rating curve extended above 12,000 ft^3/s on the basis of computation of peak flow over dam 1.5 mi downstream; gage height: 19.28 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e150	174	364	353	362	396	495	623	405	347	182	551
2	e200	169	343	e280	841	369	566	366	442	403	176	558
3	e300	346	353	e570	672	369	378	276	424	356	400	550
4	e280	454	343	657	514	434	284	380	390	195	380	542
5	e280	349	270	439	436	369	382	301	396	134	389	617
6	e240	371	188	421	330	282	418	399	112	394	383	1090
7	e200	295	262	382	293	257	422	402	157	388	367	935
8	e150	177	338	425	378	320	403	389	383	372	96	722
9	e400	230	580	341	365	343	445	249	376	380	128	675
10	e350	378	409	324	354	350	371	262	373	348	536	546
11	e300	412	368	344	350	341	267	368	378	153	516	249
12	e280	414	291	361	340	348	413	300	336	151	508	231
13	e200	374	1100	394	317	242	435	313	136	591	515	e220
14	e150	275	701	355	242	257	439	476	135	471	487	288
15	e140	194	470	421	311	830	431	581	373	458	113	346
16	e200	274	423	383	345	792	458	307	370	456	100	598
17	e280	358	400	289	289	557	344	276	397	377	525	408
18	e280	352	374	565	494	431	253	427	401	167	e500	288
19	e270	349	289	647	641	499	361	436	367	160	e400	134
20	e250	355	213	472	395	283	397	383	135	360	e300	140
21	e200	264	282	402	311	385	397	395	190	394	457	292
22	e150	183	362	396	352	550	404	373	398	1440	93	301
23	e200	261	346	305	374	441	400	150	353	534	100	280
24	e270	354	e620	1780	360	437	285	216	358	434	530	253
25	e280	352	540	1060	366	433	218	373	371	225	911	261
26	e280	364	343	627	355	401	325	221	358	162	1020	109
27	e260	321	258	499	262	289	386	388	137	404	683	726
28	331	287	339	350	273	269	458	232	164	398	607	2600
29	338	180	404	481	---	357	533	357	376	657	148	2230
30	281	261	383	303	---	357	717	112	355	500	141	3360
31	305	---	385	268	---	351	---	139	---	419	550	---
TOTAL	7795	9127	12341	14894	10922	12339	12085	10470	9546	12228	12241	20100
MEAN	251	304	398	480	390	398	403	338	318	394	395	670
MAX	400	454	1100	1780	841	830	717	623	442	1440	1020	3360
MIN	140	169	188	268	242	242	218	112	112	134	93	109
†	-69	-81	-30	+117	+84	+78	+9	+48	-133	-143	-287	-10

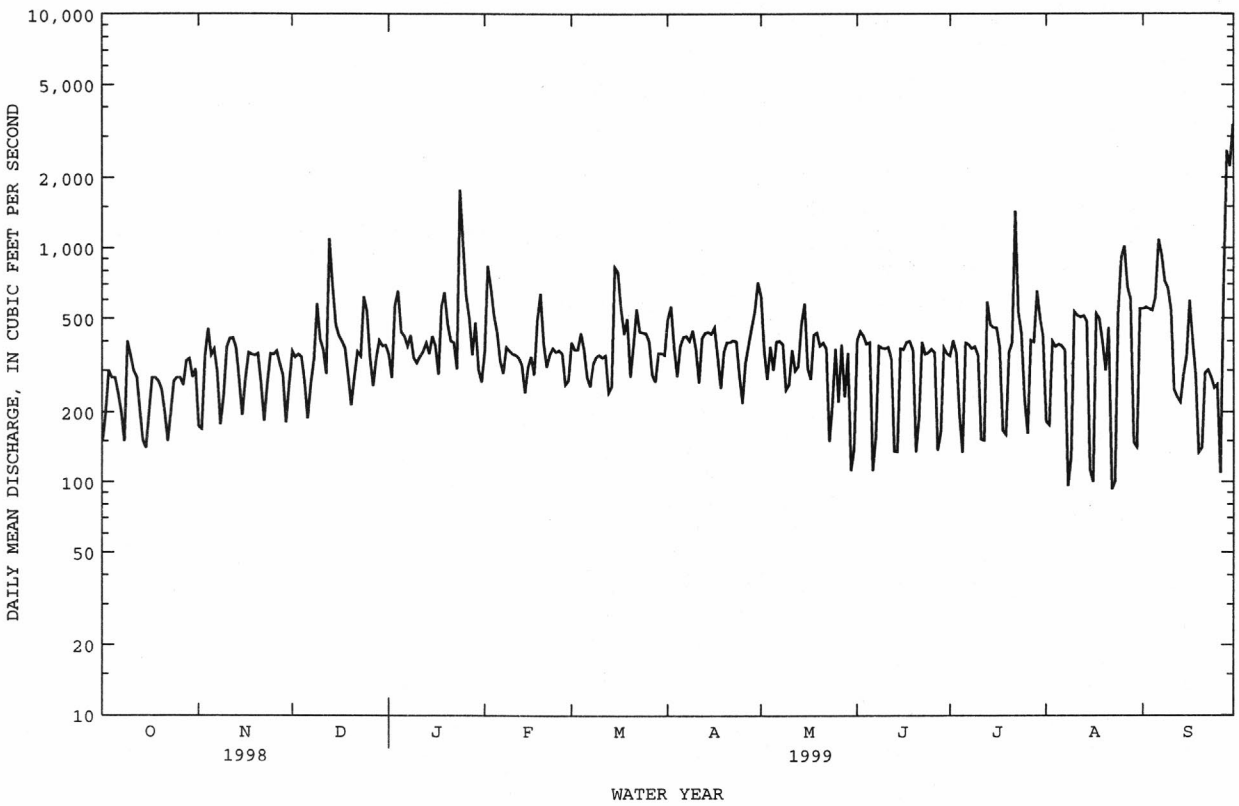
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1999*, BY WATER YEAR (WY)

MEAN	516	506	594	702	749	910	901	713	645	515	497	533
MAX	1572	1530	1376	1453	1633	2519	3016	1567	2026	1374	1454	2030
(WY)	1990	1986	1997	1979	1998	1993	1987	1978	1972	1989	1985	1996
MIN	201	211	273	291	325	331	294	266	213	214	194	248
(WY)	1952	1982	1981	1989	1968	1967	1967	1964	1964	1981	1953	1951

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1951 - 1999*	
ANNUAL TOTAL	264114		144088			
ANNUAL MEAN	724		395	‡359	648	(UNADJUSTED)
HIGHEST ANNUAL MEAN					1010	1987
LOWEST ANNUAL MEAN					309	1981
HIGHEST DAILY MEAN	6350	Jan 28	3360	Sep 30	16700	Jun 21 1972
LOWEST DAILY MEAN	130	Sep 23	93	Aug 22	46	Aug 14 1967
ANNUAL SEVEN-DAY MINIMUM	200	Sep 21	217	Oct 13	130	Aug 21 1964
INSTANTANEOUS PEAK FLOW			5420	Sep 30	24800	Jun 21 1972
INSTANTANEOUS PEAK STAGE			7.25	Sep 30	16.24	Jun 21 1972
INSTANTANEOUS LOW FLOW			74	Jul 7	38	Aug 7 1967
10 PERCENT EXCEEDS	1490		565		1180	
50 PERCENT EXCEEDS	482		361		457	
90 PERCENT EXCEEDS	219		179		227	

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 (1951-1999). See REMARKS.

02074000 SMITH RIVER AT EDEN, NC--Continued



02077200 HYCO CREEK NEAR LEASBURG, NC

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

DRAINAGE AREA.--45.9 mi^2.

WATER-DISCHARGE RECORDS

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

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

GAGE.--Water-stage recorder. Datum of gage is 400.00 ft above sea level. Satellite telemetry at station.

REMARKS.--Records poor. Periods of no flow occur most years. Maximum gage height for period of record from floodmark; maximum discharge for period of record not determined.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	1.2	18	25	21	41	169	2.1	2.8	.15	.67
2	.00	.00	1.2	17	47	18	72	79	1.9	21	.12	.27
3	.00	.00	1.2	122	44	18	51	56	1.9	10	.06	.14
4	.00	.00	1.2	93	35	22	44	42	1.5	4.4	.04	.20
5	.00	.00	1.2	62	30	20	38	32	1.3	2.9	e.03	251
6	.00	.00	1.2	57	27	19	32	28	1.1	2.0	e.01	1060
7	.00	.00	1.3	46	26	19	29	23	1.0	1.6	e.00	301
8	.00	.00	1.3	39	24	18	26	18	.93	1.2	e.00	68
9	.00	.00	3.2	33	22	18	24	14	e.75	1.2	e.00	41
10	.00	.00	4.5	27	21	19	21	11	.55	.97	.00	28
11	.00	.00	2.6	21	20	18	26	9.3	.43	.84	.00	17
12	.00	.00	1.8	17	20	17	40	8.0	.36	.96	.00	12
13	.00	.00	8.9	14	20	16	28	7.3	.35	e3.2	.00	9.6
14	.00	.58	16	13	19	27	24	9.8	.25	e12	.02	8.3
15	.00	.90	6.0	33	18	107	21	22	11	15	.03	60
16	.00	1.1	8.2	37	18	79	24	11	e20	6.4	.01	2210
17	.00	1.2	9.3	26	17	e72	18	7.8	e32	4.2	.00	373
18	.00	1.3	5.3	31	21	60	14	6.9	14	3.0	.00	85
19	.00	1.3	4.0	30	26	49	13	6.5	6.2	2.4	.00	53
20	.00	1.3	3.5	24	28	40	12	5.9	4.4	1.8	.00	36
21	.00	1.2	3.1	21	28	85	11	5.1	4.3	1.5	.00	27
22	.00	1.1	3.1	19	24	119	9.9	4.4	4.0	1.2	.00	44
23	.00	1.1	e3.0	28	21	70	9.0	4.2	3.6	1.1	.00	29
24	.00	1.1	e7.8	209	21	57	8.1	4.1	3.0	.93	.00	17
25	.00	1.1	e24	150	20	49	7.3	3.7	2.3	.72	.03	13
26	.00	1.1	e22	54	19	43	6.9	3.6	2.6	.55	18	10
27	.00	1.2	e20	41	19	37	7.9	3.5	2.7	.38	33	11
28	.00	1.2	30	34	20	33	14	3.2	e2.1	.28	18	55
29	.00	1.2	30	29	---	30	34	3.0	3.1	.29	5.1	236
30	.00	1.2	25	26	---	28	678	2.4	2.9	.26	2.4	153
31	.00	---	21	23	---	25	---	2.2	---	.20	1.4	---
TOTAL	0.00	19.18	272.1	1394	680	1253	1384.1	605.9	132.62	105.28	78.40	5209.18
MEAN	.000	.64	8.78	45.0	24.3	40.4	46.1	19.5	4.42	3.40	2.53	174
MAX	.00	1.3	30	209	47	119	678	169	32	21	33	2210
MIN	.00	.00	1.2	13	17	16	6.9	2.2	.25	.20	.00	.14
CFSM	.00	.01	.19	.98	.53	.88	1.01	.43	.10	.07	.06	3.78
IN.	.00	.02	.22	1.13	.55	1.02	1.12	.49	.11	.09	.06	4.22

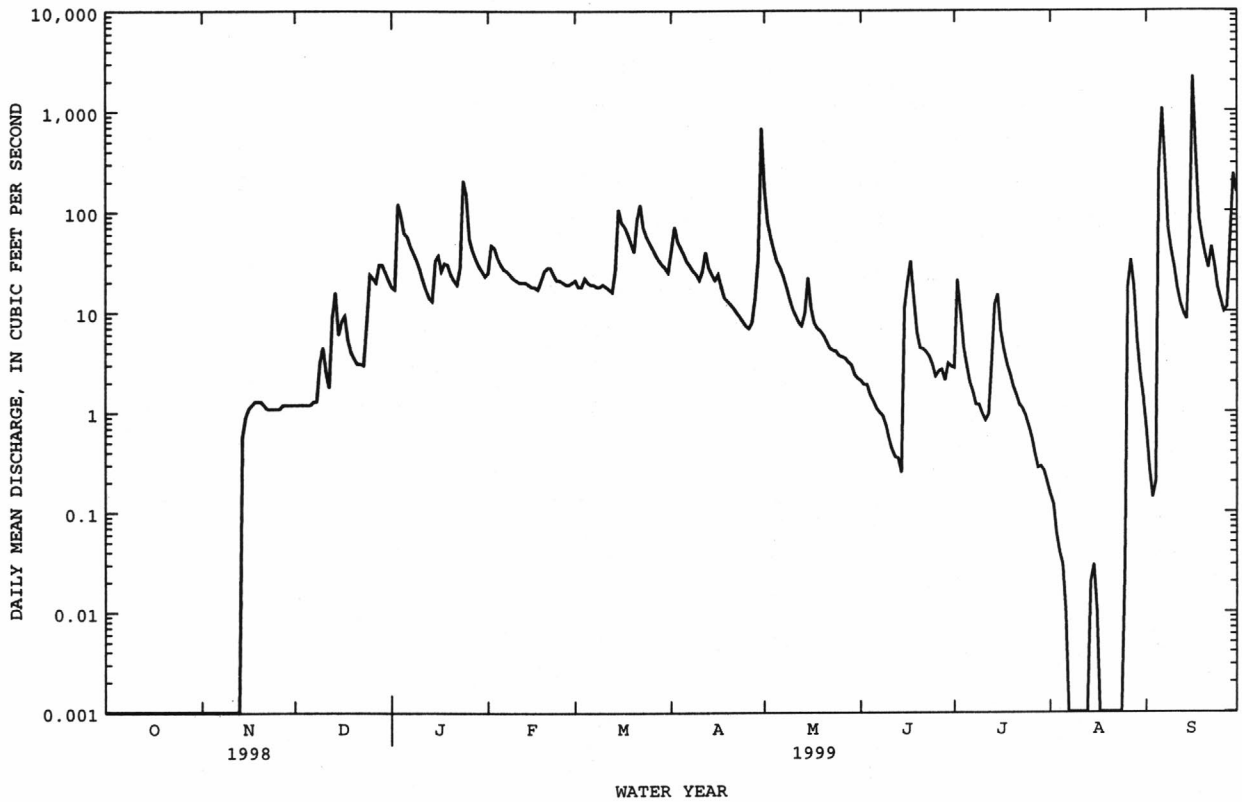
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1999, BY WATER YEAR (WY)

MEAN	24.6	27.9	46.9	85.3	91.6	95.8	61.1	33.8	24.8	23.6	22.1	26.2
MAX	131	137	144	278	244	266	188	184	233	274	264	193
(WY)	1996	1973	1973	1978	1979	1975	1997	1978	1995	1975	1995	1996
MIN	.000	.64	4.77	6.15	19.7	23.1	8.63	4.30	1.80	.11	.026	.000
(WY)	1969	1999	1966	1981	1968	1976	1995	1995	1986	1966	1987	1968

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1964 - 1999	
ANNUAL TOTAL	19628.66		11133.76			
ANNUAL MEAN	53.8		30.5		46.8	
HIGHEST ANNUAL MEAN					92.3	1975
LOWEST ANNUAL MEAN					15.2	1981
HIGHEST DAILY MEAN	2640	Mar 19	2210	Sep 16	7400	Aug 28 1995
LOWEST DAILY MEAN	.00	Aug 21	.00	Oct 1	.00*	Jul 9 1966
ANNUAL SEVEN-DAY MINIMUM	.00	Aug 21	.00	Oct 1	.00*	Jul 9 1966
INSTANTANEOUS PEAK FLOW			3890	Sep 16	NOT DETERMINED	
INSTANTANEOUS PEAK STAGE			36.74	Sep 16	48.53	Aug 27 1995
INSTANTANEOUS LOW FLOW			.00*	Oct 1	.00*	Jul 8 1966
ANNUAL RUNOFF (CFSM)	1.17		.66		1.02	
ANNUAL RUNOFF (INCHES)	15.91		9.02		13.86	
10 PERCENT EXCEEDS	81		46		89	
50 PERCENT EXCEEDS	4.1		7.8		15	
90 PERCENT EXCEEDS	.00		.00		.83	

e Estimated.
* See REMARKS.

02077200 HYCO CREEK NEAR LEASBURG, NC--Continued



02077200 HYCO CREEK NEAR LEASBURG, NC--Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: May 1964 to current year.

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

REMARKS.--Miscellaneous water-quality data published for water years, 1959, 1965-67; 1959 data published as "North Hyco Creek near Leasburg" (station 02077202). Prior to Oct. 1967, daily water-temperature data published as "North Hyco Creek near Leasburg". Interruptions in the record due to malfunctions of the instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--

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

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum recorded, 30.1°C, July 31; minimum recorded, 0.0°C, several days.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	21.4	19.6	20.6	9.7	8.0	8.7	9.8	8.1	8.9	1.5	.1	.8
2	19.6	15.7	17.1	10.1	7.6	8.9	8.7	6.2	7.4	.6	.1	.4
3	16.2	13.5	14.9	10.2	9.2	9.8	8.4	6.0	7.3	3.5	.2	2.3
4	16.6	15.8	16.2	9.3	8.1	8.9	9.4	7.1	8.2	3.5	1.9	2.7
5	16.5	15.8	16.2	8.1	6.4	7.0	10.0	8.1	9.1	1.9	.0	.4
6	17.3	16.4	16.8	7.0	5.6	6.4	11.6	9.2	10.3	.1	.0	.0
7	18.5	16.5	17.5	5.8	3.9	4.5	13.0	10.2	11.5	2.3	.1	1.0
8	18.9	18.0	18.4	5.8	3.7	4.7	14.4	12.5	13.3	3.0	2.0	2.5
9	18.2	16.2	17.1	6.9	5.6	6.2	14.4	11.2	13.3	4.7	3.0	3.7
10	16.2	13.9	14.8	10.8	6.5	8.4	11.2	8.2	9.1	4.1	1.7	2.6
11	14.7	13.0	13.8	12.2	9.2	11.4	9.5	8.2	8.7	1.8	.4	1.3
12	14.0	12.2	13.1	9.2	6.7	7.3	8.3	7.2	7.7	4.3	1.7	3.1
13	14.9	12.6	13.6	8.1	6.3	7.1	7.2	6.5	6.8	7.0	3.3	4.4
14	14.7	13.1	13.8	9.3	6.7	8.1	7.0	5.7	6.6	6.5	5.2	5.9
15	13.3	11.2	12.0	11.8	9.3	10.4	5.7	3.4	4.4	6.0	4.7	5.5
16	12.0	10.3	11.1	10.9	8.1	9.7	6.1	4.7	5.4	5.5	3.5	4.3
17	12.0	9.9	10.9	12.6	10.6	11.5	5.5	4.0	4.7	5.1	3.2	4.0
18	12.5	10.2	11.3	11.5	8.5	9.8	4.0	2.4	3.2	8.9	5.1	6.9
19	13.8	11.7	12.6	10.2	7.8	9.0	4.6	2.8	3.6	7.6	5.7	6.5
20	14.0	12.7	13.5	12.3	10.1	11.2	7.5	4.6	6.1	7.2	5.4	6.3
21	12.7	10.9	11.7	12.0	8.9	10.1	8.4	6.6	7.5	7.1	5.1	6.2
22	11.4	8.9	10.2	8.9	5.8	6.9	10.5	8.3	9.6	8.8	6.6	7.6
23	8.9	6.7	7.6	7.7	4.7	6.1	---	---	---	12.3	8.7	10.1
24	7.6	5.9	6.8	9.4	7.5	8.2	---	---	---	11.4	10.4	10.9
25	8.0	5.9	6.9	8.3	5.8	7.1	---	---	---	10.4	7.6	8.6
26	7.8	5.8	6.8	9.5	8.0	8.6	---	---	---	8.6	6.7	7.4
27	8.3	6.2	7.2	8.8	6.8	7.9	---	---	---	7.5	5.5	6.6
28	9.7	7.0	8.1	8.1	5.9	7.1	3.9	1.6	2.6	9.4	7.1	8.2
29	10.6	8.7	9.6	8.2	5.9	7.1	4.2	3.6	3.9	10.0	9.1	9.5
30	10.3	7.8	9.1	9.6	6.7	8.0	4.1	2.4	3.6	9.6	8.4	8.9
31	10.6	8.8	9.8	---	---	---	2.4	1.4	1.9	8.4	5.9	6.9
MONTH	21.4	5.8	12.6	12.6	3.7	8.2	---	---	---	12.3	.0	5.0

02077200 HYCO CREEK NEAR LEASBURG, NC--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	5.9	4.4	4.9	8.2	5.8	6.8	---	---	---	---	---	---
2	6.5	4.4	5.2	7.4	4.0	5.8	---	---	---	---	---	---
3	8.2	6.4	7.2	9.6	7.0	8.2	---	---	---	---	---	---
4	9.0	7.5	8.2	8.2	5.8	7.1	---	---	---	---	---	---
5	8.0	6.1	7.1	6.9	4.2	5.8	---	---	---	---	---	---
6	7.8	5.9	6.9	9.5	6.4	7.7	---	---	---	---	---	---
7	9.3	6.9	8.0	9.2	6.8	8.0	---	---	---	---	---	---
8	10.0	8.1	9.0	6.8	4.2	5.3	---	---	---	---	---	---
9	9.2	6.4	8.1	4.9	3.8	4.5	---	---	---	---	---	---
10	10.1	7.6	8.9	4.8	3.5	4.1	---	---	---	---	---	---
11	10.4	6.7	8.6	6.6	3.0	4.8	---	---	---	---	---	---
12	13.2	10.4	11.6	7.5	4.2	5.7	---	---	---	---	---	---
13	11.3	6.1	8.3	5.9	4.4	5.3	---	---	---	---	---	---
14	6.1	3.2	4.5	5.4	4.3	5.1	---	---	---	---	---	---
15	5.1	2.4	3.8	5.9	4.3	4.9	---	---	---	---	---	---
16	6.6	3.8	5.1	7.9	4.2	5.8	---	---	---	---	---	---
17	7.9	6.0	6.8	---	---	---	---	---	---	---	---	---
18	9.0	7.9	8.6	---	---	---	---	---	---	---	---	---
19	8.3	7.1	7.6	---	---	---	---	---	---	---	---	---
20	7.5	5.4	6.7	---	---	---	---	---	---	---	---	---
21	6.9	5.4	6.1	---	---	---	---	---	---	---	---	---
22	5.4	2.8	4.0	---	---	---	---	---	---	---	---	---
23	3.6	1.2	2.0	---	---	---	---	---	---	---	---	---
24	2.6	.5	1.6	---	---	---	---	---	---	---	---	---
25	2.6	1.1	1.9	---	---	---	---	---	---	---	---	---
26	4.3	1.0	2.7	---	---	---	---	---	---	---	---	---
27	6.5	2.7	4.4	---	---	---	---	---	---	---	---	---
28	8.7	6.5	7.9	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	13.2	.5	6.3	---	---	---	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	---	---	---	29.2	25.0	26.8	21.3	18.6	19.8
2	---	---	---	---	---	---	28.6	24.7	25.9	22.0	18.3	20.0
3	---	---	---	---	---	---	27.8	22.3	24.3	22.1	19.4	20.8
4	---	---	---	---	---	---	26.9	21.5	23.6	22.6	21.2	21.7
5	---	---	---	---	---	---	27.2	21.7	23.9	21.6	21.2	21.5
6	---	---	---	---	---	---	27.5	21.9	24.1	21.5	21.1	21.3
7	---	---	---	---	---	---	27.3	21.5	24.0	23.1	21.2	21.9
8	---	---	---	---	---	---	27.5	23.3	25.1	24.0	22.7	23.4
9	---	---	---	---	---	---	27.4	23.8	25.0	24.7	23.5	24.0
10	---	---	---	---	---	---	27.2	22.6	24.5	23.9	22.1	23.1
11	---	---	---	---	---	---	28.6	23.0	25.1	22.1	19.7	20.9
12	---	---	---	---	---	---	28.0	22.9	25.0	21.2	19.2	20.1
13	---	---	---	---	---	---	28.2	23.4	25.5	21.0	18.2	19.5
14	---	---	---	---	---	---	27.3	23.9	25.5	20.4	18.5	19.5
15	---	---	---	23.0	20.3	21.4	27.2	22.9	24.5	20.5	19.8	20.3
16	---	---	---	24.7	21.2	22.7	27.1	23.1	24.7	19.8	19.2	19.4
17	---	---	---	25.1	22.2	23.6	27.8	23.0	25.0	19.4	17.8	18.5
18	---	---	---	26.3	23.0	24.6	27.5	23.1	25.0	18.8	17.2	18.0
19	---	---	---	26.9	23.7	25.4	25.9	22.6	23.9	18.4	17.1	17.9
20	---	---	---	26.6	24.3	25.6	25.2	22.3	23.3	18.7	16.9	17.9
21	---	---	---	26.4	24.7	25.4	25.1	21.8	23.2	19.6	18.5	18.9
22	---	---	---	28.1	24.6	26.1	25.3	21.1	22.8	18.6	16.6	17.5
23	---	---	---	28.7	25.4	26.8	24.3	20.7	22.3	16.7	14.9	15.9
24	---	---	---	28.9	25.6	27.0	25.5	21.3	23.0	17.2	14.6	15.9
25	---	---	---	28.9	25.3	26.8	25.9	22.0	23.3	18.2	15.6	16.8
26	---	---	---	28.7	24.8	26.3	26.6	21.5	23.2	18.8	16.8	17.7
27	---	---	---	28.3	24.2	25.8	24.5	22.0	22.9	19.5	18.3	18.9
28	---	---	---	28.9	24.2	26.0	24.9	22.7	23.8	20.2	19.5	19.9
29	---	---	---	27.6	24.1	25.5	24.8	22.7	23.8	20.6	20.2	20.4
30	---	---	---	28.4	23.7	25.8	24.2	20.8	22.2	20.6	18.4	19.3
31	---	---	---	30.1	24.4	26.8	21.7	18.9	20.0	---	---	---
MONTH	---	---	---	---	---	---	29.2	18.9	24.0	24.7	14.6	19.7

02077280 HYCO LAKE AT DAM NEAR ROXBORO, NC

LOCATION.--Lat 36°30'42", long 79°02'50", 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 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 419.81 ft above National Geodedic Vertical Datum of 1929. Satellite telemetry at station.

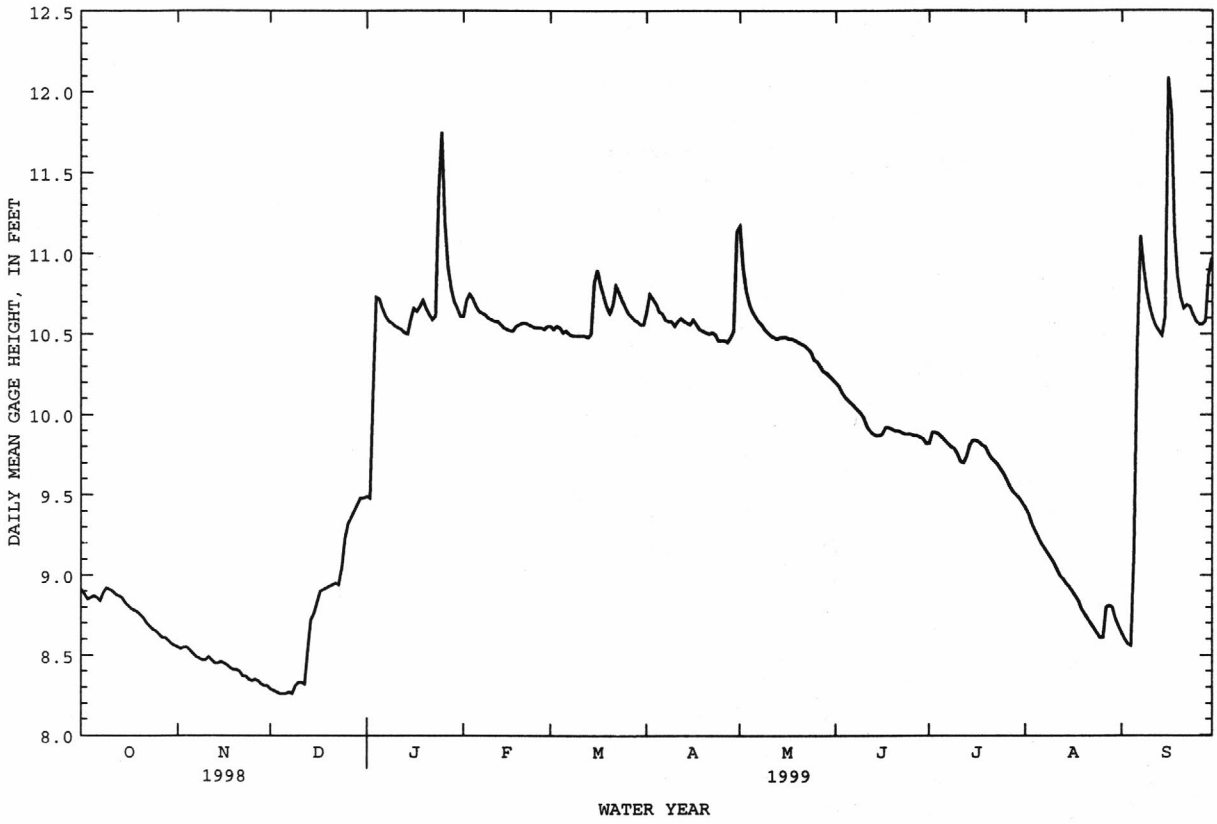
EXTREMES FOR PERIOD OF RECORD.--Maximum, 13.68 ft, Sept. 6, 1996; minimum, 8.07 ft, Oct. 13, 1997.

EXTREMES FOR CURRENT YEAR.--Maximum, 12.52 ft, Sept. 16; minimum; 8.21 ft, Dec. 8.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.91	8.55	8.29	9.49	10.61	10.55	10.64	11.17	10.20	9.82	9.42	8.64
2	8.88	8.54	8.28	9.48	10.71	10.53	10.75	10.91	10.18	9.89	9.38	8.60
3	8.85	8.55	8.27	10.15	10.75	10.55	10.72	10.77	10.14	9.89	9.32	8.57
4	8.86	8.55	8.26	10.73	10.72	10.54	10.69	10.69	10.11	9.88	9.28	8.56
5	8.87	8.53	8.26	10.72	10.67	10.51	10.64	10.64	10.09	9.86	9.24	9.16
6	8.86	8.51	8.26	10.66	10.64	10.52	10.63	10.61	10.07	9.84	9.20	10.42
7	8.84	8.49	8.27	10.61	10.63	10.50	10.59	10.58	10.05	9.82	9.17	11.11
8	8.89	8.48	8.26	10.58	10.62	10.49	10.58	10.56	10.03	9.80	9.14	10.92
9	8.92	8.47	8.31	10.57	10.60	10.49	10.58	10.53	10.01	9.79	9.11	10.77
10	8.91	8.47	8.33	10.55	10.59	10.49	10.55	10.51	9.98	9.76	9.08	10.67
11	8.90	8.49	8.33	10.54	10.58	10.49	10.58	10.49	9.93	9.71	9.04	10.60
12	8.88	8.47	8.32	10.53	10.58	10.49	10.60	10.48	9.90	9.70	9.00	10.55
13	8.87	8.45	8.53	10.51	10.56	10.48	10.58	10.47	9.88	9.74	8.98	10.52
14	8.86	8.45	8.72	10.50	10.54	10.50	10.57	10.48	9.87	9.81	8.95	10.49
15	8.83	8.46	8.76	10.59	10.53	10.82	10.56	10.48	9.87	9.84	8.93	10.61
16	8.81	8.45	8.83	10.66	10.52	10.90	10.59	10.48	9.88	9.84	8.90	12.09
17	8.79	8.44	8.90	10.64	10.52	10.81	10.56	10.47	9.92	9.83	8.87	11.87
18	8.78	8.42	8.91	10.67	10.55	10.74	10.53	10.47	9.92	9.81	8.84	11.14
19	8.77	8.41	8.92	10.71	10.56	10.67	10.52	10.46	9.91	9.80	8.79	10.86
20	8.75	8.41	8.93	10.66	10.57	10.63	10.51	10.45	9.90	9.76	8.76	10.73
21	8.73	8.40	8.94	10.62	10.57	10.68	10.50	10.44	9.90	9.73	8.73	10.66
22	8.70	8.37	8.95	10.59	10.56	10.80	10.51	10.43	9.89	9.71	8.70	10.68
23	8.68	8.37	8.94	10.61	10.55	10.76	10.50	10.41	9.88	9.69	8.67	10.67
24	8.66	8.35	9.05	11.39	10.54	10.71	10.46	10.39	9.88	9.66	8.64	10.62
25	8.65	8.34	9.23	11.75	10.54	10.67	10.46	10.34	9.88	9.63	8.61	10.58
26	8.63	8.35	9.32	11.20	10.54	10.63	10.46	10.33	9.87	9.59	8.61	10.56
27	8.61	8.34	9.36	10.92	10.53	10.61	10.45	10.30	9.87	9.55	8.80	10.56
28	8.61	8.32	9.40	10.78	10.55	10.59	10.48	10.27	9.86	9.52	8.81	10.58
29	8.59	8.31	9.44	10.70	---	10.58	10.52	10.26	9.85	9.50	8.80	10.87
30	8.57	8.31	9.48	10.66	---	10.56	11.13	10.24	9.82	9.48	8.73	10.97
31	8.56	---	9.48	10.61	---	10.56	---	10.22	---	9.45	8.68	---
MEAN	8.77	8.44	8.76	10.63	10.59	10.61	10.58	10.49	9.95	9.73	8.94	10.45
MAX	8.92	8.55	9.48	11.75	10.75	10.90	11.13	11.17	10.20	9.89	9.42	12.09
MIN	8.56	8.31	8.26	9.48	10.52	10.48	10.45	10.22	9.82	9.45	8.61	8.56

02077280 HYCO LAKE AT DAM NEAR ROXBORO, NC--Continued



0207730290 AFTERBAY RESERVIOR AT DAM NEAR McGEHEES MILL, NC

LOCATION.--Lat 36°31'24", long 78°59'49", Person County, Hydrologic Unit 03010104, on Afterbay Reservoir dam on Hyco River, 1.2 mi upstream of from Ghent Creek, and 1.8 mi northeast of McGhees Mill.

DRAINAGE AREA.--202 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 100.00 ft above National Geodedic Vertical Datum of 1929. Satellite telemetry at station.

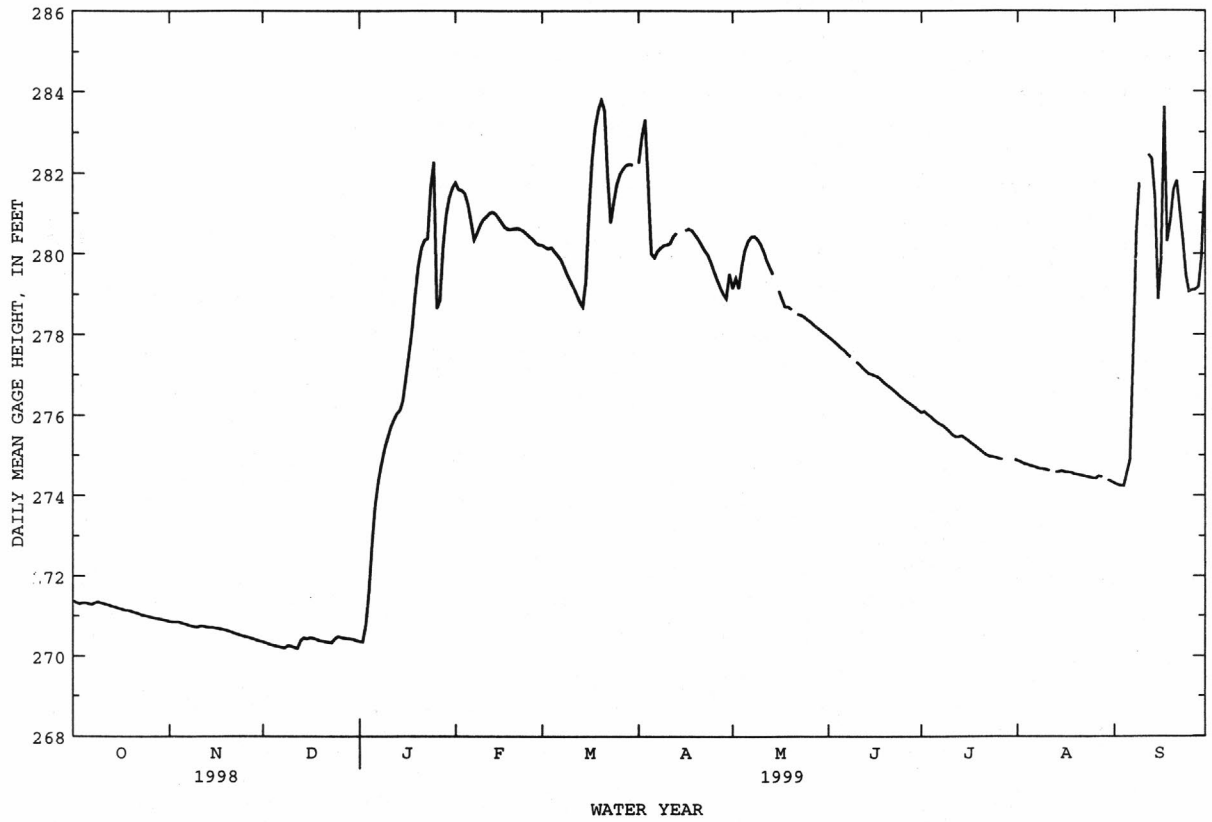
EXTREMES FOR PERIOD OF RECORD.--Maximum, 291.11 ft, Sept. 7, 1996; minimum not determined.

EXTREMES FOR CURRENT YEAR.--Maximum, 284.67 ft, Sept. 17; minimum, 270.16 ft, Dec. 12.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	271.37	270.86	270.35	270.36	281.76	280.23	282.25	279.15	277.95	276.07	274.87	274.31
2	271.33	270.85	270.32	270.35	281.59	280.17	282.90	279.40	277.88	276.09	274.83	274.27
3	271.30	270.85	270.29	270.78	281.57	280.13	283.32	279.15	277.82	276.02	274.79	274.25
4	271.32	270.85	270.27	271.60	281.50	280.16	281.82	279.73	277.75	275.96	274.77	274.24
5	271.32	270.82	270.25	272.75	281.23	280.05	280.00	280.10	277.68	275.89	274.74	274.55
6	271.30	270.80	270.23	273.72	280.79	279.96	279.91	280.32	277.61	275.83	274.72	274.88
7	271.28	270.77	270.21	274.34	280.35	279.86	280.07	280.43	277.53	275.77	274.69	277.51
8	271.33	270.75	270.20	274.76	280.51	279.69	280.15	280.44	277.46	275.74	274.67	280.55
9	271.35	270.73	270.26	275.13	280.70	279.50	280.21	280.37	---	275.67	274.66	281.75
10	271.32	270.72	270.24	275.42	280.84	279.34	280.23	280.24	277.33	275.60	274.64	---
11	271.30	270.75	270.21	275.68	280.91	279.18	280.26	280.06	277.26	275.52	274.62	---
12	271.28	270.74	270.18	275.87	281.00	279.01	280.44	279.85	277.18	275.46	---	282.45
13	271.25	270.72	270.38	276.03	281.04	278.82	280.52	279.65	277.11	275.46	274.59	282.35
14	271.23	270.71	270.45	276.12	280.98	278.69	---	279.50	277.04	275.48	274.59	281.37
15	271.21	270.71	270.42	276.37	280.88	279.32	---	---	277.01	275.43	274.61	278.88
16	271.18	270.69	270.45	276.95	280.77	280.98	280.59	279.08	276.98	275.37	274.59	279.85
17	271.16	270.68	270.44	277.54	280.66	282.30	280.62	278.87	276.95	275.31	274.58	283.62
18	271.14	270.66	270.41	278.16	280.61	283.10	280.58	278.68	276.88	275.25	274.57	280.31
19	271.13	270.64	270.38	279.01	280.61	283.55	280.47	278.68	276.80	275.19	274.54	280.81
20	271.11	270.62	270.37	279.70	280.62	283.79	280.37	278.63	276.74	275.12	274.52	281.59
21	271.08	270.59	270.35	280.15	280.63	283.55	280.23	---	276.68	275.06	274.51	281.80
22	271.06	270.56	270.34	280.34	280.61	281.93	280.10	278.51	276.62	275.00	274.49	281.14
23	271.02	270.53	270.32	280.38	280.57	280.77	279.99	278.48	276.55	274.97	274.47	280.36
24	271.01	270.51	270.42	281.64	280.50	281.29	279.80	278.44	276.48	274.96	274.45	279.46
25	270.99	270.48	270.48	282.27	280.43	281.73	279.57	278.38	276.42	274.94	274.44	279.07
26	270.97	270.47	270.46	278.65	280.36	281.98	279.38	278.32	276.36	274.92	274.43	279.10
27	270.95	270.44	270.44	278.85	280.27	282.11	279.18	278.26	276.30	274.90	274.48	279.11
28	270.93	270.42	270.43	280.22	280.23	282.19	279.01	278.19	276.25	---	274.46	279.18
29	270.92	270.39	270.42	280.96	---	282.22	278.90	278.13	276.19	---	---	279.90
30	270.90	270.37	270.41	281.39	---	282.20	279.51	278.07	276.12	---	274.39	281.79
31	270.88	---	270.38	281.63	---	---	---	278.01	---	274.89	274.35	---
MEAN	271.16	270.66	270.35	277.00	280.80	---	---	---	---	---	---	---
MAX	271.37	270.86	270.48	282.27	281.76	---	---	---	---	---	---	---
MIN	270.88	270.37	270.18	270.35	280.23	---	---	---	---	---	---	---

0207730290 **AFTERBAY RESERVIOR AT DAM NEAR McGEHEES MILL, NC--Continued**



02077303 HYCO RIVER BELOW AFTERBAY DAM NEAR MCGEHEES MILL, NC

LOCATION.--Lat 36°31'24", long 78°59'48", Person County, Hydrologic Unit 03010104, on left bank 200 ft downstream from Afterbay Reservoir dam of Carolina Power and Light Company, 1.2 mi upstream from Ghent Creek, and 1.8 mi east-northeast of McGehees Mill.

DRAINAGE AREA.--202 mi^2.

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

REMARKS.-- Records good except those for estimated daily discharges, and discharges above 150 ft^3/s, which are poor. Flow regulated by Roxboro Steam-Electric Generating Plant Afterbay Reservoir. Minimum discharge for current water year also occurred Aug. 19, 22.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.7	3.2	4.5	6.1	136	77	89	1160	16	15	1.7	3.0
2	3.2	3.1	4.9	6.4	249	77	90	541	16	15	.89	2.9
3	3.4	3.4	4.8	97	243	77	328	216	e15	15	.44	2.8
4	3.1	3.4	4.6	6.8	241	76	696	81	15	15	.30	2.8
5	3.0	3.6	4.8	6.8	241	76	372	82	15	15	.28	3.0
6	2.9	3.1	5.0	6.4	239	76	73	83	15	15	.42	8.7
7	3.0	3.4	5.1	5.8	168	76	74	82	e16	15	.62	14
8	3.0	2.9	5.2	5.8	78	78	74	83	e15	15	.47	47
9	3.2	2.6	5.5	5.6	79	81	74	83	15	15	.59	86
10	3.4	2.4	6.2	5.8	79	81	73	82	15	15	.60	76
11	3.0	2.6	5.2	5.6	79	80	74	80	15	16	.34	76
12	3.0	2.8	5.2	4.6	79	78	74	80	15	16	.43	77
13	3.3	2.7	5.8	7.7	80	79	74	79	15	16	.46	109
14	3.5	2.8	5.4	16	80	78	e74	78	15	16	.50	435
15	3.7	2.7	6.1	16	79	80	e74	77	15	16	.57	993
16	4.4	2.8	5.4	17	79	85	e74	76	15	15	.55	2720
17	4.7	2.7	5.7	17	79	88	75	76	15	15	.54	3930
18	4.0	2.8	5.7	18	78	90	75	56	15	15	.56	1620
19	3.7	3.4	5.4	20	79	91	75	15	15	15	.44	275
20	3.7	4.1	5.3	20	79	91	76	16	15	15	.59	75
21	3.9	4.1	5.2	38	79	508	74	17	15	15	.84	250
22	3.9	4.5	5.4	77	79	794	75	16	15	11	.82	498
23	4.4	4.2	7.0	158	80	313	76	16	15	4.6	.95	328
24	4.0	4.1	7.0	1360	79	85	73	16	15	1.5	.70	304
25	3.6	4.9	6.5	3430	78	86	73	16	15	1.5	2.1	69
26	4.0	5.6	6.5	2150	78	87	73	16	15	1.5	2.7	69
27	3.9	5.5	6.3	152	77	87	72	15	15	1.6	2.7	69
28	2.9	5.7	6.0	76	77	88	72	15	15	e1.6	2.7	70
29	3.0	4.5	5.7	78	---	88	71	15	15	e1.6	2.7	71
30	3.1	4.7	5.8	79	---	88	868	15	15	e1.6	2.9	238
31	3.0	---	6.2	80	---	88	---	15	---	e1.6	3.0	---
TOTAL	107.6	108.3	173.4	7972.4	3171	3927	4215	3298	453	348.1	33.40	12522.2
MEAN	3.47	3.61	5.59	257	113	127	140	106	15.1	11.2	1.08	417
MAX	4.7	5.7	7.0	3430	249	794	868	1160	16	16	3.0	3930
MIN	2.7	2.4	4.5	4.6	77	76	71	15	15	1.5	.28	2.8

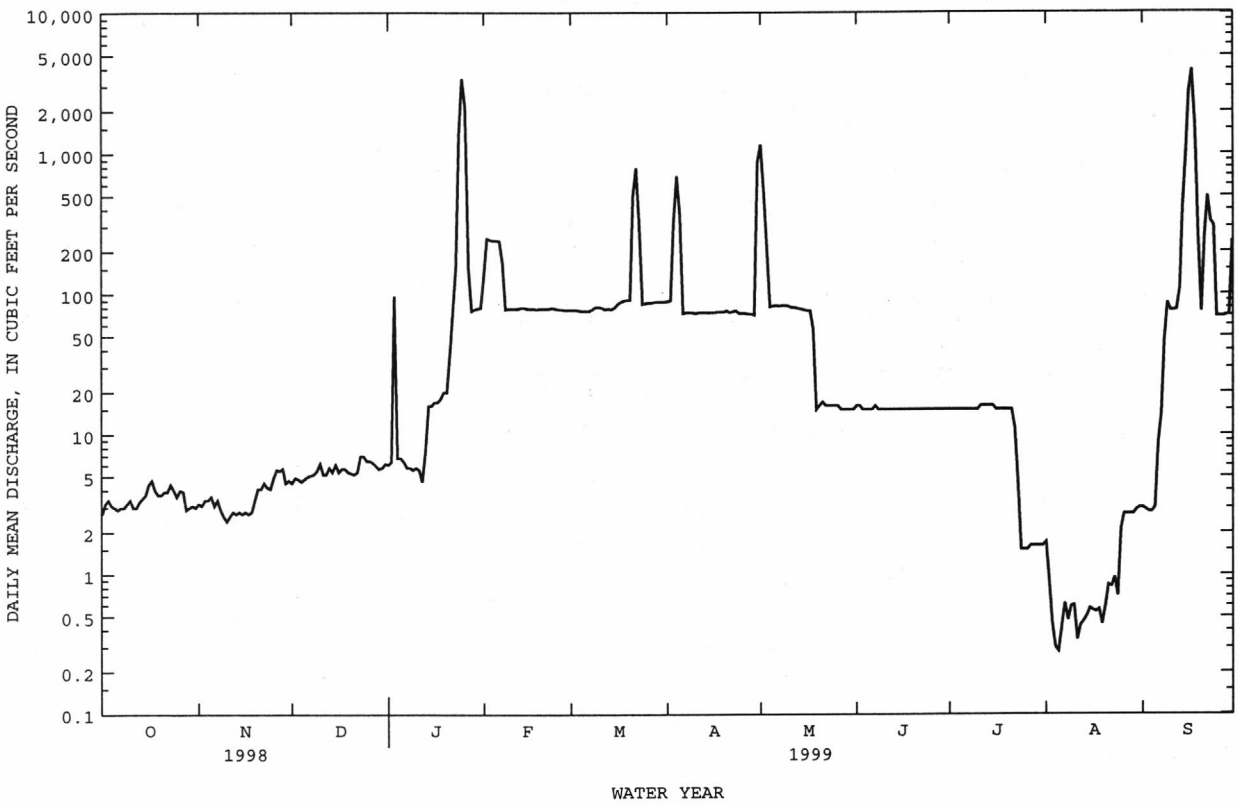
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 1999, BY WATER YEAR (WY)

MEAN	55.1	59.8	116	386	338	431	242	121	75.2	101	69.9	132
MAX	351	334	361	1201	926	1165	692	864	456	1058	294	675
(WY)	1996	1986	1983	1978	1979	1993	1983	1978	1982	1975	1982	1974
MIN	3.47	2.40	2.19	18.9	11.0	18.3	12.9	7.90	3.96	9.60	1.08	1.55
(WY)	1999	1998	1998	1981	1981	1981	1985	1981	1974	1985	1999	1977

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1974 - 1999	
ANNUAL TOTAL	83071.3		36329.40			
ANNUAL MEAN	228		99.5		177	
HIGHEST ANNUAL MEAN					392	1975
LOWEST ANNUAL MEAN					17.9	1981
HIGHEST DAILY MEAN	4600	Mar 20	3930	Sep 17	9280	Jul 14 1975
LOWEST DAILY MEAN	2.3	Aug 8	.28	Aug 5	.27	Nov 2 1997
ANNUAL SEVEN-DAY MINIMUM	2.4	Aug 7	.45	Aug 3	.45	Aug 3 1999
INSTANTANEOUS PEAK FLOW			4200	Sep 17	11300	Jul 14 1975
INSTANTANEOUS PEAK STAGE			17.00	Sep 17	24.40	Jul 14 1975
INSTANTANEOUS LOW FLOW			.14*	Aug 18	.00	Jun 26 1980
10 PERCENT EXCEEDS	653		91		394	
50 PERCENT EXCEEDS	21		15		35	
90 PERCENT EXCEEDS	2.7		2.7		11	

e Estimated.
* See REMARKS.

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



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

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1981 to September 1983.

WATER TEMPERATURE: June 1974 to current year.

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

REMARKS.--No temperature record July 23 to Sept. 30.

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, 1.1°C, Jan. 1, 2, 1999.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum recorded, 28.8°C, Oct. 1; minimum recorded, 1.1°C, Jan. 1, 2.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	28.8	18.0	23.5	19.4	8.1	12.7	14.8	7.3	11.2	6.2	4.0	4.8
2	26.5	13.2	18.6	16.7	8.8	13.1	14.1	6.7	9.4	4.5	1.1	4.1
3	26.2	14.1	19.3	13.6	9.9	11.6	13.2	7.0	10.1	5.1	1.1	3.6
4	20.0	18.2	19.2	12.6	7.6	10.2	14.3	8.4	11.2	5.5	3.4	4.4
5	20.9	17.4	19.0	15.7	6.9	9.6	13.8	8.4	11.5	4.4	2.5	3.2
6	21.7	18.9	20.1	13.9	6.6	9.7	15.2	10.4	12.8	3.3	2.1	2.5
7	23.6	18.0	20.6	15.3	6.5	8.7	15.8	12.0	14.3	6.3	2.4	4.0
8	21.5	19.3	20.6	12.7	6.5	9.4	16.1	14.6	15.2	4.6	4.0	4.2
9	24.5	15.1	19.3	16.5	9.0	11.5	15.4	8.2	12.5	6.3	4.1	4.7
10	24.4	13.3	17.8	16.3	9.7	13.6	14.4	7.4	10.1	6.5	3.3	4.2
11	23.7	13.6	17.5	16.7	7.4	13.7	14.2	8.3	10.9	6.5	3.0	4.0
12	23.4	13.0	17.2	16.3	6.9	10.0	10.6	7.3	9.3	7.2	3.8	5.5
13	22.4	14.1	17.8	14.0	7.5	9.9	9.2	7.0	7.9	7.1	3.7	5.1
14	22.9	13.2	17.2	13.2	7.5	10.9	11.6	6.0	8.1	5.4	4.9	5.2
15	22.7	11.1	15.7	17.5	7.9	13.0	10.1	5.9	7.2	6.0	4.9	5.3
16	22.2	12.1	16.0	16.3	6.9	11.5	10.0	5.7	7.3	5.9	4.8	5.2
17	22.1	11.8	16.0	17.8	8.6	14.0	8.8	5.8	6.6	5.6	5.0	5.4
18	21.6	11.8	16.6	15.7	6.9	9.9	10.5	5.7	6.7	9.5	5.6	6.5
19	20.6	16.9	18.8	14.9	6.8	10.9	9.5	5.8	7.6	7.2	5.9	6.4
20	22.6	12.5	18.3	15.0	12.1	13.5	12.3	6.7	9.3	7.2	5.9	6.4
21	18.3	11.1	14.2	14.8	7.1	10.5	11.4	6.5	9.5	7.1	5.7	6.5
22	17.1	8.8	12.7	14.2	6.7	8.8	12.6	6.4	10.8	7.7	7.0	7.3
23	19.5	8.1	12.1	13.9	6.5	10.1	6.4	5.8	6.0	9.4	7.4	7.8
24	19.6	8.2	12.4	15.0	7.4	11.7	---	---	---	10.5	8.4	9.5
25	19.2	8.3	12.6	13.6	6.7	10.2	6.2	5.3	5.6	12.5	9.5	11.0
26	19.2	8.5	12.7	14.4	7.6	11.4	6.2	5.1	5.4	13.3	12.3	12.8
27	---	---	---	14.2	7.2	10.0	6.3	4.9	5.4	13.0	11.1	12.4
28	18.8	9.9	14.4	14.0	6.7	9.3	7.7	5.2	6.1	13.3	11.6	12.6
29	20.3	10.1	14.8	14.1	6.8	9.7	6.3	5.7	5.9	13.1	11.8	12.6
30	17.7	8.5	13.0	13.7	7.3	10.9	7.6	5.0	5.8	12.3	11.0	11.7
31	20.1	10.1	14.0	---	---	---	5.7	4.5	5.0	11.3	10.3	10.9
MONTH	---	---	---	19.4	6.5	11.0	---	---	---	13.3	1.1	6.8

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

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	11.0	10.1	10.5	9.5	8.2	9.1	13.0	12.7	12.8	16.7	16.1	16.4
2	11.5	10.8	11.1	9.7	7.8	8.8	12.9	12.1	12.5	17.4	16.3	16.7
3	11.5	10.9	11.2	9.7	8.6	9.3	14.8	12.3	13.3	18.1	16.6	17.3
4	12.1	10.9	11.5	9.2	8.1	8.7	17.3	14.4	15.6	18.0	16.5	17.3
5	11.7	10.7	11.1	9.0	7.6	8.3	15.7	12.4	14.1	18.5	17.0	17.7
6	11.6	10.7	11.1	9.8	8.1	9.1	15.2	12.4	13.6	19.3	18.1	18.5
7	11.4	10.9	11.1	9.6	8.0	8.7	16.0	14.6	15.5	19.7	18.7	19.2
8	11.5	10.1	10.9	8.8	7.5	8.1	15.7	13.6	14.6	20.4	18.5	19.4
9	11.8	9.9	10.9	8.4	7.8	8.1	18.2	15.3	16.3	19.3	17.8	18.7
10	11.5	10.1	10.9	8.4	7.7	8.1	18.2	15.1	16.0	18.9	17.9	18.5
11	11.9	9.8	10.9	8.7	7.4	8.1	15.3	14.4	14.9	19.2	18.2	18.8
12	12.7	11.5	12.1	8.9	7.6	8.2	16.8	15.0	16.2	19.4	18.3	18.9
13	12.1	10.0	10.9	8.6	7.5	8.1	16.6	14.8	15.8	19.8	18.9	19.4
14	11.1	9.4	10.0	8.2	7.3	7.8	---	---	---	19.4	18.0	18.5
15	11.3	9.3	10.1	8.0	7.4	7.7	---	---	---	19.0	18.3	18.6
16	11.4	9.3	10.3	9.0	7.2	8.1	---	---	---	19.4	18.5	18.9
17	11.7	9.9	11.1	9.4	7.7	8.7	16.9	15.1	16.1	19.9	18.6	19.3
18	11.4	9.9	11.0	11.6	9.2	10.4	16.7	15.1	16.0	20.2	18.2	19.6
19	10.7	9.6	10.1	11.4	9.1	10.6	16.5	15.1	15.8	19.2	17.3	18.6
20	11.0	9.2	10.0	10.0	9.0	9.6	17.3	15.5	16.4	19.3	16.0	17.8
21	10.5	9.1	9.7	11.5	9.6	10.7	16.4	15.0	15.9	---	---	---
22	9.7	8.2	8.9	12.1	11.4	11.8	17.6	15.3	16.5	---	---	---
23	8.7	7.9	8.3	11.9	10.5	11.5	18.7	17.3	17.9	---	---	---
24	8.7	7.7	8.2	11.6	10.2	11.0	18.7	15.8	17.1	---	---	---
25	8.7	7.7	8.1	11.6	10.8	11.2	17.1	15.2	16.3	---	---	---
26	9.0	7.3	8.1	11.0	10.0	10.6	18.3	16.2	17.4	20.2	18.3	19.3
27	9.0	7.4	8.3	11.6	10.0	10.9	18.2	17.2	17.8	20.5	17.2	19.2
28	9.8	8.9	9.3	12.5	10.0	11.4	17.2	15.9	16.3	20.5	16.7	18.9
29	---	---	---	13.1	10.6	12.0	16.1	14.1	15.5	20.5	17.3	19.2
30	---	---	---	12.6	10.8	11.9	16.5	14.1	16.1	20.7	17.7	19.5
31	---	---	---	---	---	---	---	---	---	20.7	18.4	19.8
MONTH	12.7	7.3	10.2	---	---	---	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	21.1	18.7	20.3	23.7	22.3	23.0	---	---	---	---	---	---
2	22.5	19.7	21.2	24.2	23.0	23.6	---	---	---	---	---	---
3	22.7	21.3	21.9	24.4	23.3	23.9	---	---	---	---	---	---
4	21.9	20.6	21.1	25.2	23.4	24.2	---	---	---	---	---	---
5	22.0	20.3	21.0	25.2	23.8	24.3	---	---	---	---	---	---
6	22.2	20.3	21.2	25.0	23.5	24.2	---	---	---	---	---	---
7	---	---	---	25.3	23.7	24.3	---	---	---	---	---	---
8	---	---	---	25.1	23.5	24.1	---	---	---	---	---	---
9	---	---	---	25.3	23.6	24.5	---	---	---	---	---	---
10	22.9	21.2	21.9	26.0	24.8	25.3	---	---	---	---	---	---
11	21.8	21.3	21.6	25.3	23.3	24.3	---	---	---	---	---	---
12	22.7	21.2	21.8	23.4	21.8	23.0	---	---	---	---	---	---
13	22.7	21.5	22.0	22.7	21.5	22.2	---	---	---	---	---	---
14	23.4	21.7	22.6	22.5	20.7	21.9	---	---	---	---	---	---
15	22.9	21.7	22.4	23.8	22.5	23.0	---	---	---	---	---	---
16	22.2	21.4	21.8	24.1	22.5	23.2	---	---	---	---	---	---
17	21.9	21.4	21.6	23.9	22.6	23.2	---	---	---	---	---	---
18	22.4	20.8	21.5	24.4	23.0	23.7	---	---	---	---	---	---
19	22.0	20.6	21.2	24.7	23.2	24.0	---	---	---	---	---	---
20	21.1	20.8	21.0	24.7	23.7	24.3	---	---	---	---	---	---
21	21.2	20.7	20.9	24.2	23.8	24.0	---	---	---	---	---	---
22	21.2	20.7	20.9	25.2	23.9	24.4	---	---	---	---	---	---
23	22.2	20.3	21.0	---	---	---	---	---	---	---	---	---
24	22.3	20.3	21.2	---	---	---	---	---	---	---	---	---
25	21.8	21.1	21.4	---	---	---	---	---	---	---	---	---
26	22.1	21.2	21.6	---	---	---	---	---	---	---	---	---
27	22.7	21.5	22.0	---	---	---	---	---	---	---	---	---
28	23.5	22.1	22.7	---	---	---	---	---	---	---	---	---
29	23.8	22.6	23.3	---	---	---	---	---	---	---	---	---
30	23.6	22.4	22.8	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

02077670 MAYO CREEK NEAR BETHEL HILL, NC

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

DRAINAGE AREA.--53.5 mi^2.

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

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

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

REMARKS.--No estimated daily discharges. Records fair. Flow regulated by Mayo Steam Electric Generating Plant. Minimum discharge for period of record, no flow, occurred periodically in 1977, 1980, 1981, and 1982 as a result of regulation. Minimum discharge for the current water year also occurred Aug. 22, 23.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 4, 1974, reached a stage of 11.11 ft, from floodmarks; discharge, 4,300 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.1	2.0	2.5	2.5	34	12	39	44	3.1	3.0	2.9	3.0
2	2.1	2.1	2.5	2.7	45	11	56	43	3.0	3.0	2.9	2.9
3	2.0	2.1	2.5	12	47	12	57	40	2.9	2.9	2.9	2.9
4	2.1	2.1	2.4	3.6	45	11	58	38	2.9	2.9	2.9	3.3
5	2.0	2.1	2.2	3.2	41	9.4	56	36	3.0	2.9	2.9	5.7
6	1.9	2.2	2.2	3.1	38	9.2	52	35	2.9	2.9	2.9	4.6
7	1.9	2.1	2.2	3.2	36	7.1	48	32	2.9	3.0	2.9	3.6
8	2.0	2.2	2.2	3.1	35	6.0	43	30	2.9	2.9	2.9	3.7
9	1.9	2.2	2.4	3.1	33	5.5	41	26	2.9	2.9	2.9	3.5
10	2.0	2.2	2.2	3.1	30	5.4	35	23	2.9	2.9	2.9	3.5
11	2.1	2.4	2.2	3.1	28	4.9	39	21	2.9	2.9	2.9	3.7
12	2.0	2.4	2.2	3.1	27	4.3	38	19	2.9	3.0	2.9	3.7
13	2.0	2.4	3.1	3.1	24	3.8	33	18	2.9	3.0	2.9	3.7
14	2.0	2.4	2.4	3.1	21	7.1	29	22	2.9	3.1	3.0	3.5
15	2.0	2.3	2.3	3.9	19	25	27	23	3.0	2.9	2.9	8.0
16	2.0	2.2	2.3	3.4	17	31	30	21	3.0	2.9	2.9	336
17	2.0	2.3	2.3	3.2	16	32	26	19	2.9	2.9	2.9	435
18	2.0	2.3	2.2	3.3	20	31	22	17	2.9	2.9	2.9	341
19	2.0	2.3	2.2	3.3	22	28	19	15	2.9	2.9	2.5	263
20	2.0	2.3	2.2	3.1	21	26	17	12	2.9	2.9	.32	200
21	2.0	2.3	2.2	3.1	19	39	15	11	3.0	2.9	.27	157
22	2.0	2.3	2.2	3.1	17	63	14	9.7	3.0	2.9	.27	159
23	2.0	2.2	2.2	4.3	15	62	13	8.4	2.9	2.9	.31	121
24	2.0	2.2	2.9	19	13	58	9.0	7.5	2.9	2.9	.77	98
25	2.0	2.2	2.4	38	12	54	7.7	4.7	2.9	2.9	2.4	81
26	2.0	2.2	2.3	47	11	47	7.3	4.1	2.9	2.9	2.9	68
27	2.0	2.3	2.3	49	10	42	6.3	3.3	2.9	2.9	3.0	63
28	2.0	2.3	2.3	46	12	37	7.2	3.2	2.9	2.9	2.9	115
29	2.0	2.4	2.2	43	---	33	11	3.0	2.9	2.9	2.9	256
30	2.1	2.5	2.2	40	---	30	40	3.1	2.9	2.9	3.0	256
31	2.0	---	2.4	35	---	27	---	3.0	---	2.9	3.0	---
TOTAL	62.2	67.5	72.3	399.7	708	773.7	895.5	595.0	87.8	90.6	76.84	3008.3
MEAN	2.01	2.25	2.33	12.9	25.3	25.0	29.9	19.2	2.93	2.92	2.48	100
MAX	2.1	2.5	3.1	49	47	63	58	44	3.1	3.1	3.0	435
MIN	1.9	2.0	2.2	2.5	10	3.8	6.3	3.0	2.9	2.9	.27	2.9

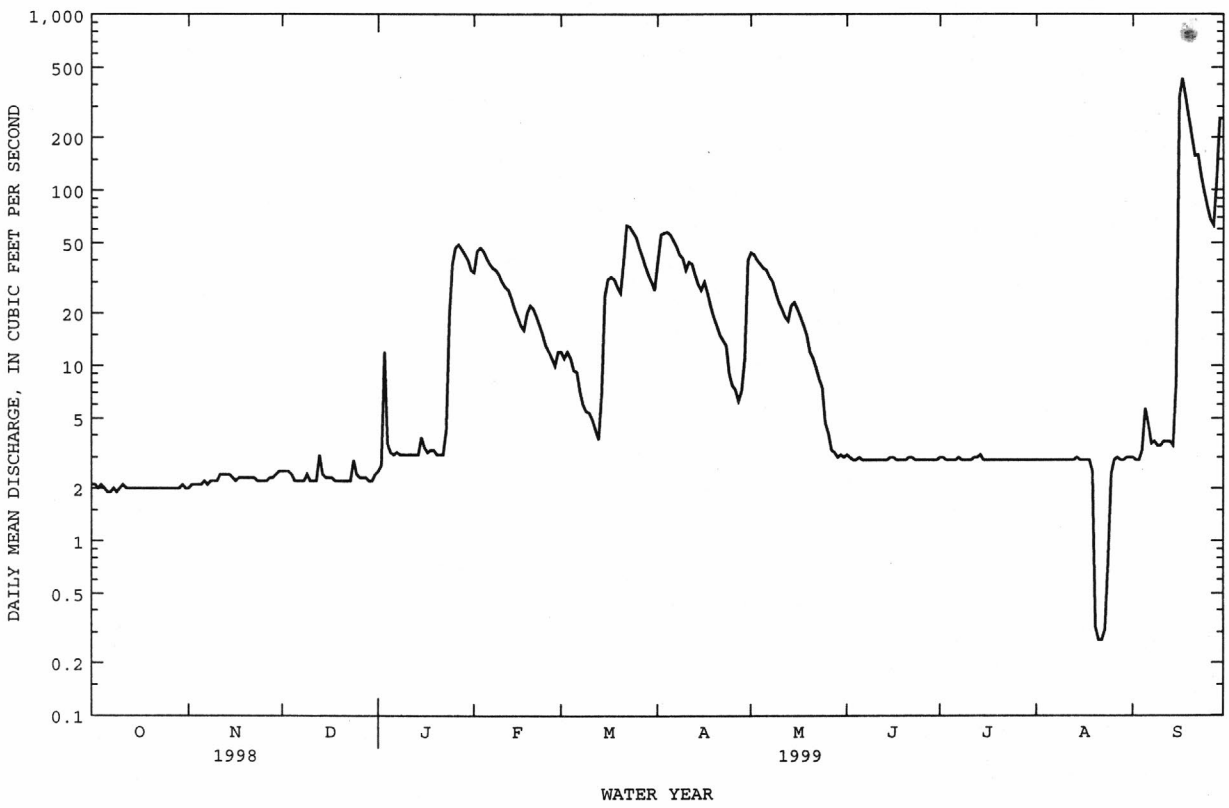
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 1999, BY WATER YEAR (WY)

MEAN	10.2	15.4	22.2	68.9	72.8	103	69.2	39.5	16.3	16.8	11.9	28.5
MAX	62.2	76.0	80.5	254	301	260	214	210	73.4	118	56.1	350
(WY)	1990	1980	1997	1978	1998	1998	1993	1978	1995	1995	1984	1996
MIN	.011	.011	.016	.003	.28	.14	.20	.12	.075	.24	.038	.000
(WY)	1981	1981	1981	1981	1981	1981	1981	1981	1981	1981	1981	1980

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1977 - 1999	
ANNUAL TOTAL	26919.9		6837.44			
ANNUAL MEAN	73.8		18.7		39.5	
HIGHEST ANNUAL MEAN					87.8	1978
LOWEST ANNUAL MEAN					.11	1981
HIGHEST DAILY MEAN	946	Mar 21	435	Sep 17	2260	Sep 7 1996
LOWEST DAILY MEAN	1.9	Oct 6	.27	Aug 21	.00	Jul 31 1977
ANNUAL SEVEN-DAY MINIMUM	2.0	Oct 3	.98	Aug 19	.00	Jul 31 1977
INSTANTANEOUS PEAK FLOW			491	Sep 16	3950	Apr 26 1978
INSTANTANEOUS PEAK STAGE			4.97	Sep 16	10.83	Apr 26 1978
INSTANTANEOUS LOW FLOW			.26*	Aug 21	.00*	Aug 1 1977
10 PERCENT EXCEEDS	204		42		100	
50 PERCENT EXCEEDS	3.2		3.0		7.4	
90 PERCENT EXCEEDS	2.1		2.1		.51	

* See REMARKS.

02077670 MAYO CREEK NEAR BETHEL HILL, NC--Continued



02080500 ROANOKE RIVER AT ROANOKE RAPIDS, NC

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

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

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

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

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5410	1950	1520	1520	8430	2720	1560	4480	5890	2580	5700	2380
2	2620	1700	4000	1520	8680	2840	1550	4510	5820	2540	3650	2230
3	2610	1650	1920	1720	6650	4180	1560	4590	5160	2630	3010	2220
4	2640	1620	1540	11100	8370	12000	1560	4520	4420	2650	3020	2350
5	2620	3100	1540	13100	2850	5440	1550	4570	4070	2620	3030	3700
6	2610	3470	1540	7810	2740	2020	1540	4610	4050	4120	3040	3350
7	2610	2260	1530	6400	4610	2030	1540	4700	4090	4090	3370	2260
8	2630	2260	1620	10800	8690	6400	7640	5570	4060	5940	2980	2240
9	2610	2240	3160	5850	7070	7630	8630	5700	4040	11300	2870	2170
10	2600	2210	4090	5700	11200	2460	8690	6490	4050	2670	3220	2110
11	2590	2090	3240	4890	8830	2010	8580	6600	4050	2550	3230	2020
12	2590	2060	2760	1940	7980	2020	8540	6560	4060	2050	2820	2020
13	2580	2030	1610	2000	8220	2020	8540	6570	4040	2030	2780	2020
14	2580	2030	1720	8360	8130	2040	8370	6550	4050	2060	2990	9350
15	2570	2380	6010	2200	8220	2090	7630	6540	4050	2020	3010	7190
16	2540	1880	9170	11100	8120	2040	7390	6140	2550	7580	2610	17900
17	3130	1520	4230	2000	5280	2050	6590	5930	2750	2940	2670	14400
18	2520	1640	1480	2020	7440	2040	6620	5900	2530	2010	2690	8090
19	2510	1500	1490	1990	4040	1820	6560	5900	2650	7370	2690	8040
20	2500	1510	1500	1990	2010	1540	6590	5930	2540	5320	2690	8060
21	2520	1770	1510	6990	7850	1570	6610	5910	2380	6870	2690	8090
22	2310	2140	1510	5660	9650	1560	6600	5910	2370	8550	3070	8540
23	2090	1520	2280	3090	9320	1540	6500	5990	2380	10400	3090	8540
24	2080	1510	1550	3550	7130	1590	5900	5900	2380	4360	2960	8480
25	2080	4320	1540	15400	10900	1540	5890	5850	2380	2940	2980	8470
26	2140	1510	1530	14200	4520	1740	5890	6000	2380	2860	3020	8580
27	2330	1500	1530	17800	2650	1520	5880	5920	2350	4940	3310	8400
28	2300	1490	1530	17800	2080	1520	5900	5940	2340	3310	3260	8200
29	2030	1500	1530	17800	---	1630	5910	5900	2420	2950	3260	8290
30	2000	1550	4880	17800	---	1530	5680	5900	2480	5420	3250	9180
31	1990	---	4490	17800	---	1540	---	5900	---	2890	3260	---
TOTAL	78940	59910	79550	241900	191660	84670	171990	177480	102780	132560	96220	188870
MEAN	2546	1997	2566	7803	6845	2731	5733	5725	3426	4276	3104	6296
MAX	5410	4320	9170	17800	11200	12000	8690	6600	5890	11300	5700	17900
MIN	1990	1490	1480	1520	2010	1520	1540	4480	2340	2010	2610	2020
†	-476	-94	+699	+1108	-869	-2289	+183	-613	-1108	-1106	-1364	+4350

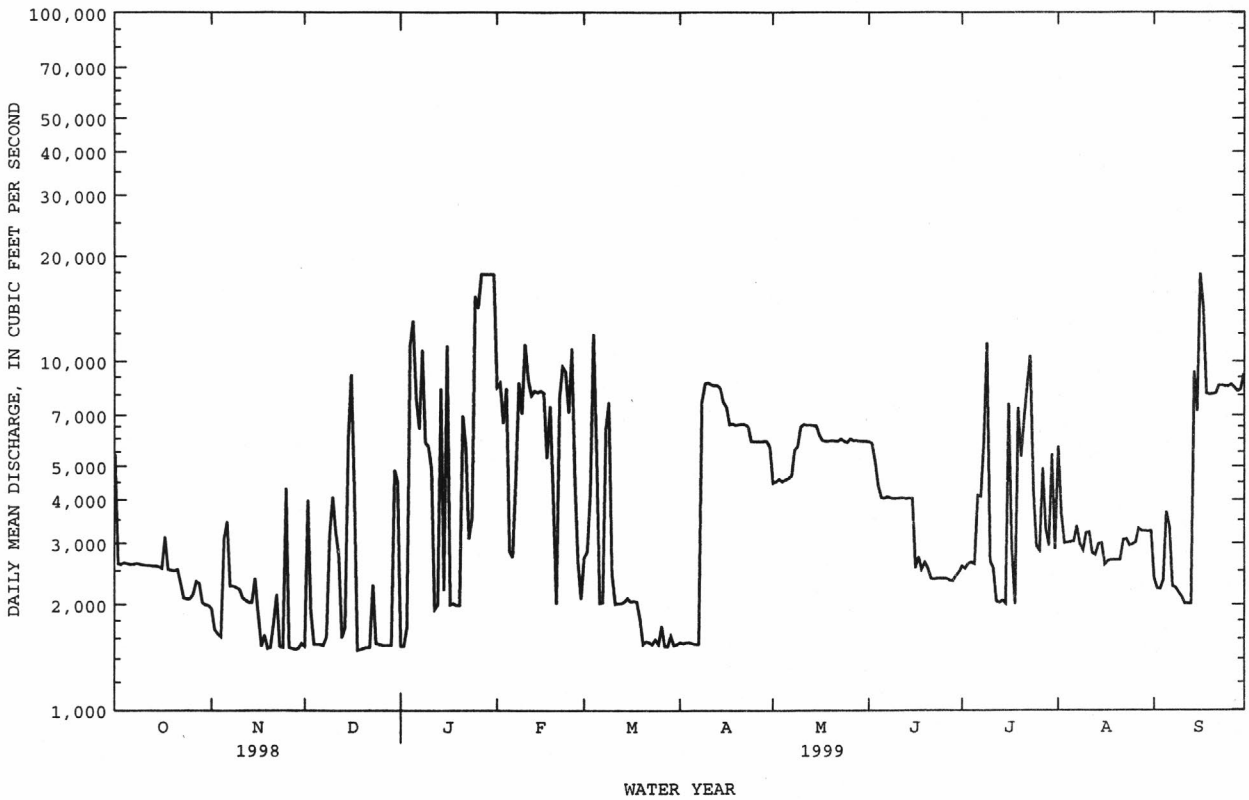
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1999,* BY WATER YEAR (WY)

MEAN	5661	6441	7476	10040	10910	11240	11280	10680	7513	5959	5196	5398
MAX	20360	17690	18380	17850	26800	27350	32660	31750	15260	20560	9755	25970
(WY)	1980	1986	1973	1991	1998	1998	1993	1978	1982	1972	1975	1996
MIN	2031	1987	2566	3540	2613	2259	2527	3974	2365	2581	2519	2186
(WY)	1971	1987	1999	1989	1981	1981	1985	1981	1977	1970	1993	1968

02080500 ROANOKE RIVER AT ROANOKE RAPIDS, NC--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1964 - 1999*	
ANNUAL TOTAL	3936930		1606530			
ANNUAL MEAN	10790		4401	‡4671	8002	(UNADJUSTED)
HIGHEST ANNUAL MEAN					12920	1973
LOWEST ANNUAL MEAN					3117	1981
HIGHEST DAILY MEAN	35500	Feb 24	17900	Sep 16	36000	Sep 11 1996
LOWEST DAILY MEAN	1480	Dec 18	1480	Dec 18	818	Nov 15 1970
ANNUAL SEVEN-DAY MINIMUM	1620	Dec 18	1550	Mar 27	989	Nov 5 1986
INSTANTANEOUS PEAK FLOW			19800	Sep 16	37700	Apr 16 1993
INSTANTANEOUS PEAK STAGE			8.75	Sep 16	11.87	Apr 16 1993
INSTANTANEOUS LOW FLOW			1450	Nov 25	760	Nov 23 1970
ANNUAL RUNOFF (CFSM)	1.29		.52		.95	
ANNUAL RUNOFF (INCHES)	17.47		7.13		12.97	
10 PERCENT EXCEEDS	24800		8470		18900	
50 PERCENT EXCEEDS	4840		3010		6140	
90 PERCENT EXCEEDS	1930		1550		2010	

* Regulated period only (1964-1999). See REMARKS.
† Change in contents, equivalent in cubic feet per second, in Leeville and Smith Mountain Lake, provided by Appalachian Power Co.; Philpott and Kerr Reservoirs, provided by U.S. Army Corps of Engineers; and Lake Gaston and Roanoke Rapids Lake, provided by North Carolina Power Company.
‡ Adjusted for change in contents.



0208062765 ROANOKE RIVER AT HALIFAX, NC

LOCATION.--Lat 36°19'59", long 77°34'58", North American Datum of 1983, Martin 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 mi^2.

GAGE HEIGHT 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 sea level, National Geodetic Vertical Datum of 1929. Satellite telemetry at station.

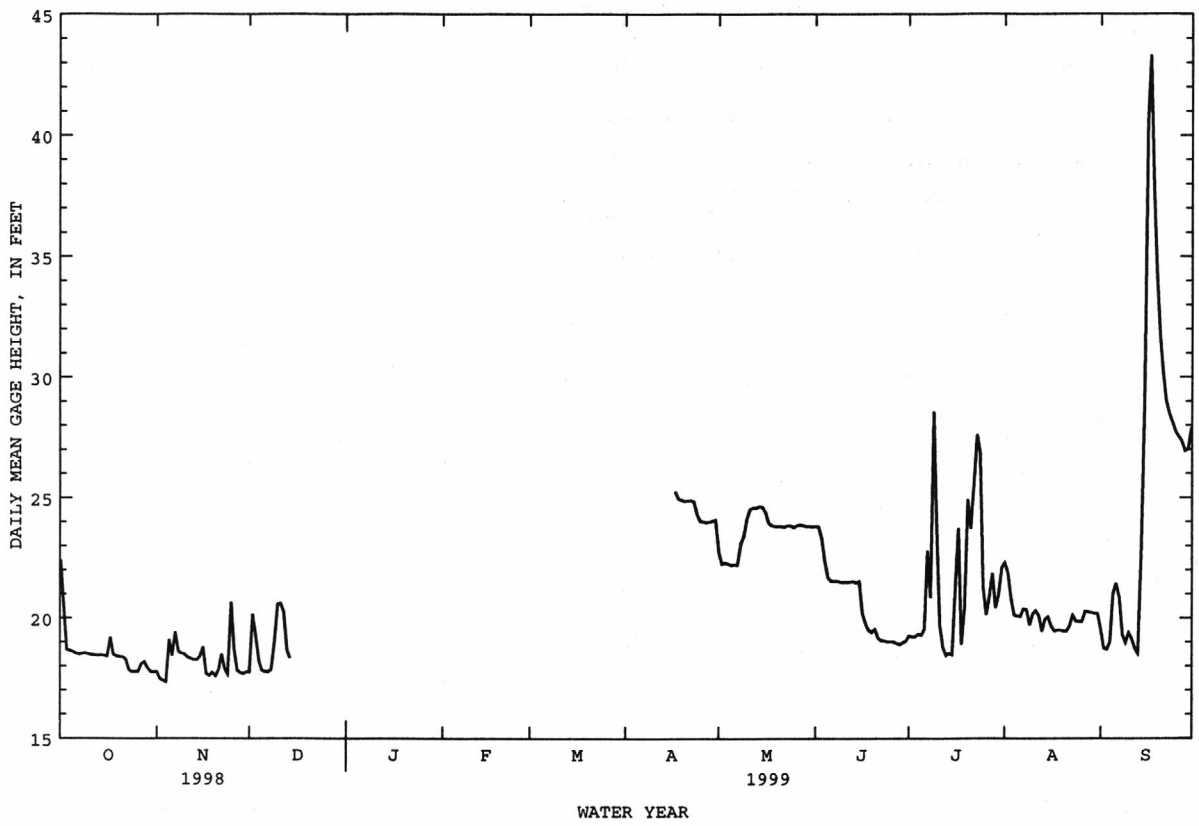
EXTREMES FOR PERIOD OF RECORD.--Maximum, 47.24 ft, Mar. 31, 1998; minimum, 16.43 ft, Dec. 8, 1997.

EXTREMES FOR CURRENT YEAR.--Maximum, 45.53 ft, Sept. 16; minimum, 17.30 ft, Nov. 5.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.43	17.76	17.74	---	---	---	---	22.75	23.81	19.26	22.31	19.53
2	20.64	17.49	20.17	---	---	---	---	22.25	23.80	19.21	21.86	18.75
3	18.69	17.41	19.25	---	---	---	---	22.30	23.29	19.22	20.80	18.69
4	18.65	17.35	18.20	---	---	---	---	22.25	22.36	19.33	20.12	19.00
5	18.60	19.10	17.82	---	---	---	---	22.20	21.68	19.28	20.08	21.02
6	18.53	18.44	17.77	---	---	---	---	22.23	21.53	19.55	20.06	21.45
7	18.51	19.43	17.75	---	---	---	---	22.21	21.54	22.80	20.39	20.86
8	18.53	18.60	17.84	---	---	---	---	23.08	21.54	20.86	20.36	19.31
9	18.55	18.55	19.01	---	---	---	---	23.43	21.50	28.59	19.71	18.97
10	18.50	18.51	20.57	---	---	---	---	24.15	21.49	23.69	20.17	19.39
11	18.47	18.36	20.62	---	---	---	---	24.52	21.49	19.72	20.31	19.14
12	18.46	18.31	20.27	---	---	---	---	24.59	21.50	18.78	20.10	18.74
13	18.45	18.27	18.68	---	---	---	---	24.57	21.52	18.44	19.45	18.52
14	18.46	18.27	18.33	---	---	---	---	24.64	21.47	18.52	19.95	22.84
15	18.45	18.40	---	---	---	---	---	24.61	21.52	18.46	20.05	28.90
16	18.43	18.80	---	---	---	---	---	24.38	20.21	21.31	19.66	40.46
17	19.21	17.69	---	---	---	---	25.26	23.95	19.78	23.73	19.46	43.32
18	18.51	17.61	---	---	---	---	24.96	23.85	19.49	18.90	19.49	37.92
19	18.42	17.74	---	---	---	---	24.91	23.81	19.40	20.44	19.49	34.33
20	18.39	17.58	---	---	---	---	24.87	23.81	19.53	24.93	19.46	31.80
21	18.38	17.87	---	---	---	---	24.88	23.81	19.16	23.72	19.45	30.13
22	18.29	18.50	---	---	---	---	24.89	23.79	19.06	25.61	19.67	28.98
23	17.84	17.88	---	---	---	---	24.85	23.84	19.05	27.63	20.12	28.48
24	17.77	17.66	---	---	---	---	24.31	23.84	19.02	26.85	19.87	28.12
25	17.77	20.66	---	---	---	---	24.03	23.76	19.01	21.31	19.86	27.75
26	17.78	18.72	---	---	---	---	24.00	23.84	19.01	20.14	19.86	27.54
27	18.09	17.82	---	---	---	---	23.98	23.88	18.94	20.91	20.28	27.34
28	18.19	17.72	---	---	---	---	24.00	23.84	18.90	21.87	20.26	26.95
29	17.93	17.69	---	---	---	---	24.03	23.82	18.97	20.42	20.23	27.01
30	17.77	17.75	---	---	---	---	24.08	23.81	19.04	20.97	20.20	27.91
31	17.75	---	---	---	---	---	---	23.80	---	22.10	20.19	---
MEAN	18.53	18.20	---	---	---	---	---	23.60	20.62	21.50	20.11	25.77
MAX	22.43	20.66	---	---	---	---	---	24.64	23.81	28.59	22.31	43.32
MIN	17.75	17.35	---	---	---	---	---	22.20	18.90	18.44	19.45	18.52

0208062765 ROANOKE RIVER AT HALIFAX, NC--Continued



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 U.S. Fish and Wildlife Service to define water-quality characteristics in the Roanoke River Basin below Roanoke Rapids Dam.

EXTREMES FOR PERIOD OF DAILY RECORD.--

CONSTITUENT	MAXIMUM RECORDED	MINIMUM RECORDED
SPECIFIC CONDUCTANCE, microsiemens	168, April 4, 1999	63, March 27, 1998
pH, standard units	7.9, May 20, 21, 22, 1999	6.1, September 16, 1999
WATER TEMPERATURE, °C	30.9, July 22, 1998	5.9, January 2, 7, 1999
DISSOLVED OXYGEN, mg/L	16.1, January 13, 1999	5.0, August 14, 1999
DISSOLVED OXYGEN, PERCENT SATURATION,%	132, January 13, 14, 1999	62, July 31, 1998

EXTREMES FOR CURRENT YEAR.--

CONSTITUENT	MAXIMUM RECORDED	MINIMUM RECORDED
SPECIFIC CONDUCTANCE, microsiemens	168, April 4	71, September 16
pH, standard units	7.9, May 20, 21, 22	6.1, September 16
WATER TEMPERATURE, °C	30.0, August 1	5.9, January 2, 7
DISSOLVED OXYGEN, mg/L	16.1, January 13	5.0, August 14
DISSOLVED OXYGEN, PERCENT SATURATION,%	132, January 13, 14	63, August 14

0208062765 ROANOKE RIVER AT HALIFAX, NC--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	120	102	107	129	124	127	138	135	136	142	114	132
2	121	102	107	129	125	127	136	104	126	145	139	143
3	127	121	125	132	129	130	123	100	107	140	111	127
4	130	125	127	138	132	134	125	119	122	127	107	112
5	128	122	125	139	117	131	128	122	126	118	108	114
6	131	125	128	135	117	126	131	127	128	122	113	116
7	133	128	131	131	108	117	---	---	---	136	114	119
8	130	125	129	132	127	130	141	134	137	146	116	120
9	130	125	128	131	128	130	137	112	130	131	118	121
10	128	122	125	130	129	130	120	110	113	150	120	124
11	127	122	125	131	128	130	116	111	114	151	119	130
12	131	125	129	132	130	132	117	115	115	135	119	125
13	151	130	137	131	129	130	129	115	121	149	130	143
14	156	151	154	132	128	130	129	119	122	143	118	137
15	151	148	150	130	124	128	124	107	117	119	111	114
16	149	146	149	125	119	121	115	103	105	131	115	119
17	149	132	144	137	121	131	113	103	106	133	116	122
18	146	134	142	136	135	136	132	105	120	138	133	136
19	149	146	147	135	131	133	136	129	134	140	134	137
20	147	139	143	138	132	135	139	134	137	142	139	141
21	140	137	138	140	137	139	139	134	136	143	119	134
22	138	131	135	144	131	139	136	134	136	129	117	120
23	133	130	131	140	129	135	139	132	136	135	117	125
24	133	132	132	148	140	145	133	112	119	134	121	127
25	134	132	133	156	118	139	132	127	130	121	114	116
26	134	131	133	128	111	118	128	126	127	120	115	117
27	134	130	133	137	128	133	128	127	127	117	116	117
28	134	119	127	143	137	142	130	127	129	118	116	117
29	123	119	122	143	132	137	134	127	131	119	117	118
30	127	122	125	139	134	138	142	134	138	120	118	119
31	128	124	127	---	---	---	135	108	112	121	119	121
MONTH	156	102	132	156	108	132	---	---	---	151	107	125

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	121	117	119	132	123	130	163	157	160	118	116	117
2	139	118	123	135	123	129	163	159	161	118	114	116
3	133	121	123	136	123	128	165	159	163	119	114	116
4	134	121	125	130	117	121	168	162	165	123	119	122
5	139	120	123	121	118	119	166	159	163	124	122	124
6	142	127	133	138	120	128	163	159	161	126	123	125
7	143	130	136	140	137	139	165	161	163	127	125	126
8	142	122	125	140	108	126	164	131	147	125	123	124
9	133	116	123	124	110	114	135	133	134	125	123	124
10	119	113	114	124	113	115	134	131	133	124	121	122
11	123	113	115	136	124	133	132	129	130	122	121	121
12	116	112	114	138	134	136	129	127	128	122	121	122
13	117	115	116	137	134	136	127	124	126	122	120	121
14	117	115	116	139	129	137	124	122	123	122	120	121
15	116	115	116	132	117	122	122	120	121	121	120	121
16	121	114	116	132	119	127	122	120	121	121	120	121
17	121	115	117	138	132	136	122	120	121	121	118	119
18	124	117	120	141	138	139	121	119	120	121	118	120
19	122	116	118	142	136	139	120	118	119	122	120	121
20	131	117	124	153	139	147	119	118	119	124	121	123
21	133	118	124	153	148	151	119	118	119	125	123	124
22	118	116	117	148	141	144	120	119	119	126	124	125
23	121	114	116	146	141	143	120	119	120	125	123	124
24	122	115	116	152	146	150	121	119	120	123	122	123
25	127	115	117	153	148	151	121	119	120	123	121	122
26	123	115	117	155	151	153	120	119	119	123	122	123
27	131	116	124	157	141	151	120	118	119	125	123	124
28	133	122	129	157	155	156	119	118	118	129	125	127
29	---	---	---	158	152	155	118	117	118	128	127	127
30	---	---	---	159	148	154	118	117	117	138	128	133
31	---	---	---	160	157	159	---	---	---	142	135	139
MONTH	143	112	121	160	108	138	168	117	132	142	114	123

0208062765 ROANOKE RIVER AT HALIFAX, NC--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	145	141	143	138	135	137	144	129	136	140	132	135
2	146	142	145	139	137	138	141	129	134	146	140	144
3	147	143	145	140	135	138	146	134	140	145	143	144
4	147	145	146	141	131	135	152	144	148	146	126	141
5	147	144	146	135	130	132	154	149	152	127	113	119
6	145	142	144	135	130	132	154	151	153	130	119	123
7	144	140	142	---	---	---	157	151	153	131	122	126
8	145	135	142	136	127	131	153	147	150	142	130	136
9	135	130	132	133	120	122	153	147	149	144	137	142
10	133	130	132	139	122	128	149	145	147	141	134	139
11	135	132	134	143	139	141	149	145	147	142	132	136
12	135	131	133	139	135	137	147	143	145	146	142	144
13	132	130	131	141	138	139	154	147	152	149	146	148
14	131	129	130	142	139	140	---	---	---	150	121	140
15	133	130	131	142	137	139	---	---	---	121	105	117
16	139	133	135	141	117	135	---	---	---	105	71	81
17	142	139	141	123	116	118	---	---	---	92	81	88
18	142	140	141	137	123	134	143	138	141	95	86	90
19	143	140	142	134	115	130	145	138	141	103	95	99
20	142	132	136	135	112	116	144	140	142	110	103	107
21	132	130	131	137	115	119	143	140	141	114	109	112
22	131	129	130	136	116	119	142	139	141	118	114	115
23	132	129	131	133	116	120	141	135	137	126	113	115
24	133	132	132	131	118	121	138	135	137	123	113	115
25	138	133	135	132	122	126	139	136	137	124	114	116
26	139	136	138	130	122	126	138	137	138	124	114	116
27	---	---	---	134	127	132	138	134	135	122	113	115
28	137	133	134	138	122	128	138	132	135	123	113	116
29	138	133	135	141	130	136	140	134	137	125	114	116
30	139	132	135	144	129	139	138	131	134	122	112	114
31	---	---	---	140	125	131	133	125	128	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	150	71	122

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

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

0208062765 ROANOKE RIVER AT HALIFAX, NC--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

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

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

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

0208062765 ROANOKE RIVER AT HALIFAX, NC--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	26.8	25.4	26.0	17.9	17.3	17.6	14.9	14.1	14.5	6.8	6.1	6.6
2	26.0	23.8	24.8	17.5	17.0	17.3	14.2	13.6	14.0	6.4	5.9	6.1
3	24.1	23.7	23.9	17.1	16.1	16.8	14.2	13.4	13.7	9.6	6.1	8.2
4	24.4	23.0	23.7	16.1	15.0	15.6	14.4	13.9	14.2	9.4	6.6	7.8
5	23.2	22.8	23.0	16.3	14.7	15.4	14.7	14.2	14.5	6.6	6.1	6.5
6	23.8	23.1	23.5	15.9	14.4	15.2	15.5	14.5	15.1	6.8	6.0	6.5
7	23.5	23.2	23.4	15.2	14.3	14.9	---	---	---	6.9	5.9	6.6
8	23.4	22.7	23.0	14.6	14.1	14.3	16.5	15.5	16.1	6.8	6.3	6.7
9	23.0	22.5	22.7	15.1	14.4	14.7	16.3	14.5	15.6	7.4	6.7	7.0
10	22.7	22.1	22.4	15.6	14.6	14.9	14.5	13.7	14.2	7.3	6.5	7.0
11	22.5	21.9	22.2	16.1	15.1	15.8	14.5	13.8	14.2	7.1	6.2	6.6
12	22.2	21.7	22.0	15.1	14.0	14.3	14.2	13.6	13.8	7.2	6.6	6.9
13	22.1	21.6	21.9	14.4	13.9	14.1	13.9	12.5	13.2	7.6	6.9	7.4
14	22.0	21.3	21.8	14.0	13.8	13.9	12.5	11.9	12.3	8.1	7.1	7.8
15	21.5	20.8	21.1	15.3	14.0	14.7	13.1	11.5	12.2	8.4	7.1	7.7
16	21.0	20.5	20.8	15.1	14.1	14.6	13.0	12.1	12.4	8.2	6.9	7.5
17	21.1	20.2	20.7	16.1	14.7	15.6	12.1	11.2	11.6	7.6	7.2	7.3
18	20.9	20.4	20.7	15.2	14.2	14.8	11.3	9.6	10.5	8.9	7.3	8.4
19	21.4	20.8	21.1	14.3	14.0	14.2	10.4	9.6	10.1	8.8	7.8	8.3
20	21.9	21.2	21.6	15.7	14.3	15.3	11.6	10.4	11.2	8.2	7.8	8.0
21	21.2	19.6	20.3	15.4	14.3	15.0	11.7	11.4	11.6	8.5	7.9	8.2
22	19.7	18.0	19.0	14.3	13.6	13.7	12.1	11.4	11.8	8.4	8.0	8.2
23	18.2	17.4	17.8	13.8	13.3	13.5	11.4	8.8	9.8	9.5	8.4	8.9
24	18.6	17.8	18.2	15.1	13.7	14.6	9.3	8.5	9.0	10.4	9.5	10.0
25	18.7	18.0	18.3	14.4	13.3	14.1	8.6	8.3	8.4	10.2	8.8	9.1
26	18.9	18.1	18.4	14.4	13.6	14.2	8.4	7.8	8.2	9.1	8.3	8.9
27	18.5	17.8	18.2	13.9	13.1	13.6	8.4	7.7	8.0	8.5	8.0	8.2
28	18.4	17.8	18.1	13.6	13.0	13.3	8.9	8.3	8.8	8.8	8.1	8.4
29	18.7	18.0	18.4	13.8	13.0	13.4	8.6	8.3	8.5	9.1	8.6	8.8
30	18.0	17.6	17.8	14.2	13.2	13.8	8.3	7.4	8.0	9.2	8.7	8.9
31	18.4	17.7	18.1	---	---	---	7.7	6.8	7.3	8.8	8.5	8.6
MONTH	26.8	17.4	21.1	17.9	13.0	14.8	---	---	---	10.4	5.9	7.8

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	8.5	8.2	8.3	8.6	8.1	8.3	13.6	12.6	13.1	15.9	14.6	15.1
2	8.9	8.3	8.6	8.8	7.7	8.2	14.8	12.7	13.8	15.9	14.3	14.9
3	9.3	8.5	8.8	9.5	8.8	9.2	15.7	14.7	15.2	16.4	14.5	15.3
4	9.4	8.8	9.1	9.6	8.0	8.7	15.5	14.6	15.1	17.2	15.1	15.9
5	9.4	8.8	9.1	8.8	8.1	8.4	15.4	14.6	15.1	17.2	15.8	16.6
6	9.9	9.0	9.4	8.9	8.7	8.8	14.8	13.8	14.4	17.9	15.9	17.0
7	10.3	9.2	9.6	9.3	8.2	9.0	16.9	13.9	15.8	19.2	16.5	17.6
8	10.3	9.2	9.5	8.8	7.2	8.3	17.1	15.6	16.5	20.1	18.8	19.3
9	10.6	9.0	9.4	8.5	7.7	8.0	17.0	15.9	16.4	21.1	19.7	20.2
10	10.2	9.4	9.7	8.1	7.6	7.9	17.1	16.3	16.7	21.0	19.6	20.3
11	10.4	9.3	9.7	8.3	7.5	7.9	16.3	14.9	15.2	20.8	18.4	19.5
12	10.8	9.7	10.1	8.6	8.1	8.3	15.9	15.3	15.6	20.4	18.4	19.4
13	10.6	9.6	9.9	8.8	7.6	8.1	15.5	14.8	15.2	20.4	18.7	19.5
14	9.6	8.8	9.1	8.3	7.5	7.8	15.4	14.1	14.7	19.9	17.7	18.3
15	9.4	8.3	8.8	7.5	7.1	7.3	15.2	14.5	14.8	18.6	18.0	18.3
16	9.7	8.3	8.8	8.7	6.9	7.6	16.1	14.4	15.1	18.5	17.4	18.0
17	9.8	8.6	9.0	10.0	8.7	9.3	15.9	14.6	15.1	18.4	17.5	17.9
18	10.0	9.2	9.4	11.2	9.8	10.4	15.8	14.5	15.1	19.1	17.2	18.0
19	9.5	9.0	9.2	11.6	10.4	11.0	15.9	14.5	15.1	19.4	17.3	18.3
20	9.5	8.9	9.2	11.0	10.4	10.7	16.4	14.8	15.5	20.8	19.3	19.9
21	9.6	8.4	9.2	11.4	10.0	10.7	16.5	15.0	15.7	21.2	19.3	20.1
22	9.1	8.1	8.6	11.1	10.0	10.4	17.6	15.4	16.3	21.8	20.1	20.8
23	8.1	7.3	7.9	10.8	9.9	10.4	18.6	17.3	17.8	22.7	21.2	21.8
24	7.9	7.2	7.6	11.3	10.0	10.7	18.5	17.2	17.7	22.7	21.7	22.1
25	7.6	6.6	7.3	11.8	11.0	11.5	18.3	16.3	17.3	22.2	21.2	21.7
26	7.8	7.0	7.3	11.7	10.6	11.4	18.4	16.9	17.6	22.0	21.2	21.4
27	8.4	7.4	7.8	11.0	10.1	10.7	18.5	17.7	18.1	22.2	21.0	21.5
28	8.9	8.4	8.7	12.1	10.1	11.3	18.5	16.7	17.1	22.9	20.9	21.8
29	---	---	---	12.8	11.6	12.3	16.9	16.3	16.5	23.4	21.1	22.2
30	---	---	---	13.4	12.4	12.8	16.3	15.8	16.0	23.5	21.0	22.1
31	---	---	---	13.4	12.6	13.0	---	---	---	24.3	21.5	22.6
MONTH	10.8	6.6	8.9	13.4	6.9	9.6	18.6	12.6	15.8	24.3	14.3	19.3

0208062765 ROANOKE RIVER AT HALIFAX, NC--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	24.6	22.7	23.6	24.8	23.3	24.0	30.0	27.5	28.9	24.6	23.7	24.1
2	24.9	23.6	24.2	26.0	24.1	24.8	29.9	28.3	29.1	24.6	23.8	24.2
3	24.9	23.9	24.3	26.6	25.4	25.9	29.6	27.3	28.3	25.0	24.0	24.5
4	25.2	23.9	24.5	26.6	25.5	26.1	29.0	27.7	28.3	24.1	23.4	23.8
5	25.2	23.1	23.9	27.4	26.6	27.0	29.4	27.6	28.4	23.8	23.1	23.4
6	25.0	22.8	23.8	28.3	26.9	27.3	29.5	28.5	29.0	23.9	23.3	23.5
7	25.4	23.4	24.3	---	---	---	29.5	27.8	28.5	24.6	23.4	24.0
8	25.6	23.5	24.4	29.2	26.1	27.3	29.2	27.9	28.5	25.3	24.6	25.1
9	25.2	23.4	24.3	29.9	27.3	28.1	29.3	28.2	28.7	25.6	24.2	24.9
10	25.5	23.2	24.3	29.2	28.5	28.9	28.6	27.4	27.9	24.4	24.0	24.2
11	25.7	23.4	24.4	29.1	27.7	28.5	29.4	27.5	28.3	24.8	23.9	24.4
12	25.8	23.3	24.1	27.7	25.0	26.5	29.5	28.2	28.7	24.8	24.0	24.4
13	24.6	23.9	24.3	25.1	24.6	24.9	29.1	28.0	28.5	24.6	23.9	24.3
14	24.6	23.2	23.9	25.2	24.9	25.1	---	---	---	25.3	23.9	24.5
15	25.3	24.5	25.0	26.0	24.9	25.4	---	---	---	24.1	23.1	23.9
16	24.7	22.4	23.3	26.4	24.6	25.8	---	---	---	23.1	21.2	21.8
17	23.1	22.2	22.5	25.4	24.2	24.8	---	---	---	21.7	21.4	21.5
18	23.9	22.3	23.2	26.4	25.3	26.1	28.7	27.5	28.1	21.7	21.0	21.3
19	24.2	23.0	23.5	27.1	25.9	26.4	28.9	28.2	28.5	22.1	21.3	21.7
20	23.7	21.5	22.3	28.3	26.4	27.1	28.5	27.3	27.7	22.8	21.6	22.0
21	22.3	21.9	22.0	27.3	25.5	26.5	28.5	27.1	27.7	22.8	22.0	22.4
22	22.3	22.0	22.2	27.9	25.4	26.2	28.6	27.5	27.9	22.5	21.4	21.8
23	23.0	22.0	22.4	27.7	26.6	27.1	28.1	26.8	27.3	22.1	21.1	21.5
24	23.5	22.3	22.8	27.4	26.5	26.9	27.7	26.7	27.1	21.9	21.0	21.4
25	23.7	22.9	23.2	28.1	25.8	26.8	27.5	26.2	26.8	22.2	21.0	21.5
26	24.0	22.9	23.3	28.7	27.5	28.0	27.7	26.5	27.0	22.2	21.6	21.9
27	---	---	---	29.2	27.4	28.2	27.9	26.5	27.1	22.2	21.8	21.9
28	24.0	23.3	23.7	29.0	27.0	27.8	28.0	26.7	27.2	22.2	21.8	22.0
29	25.4	23.7	24.2	29.0	27.1	27.8	27.6	26.3	26.9	22.6	21.9	22.1
30	25.6	23.9	24.5	29.4	28.2	28.5	27.6	24.2	25.5	22.4	21.8	22.0
31	---	---	---	29.5	28.1	28.7	24.6	23.8	24.2	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	25.6	21.0	23.0

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	7.6	6.5	6.9	10.0	9.0	9.3	11.4	10.7	11.0	15.3	14.5	14.9
2	7.7	6.8	7.1	10.1	9.0	9.4	11.3	11.0	11.2	15.5	15.2	15.3
3	8.1	7.1	7.5	10.0	8.8	9.3	11.5	11.1	11.3	15.4	12.3	13.7
4	8.1	6.9	7.4	9.3	8.9	9.1	11.5	10.9	11.2	15.0	12.4	13.7
5	7.5	7.1	7.2	9.8	9.1	9.4	11.4	10.9	11.1	15.5	15.0	15.2
6	7.9	7.1	7.4	10.6	9.6	9.9	11.4	10.7	11.0	15.5	14.5	14.9
7	8.0	7.0	7.4	11.0	9.8	10.0	---	---	---	15.2	14.5	14.8
8	8.1	7.1	7.4	11.3	10.7	10.9	10.7	10.1	10.3	15.1	14.6	14.8
9	8.0	7.2	7.4	11.4	10.6	10.9	10.9	10.2	10.4	14.9	14.4	14.6
10	8.3	7.2	7.7	11.4	10.6	10.9	11.3	10.9	11.1	15.0	14.3	14.7
11	8.4	7.4	7.8	11.2	10.3	10.6	11.3	10.9	11.0	15.4	14.7	15.0
12	8.5	7.4	7.9	11.6	10.5	11.0	11.3	11.1	11.2	16.0	14.8	15.2
13	8.5	7.6	8.0	11.7	11.0	11.2	11.3	11.1	11.2	16.1	15.5	15.7
14	8.7	7.4	8.0	11.5	11.1	11.3	11.8	11.1	11.3	16.0	15.2	15.6
15	8.8	7.7	8.2	11.5	10.8	11.1	12.3	11.5	11.9	15.9	14.4	15.3
16	8.9	7.9	8.3	11.5	10.7	11.1	11.9	11.2	11.6	15.9	14.4	15.5
17	9.1	7.8	8.2	11.3	10.1	10.7	12.2	11.8	11.9	15.7	15.4	15.5
18	8.8	7.5	8.0	11.2	10.6	10.7	12.8	12.0	12.3	15.6	14.4	14.9
19	8.8	7.6	8.0	11.4	10.7	10.9	13.1	12.5	12.8	15.2	14.4	14.7
20	8.5	7.5	7.9	11.2	10.2	10.6	12.7	12.0	12.3	15.2	14.7	15.0
21	8.8	7.8	8.2	11.0	10.4	10.7	12.4	11.9	12.1	15.3	14.7	15.0
22	8.8	8.2	8.4	11.1	10.7	10.9	12.2	11.6	11.9	15.2	14.7	15.1
23	9.2	8.4	8.8	11.4	10.9	11.1	13.6	11.8	12.8	15.1	14.2	14.6
24	9.4	8.4	8.8	11.4	10.4	10.8	13.6	13.0	13.2	14.4	12.7	13.5
25	9.5	8.5	8.9	11.1	10.3	10.8	13.9	13.5	13.6	14.6	12.8	14.2
26	9.5	8.5	8.9	10.9	10.4	10.7	14.1	13.7	13.9	14.6	14.2	14.4
27	9.6	8.6	8.9	11.2	10.8	10.9	14.3	13.7	14.0	14.8	14.6	14.7
28	9.6	8.8	9.1	11.4	10.9	11.1	14.1	13.4	13.7	14.6	14.4	14.6
29	9.8	8.7	9.1	11.5	10.9	11.2	13.8	13.4	13.6	14.4	14.3	14.4
30	9.9	8.9	9.3	11.6	11.0	11.2	14.6	13.6	13.8	14.3	14.2	14.3
31	9.9	8.9	9.2	---	---	---	14.5	13.9	14.3	14.5	14.3	14.4
MONTH	9.9	6.5	8.1	11.7	8.8	10.6	---	---	---	16.1	12.3	14.8

0208062765 ROANOKE RIVER AT HALIFAX, NC--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	14.6	14.1	14.4	12.1	11.5	11.7	10.8	9.6	10.1	10.9	10.1	10.3
2	14.3	13.7	14.2	12.2	11.6	11.9	10.2	9.6	9.9	11.0	10.3	10.6
3	14.2	13.8	14.0	11.8	10.9	11.3	10.3	9.5	9.9	11.1	10.3	10.6
4	14.1	13.6	13.8	11.5	10.7	11.2	10.3	9.4	9.9	11.1	10.0	10.5
5	14.1	13.6	13.8	11.6	11.3	11.4	10.6	9.7	10.1	11.1	9.9	10.4
6	14.1	13.5	13.7	11.5	10.7	11.1	11.2	10.4	10.9	10.9	9.7	10.1
7	13.7	13.1	13.5	11.3	10.3	10.7	11.5	9.7	10.4	10.6	9.6	10.0
8	13.8	13.2	13.5	11.5	11.1	11.3	11.0	9.3	10.4	10.6	9.2	9.8
9	14.3	13.4	13.6	11.7	11.3	11.5	10.8	10.1	10.4	10.3	8.6	9.4
10	13.9	13.6	13.7	11.6	11.3	11.4	10.8	9.7	10.2	10.2	8.9	9.4
11	13.8	13.4	13.7	11.8	11.4	11.6	10.6	10.2	10.3	10.1	9.0	9.4
12	13.6	13.1	13.3	11.8	11.3	11.5	10.4	10.1	10.2	9.9	8.8	9.2
13	13.5	13.0	13.3	12.0	11.6	11.7	10.8	10.2	10.4	9.6	8.4	8.8
14	13.9	13.5	13.6	12.0	11.5	11.7	10.9	10.4	10.6	9.3	8.6	8.8
15	13.9	13.7	13.7	11.7	11.4	11.5	10.8	10.3	10.4	9.6	8.8	9.0
16	13.7	13.3	13.5	11.9	11.5	11.7	10.7	10.2	10.4	10.2	8.9	9.4
17	13.5	13.1	13.3	11.8	10.9	11.3	10.7	10.1	10.3	10.5	9.4	9.8
18	13.4	12.5	12.9	11.2	10.5	10.8	10.6	10.2	10.4	10.8	9.7	10.1
19	12.9	12.6	12.8	10.7	10.0	10.3	10.6	10.2	10.4	10.8	9.6	10.1
20	12.9	12.2	12.6	10.6	9.9	10.3	10.6	10.2	10.3	10.7	9.3	9.8
21	12.8	12.5	12.6	10.3	10.0	10.1	10.6	10.0	10.2	10.5	8.9	9.6
22	13.2	12.6	12.8	10.4	9.9	10.1	10.5	9.9	10.1	10.5	9.0	9.6
23	13.5	12.9	13.1	10.6	10.3	10.4	10.3	9.6	9.9	10.1	8.7	9.2
24	13.3	13.0	13.1	10.7	10.0	10.4	10.2	9.3	9.6	9.8	8.4	8.8
25	13.5	13.1	13.2	10.5	9.9	10.2	10.2	9.5	9.8	9.3	8.3	8.7
26	13.1	12.9	13.0	10.6	10.0	10.2	10.2	9.4	9.7	9.1	8.0	8.3
27	13.1	12.4	12.8	10.8	10.2	10.5	10.0	9.2	9.5	9.2	8.0	8.4
28	12.5	11.4	11.9	11.0	10.0	10.5	10.0	9.2	9.5	9.5	7.9	8.5
29	---	---	---	10.6	9.8	10.2	10.0	9.5	9.7	9.4	8.0	8.5
30	---	---	---	10.5	9.6	10.1	10.7	9.7	10.0	9.4	8.0	8.5
31	---	---	---	10.6	9.7	10.1	---	---	---	9.2	7.9	8.4
MONTH	14.6	11.4	13.3	12.2	9.6	10.9	11.5	9.2	10.1	11.1	7.9	9.4

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	9.3	7.8	8.4	7.7	7.0	7.2	6.6	5.1	5.8	7.4	6.7	6.9
2	9.2	7.7	8.3	7.9	6.9	7.2	6.6	5.2	5.7	7.5	6.5	6.9
3	8.9	7.6	8.1	7.7	6.5	7.1	6.5	5.2	5.8	7.4	6.4	6.8
4	8.7	7.4	7.9	7.6	6.4	6.9	6.5	5.5	5.9	7.0	6.3	6.7
5	8.7	7.1	7.7	7.5	6.2	6.7	6.5	5.5	5.9	6.6	5.9	6.2
6	8.6	7.2	7.7	7.3	6.1	6.6	6.5	5.6	5.9	6.6	6.0	6.1
7	8.8	7.3	7.9	---	---	---	6.5	5.2	5.7	6.7	5.8	6.1
8	8.8	7.0	7.8	7.3	5.7	6.4	6.3	5.2	5.6	6.8	5.4	6.2
9	8.8	7.2	7.8	7.5	6.2	6.5	6.4	5.2	5.6	7.1	6.3	6.6
10	8.8	7.2	7.8	7.0	6.1	6.6	6.2	5.3	5.6	7.0	6.0	6.4
11	8.8	7.2	7.8	7.3	6.2	6.7	6.3	5.2	5.6	7.2	6.2	6.7
12	8.6	7.1	7.6	7.4	6.3	6.9	6.3	5.2	5.6	7.4	6.4	6.8
13	8.1	7.1	7.5	7.0	6.6	6.9	6.2	5.2	5.5	7.6	6.4	6.9
14	8.3	7.0	7.5	7.3	6.8	7.1	---	---	---	7.5	6.0	6.6
15	8.3	6.9	7.3	7.3	6.7	7.0	---	---	---	6.6	6.2	6.4
16	7.5	6.8	7.1	7.8	6.8	7.3	---	---	---	7.0	6.5	6.9
17	7.5	6.9	7.1	7.0	6.7	6.8	---	---	---	6.9	6.1	6.6
18	8.1	7.1	7.4	8.0	6.8	7.4	7.0	5.8	6.3	6.2	5.9	5.9
19	8.2	7.1	7.6	8.1	6.8	7.4	7.1	6.0	6.4	6.4	6.1	6.2
20	8.2	7.1	7.5	7.8	6.2	6.8	7.0	5.7	6.2	6.8	6.3	6.4
21	7.9	7.4	7.6	7.6	5.8	6.3	7.0	5.8	6.2	6.8	6.4	6.5
22	8.1	7.3	7.6	7.1	5.7	6.0	7.1	5.9	6.5	7.3	6.3	6.6
23	8.3	7.4	7.8	6.6	5.8	6.0	7.0	5.6	6.1	7.1	6.4	6.7
24	8.5	7.3	7.9	6.6	5.7	5.9	7.2	6.0	6.5	7.0	6.5	6.8
25	8.7	7.9	8.2	6.8	5.4	5.9	7.3	5.9	6.3	7.2	6.6	6.9
26	8.8	7.7	8.2	6.8	5.8	6.2	7.0	6.0	6.4	7.1	6.5	6.8
27	---	---	---	6.9	5.8	6.2	7.2	5.7	6.4	6.9	6.4	6.7
28	8.6	7.6	7.9	6.9	5.6	5.9	7.3	5.7	6.3	6.7	6.3	6.5
29	8.4	7.4	7.8	6.8	5.5	5.9	7.1	5.8	6.3	6.8	6.4	6.5
30	8.2	7.0	7.5	6.6	5.5	5.9	7.2	6.2	6.5	7.3	6.4	6.7
31	---	---	---	6.5	5.4	5.6	7.5	6.5	6.8	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	7.6	5.4	6.6

0208062765 ROANOKE RIVER AT HALIFAX, NC--Continued

OXYGEN DISSOLVED (% OF SATURATION), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	96	81	86	106	95	99	116	111	113	122	118	121
2	92	84	86	105	93	98	116	111	114	124	122	123
3	96	85	89	104	91	97	117	112	114	124	107	115
4	98	83	88	94	91	92	117	112	114	122	107	114
5	88	83	85	99	92	96	118	113	115	124	121	123
6	93	85	88	105	98	99	118	112	115	124	119	121
7	95	84	88	110	98	101	---	---	---	122	118	120
8	96	82	87	112	106	108	107	102	104	122	119	120
9	94	85	87	114	107	109	106	102	104	121	118	120
10	97	84	89	115	108	110	110	106	107	122	117	120
11	98	86	90	115	105	109	110	105	107	124	120	122
12	99	86	91	116	107	110	110	106	107	130	120	124
13	99	88	92	117	110	112	108	104	106	132	128	129
14	101	85	92	114	110	112	108	103	104	132	127	130
15	101	89	93	117	110	112	114	108	110	130	121	126
16	102	90	94	117	109	112	112	105	108	130	121	128
17	102	87	93	116	104	110	112	108	109	129	126	127
18	100	86	91	112	107	109	112	108	109	129	122	126
19	99	86	91	114	107	110	116	111	113	126	122	123
20	99	88	92	114	106	109	114	109	111	127	123	125
21	101	87	92	112	107	109	113	108	111	128	123	126
22	96	90	92	111	108	109	111	107	109	128	123	126
23	98	92	95	114	108	111	117	108	112	127	121	125
24	101	92	96	114	108	110	116	113	114	124	112	118
25	103	92	96	113	104	109	118	115	116	125	113	121
26	103	93	97	111	106	109	120	115	117	124	120	122
27	105	93	97	112	108	109	119	116	118	124	122	123
28	103	93	97	113	110	111	120	114	117	123	122	123
29	104	94	97	115	111	113	117	114	115	122	121	122
30	105	94	98	115	112	113	121	115	116	122	121	121
31	104	94	98	---	---	---	119	116	118	122	121	122
MONTH	105	81	92	117	91	107	---	---	---	132	107	123

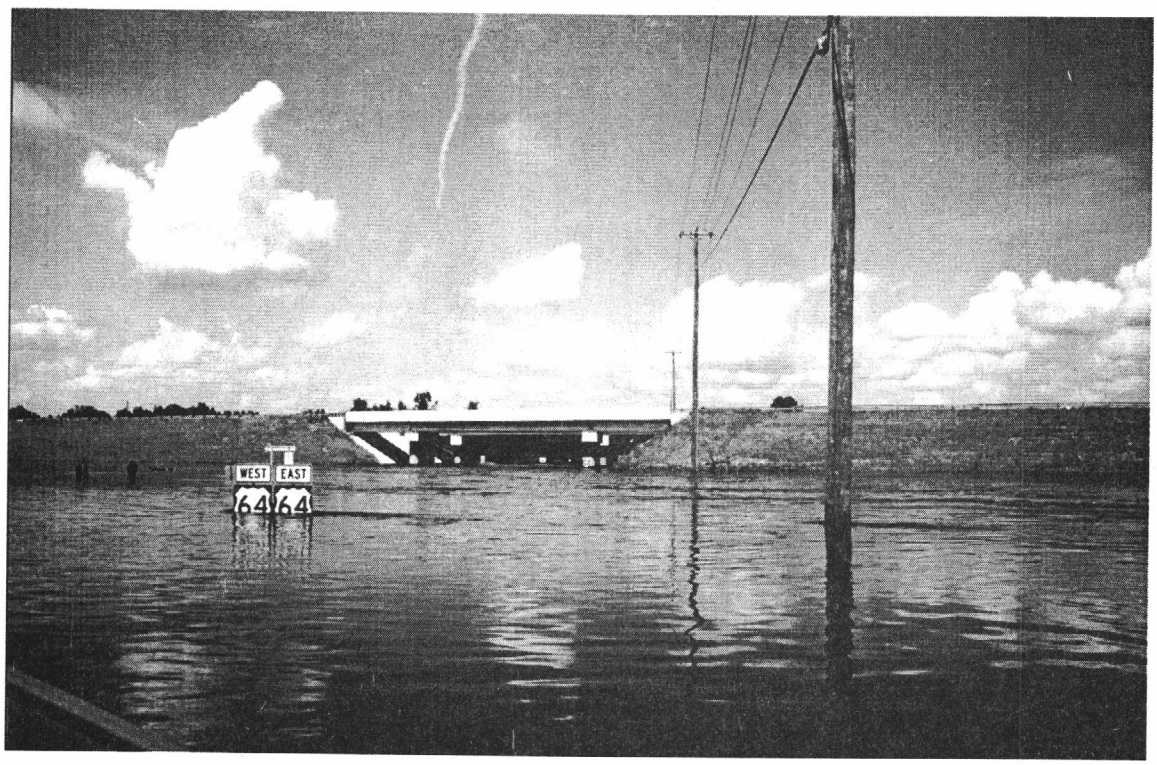
OXYGEN DISSOLVED (% OF SATURATION), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	122	119	121	100	96	97	101	89	95	110	98	102
2	122	117	120	101	97	99	98	92	95	110	100	104
3	121	118	119	100	94	97	100	92	96	112	100	104
4	121	116	118	96	92	95	101	91	97	113	100	104
5	121	115	118	98	94	96	103	93	98	113	100	106
6	121	115	117	98	91	94	108	101	105	113	99	103
7	119	114	116	94	89	91	111	98	104	113	98	103
8	121	116	117	96	91	94	112	92	105	113	97	104
9	127	116	118	96	92	94	109	101	104	113	92	101
10	122	118	119	96	93	94	108	99	103	113	96	103
11	121	116	119	97	94	95	106	100	101	110	94	101
12	118	115	117	98	94	96	104	99	101	107	92	98
13	119	114	116	99	96	97	107	99	102	104	89	94
14	120	114	117	99	94	96	107	99	103	100	90	93
15	120	115	117	96	92	94	106	99	102	100	92	94
16	117	114	115	99	94	96	106	98	102	107	91	97
17	116	112	114	99	94	96	106	98	101	110	96	101
18	116	108	111	97	93	95	105	98	102	114	99	105
19	112	108	110	96	88	91	107	98	102	116	99	106
20	112	105	108	94	88	91	107	99	102	116	99	106
21	111	105	109	92	87	90	106	98	102	117	96	105
22	112	105	108	91	88	89	107	98	101	116	98	105
23	111	106	108	94	90	92	108	98	102	114	96	104
24	110	106	108	95	89	92	107	96	100	111	94	99
25	109	106	108	94	90	92	106	96	100	105	92	98
26	106	104	106	94	90	92	106	95	100	102	89	93
27	108	103	105	97	91	94	105	95	99	104	88	94
28	106	96	100	97	90	94	105	94	97	109	88	95
29	---	---	---	97	91	94	101	96	98	108	89	97
30	---	---	---	97	89	94	106	97	100	108	88	96
31	---	---	---	98	91	95	---	---	---	108	88	96
MONTH	127	96	114	101	87	94	112	89	101	117	88	100

0208062765 ROANOKE RIVER AT HALIFAX, NC--Continued

OXYGEN DISSOLVED (% OF SATURATION), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	110	90	98	92	81	85	87	65	76	88	78	81
2	109	90	98	95	81	87	87	68	74	88	76	81
3	106	89	95	95	79	86	86	66	74	88	75	80
4	104	86	93	94	78	84	84	70	75	82	74	78
5	104	83	90	93	77	83	85	70	76	76	69	72
6	102	83	90	93	75	82	85	72	77	77	69	70
7	106	84	93	---	---	---	85	66	73	78	69	72
8	106	81	92	95	70	80	82	67	73	81	65	75
9	105	84	92	98	78	82	83	68	73	85	75	79
10	105	83	92	91	79	85	80	67	72	82	71	76
11	105	85	92	94	79	86	83	66	73	85	74	79
12	104	82	89	93	77	84	83	67	72	88	75	81
13	96	83	88	84	79	82	80	66	71	90	75	81
14	98	81	88	88	82	85	---	---	---	90	70	79
15	98	82	87	87	82	84	---	---	---	76	73	75
16	88	78	82	96	81	89	---	---	---	78	75	77
17	86	78	81	85	79	82	---	---	---	77	68	74
18	95	81	85	98	83	90	90	74	80	69	65	66
19	97	82	89	101	84	92	91	76	82	73	68	69
20	96	79	85	100	79	86	90	71	78	78	70	72
21	90	83	86	96	71	79	89	72	78	78	73	74
22	92	83	86	90	70	74	91	75	81	83	70	74
23	95	84	88	84	73	76	88	69	76	80	71	75
24	98	83	90	84	71	74	90	74	80	79	72	76
25	102	91	95	86	68	74	91	72	78	81	73	77
26	103	89	96	88	74	80	88	75	79	80	72	77
27	---	---	---	90	73	80	91	71	80	78	72	75
28	101	88	93	90	70	75	92	71	79	76	71	73
29	100	87	92	88	69	75	89	71	77	78	72	74
30	100	82	89	86	70	77	90	74	79	82	72	76
31	---	---	---	85	69	73	89	76	80	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	90	65	76



Highway 33 completely covered by the Tar River at the U.S. highway 64 interchange near Tarboro, N.C., September 1999.

02081000 ROANOKE RIVER NEAR SCOTLAND NECK, NC

LOCATION.--Lat 36°12'34", long 77°23'03", 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 mi^2.

PERIOD OF RECORD.--March 1974 to current year. Discharge records from August 1940 to September 1956.

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

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

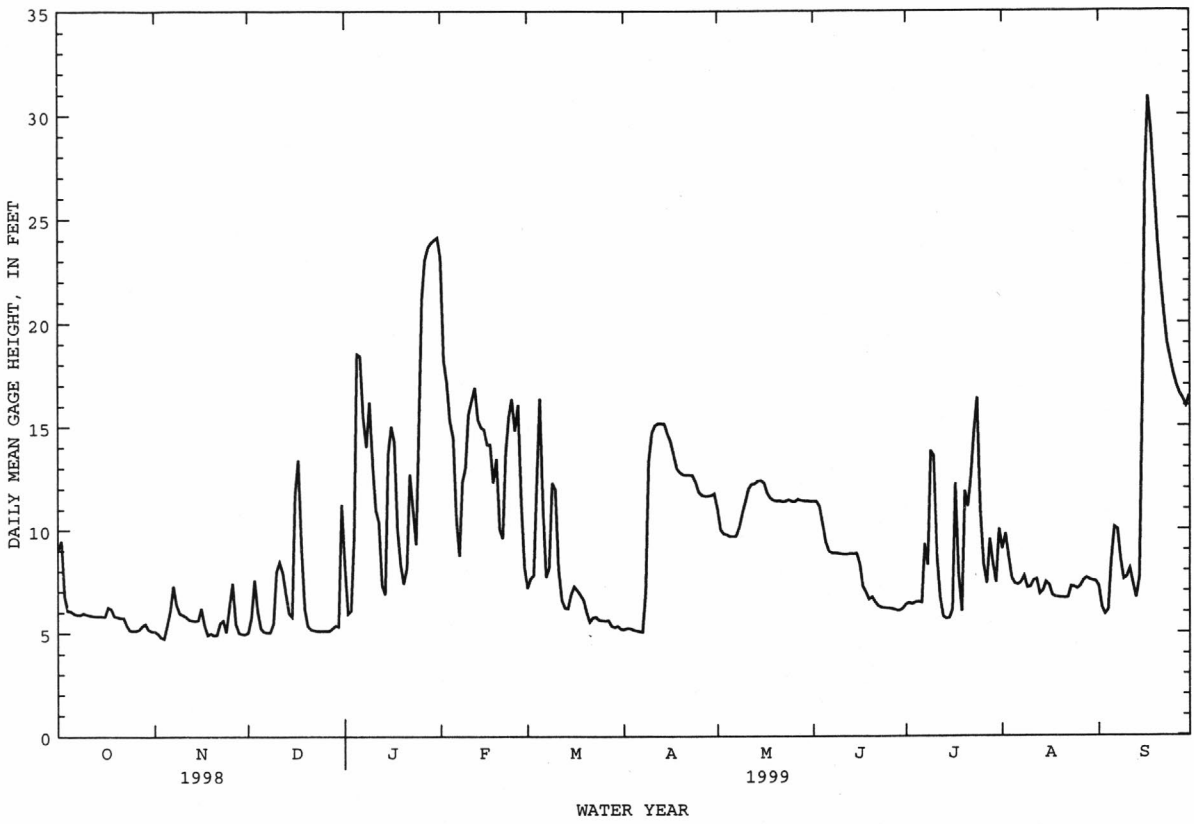
EXTREMES FOR CURRENT YEAR.--Maximum, 31.03 ft, Sept. 17; minimum, 4.66 ft, Nov. 5.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.07	5.10	5.03	8.32	23.13	7.19	5.18	11.01	11.39	6.39	9.07	7.23
2	9.48	5.00	5.78	5.95	18.21	7.64	5.24	10.01	11.39	6.45	9.80	6.22
3	6.79	4.81	7.57	6.10	17.17	7.81	5.23	9.81	11.12	6.40	8.67	5.89
4	6.09	4.75	6.07	9.71	15.31	12.18	5.17	9.78	10.28	6.48	7.65	6.08
5	6.08	5.40	5.24	18.53	14.50	16.38	5.12	9.68	9.40	6.51	7.38	8.51
6	5.96	6.09	5.07	18.43	10.57	11.12	5.09	9.69	8.96	6.46	7.33	10.11
7	5.91	7.29	5.04	15.42	8.74	7.71	5.05	9.69	8.87	9.31	7.44	9.99
8	5.90	6.37	5.04	14.03	12.34	8.17	7.06	10.13	8.87	8.28	7.74	8.53
9	5.99	5.97	5.48	16.21	13.02	12.30	13.31	10.81	8.85	13.84	7.17	7.58
10	5.92	5.89	7.98	13.19	15.61	11.98	14.70	11.37	8.82	13.56	7.23	7.69
11	5.88	5.81	8.44	10.98	16.26	8.10	15.07	12.00	8.81	8.75	7.53	8.10
12	5.86	5.67	7.93	10.39	16.91	6.60	15.16	12.22	8.81	6.71	7.58	7.37
13	5.84	5.63	6.91	7.34	15.35	6.23	15.16	12.24	8.84	5.80	6.87	6.68
14	5.84	5.60	5.98	6.87	14.98	6.20	15.15	12.38	8.82	5.69	7.02	7.64
15	5.83	5.63	5.80	13.67	14.87	6.88	14.69	12.40	8.85	5.72	7.45	16.59
16	5.82	6.21	11.68	15.03	14.16	7.27	14.30	12.29	8.33	6.13	7.29	26.93
17	6.26	5.42	13.43	14.31	14.16	7.08	13.62	11.79	7.25	12.25	6.80	30.88
18	6.18	4.91	9.18	10.05	12.31	6.86	12.98	11.55	6.98	7.88	6.72	29.24
19	5.84	5.00	6.18	8.35	13.46	6.60	12.81	11.44	6.63	6.04	6.71	26.54
20	5.79	4.90	5.34	7.41	10.05	6.01	12.69	11.40	6.73	11.88	6.69	23.97
21	5.75	4.93	5.19	8.16	9.60	5.55	e12.68	11.42	6.49	11.12	6.68	22.01
22	5.75	5.49	5.15	12.73	13.71	e5.75	12.68	11.37	6.30	12.68	6.69	20.42
23	5.39	5.62	5.12	11.01	15.46	e5.80	12.66	11.39	6.23	14.78	7.24	18.99
24	5.15	5.04	5.11	9.31	16.37	e5.64	12.32	11.47	6.21	16.38	7.21	18.24
25	5.13	6.30	5.12	15.16	14.83	5.62	11.85	11.38	6.19	10.94	7.13	17.51
26	e5.13	7.42	5.12	21.17	16.08	5.60	11.70	11.37	6.18	8.30	7.26	16.95
27	e5.18	5.46	5.12	23.07	11.18	5.63	11.65	11.48	6.15	7.39	7.53	16.56
28	5.37	5.03	5.25	23.66	8.20	5.36	11.65	11.43	6.09	9.55	7.65	16.30
29	5.46	4.96	5.37	23.89	---	5.29	11.68	11.41	6.09	8.36	7.56	15.96
30	5.18	4.95	5.32	24.02	---	5.35	11.76	11.40	6.19	7.43	7.51	16.44
31	5.11	---	11.26	24.13	---	5.20	---	11.39	---	10.05	7.47	---
MEAN	5.97	5.55	6.53	13.76	14.16	7.45	11.11	11.20	8.00	8.95	7.42	14.70
MAX	9.48	7.42	13.43	24.13	23.13	16.38	15.16	12.40	11.39	16.38	9.80	30.88
MIN	5.11	4.75	5.03	5.95	8.20	5.20	5.05	9.68	6.09	5.69	6.68	5.89

e Estimated.

02081000 ROANOKE RIVER NEAR SCOTLAND NECK, NC--Continued



360533077131601 BIG SWASH TRANSECT (SITE #1)

LOCATION.--Lat 36°05'34", long 77°13'15", North American Datum of 1983, Bertie County, Hydrologic Unit 03010107, approximately 3.5 mi southwest of Lewiston and 0.5 mi from end of pavement on Weeping Mary Road.

DRAINAGE AREA.--Indeterminate.

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

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

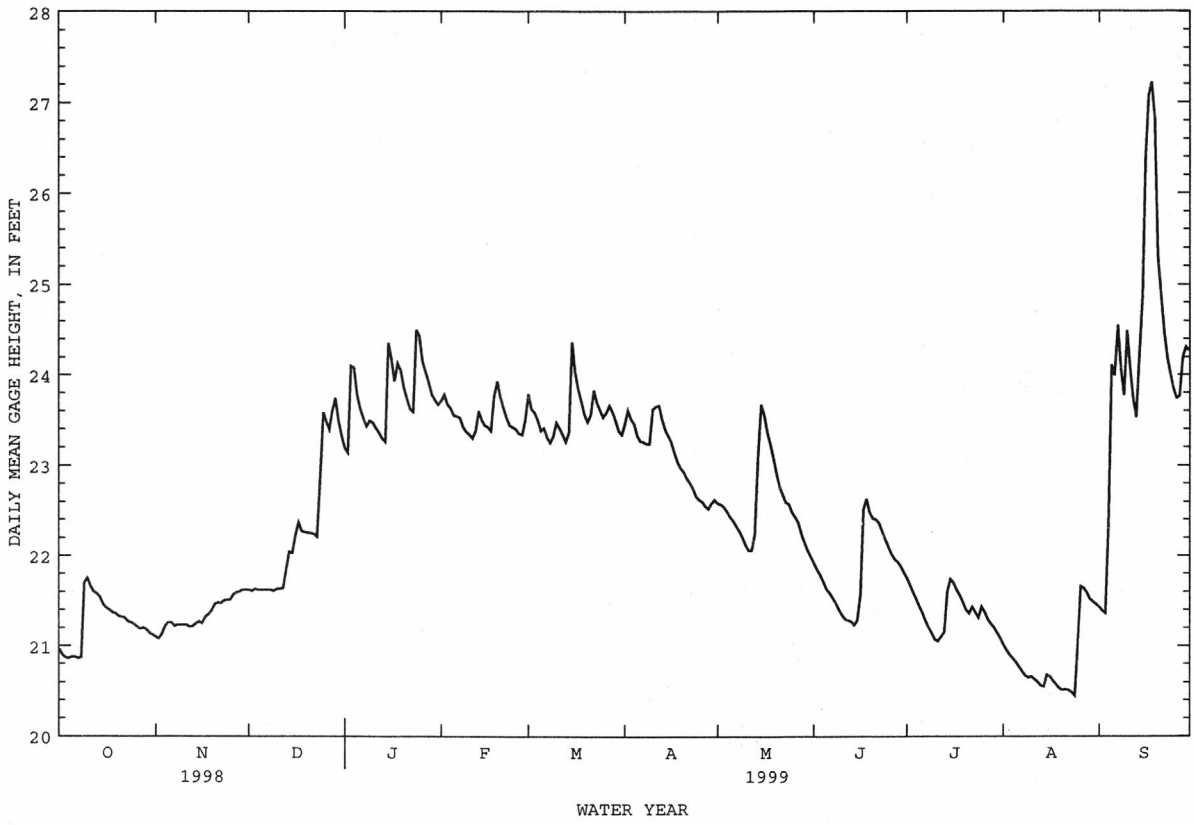
EXTREMES FOR PERIOD OF RECORD.--Maximum, 27.24 ft, Sept. 18, 1999; minimum, 20.35 ft, Aug. 26, 1997.

EXTREMES FOR CURRENT YEAR.--Maximum, 27.24 ft, Sept. 18; minimum, 20.44 ft, Aug. 23-25.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.96	21.10	21.62	23.19	23.71	23.79	23.46	22.58	21.92	21.75	21.01	21.43
2	20.90	21.08	21.61	23.14	23.78	23.62	23.61	22.57	21.85	21.67	20.95	21.39
3	20.87	21.13	21.63	24.10	23.67	23.58	23.51	22.54	21.79	21.59	20.90	21.36
4	20.86	21.22	21.62	24.08	23.63	23.50	23.46	22.49	21.72	21.51	20.86	22.38
5	20.88	21.26	21.62	23.78	23.55	23.38	23.33	22.43	21.64	21.43	20.82	24.11
6	20.88	21.26	21.62	23.62	23.54	23.41	23.27	22.39	21.59	21.36	20.77	23.99
7	20.86	21.22	21.62	23.51	23.52	23.31	23.26	22.33	21.54	21.27	20.72	24.55
8	20.87	21.23	21.62	23.43	23.42	23.25	23.24	22.27	21.48	21.20	20.67	24.06
9	21.70	21.23	21.61	23.49	23.37	23.32	23.24	22.20	21.41	21.14	20.65	23.77
10	21.75	21.23	21.63	23.47	23.34	23.47	23.62	22.12	21.35	21.07	20.66	24.49
11	21.66	21.23	21.63	23.41	23.30	23.41	23.65	22.06	21.30	21.05	20.63	24.08
12	21.60	21.21	21.64	23.36	23.38	23.34	23.66	22.06	21.28	21.10	20.60	23.74
13	21.58	21.22	21.84	23.30	23.60	23.26	23.51	22.24	21.27	21.15	20.56	23.53
14	21.54	21.25	22.04	23.26	23.50	23.36	23.40	23.07	21.23	21.60	20.55	24.26
15	21.46	21.27	22.03	24.36	23.44	24.37	23.33	23.67	21.28	21.74	20.68	24.88
16	21.42	21.25	22.22	24.18	23.42	24.03	23.26	23.55	21.56	21.70	20.66	26.40
17	21.40	21.32	22.37	23.93	23.38	23.84	23.14	23.36	22.51	21.62	20.61	27.08
18	21.37	21.35	22.27	24.13	23.76	23.71	23.04	23.23	22.63	21.56	20.57	27.22
19	21.36	21.39	22.26	24.05	23.93	23.56	22.97	23.08	22.48	21.48	20.53	26.82
20	21.33	21.46	22.25	23.86	23.75	23.48	22.93	22.91	22.41	21.40	20.51	25.31
21	21.32	21.48	22.25	23.73	23.63	23.56	22.86	22.77	22.40	21.36	20.52	24.87
22	21.31	21.47	22.24	23.62	23.52	23.83	22.81	22.68	22.36	21.43	20.51	24.47
23	21.27	21.50	22.21	23.59	23.44	23.69	22.75	22.59	22.27	21.37	20.49	24.19
24	21.26	21.51	22.89	24.50	23.42	23.61	22.66	22.57	22.18	21.31	20.45	24.01
25	21.24	21.51	23.58	24.43	23.40	23.53	22.62	22.48	22.10	21.43	21.03	23.85
26	21.21	21.57	23.48	24.15	23.35	23.58	22.60	22.43	22.02	21.37	21.66	23.74
27	21.19	21.59	23.39	24.03	23.34	23.66	22.55	22.37	21.96	21.29	21.64	23.76
28	21.20	21.60	23.60	23.91	23.50	23.59	22.52	22.25	21.93	21.24	21.59	24.20
29	21.18	21.62	23.74	23.78	---	23.49	22.58	22.15	21.88	21.20	21.52	24.31
30	21.14	21.62	23.49	23.72	---	23.38	22.62	22.06	21.81	21.14	21.49	24.27
31	21.12	---	23.32	23.67	---	23.34	---	21.99	---	21.08	21.46	---
MEAN	21.25	21.35	22.29	23.77	23.52	23.56	23.12	22.56	21.84	21.37	20.85	24.22
MAX	21.75	21.62	23.74	24.50	23.93	24.37	23.66	23.67	22.63	21.75	21.66	27.22
MIN	20.86	21.08	21.61	23.14	23.30	23.25	22.52	21.99	21.23	21.05	20.45	21.36

360533077131601 BIG SWASH TRANSECT (SITE #1)--Continued



360356077172601 BIG SWASH TRANSECT (SITE #2)

LOCATION.--Lat 36°03'57", long 77°17'25", North American Datum of 1983, Bertie County, Hydrologic Unit 03010107, approximately 2.3 mi east of Palmyra and 6.2 mi from end of pavement on Weeping Mary Road.

DRAINAGE AREA.--Indeterminate.

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

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

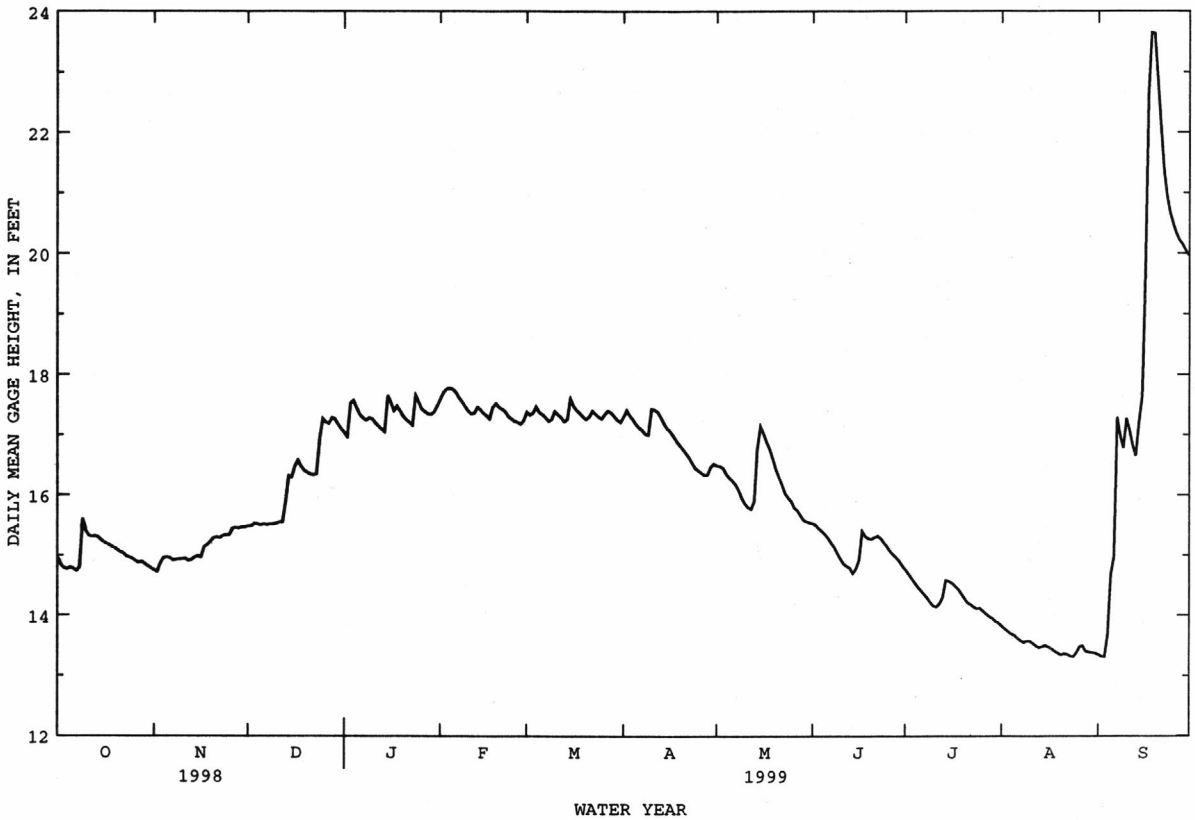
EXTREMES FOR PERIOD OF RECORD.--Maximum, 23.80 ft, Sept. 18, 19, 1999; minimum, 13.29 ft, Aug. 24, 25, 1999.

EXTREMES FOR CURRENT YEAR.--Maximum, 23.80 ft, Sept. 18, 19; minimum, 13.29 ft, Aug. 24, 25.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.96	14.75	15.49	17.04	17.59	17.38	17.30	16.49	15.53	14.76	13.82	13.35
2	14.84	14.73	15.49	16.97	17.70	17.33	17.41	16.48	15.50	14.69	13.77	13.32
3	14.79	14.87	15.53	17.53	17.76	17.36	17.32	16.45	15.44	14.62	13.73	13.31
4	14.77	14.96	15.52	17.57	17.78	17.47	17.26	16.35	15.40	14.54	13.69	13.67
5	14.80	14.97	15.51	17.45	17.76	17.37	17.18	16.29	15.35	14.47	13.67	14.68
6	14.78	14.96	15.52	17.34	17.71	17.34	17.12	16.24	15.28	14.41	13.62	14.97
7	14.74	14.92	15.51	17.28	17.62	17.29	17.08	16.18	15.20	14.35	13.58	17.29
8	14.80	14.93	15.52	17.24	17.55	17.23	17.02	16.08	15.13	14.29	13.55	16.99
9	15.61	14.94	15.52	17.28	17.47	17.26	17.00	15.95	15.03	14.22	13.57	16.78
10	15.41	14.94	15.53	17.27	17.40	17.39	17.43	15.86	14.94	14.16	13.57	17.27
11	15.33	14.95	15.55	17.20	17.35	17.34	17.42	15.80	14.86	14.14	13.53	17.08
12	15.31	14.91	15.55	17.15	17.36	17.29	17.38	15.77	14.82	14.19	13.49	16.83
13	15.32	14.93	15.89	17.10	17.46	17.22	17.29	15.90	14.79	14.30	13.46	16.65
14	15.30	14.97	16.32	17.05	17.42	17.26	17.19	16.76	14.70	14.58	13.48	17.21
15	15.25	14.99	16.30	17.65	17.36	17.60	17.11	17.14	14.78	14.57	13.50	17.63
16	15.21	14.97	16.48	17.54	17.32	17.48	17.06	17.02	14.93	14.54	13.47	19.60
17	15.19	15.14	16.58	17.40	17.27	17.41	16.98	16.88	15.40	14.49	13.44	22.63
18	15.16	15.18	16.48	17.48	17.46	17.36	16.90	16.76	15.32	14.44	13.40	23.65
19	15.13	15.23	16.41	17.40	17.52	17.30	16.83	16.60	15.28	14.36	13.37	23.64
20	15.10	15.29	16.38	17.31	17.46	17.26	16.77	16.43	15.27	14.28	13.34	22.89
21	15.06	15.30	16.35	17.25	17.43	17.30	16.70	16.30	15.30	14.21	13.36	22.07
22	15.04	15.29	16.34	17.21	17.39	17.40	16.63	16.18	15.32	14.18	13.35	21.38
23	14.99	15.33	16.35	17.16	17.31	17.35	16.54	16.03	15.28	14.14	13.32	20.95
24	14.97	15.34	16.94	17.66	17.27	17.30	16.45	15.96	15.21	14.11	13.31	20.67
25	14.95	15.34	17.27	17.55	17.23	17.27	16.41	15.90	15.15	14.12	13.38	20.48
26	14.91	15.45	17.21	17.43	17.21	17.35	16.37	15.79	15.07	14.07	13.48	20.33
27	14.88	15.46	17.19	17.39	17.18	17.40	16.33	15.75	15.01	14.02	13.49	20.22
28	14.90	15.45	17.28	17.35	17.24	17.37	16.34	15.67	14.96	13.98	13.40	20.15
29	14.86	15.47	17.27	17.34	---	17.31	16.47	15.59	14.90	13.95	13.39	20.05
30	14.82	15.47	17.18	17.38	---	17.25	16.52	15.56	14.82	13.90	13.38	19.97
31	14.79	---	17.10	17.48	---	17.21	---	15.54	---	13.87	13.37	---
MEAN	15.03	15.11	16.24	17.34	17.45	17.34	16.93	16.18	15.13	14.29	13.49	18.52
MAX	15.61	15.47	17.28	17.66	17.78	17.60	17.43	17.14	15.53	14.76	13.82	23.65
MIN	14.74	14.73	15.49	16.97	17.18	17.21	16.33	15.54	14.70	13.87	13.31	13.31

360356077172601 BIG SWASH TRANSECT (SITE #2)--Continued



360347077191401 BIG SWASH TRANSECT (SITE #3)

LOCATION.--Lat 36°03'48", long 77°19'13", North American Datum of 1983, Bertie County, Hydrologic Unit 03010107, approximately 1.3 mi southeast of Palmyra and 9.2 mi from end of pavement on Weeping Mary Road.

DRAINAGE AREA.--Indeterminate.

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

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

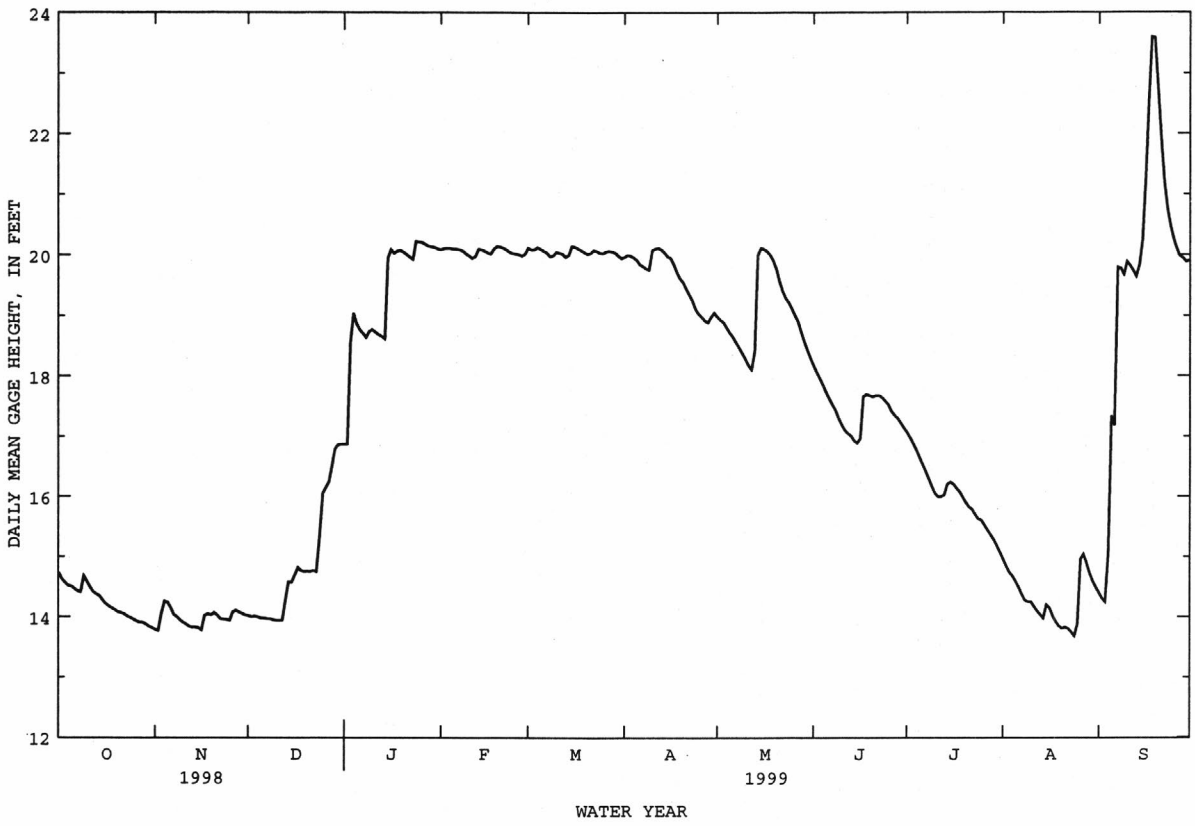
EXTREMES FOR PERIOD OF RECORD.--Maximum, 23.77 ft, Sept. 18, 19, 1999; minimum, 13.03 ft, Dec. 30, 1997.

EXTREMES FOR CURRENT YEAR.--Maximum, 23.77 ft, Sept. 18, 19; minimum, 13.65 ft, Aug. 24, 25.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.73	13.79	14.02	16.87	20.09	20.12	19.97	18.98	18.18	17.07	14.96	14.40
2	14.63	13.77	14.00	16.87	20.11	20.09	20.00	18.93	18.07	16.98	14.84	14.31
3	14.57	14.05	14.01	18.56	20.11	20.09	19.99	18.89	17.97	16.88	14.74	14.25
4	14.52	14.26	14.00	19.04	20.11	20.13	19.96	18.80	17.86	16.77	14.68	15.05
5	14.51	14.24	13.98	18.87	20.10	20.10	19.92	18.72	17.74	16.65	14.59	17.34
6	14.47	14.15	13.98	18.77	20.10	20.07	19.85	18.65	17.63	16.54	14.49	17.18
7	14.43	14.04	13.97	18.71	20.09	20.04	19.82	18.56	17.53	16.42	14.38	19.80
8	14.41	14.00	13.97	18.64	20.07	19.98	19.78	18.47	17.44	16.30	14.28	19.78
9	14.68	13.95	13.95	18.74	20.02	19.99	19.76	18.38	17.31	16.17	14.25	19.68
10	14.59	13.91	13.94	18.77	19.99	20.05	20.08	18.28	17.20	16.06	14.25	19.89
11	14.50	13.88	13.94	18.73	19.95	20.04	20.11	18.18	17.11	16.00	14.17	19.83
12	14.42	13.84	13.94	18.69	19.98	20.02	20.12	18.11	17.05	16.00	14.10	19.75
13	14.38	13.83	14.27	18.66	20.10	19.97	20.09	18.41	17.01	16.03	14.04	19.65
14	14.35	13.83	14.58	18.62	20.09	20.00	20.04	20.00	16.93	16.21	13.98	19.84
15	14.28	13.82	14.57	19.95	20.07	20.15	19.98	20.12	16.89	16.24	14.20	20.26
16	14.22	13.78	14.69	20.09	20.04	20.14	19.95	20.10	16.96	16.21	14.15	21.26
17	14.18	14.02	14.82	20.03	20.02	20.11	19.84	20.06	17.66	16.14	14.02	22.56
18	14.15	14.05	14.77	20.07	20.10	20.08	19.71	20.00	17.70	16.08	13.92	23.60
19	14.12	14.03	14.75	20.08	20.15	20.05	19.61	19.91	17.68	15.99	13.85	23.59
20	14.08	14.07	14.76	20.05	20.14	20.02	19.55	19.77	17.66	15.90	13.81	22.78
21	14.07	14.03	14.75	20.01	20.12	20.03	19.44	19.57	17.68	15.83	13.83	21.90
22	14.05	13.97	14.77	19.97	20.09	20.08	19.35	19.41	17.68	15.79	13.81	21.20
23	14.01	13.96	14.75	19.93	20.05	20.07	19.25	19.29	17.65	15.70	13.75	20.76
24	13.99	13.96	15.36	20.23	20.03	20.04	19.11	19.22	17.59	15.63	13.68	20.48
25	13.96	13.94	16.05	20.22	20.02	20.03	19.03	19.12	17.53	15.61	13.88	20.27
26	13.93	14.08	16.15	20.21	20.01	20.06	18.98	19.01	17.42	15.52	14.96	20.11
27	13.91	14.11	16.24	20.18	19.99	20.07	18.92	18.91	17.35	15.44	15.04	19.99
28	13.91	14.08	16.51	20.15	20.02	20.06	18.89	18.74	17.30	15.36	14.90	19.95
29	13.88	14.06	16.79	20.14	---	20.04	18.98	18.58	17.22	15.28	14.73	19.89
30	13.84	14.03	16.86	20.13	---	19.99	19.05	18.43	17.14	15.18	14.60	19.91
31	13.82	---	16.87	20.10	---	19.95	---	18.30	---	15.07	14.49	---
MEAN	14.24	13.98	14.84	19.36	20.06	20.05	19.64	19.03	17.47	16.03	14.30	19.64
MAX	14.73	14.26	16.87	20.23	20.15	20.15	20.12	20.12	18.18	17.07	15.04	23.60
MIN	13.82	13.77	13.94	16.87	19.95	19.95	18.89	18.11	16.89	15.07	13.68	14.25

360347077191401 BIG SWASH TRANSECT (SITE #3)--Continued



0208102115 ROANOKE RIVER NEAR HILLS FERRY, NC

LOCATION.--Lat 36°03'11", long 77°18'45", North American Datum of 1983, Halifax County, Hydrologic Unit 03010107, approximately 0.8 mi east of Palmyra on private dirt road and 75 river mi from mouth.

DRAINAGE AREA.--8,780 mi^2.

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 sea level.

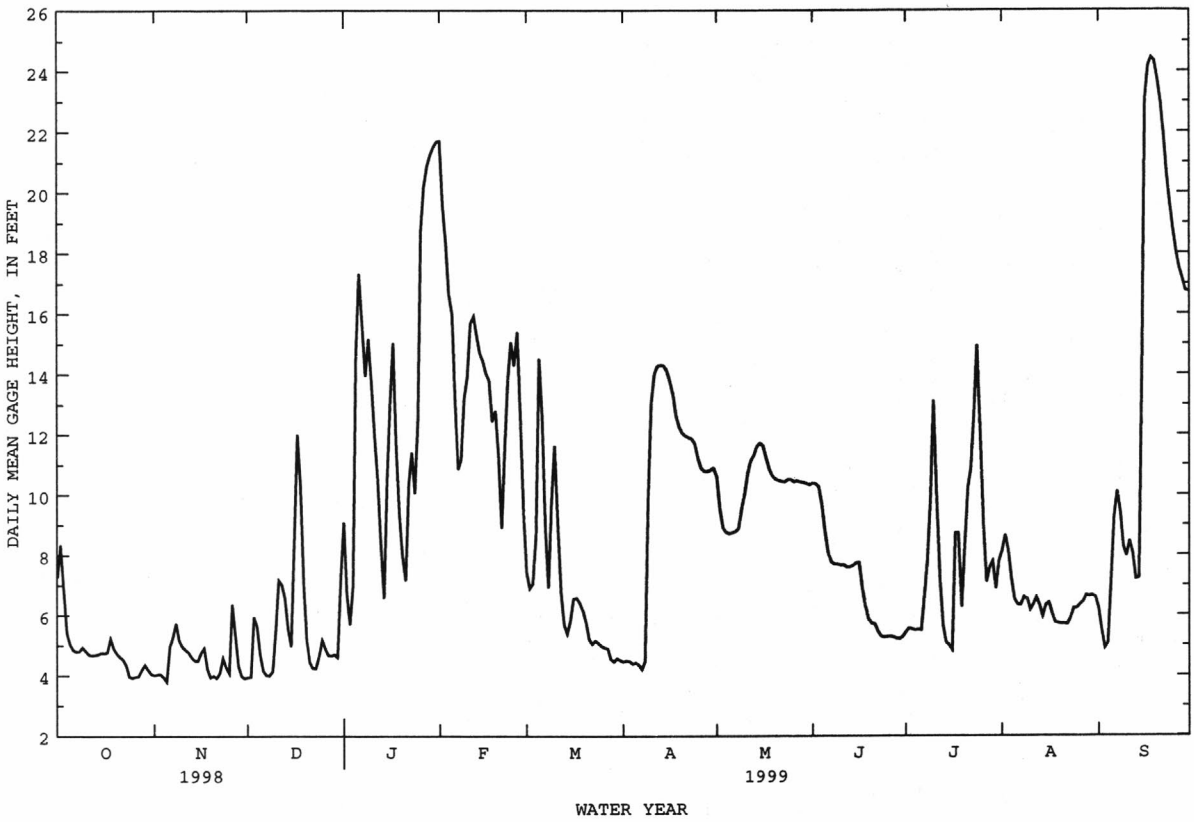
EXTREMES FOR PERIOD OF RECORD.--Maximum, 24.52 ft, Sept. 18, 19, 1999; minimum, 2.95 ft, Nov. 4, 5, 1997.

EXTREMES FOR CURRENT YEAR.--Maximum, 24.52 ft, Sept. 18, 19; minimum, 3.73 ft, Nov. 5.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.27	4.01	3.94	9.10	21.71	7.43	4.46	10.62	10.39	5.43	8.12	6.22
2	8.35	4.04	3.96	6.67	19.65	6.90	4.49	9.54	10.37	5.56	8.66	5.50
3	6.87	4.05	5.95	5.69	18.41	7.05	4.48	8.91	10.27	5.54	8.13	4.90
4	5.42	3.95	5.63	7.01	16.67	8.66	4.39	8.76	9.69	5.50	7.18	5.06
5	5.04	3.80	4.69	14.66	15.99	14.53	4.43	8.71	8.82	5.52	6.51	7.07
6	4.85	4.96	4.16	17.34	13.06	12.60	4.36	8.75	8.07	5.50	6.34	9.23
7	4.80	5.28	4.02	15.63	10.86	8.92	4.21	8.78	7.77	6.62	6.33	10.12
8	4.81	5.74	4.00	13.95	11.18	6.92	4.48	8.88	7.70	7.83	6.59	9.45
9	4.94	5.17	4.14	15.19	13.21	9.78	9.71	9.55	7.70	9.84	6.53	8.27
10	4.82	4.96	5.47	13.71	13.94	11.64	13.01	10.05	7.67	13.13	6.16	7.96
11	4.71	4.86	7.17	12.00	15.70	9.10	14.01	10.73	7.68	9.99	6.34	8.47
12	4.68	4.77	7.02	10.57	15.93	6.76	14.28	11.14	7.60	7.20	6.57	8.06
13	4.69	4.60	6.56	8.43	15.28	5.68	14.31	11.32	7.60	5.65	6.31	7.20
14	4.71	4.50	5.54	6.57	14.71	5.39	14.29	11.61	7.65	5.09	5.95	7.23
15	4.76	4.49	4.97	10.47	14.45	5.81	14.14	11.72	7.74	5.00	6.32	14.18
16	4.75	4.76	8.35	13.06	14.04	6.55	13.79	11.64	7.75	4.84	6.40	23.04
17	4.78	4.91	12.02	15.04	13.81	6.58	13.35	11.23	6.90	8.72	6.04	24.16
18	5.23	4.21	10.32	11.60	12.45	6.42	12.63	10.87	6.32	8.73	5.75	24.44
19	4.90	3.94	6.99	9.39	12.80	6.16	12.26	10.64	5.88	6.27	5.72	24.33
20	4.73	3.99	5.16	7.98	11.26	5.76	12.05	10.53	5.72	8.30	5.70	23.76
21	4.62	3.92	4.45	7.16	8.90	5.20	11.96	10.48	5.71	10.20	5.70	23.00
22	4.54	4.09	4.25	10.37	11.51	5.05	11.91	10.45	5.46	10.87	5.69	21.92
23	4.35	4.59	4.24	11.42	13.82	5.16	11.87	10.43	5.30	12.66	5.90	20.59
24	3.97	4.29	4.66	10.06	15.07	5.07	11.71	10.51	5.26	14.96	6.22	19.64
25	3.93	4.08	5.17	12.47	14.30	4.97	11.23	10.51	5.28	12.22	6.23	18.81
26	3.96	6.37	4.89	18.74	15.41	4.92	10.90	10.43	5.29	8.97	6.34	18.09
27	3.98	5.32	4.67	20.21	12.55	4.89	10.79	10.47	5.26	7.10	6.43	17.53
28	4.20	4.31	4.66	20.91	9.43	4.55	10.78	10.43	5.22	7.57	6.65	17.18
29	4.36	3.99	4.70	21.26	---	4.46	10.82	10.42	5.20	7.78	6.62	16.77
30	4.20	3.91	4.60	21.51	---	4.57	10.89	10.38	5.28	6.87	6.65	16.73
31	4.06	---	7.23	21.68	---	4.51	---	10.34	---	7.80	6.58	---
MEAN	4.88	4.53	5.60	12.90	14.15	6.84	10.20	10.28	7.09	7.98	6.47	14.30
MAX	8.35	6.37	12.02	21.68	21.71	14.53	14.31	11.72	10.39	14.96	8.66	24.44
MIN	3.93	3.80	3.94	5.69	8.90	4.46	4.21	8.71	5.20	4.84	5.69	4.90

0208102115 ROANOKE RIVER NEAR HILLS FERRY, NC--Continued



02081022 ROANOKE RIVER NEAR OAK CITY, NC

LOCATION.--Lat 36°00'50", long 77°12'55", 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 mi^2.

GAGE HEIGHT RECORDS

PERIOD OF RECORD.--July 1987 to current year (gage height records only). Several miscellaneous discharge measurements during period 1986-1998.

GAGE.--Water stage recorder. Datum of gage is sea level. Satellite telemetry at station.

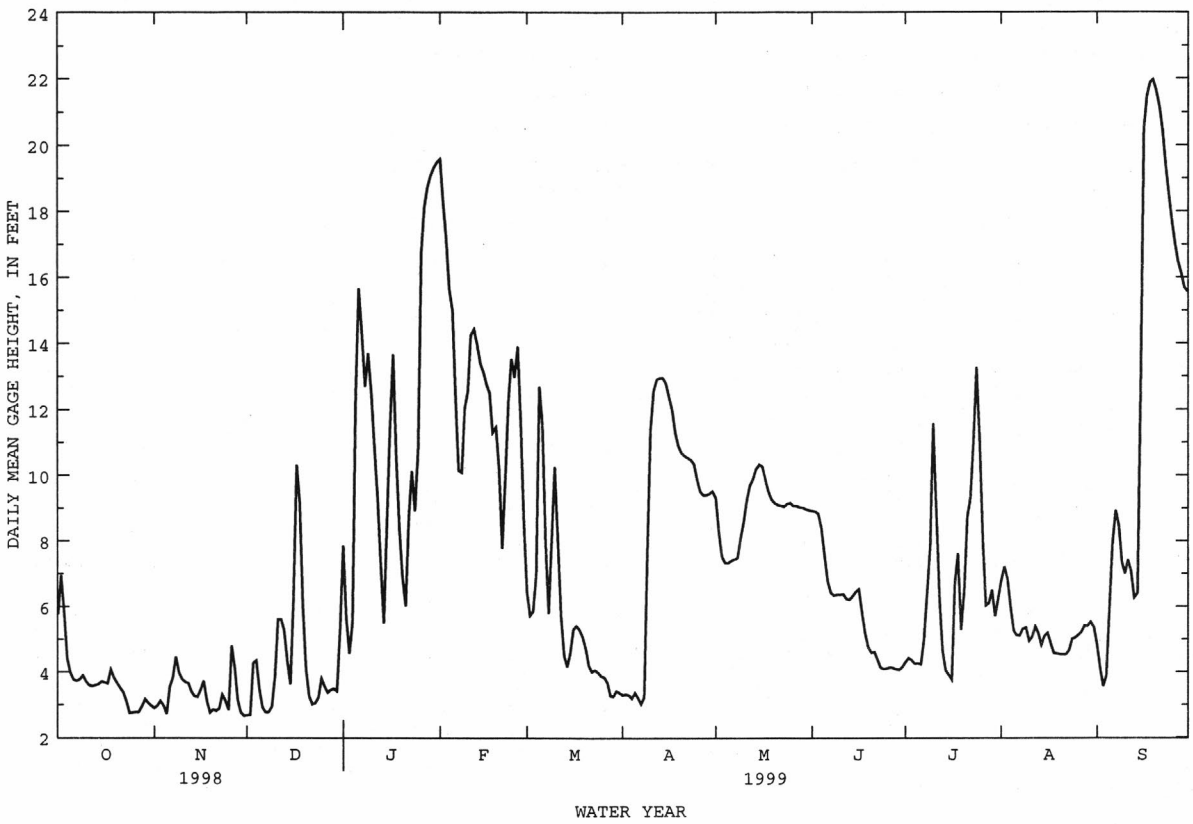
EXTREMES FOR PERIOD OF RECORD.--Maximum, 22.07 ft, Sept. 19, 1999; minimum, 2.31 ft, Nov. 5, 1997.

EXTREMES FOR CURRENT YEAR.--Maximum, 22.07 ft, Sept. 19; minimum, 2.63 ft, Dec. 1.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.76	2.90	2.68	7.86	19.59	6.45	3.30	9.31	8.92	4.30	6.79	4.82
2	6.96	2.97	2.69	5.64	18.27	5.73	3.32	8.25	8.90	4.42	7.22	4.12
3	5.83	3.11	4.28	4.56	17.20	5.85	3.30	7.53	8.83	4.36	6.84	3.56
4	4.41	2.97	4.35	5.51	15.67	6.96	3.20	7.34	8.38	4.25	5.98	3.87
5	3.98	2.72	3.47	12.37	15.00	12.70	3.37	7.33	7.55	4.26	5.27	5.87
6	3.76	3.55	2.93	15.67	12.33	11.56	3.22	7.40	6.76	4.24	5.12	7.89
7	3.73	3.82	2.77	14.29	10.15	8.00	3.03	7.44	6.42	4.99	5.11	8.93
8	3.77	4.47	2.78	12.70	10.09	5.79	3.24	7.49	6.34	6.41	5.32	8.47
9	3.89	3.99	2.95	13.71	12.05	8.03	7.58	8.10	6.36	7.83	5.35	7.35
10	3.71	3.78	3.88	12.52	12.54	10.26	11.38	8.58	6.36	11.58	4.95	7.01
11	3.59	3.69	5.61	10.89	14.26	8.10	12.57	9.23	6.38	8.98	5.07	7.42
12	3.57	3.65	5.61	9.37	14.44	5.71	12.91	9.69	6.24	6.24	5.38	7.07
13	3.59	3.40	5.26	7.43	13.97	4.50	12.96	9.89	6.21	4.65	5.18	6.27
14	3.63	3.26	4.32	5.49	13.41	4.17	12.96	10.19	6.32	4.05	4.82	6.40
15	3.71	3.24	3.63	8.55	13.14	4.59	12.80	10.33	6.45	3.91	5.09	12.58
16	3.68	3.46	6.27	11.45	12.77	5.30	12.40	10.27	6.53	3.76	5.19	20.50
17	3.65	3.73	10.32	13.67	12.51	5.41	11.99	9.89	5.82	6.72	4.86	21.46
18	4.08	3.10	9.17	10.57	11.30	5.30	11.31	9.51	5.18	7.62	4.57	21.87
19	3.83	2.76	5.96	8.36	11.46	5.07	10.91	9.27	4.76	5.29	4.56	21.96
20	3.66	2.86	4.07	6.92	10.21	4.71	10.69	9.16	4.59	6.46	4.54	21.63
21	3.51	2.82	3.26	6.01	7.78	4.19	10.60	9.10	4.61	8.74	4.53	21.16
22	3.37	2.88	3.02	8.68	9.88	4.01	10.54	9.08	4.37	9.32	4.53	20.44
23	3.10	3.31	3.05	10.13	12.26	4.06	10.48	9.05	4.13	11.00	4.66	19.40
24	2.75	3.13	3.22	8.92	13.55	3.99	10.35	9.13	4.09	13.28	5.01	18.54
25	2.76	2.84	3.80	10.81	12.98	3.88	9.88	9.16	4.11	11.16	5.05	17.75
26	2.78	4.80	3.56	16.72	13.91	3.84	9.52	9.07	4.14	7.98	5.13	17.05
27	2.78	4.15	3.37	18.13	11.53	3.67	9.40	9.07	4.12	6.03	5.22	16.48
28	2.96	3.14	3.45	18.76	8.51	3.27	9.40	9.03	4.08	6.10	5.41	16.11
29	3.17	2.77	3.49	19.09	---	3.26	9.44	9.02	4.07	6.50	5.40	15.69
30	3.06	2.66	3.41	19.32	---	3.42	9.52	8.97	4.15	5.70	5.52	15.57
31	2.97	---	5.34	19.50	---	3.37	---	8.94	---	6.24	5.36	---
MEAN	3.74	3.33	4.26	11.41	12.88	5.65	8.85	8.90	5.84	6.66	5.26	12.91
MAX	6.96	4.80	10.32	19.50	19.59	12.70	12.96	10.33	8.92	13.28	7.22	21.96
MIN	2.75	2.66	2.68	4.56	7.78	3.26	3.03	7.33	4.07	3.76	4.53	3.56

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 U.S. Fish and Wildlife Service to define water-quality characteristics in the Roanoke River Basin below Roanoke Rapids Dam. Partial record site from October 1967 to September 1973.

EXTREMES FOR PERIOD OF DAILY RECORD.--

CONSTITUENT	MAXIMUM RECORDED	MINIMUM RECORDED
SPECIFIC CONDUCTANCE, microsiemens	170, April 6, 1999	52, September 17, 1999
pH, standard units	7.5, July 21, 1999	6.1, September 17, 1999
WATER TEMPERATURE, °C	30.7, August 2, 1999	5.6, January 7, 1999
DISSOLVED OXYGEN, mg/L	15.5, January 6, 7, 1999	3.5, September 23, 24 1999
DISSOLVED OXYGEN, PERCENT SATURATION,%	123, January 6,7, 1999	38, September 23, 1999

EXTREMES FOR CURRENT YEAR.--

CONSTITUENT	MAXIMUM RECORDED	MINIMUM RECORDED
SPECIFIC CONDUCTANCE, microsiemens	170, April 6	52, September 17
pH, standard units	7.5, July 21	6.1, September 17
WATER TEMPERATURE, °C	30.7, August 2	5.6, January 7
DISSOLVED OXYGEN, mg/L	15.5, January 7	3.5, September 23
DISSOLVED OXYGEN, PERCENT SATURATION,%	123, January 6,7	38, September 23

02081022 ROANOKE RIVER NEAR OAK CITY, NC--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	132	122	127	134	131	132	---	---	---	134	111	122
2	133	119	125	137	134	135	145	139	142	113	110	111
3	130	118	123	137	134	135	140	136	138	121	113	116
4	122	118	119	136	134	135	139	114	131	130	121	128
5	138	122	133	---	---	---	125	112	115	125	113	118
6	142	137	139	143	136	140	142	125	137	115	113	114
7	142	139	140	145	117	138	143	130	138	117	114	115
8	145	139	141	138	113	125	143	140	142	123	115	117
9	146	142	144	136	111	117	---	---	---	126	118	121
10	146	144	145	129	115	125	142	139	140	121	118	119
11	146	144	145	130	128	129	139	118	130	123	119	121
12	146	143	144	131	128	129	122	115	117	131	118	123
13	145	143	143	134	131	132	119	116	118	143	118	131
14	146	143	144	136	133	134	119	118	118	129	121	125
15	146	143	144	135	133	134	124	118	120	144	124	135
16	145	144	144	136	134	135	130	122	125	132	102	113
17	145	144	144	135	132	134	123	109	113	119	100	111
18	146	145	146	134	126	131	114	110	111	110	106	108
19	147	144	146	134	126	128	115	110	112	107	106	106
20	147	135	141	142	131	141	116	112	113	116	107	113
21	148	146	147	142	140	141	134	116	127	121	115	117
22	148	141	144	142	136	139	136	134	135	136	121	129
23	141	139	139	143	141	142	149	135	137	131	117	120
24	142	139	141	142	133	138	140	133	135	124	112	118
25	141	139	140	144	127	135	138	131	133	115	106	112
26	143	140	142	148	132	145	131	118	126	113	109	111
27	143	141	142	150	115	134	130	117	123	115	111	113
28	143	131	138	122	113	115	130	126	128	117	115	116
29	133	131	132	144	122	138	126	125	125	118	117	117
30	132	130	130	---	---	---	126	125	125	120	118	119
31	131	128	130	---	---	---	132	125	128	121	120	120
MONTH	148	118	139	---	---	---	---	---	---	144	100	118

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	121	121	121	145	131	136	---	---	---	118	116	117
2	121	115	118	145	137	141	---	---	---	118	115	116
3	126	114	116	145	137	143	---	---	---	116	115	115
4	126	119	120	144	136	140	169	166	168	118	112	115
5	125	120	123	145	128	135	169	166	168	121	113	116
6	127	122	123	130	127	128	170	164	167	123	121	122
7	123	121	122	131	128	130	167	166	166	124	122	123
8	134	123	130	148	130	133	166	162	163	124	123	123
9	136	126	130	154	138	151	166	136	160	123	122	122
10	136	129	131	138	125	130	136	133	134	122	120	120
11	139	130	133	137	127	131	133	129	131	121	117	119
12	138	131	132	137	133	134	129	127	128	118	115	116
13	137	130	131	154	134	147	127	125	126	115	114	115
14	135	131	133	156	149	154	126	125	125	115	113	114
15	135	133	134	154	149	153	125	124	124	115	113	114
16	134	134	134	151	146	150	125	124	124	118	114	115
17	137	133	134	146	130	136	124	123	124	120	118	119
18	137	132	135	138	129	134	124	122	123	119	118	119
19	139	132	135	---	---	---	124	123	124	120	118	119
20	136	131	133	---	---	---	124	123	124	122	120	120
21	136	131	133	---	---	---	123	121	122	124	122	122
22	148	132	139	---	---	---	121	120	121	126	124	124
23	134	132	133	161	156	160	122	121	121	126	124	125
24	135	130	132	160	151	156	121	120	121	126	125	125
25	136	130	132	151	149	150	121	119	120	125	123	124
26	140	129	133	155	150	153	121	120	121	126	123	124
27	130	129	129	158	155	156	121	120	120	125	124	124
28	137	130	133	---	---	---	120	118	119	126	124	125
29	---	---	---	162	153	159	120	118	119	127	124	126
30	---	---	---	165	156	163	118	117	117	128	126	126
31	---	---	---	---	---	---	---	---	---	128	127	127
MONTH	148	114	130	---	---	---	---	---	---	128	112	120

02081022 ROANOKE RIVER NEAR OAK CITY, NC--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	128	126	126	126	122	124	132	115	126	140	135	138
2	127	125	126	127	123	125	131	114	123	136	129	131
3	127	125	126	129	127	128	128	116	121	140	132	137
4	127	125	126	130	127	129	129	117	122	145	140	143
5	130	127	128	130	130	130	131	118	126	142	130	137
6	132	129	131	130	127	129	134	130	132	130	102	117
7	133	130	131	---	---	---	136	132	134	107	98	102
8	132	129	131	130	117	125	136	133	135	112	99	105
9	131	129	130	127	115	118	137	131	134	111	105	108
10	131	130	131	127	115	119	134	131	132	119	110	115
11	134	131	132	121	115	118	136	127	133	118	113	116
12	134	133	133	122	116	117	133	131	132	113	110	111
13	134	131	133	133	122	130	134	132	133	120	110	113
14	132	131	131	131	128	129	135	129	134	122	104	116
15	132	129	131	134	129	132	141	134	139	130	91	119
16	131	130	130	138	134	136	139	130	134	94	53	71
17	130	129	130	140	137	139	143	136	138	55	52	53
18	---	---	---	139	119	124	142	137	138	62	55	59
19	---	---	---	123	119	121	145	141	143	62	60	62
20	---	---	---	139	120	130	146	142	145	65	61	62
21	---	---	---	133	110	116	146	142	144	70	65	68
22	---	---	---	128	111	116	146	143	145	75	70	72
23	---	---	---	130	112	118	146	144	145	78	74	77
24	---	---	---	127	112	117	146	143	144	83	78	81
25	122	118	119	118	112	113	143	139	140	86	83	84
26	124	121	122	125	113	116	140	130	138	87	84	86
27	125	123	124	125	118	122	140	135	138	90	86	88
28	126	123	124	124	118	121	140	138	139	90	87	88
29	126	124	125	128	115	124	139	138	138	91	88	90
30	124	123	124	130	115	121	142	134	139	94	91	93
31	---	---	---	132	123	129	143	137	140	---	---	---
MONTH	---	---	---	---	---	---	146	114	136	145	52	98

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

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

02081022 ROANOKE RIVER NEAR OAK CITY, NC--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

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

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

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

02081022 ROANOKE RIVER NEAR OAK CITY, NC--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	26.2	26.0	26.1	17.2	16.6	16.9	13.8	13.2	13.6	6.9	6.5	6.7
2	26.1	24.8	25.2	16.7	16.2	16.5	13.9	13.4	13.7	6.7	6.0	6.2
3	24.8	24.1	24.5	16.6	15.9	16.2	14.1	13.4	13.8	7.5	6.1	7.0
4	24.4	23.0	23.7	15.9	14.6	15.3	13.9	13.3	13.7	7.5	7.3	7.4
5	23.0	22.3	22.6	14.6	12.9	13.9	14.2	13.7	14.0	7.7	6.2	7.0
6	23.0	22.2	22.6	13.3	12.8	13.1	14.9	13.9	14.4	6.2	5.7	5.8
7	23.1	22.3	22.7	13.3	12.5	12.9	15.6	14.8	15.2	5.9	5.6	5.8
8	23.2	22.8	23.0	13.4	13.0	13.2	16.4	15.6	15.9	6.4	5.8	6.2
9	23.1	22.5	22.8	13.9	13.4	13.6	---	---	---	7.1	6.2	6.8
10	22.7	22.0	22.3	14.6	13.5	14.0	15.5	14.1	14.7	7.1	6.7	6.9
11	22.2	21.5	21.8	15.7	14.6	15.2	14.1	13.0	13.6	6.7	6.5	6.5
12	21.9	21.0	21.4	15.5	14.7	15.2	13.4	12.9	13.1	6.6	6.1	6.4
13	21.8	20.8	21.2	14.7	14.1	14.4	13.3	12.9	13.1	7.3	6.1	6.7
14	21.7	21.0	21.3	14.1	13.2	13.6	12.9	11.9	12.5	8.0	7.2	7.6
15	21.3	20.5	20.9	13.8	13.0	13.4	11.9	11.2	11.5	9.1	8.0	8.6
16	20.8	20.0	20.4	14.2	13.2	13.7	11.4	10.8	11.0	8.3	7.4	7.8
17	20.2	19.5	19.8	15.2	14.2	14.7	12.1	11.4	11.8	8.0	7.3	7.6
18	20.4	19.3	19.8	15.1	14.4	14.9	11.4	10.6	11.0	8.3	7.5	7.9
19	20.8	19.9	20.4	14.5	13.9	14.2	10.6	10.1	10.3	8.6	8.3	8.4
20	21.5	20.6	21.0	14.7	14.5	14.7	10.6	10.2	10.4	9.1	8.5	8.8
21	20.9	20.0	20.5	14.7	13.9	14.3	11.0	10.4	10.6	9.3	8.9	9.1
22	20.0	18.0	19.1	14.0	13.5	13.7	11.8	11.0	11.5	9.5	8.9	9.2
23	18.0	16.6	17.2	13.7	13.2	13.5	11.6	10.2	10.9	9.5	8.8	9.1
24	16.6	15.8	16.3	13.8	13.2	13.5	10.2	8.5	9.4	10.5	9.5	10.0
25	16.8	15.9	16.3	13.4	12.8	13.2	8.5	7.1	7.8	11.1	10.4	10.8
26	17.2	16.2	16.7	13.9	13.3	13.6	7.1	6.7	6.9	10.9	9.1	9.6
27	17.4	17.0	17.2	13.7	13.0	13.3	6.7	6.1	6.4	9.1	8.8	9.0
28	17.9	17.1	17.4	13.3	12.8	13.1	7.1	6.4	6.7	8.8	8.4	8.6
29	18.1	17.4	17.7	12.9	12.4	12.7	7.5	7.1	7.2	8.9	8.5	8.7
30	17.8	17.0	17.5	13.2	12.4	12.8	7.6	7.3	7.5	9.0	8.7	8.8
31	17.6	17.1	17.4	---	---	---	7.3	6.5	6.9	8.9	8.6	8.7
MONTH	26.2	15.8	20.5	17.2	12.4	14.1	---	---	---	11.1	5.6	7.9

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	8.7	8.4	8.5	9.0	8.4	8.6	15.1	14.1	14.6	15.9	15.5	15.6
2	8.8	8.5	8.6	9.4	8.4	8.8	16.4	14.8	15.5	15.6	14.8	15.2
3	9.3	8.7	8.9	9.6	8.8	9.2	17.1	15.5	16.3	16.0	14.3	15.1
4	9.3	9.1	9.2	9.7	9.1	9.3	17.9	16.4	17.1	16.9	15.2	15.9
5	9.4	8.9	9.1	9.5	8.4	8.8	18.3	17.5	17.9	18.0	16.3	17.1
6	9.3	8.9	9.1	8.9	8.6	8.8	17.8	16.8	17.2	18.5	17.3	17.8
7	9.5	9.2	9.4	9.1	8.6	8.9	17.7	16.5	17.1	19.1	17.6	18.3
8	10.3	9.5	9.9	9.4	8.6	8.9	19.2	17.2	18.0	20.2	18.4	19.3
9	10.2	9.6	9.7	8.6	7.3	8.1	18.9	17.5	18.3	21.2	19.0	20.0
10	10.1	9.5	9.8	7.9	7.5	7.8	17.7	17.4	17.5	21.7	20.0	20.9
11	10.3	9.7	9.9	8.2	7.5	7.8	17.4	16.4	17.1	21.6	20.6	21.2
12	10.5	10.0	10.2	8.6	7.7	8.2	16.4	15.1	15.8	21.0	19.9	20.7
13	10.6	9.9	10.2	8.9	8.0	8.4	15.7	14.9	15.3	20.9	19.8	20.3
14	9.9	8.9	9.6	8.8	8.3	8.6	15.8	15.3	15.6	20.5	19.1	19.9
15	9.0	8.7	8.9	8.6	7.7	8.3	15.5	15.0	15.3	19.2	17.6	18.7
16	8.9	8.7	8.8	8.3	7.4	7.8	15.7	15.0	15.4	18.0	17.2	17.6
17	9.4	8.9	9.1	9.1	7.8	8.4	15.5	15.3	15.5	18.7	18.0	18.4
18	9.9	9.2	9.6	10.9	8.9	10.0	15.9	15.2	15.5	19.0	17.9	18.5
19	9.9	9.2	9.4	12.5	10.7	11.7	15.7	15.0	15.3	19.6	18.4	19.0
20	9.3	8.9	9.1	13.0	11.8	12.3	16.0	15.2	15.6	20.1	18.9	19.4
21	9.1	8.8	8.9	12.8	12.0	12.3	16.4	15.5	16.0	20.9	18.9	19.9
22	8.9	8.1	8.5	12.5	11.5	12.0	17.2	16.2	16.7	21.7	20.5	21.1
23	8.4	7.7	8.0	12.7	11.4	12.1	18.0	16.9	17.4	22.5	20.9	21.7
24	7.9	7.3	7.6	13.0	11.8	12.4	18.7	17.6	18.2	22.6	21.6	22.1
25	7.6	7.1	7.5	13.4	12.4	12.9	18.8	17.9	18.4	23.1	21.8	22.5
26	7.5	7.1	7.3	13.0	12.1	12.4	18.4	17.5	17.9	22.5	21.7	22.2
27	7.7	7.2	7.5	12.1	11.3	11.7	18.8	17.5	18.1	22.2	21.2	21.8
28	8.4	7.7	8.0	12.7	11.2	11.9	18.2	17.6	18.0	22.6	21.5	22.0
29	---	---	---	13.1	11.8	12.4	17.6	16.0	17.0	23.1	21.8	22.5
30	---	---	---	13.8	12.5	13.1	16.0	15.6	15.8	23.8	22.4	23.1
31	---	---	---	14.7	13.3	14.0	---	---	---	24.2	22.8	23.4
MONTH	10.6	7.1	8.9	14.7	7.3	10.2	19.2	14.1	16.6	24.2	14.3	19.7

02081022 ROANOKE RIVER NEAR OAK CITY, NC--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	24.4	22.5	23.3	26.3	25.2	25.7	30.4	29.2	30.0	24.0	23.0	23.3
2	25.1	22.8	23.9	26.5	25.6	26.0	30.7	29.5	30.1	23.4	22.7	23.0
3	25.4	24.0	24.7	27.2	25.7	26.4	30.0	28.8	29.3	23.6	23.3	23.4
4	25.7	24.4	25.0	28.0	27.0	27.5	29.1	28.7	28.9	23.7	23.5	23.6
5	25.5	24.4	24.9	29.1	27.8	28.5	28.8	27.5	28.3	24.1	23.5	23.8
6	25.8	24.5	25.1	29.6	28.8	29.2	29.0	28.1	28.5	23.8	23.3	23.6
7	25.9	24.3	25.1	---	---	---	29.8	28.7	29.2	24.1	23.3	23.7
8	26.6	24.8	25.6	29.2	27.4	28.3	30.1	29.6	29.9	24.8	23.9	24.3
9	27.3	25.5	26.3	29.1	27.3	28.0	30.1	28.5	29.1	25.5	24.8	25.2
10	27.2	25.5	26.3	28.6	27.8	28.3	28.6	27.8	28.1	25.7	25.2	25.5
11	26.6	25.0	25.7	28.9	28.3	28.6	28.8	27.8	28.3	25.2	24.4	24.8
12	25.9	24.4	24.8	28.3	26.5	27.5	29.2	28.2	28.6	24.4	23.9	24.1
13	25.3	23.5	24.3	26.5	25.2	25.9	29.8	28.8	29.3	24.3	23.6	24.0
14	25.8	24.1	24.9	25.2	24.5	24.8	29.9	28.8	29.5	24.3	23.8	24.1
15	25.8	25.0	25.4	24.8	24.0	24.4	28.8	28.5	28.7	24.2	23.1	23.7
16	25.0	23.6	24.0	26.8	24.6	25.6	28.7	27.8	28.3	23.1	21.4	22.3
17	23.8	23.2	23.6	27.8	26.2	26.8	29.6	28.1	28.8	21.4	20.7	21.0
18	23.2	22.2	22.6	26.4	25.5	25.8	29.9	29.4	29.6	20.8	20.5	20.7
19	22.9	21.9	22.4	27.6	25.8	26.6	29.7	29.4	29.5	20.7	20.5	20.6
20	23.2	22.9	23.1	28.8	27.4	28.0	29.5	28.3	29.0	21.0	20.6	20.8
21	23.2	22.3	22.9	28.2	27.2	27.7	28.7	27.8	28.3	21.3	20.9	21.1
22	22.4	21.7	22.3	28.1	27.7	27.9	28.2	27.6	27.9	21.2	20.8	21.1
23	23.2	21.6	22.4	27.9	26.8	27.4	28.3	27.6	28.0	20.8	20.3	20.6
24	24.4	22.8	23.5	28.5	27.4	28.0	28.2	27.7	27.9	20.9	20.3	20.6
25	25.2	24.0	24.6	27.5	26.9	27.2	27.9	27.0	27.4	21.1	20.5	20.9
26	25.8	24.5	25.1	28.7	27.4	28.0	27.2	26.7	27.0	21.7	20.9	21.4
27	26.1	25.1	25.5	28.7	27.8	28.3	27.4	26.6	27.1	22.1	21.6	21.9
28	26.2	25.5	25.7	29.8	28.7	29.1	28.5	27.4	27.9	22.1	21.9	22.0
29	26.3	25.6	25.9	29.7	28.3	29.0	28.6	27.8	28.2	22.1	21.9	22.0
30	26.2	25.5	25.8	30.0	28.4	29.1	28.6	25.7	27.0	22.3	22.1	22.2
31	---	---	---	30.6	29.0	29.7	25.7	24.0	24.7	---	---	---
MONTH	27.3	21.6	24.5	---	---	---	30.7	24.0	28.5	25.7	20.3	22.6

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	7.4	7.1	7.3	9.6	9.3	9.5	10.8	10.5	10.7	14.5	14.2	14.3
2	7.5	6.9	7.2	9.8	9.5	9.6	10.7	10.4	10.6	15.2	14.5	14.9
3	7.6	7.2	7.4	9.8	9.5	9.7	10.6	10.3	10.5	15.2	14.3	14.8
4	7.8	7.5	7.7	10.0	9.6	9.8	10.5	10.3	10.4	14.4	13.5	14.0
5	7.8	7.6	7.7	10.8	9.9	10.3	10.6	10.3	10.5	14.9	12.6	13.7
6	8.0	7.6	7.7	10.7	10.4	10.6	10.4	9.9	10.1	15.5	14.9	15.3
7	7.9	7.5	7.7	10.9	10.7	10.7	10.0	9.6	9.8	15.5	15.2	15.4
8	7.9	7.6	7.7	11.0	10.8	10.9	9.8	9.3	9.6	15.3	15.0	15.0
9	7.8	7.4	7.7	11.1	10.7	10.9	---	---	---	15.0	14.6	14.7
10	7.8	7.5	7.7	11.2	10.6	11.0	9.9	9.5	9.7	14.8	14.6	14.7
11	8.0	7.6	7.8	10.9	10.5	10.7	10.6	9.9	10.2	15.0	14.7	14.9
12	8.2	7.8	8.0	10.8	10.5	10.7	10.7	10.5	10.6	---	---	---
13	8.3	7.9	8.1	11.0	10.7	10.9	10.7	10.6	10.7	---	---	---
14	8.4	8.0	8.2	11.4	10.8	11.2	11.0	10.7	10.8	---	---	---
15	8.5	7.9	8.2	11.6	11.3	11.4	11.2	11.0	11.1	---	---	---
16	8.8	8.2	8.6	11.5	11.0	11.3	11.4	11.2	11.3	---	---	---
17	9.0	8.6	8.8	11.2	10.7	11.0	11.4	10.9	11.0	---	---	---
18	9.2	8.8	8.9	11.0	10.6	10.8	11.6	11.2	11.4	---	---	---
19	9.0	8.4	8.7	11.1	10.9	11.0	11.8	11.6	11.8	---	---	---
20	8.8	8.3	8.6	11.0	10.6	10.7	12.0	11.8	11.9	---	---	---
21	8.8	8.2	8.5	11.1	10.7	10.9	11.9	11.6	11.8	---	---	---
22	9.1	8.3	8.8	11.2	10.8	11.0	11.6	11.2	11.4	---	---	---
23	9.7	8.9	9.4	11.2	10.9	11.0	11.9	11.1	11.4	---	---	---
24	10.0	9.6	9.8	11.3	10.8	11.1	12.9	11.8	12.3	---	---	---
25	10.2	9.7	10.0	11.3	10.8	11.1	14.0	12.9	13.5	---	---	---
26	10.0	9.7	9.9	11.1	10.7	10.9	14.2	14.0	14.1	---	---	---
27	10.0	9.6	9.8	10.8	10.6	10.7	14.6	14.1	14.4	---	---	---
28	9.9	9.1	9.5	11.1	10.7	11.0	14.5	14.2	14.4	---	---	---
29	9.3	9.0	9.1	11.1	10.7	10.9	14.2	13.8	14.1	---	---	---
30	9.4	9.1	9.2	11.1	10.7	10.9	13.9	13.6	13.8	---	---	---
31	9.4	9.1	9.3	---	---	---	14.3	13.6	14.0	---	---	---
MONTH	10.2	6.9	8.5	11.6	9.3	10.7	---	---	---	---	---	---

02081022 ROANOKE RIVER NEAR OAK CITY, NC--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

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

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	8.2	7.7	7.9	7.1	6.8	7.0	---	---	---	7.6	7.3	7.5
2	8.1	7.5	7.8	7.0	6.8	6.9	---	---	---	7.7	7.2	7.6
3	8.1	7.4	7.7	7.2	6.7	6.9	---	---	---	7.7	6.9	7.4
4	8.0	7.4	7.7	7.2	6.7	6.9	---	---	---	7.6	7.3	7.4
5	8.1	7.4	7.7	7.1	6.6	6.8	---	---	---	7.6	7.1	7.4
6	8.2	7.4	7.7	7.1	6.5	6.8	---	---	---	7.1	6.3	6.6
7	8.0	7.4	7.7	---	---	---	---	---	---	6.5	6.2	6.3
8	7.8	7.3	7.6	6.6	6.1	6.4	---	---	---	6.3	6.1	6.2
9	7.8	7.1	7.4	7.0	5.9	6.6	---	---	---	6.2	5.7	5.9
10	7.7	6.9	7.3	6.3	5.8	6.1	---	---	---	6.1	5.6	5.9
11	7.9	7.1	7.4	6.3	6.1	6.2	---	---	---	5.9	5.6	5.8
12	7.8	7.2	7.5	6.5	6.1	6.3	---	---	---	5.8	5.3	5.5
13	7.7	7.2	7.4	6.4	6.0	6.3	---	---	---	5.6	5.4	5.5
14	7.5	7.2	7.3	6.7	6.3	6.5	---	---	---	6.8	5.4	6.1
15	7.3	6.9	7.1	6.7	6.4	6.6	---	---	---	7.0	6.2	6.4
16	7.4	6.9	7.1	6.9	6.5	6.7	---	---	---	7.1	6.2	6.7
17	7.3	6.8	7.1	6.5	6.2	6.4	---	---	---	6.2	4.8	5.5
18	---	---	---	6.9	6.2	6.5	6.6	6.2	6.3	4.8	4.2	4.6
19	---	---	---	7.8	6.7	7.2	6.4	6.0	6.2	4.4	3.8	4.0
20	---	---	---	7.5	6.1	6.8	6.3	6.1	6.2	3.9	3.8	3.9
21	---	---	---	6.6	6.2	6.4	6.3	6.1	6.2	4.0	3.8	3.9
22	---	---	---	6.6	6.3	6.5	6.3	6.1	6.2	3.9	3.7	3.8
23	---	---	---	---	---	---	6.4	6.2	6.3	3.8	3.5	3.7
24	---	---	---	---	---	---	6.4	6.2	6.3	4.4	3.5	4.1
25	7.7	7.3	7.5	---	---	---	6.4	6.0	6.2	4.7	4.1	4.4
26	7.7	7.3	7.5	---	---	---	6.8	6.2	6.4	4.9	4.4	4.7
27	7.5	7.3	7.4	---	---	---	6.7	6.5	6.6	5.0	4.5	4.8
28	7.3	7.2	7.2	---	---	---	6.8	6.5	6.6	5.0	4.8	5.0
29	7.3	7.0	7.2	---	---	---	6.9	6.5	6.7	5.0	4.7	4.9
30	7.1	6.9	7.0	---	---	---	7.1	6.7	6.8	5.0	4.7	4.8
31	---	---	---	---	---	---	7.5	6.9	7.2	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	7.7	3.5	5.5

02081022 ROANOKE RIVER NEAR OAK CITY, NC--Continued

OXYGEN DISSOLVED (% OF SATURATION), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	92	88	90	100	96	98	104	101	103	118	115	116
2	91	84	87	100	97	98	103	100	102	122	117	120
3	92	86	89	100	97	98	102	100	101	122	118	121
4	93	90	91	99	97	98	101	100	100	119	111	115
5	91	89	90	103	98	100	103	100	101	119	105	112
6	93	88	90	102	100	101	101	97	99	123	119	122
7	92	87	90	103	101	102	98	95	97	123	121	122
8	92	88	90	105	103	104	98	94	96	121	120	121
9	92	88	90	106	103	105	---	---	---	121	120	121
10	91	88	89	109	105	107	95	93	94	121	120	120
11	92	88	90	109	105	107	99	95	96	122	119	121
12	93	89	91	107	104	106	101	99	100	---	---	---
13	94	89	92	108	106	107	101	100	100	---	---	---
14	95	90	93	108	106	107	100	99	100	---	---	---
15	97	90	93	112	108	110	101	100	101	---	---	---
16	99	92	96	110	106	109	103	100	101	---	---	---
17	100	96	98	110	106	108	102	100	100	---	---	---
18	100	96	98	108	106	107	103	101	102	---	---	---
19	99	94	97	109	106	107	105	103	104	---	---	---
20	99	93	97	108	104	106	106	105	105	---	---	---
21	99	93	96	107	104	106	105	104	105	---	---	---
22	99	92	96	108	104	106	104	101	103	---	---	---
23	102	96	99	107	105	106	104	101	102	---	---	---
24	102	99	101	109	104	106	109	104	106	---	---	---
25	106	100	103	108	103	106	114	109	112	---	---	---
26	105	101	103	106	104	105	116	114	115	---	---	---
27	105	101	103	104	101	102	117	115	116	---	---	---
28	105	96	100	106	102	104	117	116	116	---	---	---
29	98	95	96	105	101	103	116	114	115	---	---	---
30	99	95	96	104	102	103	115	113	114	---	---	---
31	98	95	97	---	---	---	116	112	114	---	---	---
MONTH	106	84	95	112	96	104	---	---	---	---	---	---

OXYGEN DISSOLVED (% OF SATURATION), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	95	88	92	92	90	91
2	---	---	---	---	---	---	94	87	90	94	90	92
3	---	---	---	---	---	---	97	85	91	97	90	93
4	---	---	---	---	---	---	96	85	90	98	93	95
5	---	---	---	---	---	---	94	83	88	99	94	96
6	---	---	---	---	---	---	101	81	91	98	92	95
7	---	---	---	---	---	---	101	90	95	99	92	95
8	---	---	---	---	---	---	100	89	94	98	92	95
9	---	---	---	105	101	103	97	87	91	97	90	93
10	---	---	---	107	105	106	98	96	97	97	88	92
11	---	---	---	108	104	106	98	92	95	99	88	94
12	---	---	---	107	104	105	96	93	95	99	92	95
13	---	---	---	104	99	102	94	93	94	97	92	94
14	---	---	---	99	97	99	95	94	95	94	86	90
15	---	---	---	98	96	97	97	94	95	91	84	87
16	---	---	---	99	96	98	96	94	95	88	84	87
17	---	---	---	98	96	97	94	92	93	94	87	91
18	---	---	---	99	96	98	97	92	95	98	90	94
19	---	---	---	97	95	96	97	93	95	101	94	97
20	---	---	---	96	94	95	97	94	96	102	96	99
21	---	---	---	94	90	93	97	95	96	106	97	101
22	---	---	---	95	90	92	97	94	96	105	95	99
23	---	---	---	94	90	92	97	93	95	104	93	98
24	---	---	---	92	89	91	95	91	93	99	91	95
25	---	---	---	93	89	91	93	89	91	97	90	93
26	---	---	---	92	89	90	93	87	90	93	88	90
27	---	---	---	92	88	90	94	88	91	94	87	90
28	---	---	---	94	89	91	92	88	90	93	87	89
29	---	---	---	97	90	93	92	88	89	96	88	91
30	---	---	---	96	91	93	92	88	90	97	88	92
31	---	---	---	97	89	93	---	---	---	96	87	91
MONTH	---	---	---	---	---	---	101	81	93	106	84	93

02081022 ROANOKE RIVER NEAR OAK CITY, NC--Continued

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	96	88	92	87	82	85	---	---	---	88	85	87
2	96	88	92	86	82	84	---	---	---	89	83	87
3	96	87	91	90	81	85	---	---	---	89	80	86
4	97	87	92	91	83	87	---	---	---	89	85	86
5	97	87	92	91	83	87	---	---	---	89	83	86
6	99	87	92	92	84	88	---	---	---	83	73	77
7	97	87	92	---	---	---	---	---	---	76	72	74
8	96	86	91	85	77	81	---	---	---	74	72	73
9	96	86	91	89	74	83	---	---	---	73	69	71
10	94	83	89	81	73	77	---	---	---	73	68	71
11	96	84	90	81	77	79	---	---	---	70	67	69
12	93	84	89	81	77	79	---	---	---	69	62	64
13	92	84	88	77	73	76	---	---	---	66	64	65
14	90	84	87	80	76	78	---	---	---	79	64	72
15	88	83	86	80	75	78	---	---	---	80	73	75
16	86	81	83	84	77	80	---	---	---	81	69	76
17	85	79	82	81	77	79	---	---	---	69	52	61
18	---	---	---	83	75	79	85	80	82	53	46	51
19	---	---	---	98	81	88	83	78	81	48	42	44
20	---	---	---	94	78	86	82	78	80	43	42	43
21	---	---	---	85	78	82	80	77	78	45	42	43
22	---	---	---	85	80	83	80	76	78	44	41	43
23	---	---	---	---	---	---	82	78	80	42	38	40
24	---	---	---	---	---	---	81	78	80	48	39	45
25	92	86	89	---	---	---	80	75	78	52	45	49
26	93	87	90	---	---	---	84	77	79	55	49	52
27	92	87	89	---	---	---	84	79	81	57	51	55
28	90	87	88	---	---	---	87	81	83	57	54	56
29	89	85	87	---	---	---	88	82	85	56	53	55
30	87	83	85	---	---	---	88	82	84	56	53	55
31	---	---	---	---	---	---	88	82	85	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	89	38	64



Flooded homes in downtown Rocky Mount, N.C., near the Tar River.

02081028 ROANOKE RIVER AT HAMILTON, NC

LOCATION.--Lat 35°55'50", long 77°12'10", Martin County, Hydrologic Unit 03010107, on downstream side of public boat ramp, 0.5 mi east of Hamilton.

DRAINAGE AREA.--8,890 mi^2.

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

GAGE.--Water stage recorder. Datum of gage is sea level. Satellite telemetry at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum, 18.17 ft, Sept. 19, 1999; minimum 1.67 ft, Oct. 24, 1998.

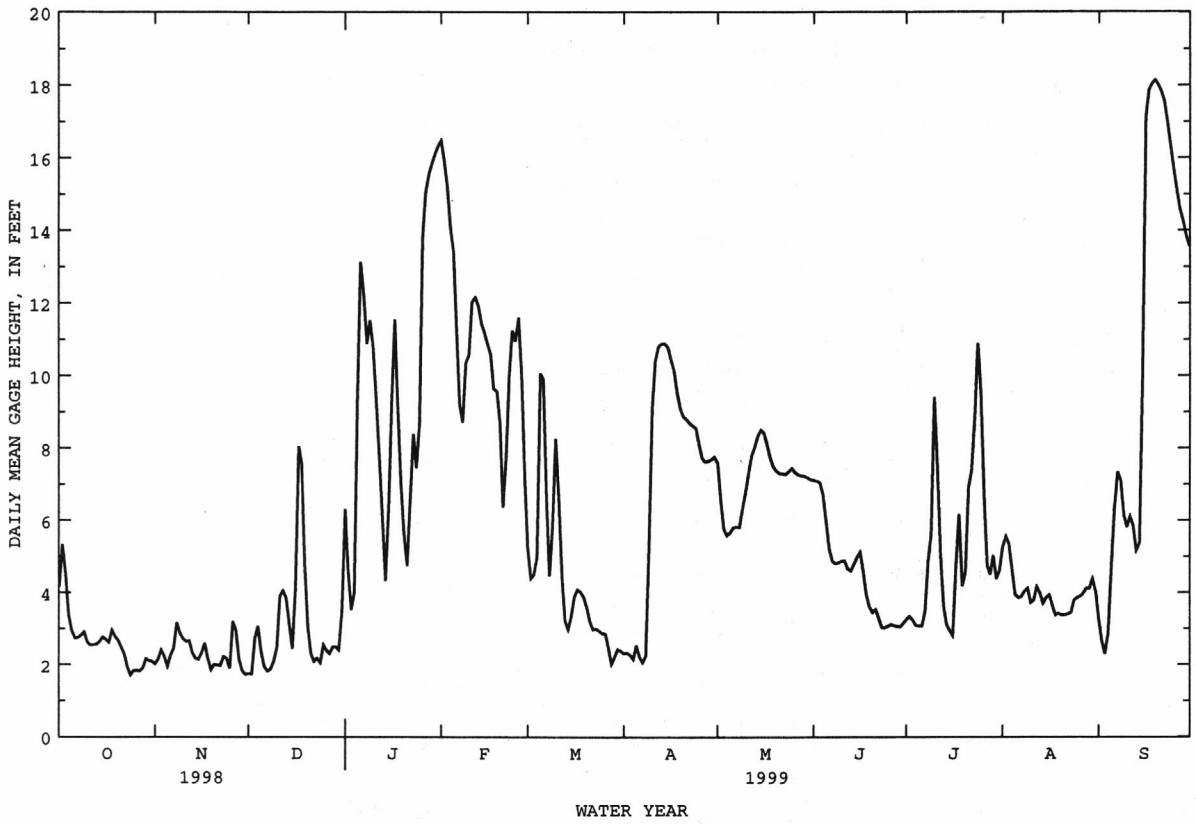
EXTREMES FOR CURRENT YEAR.--Maximum, 18.17 ft, Sept. 19; minimum, 1.67 ft, Oct. 24.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.16	2.02	1.75	6.31	16.48	5.25	2.31	7.59	7.11	3.25	5.26	3.24
2	5.34	2.15	1.74	4.57	15.91	4.39	2.33	6.57	7.09	3.34	5.56	2.64
3	4.55	2.41	2.72	3.52	15.21	4.50	2.27	5.77	7.05	3.25	5.34	2.30
4	3.38	2.22	3.07	4.02	14.10	4.99	2.15	5.58	6.72	3.09	4.64	2.88
5	2.95	1.95	2.38	9.45	13.42	10.06	2.54	5.66	5.99	3.08	3.95	4.73
6	2.74	2.26	1.95	13.13	11.26	9.89	2.22	5.80	5.21	3.08	3.86	6.33
7	2.75	2.45	1.82	12.21	9.22	6.71	2.06	5.82	4.87	3.47	3.88	7.34
8	2.82	3.17	1.87	10.88	8.71	4.46	2.25	5.81	4.80	4.86	4.03	7.11
9	2.91	2.88	2.09	11.53	10.36	5.82	5.23	6.34	4.83	5.62	4.12	6.15
10	2.63	2.73	2.47	10.79	10.57	8.26	9.11	6.78	4.87	9.40	3.72	5.81
11	2.54	2.64	3.91	9.35	12.04	6.64	10.42	7.34	4.88	7.57	3.79	6.11
12	2.55	2.67	4.05	7.83	12.16	4.39	10.80	7.80	4.66	5.06	4.16	5.85
13	2.57	2.34	3.85	6.20	11.92	3.22	10.88	8.03	4.60	3.61	3.99	5.17
14	2.65	2.18	3.13	4.33	11.44	2.98	10.89	8.34	4.79	3.11	3.70	5.38
15	2.77	2.15	2.45	6.29	11.18	3.33	10.79	8.50	4.98	2.94	3.86	10.20
16	2.70	2.33	4.11	9.29	10.87	3.88	10.46	8.42	5.12	2.80	3.94	17.12
17	2.62	2.60	8.05	11.55	10.59	4.08	10.13	8.09	4.58	4.70	3.65	17.87
18	2.96	2.17	7.58	9.12	9.64	4.02	9.52	7.73	3.95	6.17	3.38	18.04
19	2.79	1.86	4.76	7.04	9.57	3.87	9.10	7.48	3.60	4.18	3.42	18.14
20	2.67	2.00	3.05	5.65	8.69	3.58	8.87	7.38	3.45	4.56	e3.38	18.02
21	2.48	1.99	2.30	4.75	6.37	3.20	8.79	7.30	3.53	6.91	e3.38	17.82
22	2.29	1.97	2.09	6.62	7.69	2.98	8.69	7.30	3.28	7.38	e3.40	17.55
23	1.93	2.22	e2.18	8.39	9.99	3.00	8.62	7.28	3.03	8.81	e3.45	16.99
24	1.71	2.18	e2.05	7.46	11.25	2.94	8.55	7.36	3.02	10.88	3.79	16.33
25	1.83	1.90	2.55	8.69	10.96	2.87	8.12	7.45	3.07	9.56	3.86	15.70
26	1.84	3.20	2.39	13.79	11.60	2.86	7.73	7.33	3.11	6.64	3.89	15.11
27	1.82	2.95	2.30	15.06	9.94	2.47	7.62	7.27	3.08	4.75	3.98	14.60
28	1.91	2.15	2.49	15.56	7.25	2.02	7.64	7.24	3.06	4.50	4.12	14.27
29	2.16	1.83	2.50	15.86	---	2.21	7.69	7.23	3.05	5.03	4.12	13.87
30	2.11	1.73	2.40	16.12	---	2.43	7.76	7.18	3.15	4.38	4.38	13.56
31	2.10	---	3.55	16.33	---	2.38	---	7.13	---	4.61	4.01	---
MEAN	2.68	2.31	3.02	9.41	11.01	4.31	7.18	7.13	4.48	5.18	4.00	10.87
MAX	5.34	3.20	8.05	16.33	16.48	10.06	10.89	8.50	7.11	10.88	5.56	18.14
MIN	1.71	1.73	1.74	3.52	6.37	2.02	2.06	5.58	3.02	2.80	3.38	2.30

e Estimated.

02081028 ROANOKE RIVER AT HAMILTON, NC--Continued



355812077082301 BROADNECK TRANSECT (SITE #1)

LOCATION.--Lat 35°58'10", long 77°08'27", North American Datum of 1983, Martin County, Hydrologic Unit 03010107, approximately 4.2 mi east-northeast of Hamilton.

DRAINAGE AREA.--Indeterminate.

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

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

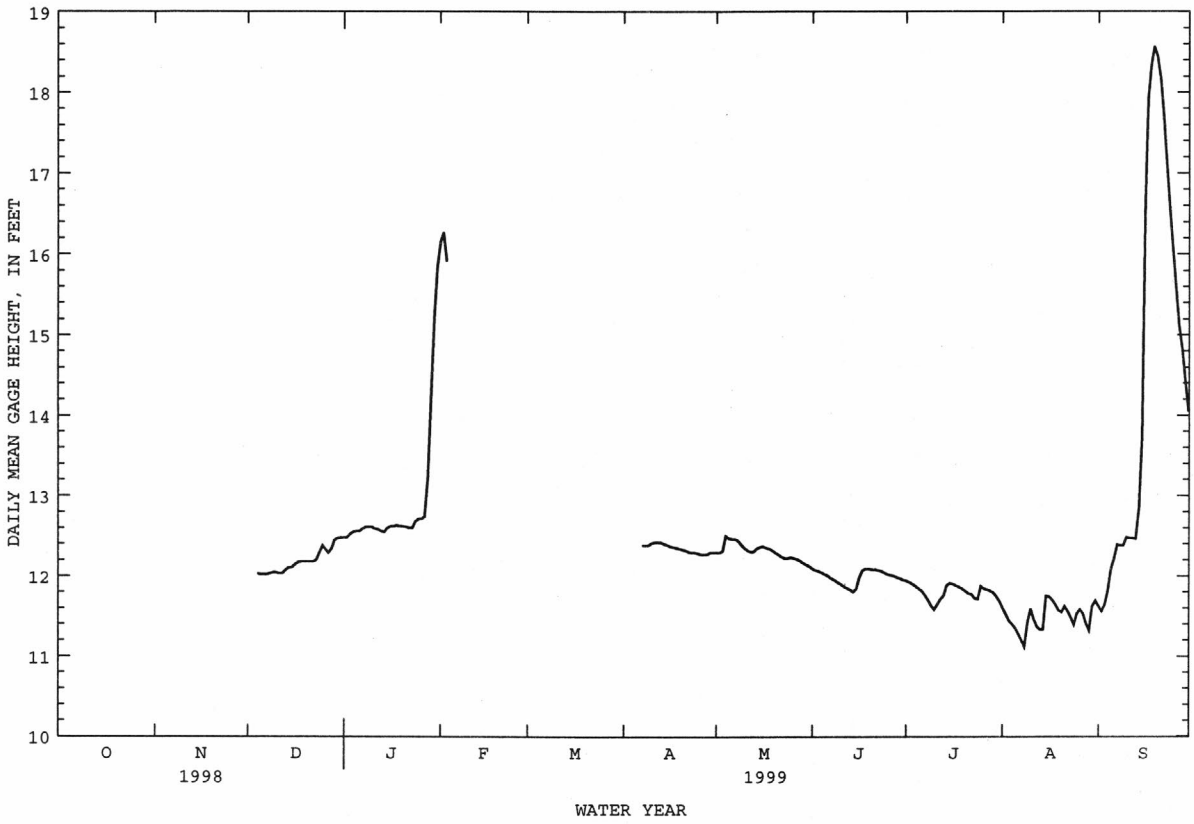
EXTREMES FOR PERIOD OF RECORD.--Maximum recorded gage height, 18.60 ft, Sept. 19, 1999; minimum recorded gage height, 11.05 ft, Aug. 8, 1999.

EXTREMES FOR CURRENT YEAR.--Maximum recorded gage height, 18.60 ft, Sept. 19; minimum recorded gage height, 11.05 ft, Aug. 8.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	12.48	16.16	---	---	12.29	12.09	11.94	11.60	11.62
2	---	---	---	12.48	16.27	---	---	12.29	12.07	11.92	11.52	11.56
3	---	---	---	12.52	15.91	---	---	12.31	12.06	11.90	11.44	11.64
4	---	---	12.03	12.55	---	---	---	12.50	12.04	11.87	11.40	11.81
5	---	---	12.02	12.56	---	---	---	12.47	12.02	11.84	11.35	12.08
6	---	---	12.02	12.56	---	---	---	12.46	12.00	11.81	11.28	12.21
7	---	---	12.02	12.59	---	---	12.38	12.46	11.97	11.76	11.20	12.39
8	---	---	12.03	12.61	---	---	12.38	12.44	11.95	11.70	11.12	12.38
9	---	---	12.04	12.61	---	---	12.38	12.39	11.92	11.63	11.43	12.38
10	---	---	12.04	12.61	---	---	12.41	12.35	11.90	11.58	11.59	12.48
11	---	---	12.03	12.59	---	---	12.42	12.32	11.87	11.64	11.46	12.47
12	---	---	12.03	12.58	---	---	12.42	12.30	11.85	11.71	11.37	12.47
13	---	---	12.07	12.56	---	---	12.42	12.30	11.83	11.75	11.33	12.46
14	---	---	12.10	12.55	---	---	12.40	12.34	11.80	11.88	11.33	12.84
15	---	---	12.10	12.60	---	---	12.39	12.36	11.84	11.91	11.75	13.74
16	---	---	12.14	12.62	---	---	12.37	12.37	11.98	11.90	11.74	16.60
17	---	---	12.17	12.62	---	---	12.36	12.35	12.07	11.88	11.70	17.93
18	---	---	12.18	12.63	---	---	12.35	12.34	12.09	11.86	11.64	18.34
19	---	---	12.18	12.62	---	---	12.34	12.32	12.09	11.84	11.57	18.57
20	---	---	12.18	12.62	---	---	12.33	12.29	12.08	11.81	11.55	18.45
21	---	---	12.18	12.61	---	---	12.32	12.27	12.08	11.78	11.62	18.16
22	---	---	12.18	12.60	---	---	12.30	12.24	12.07	11.77	11.56	17.69
23	---	---	12.20	12.60	---	---	12.29	12.22	12.06	11.72	11.48	17.11
24	---	---	12.29	12.68	---	---	12.29	12.22	12.04	11.71	11.39	16.56
25	---	---	12.38	12.71	---	---	12.28	12.23	12.02	11.87	11.53	16.07
26	---	---	12.33	12.71	---	---	12.27	12.22	12.01	11.84	11.58	15.59
27	---	---	12.29	12.74	---	---	12.27	12.21	12.00	11.83	11.53	15.12
28	---	---	12.34	13.23	---	---	12.27	12.19	11.98	11.81	11.41	14.82
29	---	---	12.45	14.25	---	---	12.29	12.16	11.97	11.79	11.32	14.42
30	---	---	12.47	15.24	---	---	12.29	12.14	11.95	11.74	11.62	14.05
31	---	---	12.48	15.84	---	---	---	12.12	---	11.68	11.69	---
MEAN	---	---	---	12.86	---	---	---	12.31	11.99	11.80	11.49	14.47
MAX	---	---	---	15.84	---	---	---	12.50	12.09	11.94	11.75	18.57
MIN	---	---	---	12.48	---	---	---	12.12	11.80	11.58	11.12	11.56

355812077082301 BROADNECK TRANSECT (SITE #1)--Continued



355722077082801 BROADNECK TRANSECT (SITE #2)

LOCATION.--Lat 35°57'21", long 77°17'25", North American Datum of 1983, Martin County, Hydrologic Unit 03010107, approximately 3.85 mi east of Hamilton.

DRAINAGE AREA.--Indeterminate.

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 sea level.

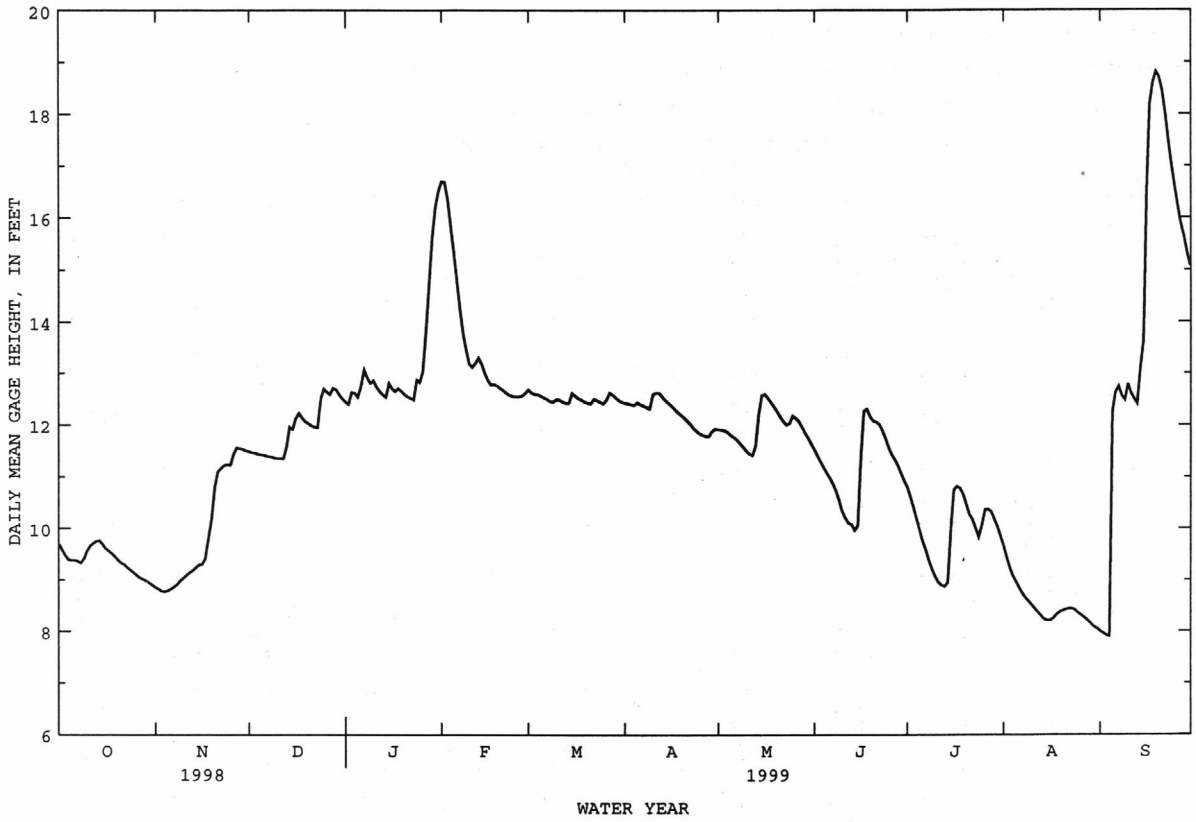
EXTREMES FOR PERIOD OF RECORD.--Maximum, 18.84 ft, Sept. 19, 1999; minimum recorded, 7.79 ft, Oct. 25, 1997.

EXTREMES FOR CURRENT YEAR.--Maximum, 18.84 ft, Sept. 19; minimum, 7.89 ft, Sept. 4.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.69	8.85	11.49	12.45	16.70	12.69	12.43	11.92	11.53	10.80	9.66	8.00
2	9.58	8.82	11.47	12.40	16.69	12.63	12.42	11.91	11.41	10.61	9.43	7.96
3	9.47	8.78	11.46	12.63	16.36	12.60	12.40	11.90	11.30	10.40	9.23	7.92
4	9.39	8.77	11.44	12.62	15.83	12.60	12.39	11.87	11.19	10.16	9.07	7.90
5	9.38	8.79	11.43	12.54	15.30	12.56	12.44	11.81	11.08	9.94	8.96	12.25
6	9.38	8.82	11.42	12.74	14.76	12.53	12.40	11.77	10.98	9.74	8.84	12.63
7	9.36	8.86	11.40	13.07	14.23	12.50	12.38	11.72	10.86	9.57	8.74	12.74
8	9.33	8.91	11.39	12.92	13.78	12.46	12.35	11.65	10.72	9.37	8.65	12.56
9	9.41	8.98	11.37	12.81	13.45	12.45	12.32	11.58	10.53	9.20	8.58	12.48
10	9.56	9.03	11.36	12.86	13.18	12.50	12.60	11.51	10.33	9.06	8.51	12.79
11	9.66	9.09	11.36	12.74	13.12	12.49	12.63	11.45	10.20	8.95	8.44	12.61
12	9.71	9.14	11.35	12.66	13.20	12.45	12.63	11.42	10.10	8.89	8.37	12.50
13	9.75	9.18	11.58	12.59	13.30	12.43	12.55	11.60	10.07	8.87	8.30	12.41
14	9.76	9.24	11.96	12.54	13.19	12.43	12.48	12.20	9.96	8.94	8.23	13.10
15	9.69	9.29	11.92	12.81	13.01	12.62	12.43	12.58	10.05	9.94	8.21	13.63
16	9.61	9.30	12.13	12.71	12.87	12.57	12.38	12.60	11.34	10.74	8.21	16.48
17	9.56	9.41	12.23	12.65	12.78	12.52	12.31	12.52	12.27	10.81	8.25	18.20
18	9.51	9.82	12.14	12.71	12.79	12.49	12.25	12.44	12.31	10.78	8.32	18.61
19	9.45	10.19	12.07	12.66	12.76	12.45	12.20	12.36	12.17	10.65	8.37	18.82
20	9.38	10.81	12.03	12.60	12.71	12.43	12.15	12.27	12.08	10.46	8.40	18.72
21	9.33	11.10	11.99	12.55	12.67	12.42	12.09	12.17	12.06	10.27	8.42	18.45
22	9.30	11.17	11.96	12.52	12.62	12.51	12.03	12.08	12.01	10.17	8.44	18.02
23	9.24	11.22	11.95	12.49	12.58	12.48	11.95	12.01	11.89	10.00	8.44	17.50
24	9.19	11.24	12.50	12.88	12.56	12.45	11.89	12.04	11.74	9.82	8.41	17.02
25	9.14	11.23	12.70	12.83	12.55	12.42	11.84	12.18	11.57	10.05	8.35	16.62
26	9.09	11.44	12.64	13.04	12.55	12.49	11.81	12.14	11.43	10.36	8.31	16.24
27	9.04	11.56	12.59	13.81	12.57	12.63	11.79	12.08	11.33	10.37	8.26	15.90
28	9.01	11.55	12.71	14.78	12.62	12.59	11.79	11.97	11.21	10.32	8.21	15.65
29	8.98	11.53	12.69	15.65	---	12.53	11.88	11.86	11.06	10.18	8.15	15.34
30	8.94	11.51	12.59	16.20	---	12.48	11.93	11.75	10.92	10.03	8.09	15.08
31	8.90	---	12.51	16.51	---	12.45	---	11.64	---	9.85	8.05	---
MEAN	9.38	9.92	11.93	13.13	13.60	12.51	12.24	11.97	11.19	9.98	8.51	14.27
MAX	9.76	11.56	12.71	16.51	16.70	12.69	12.63	12.60	12.31	10.81	9.66	18.82
MIN	8.90	8.77	11.35	12.40	12.55	12.42	11.79	11.42	9.96	8.87	8.05	7.90

355722077082801 BROADNECK TRANSECT (SITE #2)--Continued



355540077083401 BROADNECK TRANSECT (SITE #3)

LOCATION.--Lat 35°55'41", long 77°08'35", North American Datum of 1983, Martin County, Hydrologic Unit 03010107, approximately 3.9 mi east-southeast of Hamilton and 0.4 mi north of SR 1416 on private dirt road.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--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 sea level.

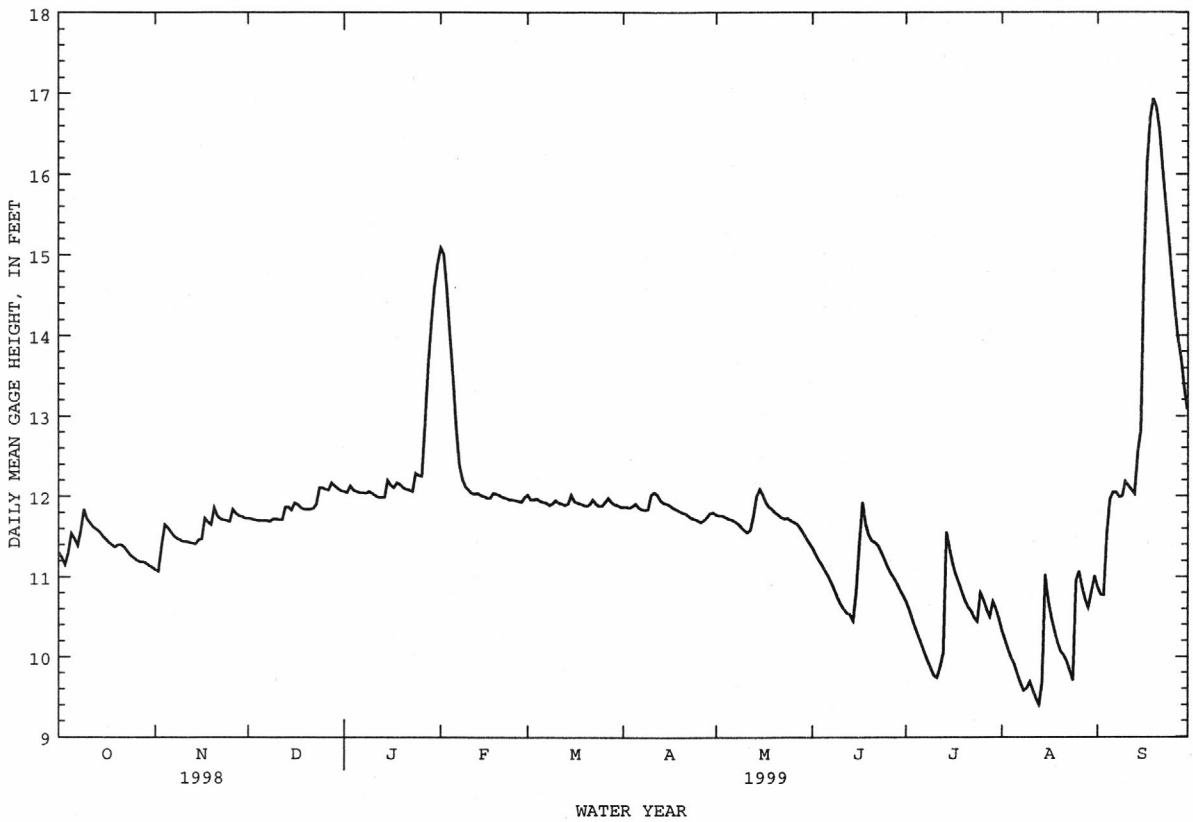
EXTREMES FOR PERIOD OF RECORD.--Maximum, 16.95 ft, Sept. 19, 1999; minimum recorded, 9.28 ft, Aug. 14, 1999.

EXTREMES FOR CURRENT YEAR.--Maximum, 16.95 ft, Sept. 19; minimum, 9.28 ft, Aug. 14.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.30	11.09	11.73	12.06	15.09	12.02	11.87	11.77	11.36	10.69	10.32	10.87
2	11.23	11.07	11.72	12.05	15.01	11.96	11.87	11.76	11.28	10.59	10.20	10.78
3	11.15	11.38	11.71	12.13	14.59	11.96	11.86	11.76	11.21	10.47	10.08	10.77
4	11.30	11.65	11.70	12.08	14.03	11.97	11.88	11.74	11.15	10.35	9.98	11.53
5	11.54	11.61	11.70	12.06	13.46	11.94	11.91	11.72	11.08	10.25	9.90	11.96
6	11.47	11.56	11.70	12.05	12.86	11.93	11.86	11.71	11.01	10.15	9.78	12.05
7	11.39	11.51	11.70	12.05	12.40	11.92	11.84	11.69	10.93	10.05	9.67	12.05
8	11.58	11.48	11.69	12.04	12.21	11.89	11.83	11.66	10.84	9.95	9.58	11.99
9	11.84	11.46	11.72	12.06	12.12	11.91	11.84	11.62	10.74	9.86	9.61	12.00
10	11.72	11.44	11.72	12.04	12.08	11.95	12.02	11.58	10.66	9.77	9.69	12.18
11	11.67	11.44	11.71	12.01	12.04	11.92	12.05	11.55	10.60	9.74	9.58	12.13
12	11.62	11.43	11.71	11.99	12.03	11.91	12.02	11.58	10.55	9.88	9.48	12.08
13	11.59	11.42	11.87	11.99	12.04	11.89	11.95	11.76	10.53	10.05	9.40	12.03
14	11.56	11.41	11.87	11.99	12.01	11.91	11.92	12.00	10.45	11.56	9.68	12.55
15	11.51	11.46	11.83	12.20	12.00	12.02	11.91	12.09	10.82	11.36	11.03	12.83
16	11.47	11.47	11.92	12.14	11.98	11.94	11.89	12.02	11.40	11.17	10.70	14.89
17	11.43	11.73	11.90	12.11	11.98	11.92	11.86	11.92	11.93	11.03	10.49	16.15
18	11.40	11.68	11.86	12.17	12.04	11.91	11.84	11.87	11.66	10.93	10.32	16.69
19	11.37	11.65	11.84	12.15	12.03	11.89	11.82	11.84	11.52	10.81	10.18	16.93
20	11.40	11.86	11.84	12.11	12.01	11.88	11.80	11.80	11.45	10.70	10.07	16.83
21	11.40	11.76	11.84	12.09	11.99	11.90	11.79	11.77	11.43	10.62	10.02	16.52
22	11.37	11.72	11.85	12.08	11.98	11.96	11.76	11.74	11.39	10.57	9.94	16.04
23	11.32	11.71	11.90	12.06	11.96	11.91	11.73	11.72	11.31	10.49	9.82	15.62
24	11.27	11.70	12.11	12.29	11.96	11.88	11.72	11.73	11.22	10.44	9.70	15.20
25	11.24	11.69	12.11	12.26	11.95	11.88	11.70	11.70	11.13	10.80	10.95	14.77
26	11.21	11.84	12.09	12.25	11.94	11.93	11.68	11.68	11.05	10.71	11.07	14.35
27	11.19	11.79	12.08	12.89	11.93	11.98	11.70	11.66	10.99	10.59	10.87	13.97
28	11.19	11.76	12.17	13.63	11.99	11.93	11.74	11.61	10.92	10.50	10.72	13.71
29	11.17	11.75	12.13	14.14	---	11.90	11.79	11.55	10.84	10.69	10.61	13.36
30	11.14	11.73	12.10	14.59	---	11.89	11.80	11.48	10.77	10.60	10.80	13.08
31	11.12	---	12.07	14.89	---	11.87	---	11.42	---	10.47	11.01	---
MEAN	11.39	11.57	11.87	12.41	12.49	11.92	11.84	11.73	11.07	10.51	10.17	13.53
MAX	11.84	11.86	12.17	14.89	15.09	12.02	12.05	12.09	11.93	11.56	11.07	16.93
MIN	11.12	11.07	11.69	11.99	11.93	11.87	11.68	11.42	10.45	9.74	9.40	10.77

355540077083401 BROADNECK TRANSECT (SITE #3)--Continued



0208102855 ROANOKE RIVER ABOVE SECONDARY ROAD 1100 NEAR GRABTOWN, NC

LOCATION.--Lat 35°56'50", long 77°12'10", 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 current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: January 1998 to current year.

pH: January 1998 to current year.

WATER TEMPERATURE: January 1998 to current year.

DISSOLVED OXYGEN: January 1998 to current year.

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

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

REMARKS.--Station operated in cooperation with U.S. Fish and Wildlife Service to define water-quality characteristics in the Roanoke River Basin below Roanoke Rapids Dam.

EXTREMES FOR PERIOD OF DAILY RECORD.--

CONSTITUENT	MAXIMUM RECORDED	MINIMUM RECORDED
SPECIFIC CONDUCTANCE, microsiemens	177, April 8, 1999	32, September 18, 19, 1999
pH, standard units	7.9, March 8, 1998	5.7, September 18-21, 1999
WATER TEMPERATURE, °C	31.1, August 1, 1999	5.2, January 12, 1999
DISSOLVED OXYGEN, mg/L	14.2, January 7, 1999	4.2, September 9, 13, 1999
DISSOLVED OXYGEN, PERCENT SATURATION,%	121, July 5, 6, 1999	40, February 10, 1998

EXTREMES FOR CURRENT YEAR.--

CONSTITUENT	MAXIMUM RECORDED	MINIMUM RECORDED
SPECIFIC CONDUCTANCE, microsiemens	177, April 8	32, September 18, 19
pH, standard units	7.6, March 6	5.7, September 18-21
WATER TEMPERATURE, °C	31.1, August 1	5.2, January 12
DISSOLVED OXYGEN, mg/L	14.2, January 7	4.2, September 9, 13
DISSOLVED OXYGEN, PERCENT SATURATION,%	121, July 5, 6	50, September 9, 13, 14

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

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

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

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	122	118	120	142	132	137	166	163	164	126	125	125
2	123	118	120	150	135	139	167	151	163	126	124	125
3	119	113	116	150	142	146	166	146	161	126	124	125
4	128	113	122	151	142	149	163	149	161	126	123	125
5	128	121	124	155	142	149	164	157	162	128	122	124
6	130	124	126	146	137	139	166	162	164	132	121	126
7	130	124	126	141	136	138	172	155	167	134	132	133
8	134	127	128	141	135	137	177	169	171	135	133	134
9	139	130	134	155	138	144	173	167	171	135	133	134
10	138	126	129	160	135	151	---	---	---	135	133	134
11	138	129	133	144	135	140	---	---	---	134	132	133
12	132	128	130	146	139	141	---	---	---	132	129	131
13	132	126	129	147	144	146	---	---	---	130	129	129
14	127	123	125	159	146	149	---	---	---	130	128	129
15	130	126	128	162	159	161	---	---	---	130	128	129
16	131	129	130	161	145	154	---	---	---	130	128	129
17	132	129	130	149	143	146	---	---	---	131	129	130
18	135	130	132	145	127	136	---	---	---	131	121	127
19	135	130	132	134	127	129	---	---	---	121	120	121
20	136	132	134	141	134	137	---	---	---	122	120	121
21	134	130	132	142	138	141	125	123	124	124	122	123
22	139	130	133	148	140	144	124	122	123	125	123	124
23	150	135	141	150	143	148	124	122	123	128	125	126
24	136	135	136	160	141	155	125	124	125	130	127	129
25	138	133	135	160	155	159	125	124	124	132	129	130
26	140	134	136	155	148	150	128	124	125	132	131	131
27	143	133	136	152	145	150	128	127	128	132	131	131
28	134	131	133	154	151	153	128	126	127	132	131	131
29	---	---	---	155	151	153	126	125	126	132	130	131
30	---	---	---	162	151	159	125	123	124	131	131	131
31	---	---	---	164	142	158	---	---	---	131	130	131
MONTH	150	113	130	164	127	146	---	---	---	135	120	128

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

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	134	131	132	144	141	143	136	130	134	143	138	140
2	159	132	134	143	141	142	136	123	131	140	137	139
3	158	129	132	144	140	142	136	123	130	139	131	134
4	131	128	129	146	143	144	133	125	128	136	131	133
5	132	130	131	147	144	145	133	124	127	144	135	138
6	134	132	132	147	146	146	133	128	131	144	129	137
7	138	134	136	147	143	145	137	133	135	129	110	119
8	147	138	139	143	139	141	139	136	137	117	110	113
9	140	139	139	141	123	135	139	138	138	119	111	115
10	140	136	138	137	121	128	140	136	138	118	109	111
11	139	136	138	121	119	119	137	136	136	120	111	116
12	140	137	138	128	119	124	140	133	137	120	118	119
13	139	137	138	124	121	122	139	136	137	118	116	117
14	138	137	137	141	124	134	138	137	137	117	106	112
15	137	135	136	141	140	141	138	135	136	106	79	94
16	135	134	135	146	139	142	143	137	141	106	41	70
17	135	134	135	150	146	147	143	136	139	44	33	36
18	135	134	134	151	133	148	142	139	141	38	32	34
19	135	134	134	133	118	123	140	137	138	38	32	35
20	144	135	140	122	117	118	143	137	140	41	34	37
21	146	143	145	147	122	137	145	142	143	44	37	40
22	147	143	145	130	119	121	145	142	143	50	42	45
23	145	141	144	135	122	129	143	141	142	59	47	52
24	142	140	141	132	120	125	144	143	143	66	54	59
25	140	139	140	128	120	123	143	140	142	70	62	65
26	143	139	141	122	121	122	142	138	140	75	67	70
27	144	140	142	129	121	123	138	135	137	80	74	77
28	145	143	144	131	125	129	139	134	137	83	78	80
29	145	144	145	130	124	127	139	138	139	88	81	84
30	146	143	145	133	124	131	139	137	138	91	85	87
31	---	---	---	133	119	126	141	136	138	---	---	---
MONTH	159	128	138	151	117	133	145	123	137	144	32	90

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

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

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

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

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

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

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

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

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	26.6	26.0	26.3	17.8	17.0	17.3	14.2	13.3	13.6	6.0	5.7	5.9
2	26.2	25.1	25.7	17.1	16.8	16.9	14.1	13.2	13.6	6.2	5.7	5.8
3	25.1	24.4	24.8	16.8	16.1	16.5	14.0	13.5	13.8	7.5	6.2	7.0
4	24.5	24.1	24.2	16.1	15.4	15.8	14.2	13.8	14.0	7.2	6.6	6.9
5	24.2	23.2	23.7	15.4	14.6	15.0	14.4	13.8	14.0	7.4	6.4	6.8
6	23.2	22.6	22.9	14.6	13.5	14.1	14.9	14.0	14.4	7.3	5.7	6.1
7	23.1	22.6	22.8	13.5	12.6	13.0	15.2	14.5	14.8	5.9	5.6	5.7
8	22.9	22.6	22.8	12.7	12.1	12.5	---	---	---	5.8	5.3	5.6
9	22.9	22.6	22.7	13.2	12.7	13.0	15.9	15.5	15.7	7.1	5.8	6.4
10	23.0	22.5	22.7	14.3	13.1	13.6	15.7	14.9	15.3	7.1	5.9	6.5
11	22.6	22.1	22.3	14.7	14.3	14.6	14.9	13.7	14.4	6.4	5.3	5.8
12	22.1	21.6	21.9	15.1	14.6	14.8	13.7	12.8	13.2	6.5	5.2	5.8
13	21.8	21.4	21.5	14.9	14.7	14.8	13.0	12.8	12.9	7.0	5.9	6.5
14	21.7	21.2	21.4	14.7	14.0	14.4	12.9	12.3	12.7	7.9	6.7	7.1
15	21.5	20.9	21.2	14.6	13.9	14.1	12.6	12.0	12.2	8.8	7.9	8.4
16	21.0	20.5	20.8	14.0	13.5	13.7	12.0	10.9	11.5	8.9	7.7	8.4
17	20.7	20.2	20.5	14.6	13.7	14.2	11.8	10.5	11.0	8.2	7.7	7.9
18	20.4	20.0	20.1	14.9	14.3	14.5	11.7	10.8	11.1	8.5	7.8	8.1
19	20.3	19.8	20.1	14.9	14.5	14.6	10.8	10.5	10.6	8.7	8.3	8.5
20	20.9	20.3	20.6	15.0	14.7	14.8	10.6	10.4	10.5	9.0	8.4	8.7
21	20.6	20.2	20.4	15.0	14.5	14.7	10.9	10.6	10.7	9.6	8.6	9.1
22	20.2	18.8	19.7	14.7	13.9	14.3	11.3	10.9	11.1	10.0	9.5	9.7
23	19.0	17.9	18.5	14.1	13.6	13.9	11.0	10.4	10.5	10.1	9.8	9.9
24	18.1	17.0	17.6	14.3	13.7	14.0	10.4	9.6	10.1	10.4	9.9	10.2
25	17.4	16.5	16.9	14.1	13.6	13.8	9.6	8.2	8.9	11.0	10.3	10.7
26	17.4	16.3	16.7	13.7	13.4	13.5	8.2	6.7	7.4	10.9	9.4	10.5
27	17.2	16.5	16.7	13.9	13.2	13.5	6.7	6.0	6.3	9.4	9.0	9.2
28	17.7	16.6	17.1	13.8	13.1	13.3	6.6	6.1	6.3	9.2	8.7	8.9
29	17.8	17.1	17.5	13.8	13.0	13.2	6.6	6.4	6.5	9.0	8.6	8.8
30	18.0	17.2	17.6	13.9	13.0	13.3	7.1	6.5	6.7	9.4	8.8	9.1
31	18.2	17.4	17.7	---	---	---	6.6	6.0	6.2	9.2	8.6	9.0
MONTH	26.6	16.3	20.8	17.8	12.1	14.3	---	---	---	11.0	5.2	7.8

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	8.6	8.4	8.5	8.7	8.1	8.4	14.9	13.9	14.4	15.7	15.5	15.6
2	8.9	8.4	8.6	9.6	8.2	8.9	16.0	14.9	15.5	15.6	15.1	15.4
3	9.4	8.8	9.1	10.5	8.9	9.6	17.0	15.7	16.3	15.8	14.9	15.3
4	9.6	9.3	9.4	9.8	9.2	9.6	18.1	16.7	17.3	16.6	15.2	15.8
5	9.5	9.1	9.3	9.7	8.9	9.3	18.1	17.5	17.8	17.5	15.9	16.7
6	9.6	9.1	9.3	9.6	8.4	9.0	17.9	17.2	17.6	18.5	17.2	17.8
7	10.0	9.3	9.6	9.4	8.9	9.1	19.0	17.8	18.3	19.5	17.9	18.6
8	10.2	9.8	10.0	9.0	8.0	8.6	19.2	18.2	18.7	20.0	18.8	19.4
9	10.5	9.7	10.1	8.5	7.9	8.3	19.8	18.5	19.0	20.8	19.3	20.0
10	10.4	9.9	10.2	8.1	7.2	7.6	19.5	18.0	18.5	21.6	19.9	20.7
11	10.6	9.8	10.1	8.1	7.3	7.7	18.0	17.2	17.5	21.8	20.8	21.3
12	10.7	10.1	10.3	8.7	7.6	8.1	17.4	16.3	16.9	21.4	21.1	21.3
13	10.8	10.1	10.4	8.6	7.9	8.3	16.3	15.1	15.5	21.2	20.5	20.8
14	10.1	9.1	9.4	8.9	8.3	8.4	16.1	15.4	15.7	21.1	19.5	20.3
15	9.2	8.2	8.7	8.9	8.5	8.7	16.0	15.6	15.8	20.0	18.7	19.4
16	9.0	8.1	8.6	9.0	7.7	8.4	16.2	15.4	15.8	18.8	17.5	18.2
17	9.8	8.5	9.1	9.4	8.1	8.8	16.2	15.6	15.9	18.5	17.5	18.0
18	9.8	9.5	9.7	10.4	8.9	9.7	15.9	15.2	15.5	18.9	18.5	18.7
19	9.8	9.5	9.7	11.6	10.1	10.9	16.0	15.4	15.6	19.4	18.7	19.1
20	9.7	9.2	9.5	12.8	11.2	12.0	15.9	15.6	15.7	19.8	19.2	19.5
21	9.3	8.5	8.8	12.9	12.0	12.4	16.3	15.9	16.1	20.2	19.6	19.9
22	8.6	8.0	8.3	12.9	12.4	12.7	17.4	16.3	16.9	21.5	19.8	20.8
23	8.2	7.9	8.0	12.9	12.5	12.7	17.9	17.4	17.7	22.0	21.3	21.7
24	8.0	7.5	7.7	13.4	12.6	13.0	18.3	17.9	18.0	22.5	21.7	22.2
25	7.7	7.2	7.5	13.6	13.3	13.4	18.8	18.0	18.5	22.8	21.9	22.4
26	7.6	7.3	7.4	13.3	12.5	13.0	18.7	18.2	18.5	22.9	22.3	22.6
27	8.1	6.7	7.5	12.6	11.7	12.2	18.4	18.0	18.2	22.4	21.8	22.1
28	8.7	7.8	8.2	12.6	11.5	12.0	18.5	17.6	18.1	22.5	21.8	22.1
29	---	---	---	12.8	12.1	12.5	17.7	16.9	17.5	23.0	22.2	22.5
30	---	---	---	13.5	12.7	13.2	16.9	15.6	16.4	23.4	22.6	23.1
31	---	---	---	14.1	13.1	13.6	---	---	---	23.8	23.2	23.6
MONTH	10.8	6.7	9.0	14.1	7.2	10.3	19.8	13.9	17.0	23.8	14.9	19.8

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

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	24.1	23.3	23.7	26.5	26.0	26.3	31.1	29.8	30.3	24.9	23.5	24.1
2	24.3	23.3	23.8	26.9	26.0	26.5	30.6	30.0	30.3	23.5	22.8	23.0
3	25.1	23.5	24.5	27.5	26.3	27.0	30.5	29.3	30.1	23.1	22.8	22.9
4	25.5	24.6	25.0	27.9	26.6	27.3	29.5	28.8	29.2	23.3	23.1	23.3
5	25.7	24.7	25.2	29.2	27.8	28.4	29.1	28.3	28.8	23.9	23.3	23.5
6	25.8	24.7	25.2	30.1	28.6	29.3	29.0	28.3	28.7	24.0	23.7	23.8
7	26.3	25.1	25.6	30.3	29.2	29.7	29.3	28.8	29.0	23.9	23.4	23.6
8	26.6	25.1	25.8	30.0	29.4	29.7	29.9	29.1	29.6	24.6	23.8	24.1
9	27.4	25.7	26.5	29.5	28.2	28.8	30.1	29.2	29.7	24.9	24.4	24.6
10	27.5	26.4	27.0	29.0	28.1	28.6	29.2	28.6	28.8	25.3	24.8	25.0
11	27.4	26.0	26.6	28.6	27.9	28.2	28.7	28.3	28.5	25.5	25.0	25.3
12	26.6	25.1	25.5	28.1	27.5	27.8	29.1	28.2	28.6	25.0	24.3	24.6
13	25.5	24.3	24.9	27.5	26.3	26.9	29.3	28.8	29.0	24.3	23.9	24.1
14	25.9	24.2	25.0	26.3	25.5	25.8	29.8	29.3	29.5	24.1	23.3	23.8
15	25.8	25.0	25.3	25.5	25.1	25.2	29.6	29.1	29.4	23.4	23.1	23.2
16	25.5	24.5	25.0	25.4	24.8	25.1	29.3	28.8	29.0	23.6	21.9	22.7
17	24.5	23.2	23.5	27.1	25.2	25.9	29.0	28.7	28.9	21.9	20.9	21.4
18	23.6	23.3	23.4	27.7	26.6	27.2	29.9	28.8	29.2	20.9	20.4	20.7
19	23.3	22.5	22.8	26.9	26.1	26.5	30.4	29.7	30.0	20.6	20.1	20.4
20	22.6	22.2	22.4	28.2	26.6	27.3	30.1	29.2	29.6	20.6	20.1	20.4
21	23.0	22.5	22.8	28.9	27.8	28.4	29.4	28.8	29.0	20.7	20.3	20.5
22	23.4	22.8	23.0	28.7	27.8	28.2	28.9	28.2	28.6	20.6	19.6	20.1
23	23.1	22.3	22.7	28.6	27.8	28.3	28.5	27.8	28.2	19.8	19.1	19.4
24	23.6	22.3	22.9	28.5	27.4	27.9	28.3	27.7	28.0	19.5	18.7	19.0
25	24.7	23.5	24.0	28.2	27.7	27.9	28.1	27.8	28.0	19.7	18.9	19.2
26	25.6	24.6	25.0	28.2	27.4	27.8	27.8	27.1	27.6	20.2	19.2	19.7
27	26.3	25.2	25.7	28.8	28.0	28.3	27.4	27.1	27.3	20.8	20.0	20.4
28	26.6	25.7	26.2	29.2	28.2	28.7	27.9	27.2	27.6	21.1	20.5	20.8
29	26.7	26.0	26.4	30.0	29.0	29.4	28.4	27.8	28.1	21.6	20.9	21.3
30	26.6	26.3	26.5	29.9	28.9	29.5	28.5	26.6	27.6	21.6	21.1	21.3
31	---	---	---	30.6	29.1	29.8	26.6	24.9	25.8	---	---	---
MONTH	27.5	22.2	24.7	30.6	24.8	27.8	31.1	24.9	28.8	25.5	18.7	22.2

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	6.1	5.3	5.8	8.9	8.2	8.5	9.5	7.2	8.3	13.0	12.6	12.8
2	6.3	5.8	6.1	8.7	8.0	8.4	10.0	8.0	8.9	13.3	12.0	12.9
3	---	---	---	8.6	8.3	8.5	10.0	8.3	9.2	13.4	12.6	13.0
4	---	---	---	8.9	8.6	8.7	9.7	9.0	9.4	12.9	12.6	12.8
5	---	---	---	9.0	8.6	8.8	9.6	8.8	9.1	12.8	11.8	12.5
6	---	---	---	9.4	8.8	9.1	9.7	8.5	9.0	14.1	11.9	13.5
7	---	---	---	9.9	9.3	9.6	9.8	7.6	8.8	14.2	13.8	14.0
8	---	---	---	10.0	9.6	9.9	---	---	---	13.8	12.8	13.3
9	---	---	---	10.0	9.6	9.8	8.9	8.2	8.6	13.5	12.6	13.1
10	---	---	---	9.8	9.4	9.7	9.3	8.8	9.0	13.4	11.7	12.5
11	---	---	---	9.8	9.4	9.6	9.6	9.0	9.3	12.6	11.8	12.2
12	---	---	---	9.6	9.3	9.4	10.0	9.5	9.7	12.9	11.8	12.3
13	---	---	---	9.4	9.1	9.2	10.1	9.9	10.0	13.0	12.4	12.7
14	---	---	---	9.4	9.1	9.2	10.3	9.9	10.1	12.9	12.3	12.7
15	---	---	---	9.6	9.0	9.3	10.5	10.0	10.2	13.0	12.2	12.6
16	---	---	---	9.8	9.0	9.5	10.8	10.1	10.5	13.3	11.8	12.4
17	---	---	---	9.8	9.2	9.5	10.9	10.4	10.7	13.3	12.4	12.8
18	---	---	---	9.8	9.0	9.3	10.6	10.4	10.5	12.6	12.2	12.4
19	---	---	---	9.5	8.7	9.0	10.9	10.5	10.7	12.3	11.6	12.0
20	---	---	---	9.3	8.6	8.9	10.9	10.4	10.6	11.7	11.1	11.4
21	---	---	---	9.4	8.4	8.9	10.9	10.2	10.6	11.4	10.9	11.2
22	---	---	---	9.2	8.8	9.0	10.9	10.4	10.6	11.6	11.0	11.2
23	---	---	---	9.8	8.9	9.3	10.8	10.4	10.7	12.3	11.4	11.8
24	---	---	---	9.5	8.7	9.2	11.0	10.6	10.8	12.4	11.8	12.1
25	---	---	---	9.9	8.9	9.4	11.8	11.0	11.4	11.8	10.7	11.3
26	---	---	---	10.0	9.2	9.8	12.4	11.8	12.1	12.2	10.6	11.1
27	---	---	---	10.0	9.1	9.6	13.0	12.4	12.7	12.6	12.2	12.5
28	---	---	---	9.7	8.9	9.2	12.7	12.2	12.5	13.0	12.6	12.8
29	8.8	8.4	8.6	9.8	8.9	9.2	12.4	12.0	12.3	13.0	12.4	12.8
30	8.7	8.0	8.4	10.0	8.6	9.2	12.6	12.2	12.4	---	---	---
31	8.8	8.1	8.4	---	---	---	12.8	12.4	12.6	---	---	---
MONTH	---	---	---	10.0	8.0	9.2	---	---	---	---	---	---

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

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	9.9	9.4	9.7	9.8	9.6	9.6
2	---	---	---	---	---	---	9.8	9.2	9.4	9.7	9.5	9.6
3	---	---	---	---	---	---	9.9	9.2	9.5	9.8	9.5	9.6
4	---	---	---	---	---	---	9.5	9.0	9.2	9.8	9.6	9.7
5	---	---	---	---	---	---	9.9	9.2	9.5	9.8	9.3	9.5
6	---	---	---	---	---	---	10.2	9.3	9.7	9.4	8.9	9.2
7	---	---	---	---	---	---	10.4	9.5	9.8	9.0	8.6	8.8
8	---	---	---	---	---	---	10.0	9.5	9.7	8.9	8.5	8.7
9	---	---	---	---	---	---	9.7	9.2	9.5	8.8	8.4	8.6
10	---	---	---	---	---	---	10.1	8.8	9.4	8.6	8.4	8.5
11	---	---	---	---	---	---	10.1	9.7	9.9	8.8	8.2	8.5
12	---	---	---	---	---	---	10.2	9.6	9.9	8.9	8.5	8.7
13	---	---	---	---	---	---	10.4	10.1	10.3	9.3	8.9	9.1
14	---	---	---	---	---	---	10.3	10.1	10.2	9.3	8.9	9.1
15	---	---	---	---	---	---	10.3	9.6	10.0	9.1	8.6	8.8
16	---	---	---	---	---	---	10.2	9.3	9.8	9.2	8.7	8.9
17	---	---	---	10.9	10.6	10.8	10.2	9.0	9.5	9.2	9.0	9.1
18	---	---	---	10.8	10.3	10.6	9.9	8.9	9.4	9.2	8.4	8.9
19	---	---	---	10.4	10.0	10.3	9.9	9.3	9.7	9.0	8.5	8.8
20	---	---	---	10.1	9.6	9.8	10.1	9.4	9.8	9.0	8.7	8.9
21	---	---	---	9.6	9.2	9.4	10.1	9.6	9.8	9.2	8.9	9.1
22	---	---	---	9.6	9.0	9.4	10.0	9.6	9.8	9.3	8.7	9.1
23	---	---	---	9.4	9.1	9.3	10.0	9.5	9.7	8.9	8.6	8.8
24	---	---	---	9.5	9.2	9.4	9.8	9.4	9.6	8.8	8.3	8.6
25	---	---	---	9.4	9.1	9.2	9.4	9.0	9.2	8.5	8.1	8.3
26	---	---	---	9.4	9.0	9.2	9.4	9.1	9.2	8.3	7.9	8.1
27	---	---	---	9.6	9.2	9.5	9.3	9.1	9.2	8.3	7.9	8.1
28	---	---	---	9.7	9.5	9.6	9.3	9.1	9.2	8.4	8.1	8.2
29	---	---	---	9.8	9.5	9.6	9.2	9.0	9.1	8.4	8.1	8.3
30	---	---	---	9.9	9.5	9.7	9.6	9.1	9.4	8.5	8.2	8.4
31	---	---	---	10.2	9.8	10.0	---	---	---	8.4	8.1	8.3
MONTH	---	---	---	---	---	---	10.4	8.8	9.6	9.8	7.9	8.8

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	8.3	8.1	8.2	9.5	9.0	9.2	6.7	6.0	6.4	7.0	6.6	6.8
2	8.4	8.1	8.2	9.6	8.9	9.2	6.6	6.0	6.2	7.0	6.8	6.9
3	8.3	7.9	8.1	9.6	9.1	9.3	6.6	6.2	6.4	7.0	6.9	6.9
4	8.2	7.8	8.0	9.6	9.1	9.3	6.5	6.1	6.4	7.1	6.8	6.9
5	8.2	7.8	8.0	9.6	9.2	9.4	6.6	6.1	6.4	7.2	6.7	7.0
6	8.4	7.9	8.1	9.4	8.9	9.2	6.9	6.2	6.5	7.0	6.1	6.6
7	8.9	7.8	8.2	9.2	8.7	9.0	6.7	6.4	6.5	6.1	5.0	5.4
8	8.8	7.9	8.3	9.0	7.8	8.6	6.8	6.5	6.7	5.0	4.5	4.8
9	8.4	7.8	8.1	7.8	6.9	7.3	6.7	6.0	6.3	4.8	4.2	4.5
10	8.4	7.8	8.1	6.9	6.1	6.4	6.3	5.8	6.1	5.1	4.6	4.9
11	8.4	7.7	8.0	6.5	6.2	6.4	6.6	6.1	6.3	4.9	4.6	4.8
12	8.3	7.9	8.1	6.5	6.3	6.4	6.6	6.2	6.4	4.8	4.7	4.7
13	8.4	7.8	8.1	6.6	6.3	6.5	6.7	6.3	6.5	4.7	4.2	4.4
14	8.4	8.0	8.2	6.8	6.5	6.6	6.7	6.3	6.5	5.1	4.3	4.8
15	8.3	8.0	8.1	6.9	6.6	6.8	6.6	6.4	6.5	6.3	4.6	5.2
16	8.1	7.8	7.9	7.1	6.8	7.0	6.5	6.3	6.4	6.6	5.5	6.1
17	8.4	7.9	8.1	7.3	7.0	7.2	6.5	5.9	6.2	---	---	---
18	8.3	7.9	8.1	7.1	6.7	6.9	6.2	6.0	6.1	---	---	---
19	8.5	8.0	8.3	7.4	6.9	7.1	6.7	6.1	6.4	---	---	---
20	8.5	8.2	8.3	8.0	7.1	7.5	6.5	6.0	6.2	---	---	---
21	8.6	8.2	8.3	7.6	6.4	6.7	6.5	6.0	6.2	---	---	---
22	---	---	---	6.9	6.4	6.7	6.4	6.1	6.3	---	---	---
23	9.0	8.5	8.8	6.8	6.5	6.7	6.5	6.1	6.3	---	---	---
24	9.3	8.8	9.0	6.6	6.4	6.5	6.7	6.3	6.4	---	---	---
25	9.5	9.0	9.2	6.5	5.9	6.2	6.5	6.2	6.3	---	---	---
26	9.4	9.0	9.2	6.3	5.8	6.0	6.5	6.1	6.3	---	---	---
27	9.4	9.0	9.2	6.7	6.1	6.4	6.5	6.3	6.4	---	---	---
28	9.3	8.8	9.1	6.4	5.5	5.9	6.4	6.2	6.3	---	---	---
29	9.3	8.8	9.0	6.5	6.0	6.3	6.3	6.1	6.2	---	---	---
30	9.2	8.9	9.1	6.5	6.0	6.2	6.4	6.2	6.3	---	---	---
31	---	---	---	6.9	6.4	6.7	6.7	6.4	6.5	---	---	---
MONTH	---	---	---	9.6	5.5	7.3	6.9	5.8	6.4	---	---	---

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

OXYGEN DISSOLVED (% OF SATURATION), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	76	66	72	94	86	89	93	70	81	103	100	102
2	78	72	75	91	83	87	98	77	86	107	96	102
3	---	---	---	89	86	88	98	81	90	108	104	106
4	---	---	---	90	87	88	95	88	92	106	102	104
5	---	---	---	90	87	88	94	86	89	104	98	102
6	---	---	---	92	87	89	96	84	89	112	98	108
7	---	---	---	95	90	92	98	76	88	112	109	111
8	---	---	---	95	92	93	---	---	---	109	102	105
9	---	---	---	96	92	94	89	82	86	110	100	106
10	---	---	---	96	92	94	93	87	89	110	94	101
11	---	---	---	97	93	95	93	88	90	100	91	96
12	---	---	---	96	93	94	94	90	92	103	92	97
13	---	---	---	94	90	92	95	93	94	105	99	102
14	---	---	---	93	89	91	97	93	94	105	102	103
15	---	---	---	95	88	91	98	92	94	110	102	105
16	---	---	---	95	88	92	98	92	95	110	100	104
17	---	---	---	96	91	93	97	95	96	110	104	106
18	---	---	---	97	90	93	95	93	94	104	102	104
19	---	---	---	95	88	90	97	94	95	103	98	101
20	---	---	---	94	86	90	97	93	95	99	93	96
21	---	---	---	94	84	89	98	91	94	97	93	95
22	---	---	---	93	88	90	98	93	96	100	95	97
23	---	---	---	96	88	91	96	93	95	107	99	102
24	---	---	---	94	86	90	96	94	95	107	103	106
25	---	---	---	97	86	91	100	95	98	104	96	100
26	---	---	---	97	89	94	101	99	100	105	94	98
27	---	---	---	97	89	93	105	100	102	108	105	107
28	---	---	---	94	86	89	102	98	100	110	107	109
29	93	88	90	95	85	89	100	97	99	110	105	108
30	93	85	89	97	83	89	101	97	99	---	---	---
31	94	86	89	---	---	---	101	98	100	---	---	---
MONTH	---	---	---	97	83	91	---	---	---	---	---	---

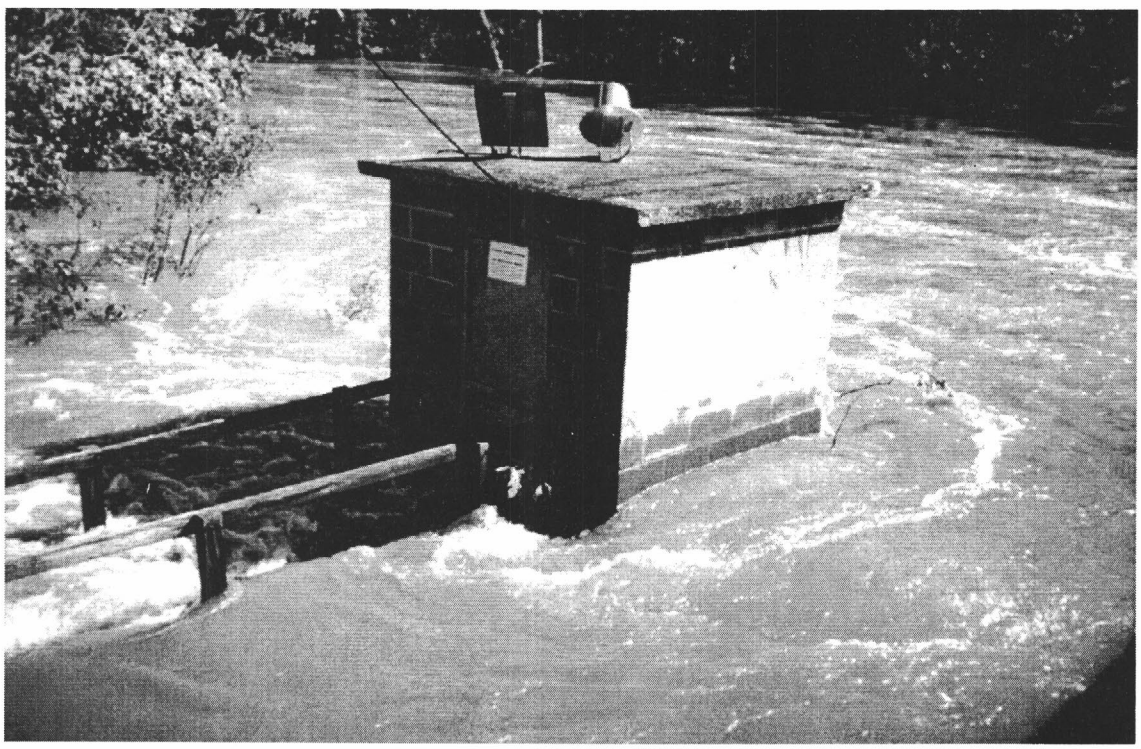
OXYGEN DISSOLVED (% OF SATURATION), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	98	94	96	96	94	95
2	---	---	---	---	---	---	99	92	95	95	93	94
3	---	---	---	---	---	---	103	94	97	97	93	96
4	---	---	---	---	---	---	100	93	96	98	95	96
5	---	---	---	---	---	---	105	96	100	98	95	96
6	---	---	---	---	---	---	108	98	102	96	93	95
7	---	---	---	---	---	---	111	100	104	95	91	93
8	---	---	---	---	---	---	108	100	104	96	91	93
9	---	---	---	---	---	---	104	98	102	95	92	93
10	---	---	---	---	---	---	106	95	100	96	91	93
11	---	---	---	---	---	---	106	101	103	97	92	95
12	---	---	---	---	---	---	105	100	102	98	94	96
13	---	---	---	---	---	---	104	102	103	101	97	100
14	---	---	---	---	---	---	106	102	104	102	97	99
15	---	---	---	---	---	---	104	97	102	98	92	94
16	---	---	---	---	---	---	104	95	99	96	90	93
17	---	---	---	95	91	93	104	91	97	95	93	94
18	---	---	---	94	92	93	100	90	94	97	89	94
19	---	---	---	95	92	93	100	94	98	96	90	94
20	---	---	---	94	89	92	102	94	98	98	93	95
21	---	---	---	91	86	89	101	96	98	100	96	98
22	---	---	---	91	86	89	101	98	99	103	97	100
23	---	---	---	89	86	88	101	98	100	100	96	99
24	---	---	---	92	88	89	101	97	99	101	95	98
25	---	---	---	90	88	89	98	95	97	96	93	95
26	---	---	---	90	86	88	98	94	97	95	90	93
27	---	---	---	90	87	89	97	95	96	94	90	92
28	---	---	---	91	88	90	97	93	95	96	92	94
29	---	---	---	93	89	91	95	93	94	96	94	95
30	---	---	---	95	90	93	96	93	95	99	94	97
31	---	---	---	99	94	96	---	---	---	98	94	96
MONTH	---	---	---	---	---	---	111	90	99	103	89	95

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

OXYGEN DISSOLVED (% OF SATURATION), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	98	94	96	116	109	112	87	80	84	81	78	80
2	98	95	96	117	107	113	87	78	82	81	79	80
3	98	94	96	120	110	115	86	80	83	81	79	80
4	98	94	96	120	111	115	85	79	82	82	80	81
5	99	93	96	121	115	118	85	77	81	83	79	82
6	102	94	97	121	113	117	89	78	83	82	71	77
7	108	94	100	119	111	115	87	81	84	71	58	64
8	107	95	101	115	100	109	89	84	86	59	54	56
9	104	95	99	100	85	91	87	77	82	57	50	53
10	105	95	99	85	76	79	80	74	78	60	55	58
11	103	94	99	80	77	79	84	77	80	59	56	58
12	101	96	98	80	77	79	84	79	82	58	55	56
13	102	93	97	79	77	78	86	81	83	56	50	52
14	102	95	98	80	78	79	86	81	84	60	50	56
15	100	96	97	82	78	80	86	83	84	74	53	61
16	97	94	95	84	80	82	84	80	82	76	63	71
17	98	93	95	89	83	86	83	76	80	---	---	---
18	97	93	95	87	82	84	81	77	79	---	---	---
19	98	94	96	91	83	86	88	79	84	---	---	---
20	98	94	96	101	87	93	85	78	81	---	---	---
21	100	95	97	96	82	85	84	77	80	---	---	---
22	---	---	---	88	81	85	83	77	80	---	---	---
23	102	97	100	86	82	85	83	77	80	---	---	---
24	107	99	103	82	80	81	84	79	81	---	---	---
25	111	104	108	82	74	78	82	78	80	---	---	---
26	114	106	110	80	72	76	82	77	79	---	---	---
27	115	107	111	86	78	81	81	79	80	---	---	---
28	113	108	110	82	70	75	80	78	79	---	---	---
29	114	107	110	85	78	81	80	78	79	---	---	---
30	113	108	111	85	77	81	80	78	79	---	---	---
31	---	---	---	91	83	87	80	78	79	---	---	---
MONTH	---	---	---	121	70	90	89	74	81	---	---	---



The USGS gage house on the Tar River at N.C. 97 near Rocky Mount, N.C., September 1999.

0208102925 ROANOKE RIVER NEAR HAMILTON, NC

LOCATION.--Lat 35°56'03", long 77°08'23", North American Datum of 1983, Martin County, Hydrologic Unit 03010107, approximately 3.9 mi. east-southeast of Hamilton. and 0.8 mi north of SR 1416 on private dirt road. Approximately 59 river mi from mouth.

DRAINAGE AREA.--8,890 mi^2.

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

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

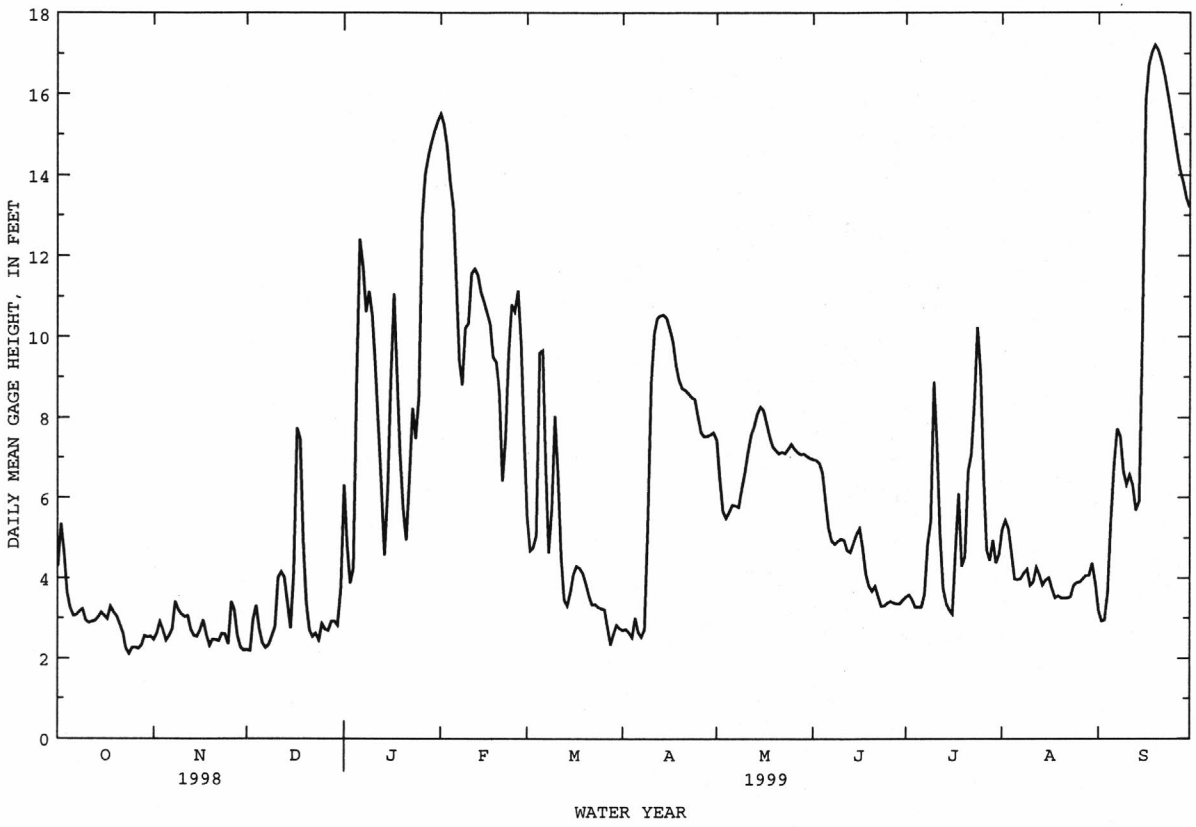
EXTREMES FOR PERIOD OF RECORD.--Maximum, 23.99 ft, Apr. 16, 1997; minimum, 1.71 ft, Sept. 11, 1998.

EXTREMES FOR CURRENT YEAR.--Maximum, 17.24 ft, Sept. 19; minimum, 2.03 ft, Oct. 24.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.29	2.46	2.21	6.32	15.51	5.53	2.70	7.44	6.96	3.53	5.20	3.20
2	5.36	2.62	2.18	4.82	15.25	4.68	2.73	6.46	6.94	3.59	5.44	2.93
3	4.66	2.91	2.98	3.87	14.73	4.76	2.64	5.67	6.87	3.47	5.23	2.95
4	3.64	2.70	3.32	4.24	13.87	5.06	2.52	5.50	6.63	3.28	4.61	3.67
5	3.25	2.44	2.73	8.95	13.20	9.61	3.01	5.64	5.95	3.28	3.98	5.44
6	3.06	2.56	2.38	12.42	11.33	9.67	2.65	5.82	5.24	3.28	3.96	6.81
7	3.08	2.73	2.26	11.74	9.41	6.76	2.53	5.81	4.93	3.60	3.99	7.72
8	3.17	3.42	2.33	10.62	8.81	4.63	2.72	5.77	4.85	4.86	4.12	7.52
9	3.23	3.21	2.56	11.13	10.22	5.71	5.24	6.23	4.92	5.42	4.22	6.65
10	2.94	3.10	2.78	10.54	10.34	8.04	8.84	6.63	4.98	8.89	3.82	6.33
11	2.88	3.03	4.01	9.23	11.57	6.61	10.10	7.13	4.95	7.35	3.90	6.57
12	2.91	3.06	4.15	7.78	11.69	4.52	10.47	7.56	4.70	5.06	4.27	6.32
13	2.93	2.71	4.02	6.30	11.53	3.45	10.54	7.79	4.65	3.75	4.08	5.69
14	3.02	2.56	3.40	4.56	11.11	3.31	10.55	8.10	4.88	3.37	3.83	5.91
15	3.14	2.54	2.75	6.18	10.87	3.64	10.47	8.27	5.09	3.21	3.95	10.13
16	3.06	2.71	4.15	8.99	10.60	4.09	10.20	8.18	5.24	3.11	4.01	15.83
17	2.98	2.95	7.74	11.07	10.33	4.30	9.86	7.87	4.73	4.68	3.73	16.71
18	3.29	2.57	7.45	9.02	9.50	4.25	9.28	7.54	4.10	6.11	3.51	17.03
19	3.15	2.31	4.91	7.09	9.37	4.12	8.92	7.28	3.81	4.30	3.56	17.21
20	3.04	2.47	3.37	5.77	8.58	3.86	8.72	7.19	3.68	4.53	3.50	17.08
21	2.84	2.46	2.71	4.94	6.42	3.56	8.68	7.10	3.80	6.67	3.50	16.81
22	2.63	2.43	2.53	6.52	7.46	3.34	8.60	7.14	3.54	7.08	3.50	16.46
23	2.24	2.62	2.62	8.23	9.61	3.35	8.51	7.11	3.30	8.36	3.53	16.03
24	2.11	2.60	2.45	7.47	10.80	3.28	8.45	7.22	3.31	10.24	3.82	15.56
25	2.26	2.35	2.86	8.51	10.63	3.24	8.02	7.34	3.38	9.17	3.89	15.07
26	2.27	3.41	2.72	12.92	11.15	3.22	7.63	7.22	3.42	6.47	3.90	14.57
27	2.24	3.20	2.69	14.03	9.81	2.76	7.53	7.14	3.38	4.70	3.98	14.12
28	2.32	2.55	2.92	14.48	7.46	2.33	7.54	7.08	3.36	4.44	4.07	13.81
29	2.56	2.27	2.92	14.82	---	2.60	7.57	7.10	3.36	4.95	4.07	13.43
30	2.52	2.19	2.82	15.10	---	2.83	7.63	7.04	3.46	4.38	4.38	13.20
31	2.54	---	3.76	15.33	---	2.75	---	6.99	---	4.59	3.87	---
MEAN	3.02	2.70	3.31	9.13	10.76	4.51	7.16	6.98	4.61	5.15	4.05	10.69
MAX	5.36	3.42	7.74	15.33	15.51	9.67	10.55	8.27	6.96	10.24	5.44	17.21
MIN	2.11	2.19	2.18	3.87	6.42	2.33	2.52	5.50	3.30	3.11	3.50	2.93

0208102925 ROANOKE RIVER NEAR HAMILTON, NC--Continued



02081054 ROANOKE RIVER AT WILLIAMSTON, NC

LOCATION.--Lat 35°51'40", long 77°02'20", 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 mi^2.

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

GAGE.--Water stage recorder. Datum of gage is sea level. Satellite telemetry at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum, 10.13 ft, Sept. 18, 1999; minimum, -0.35 ft, Jan. 4, 1989.

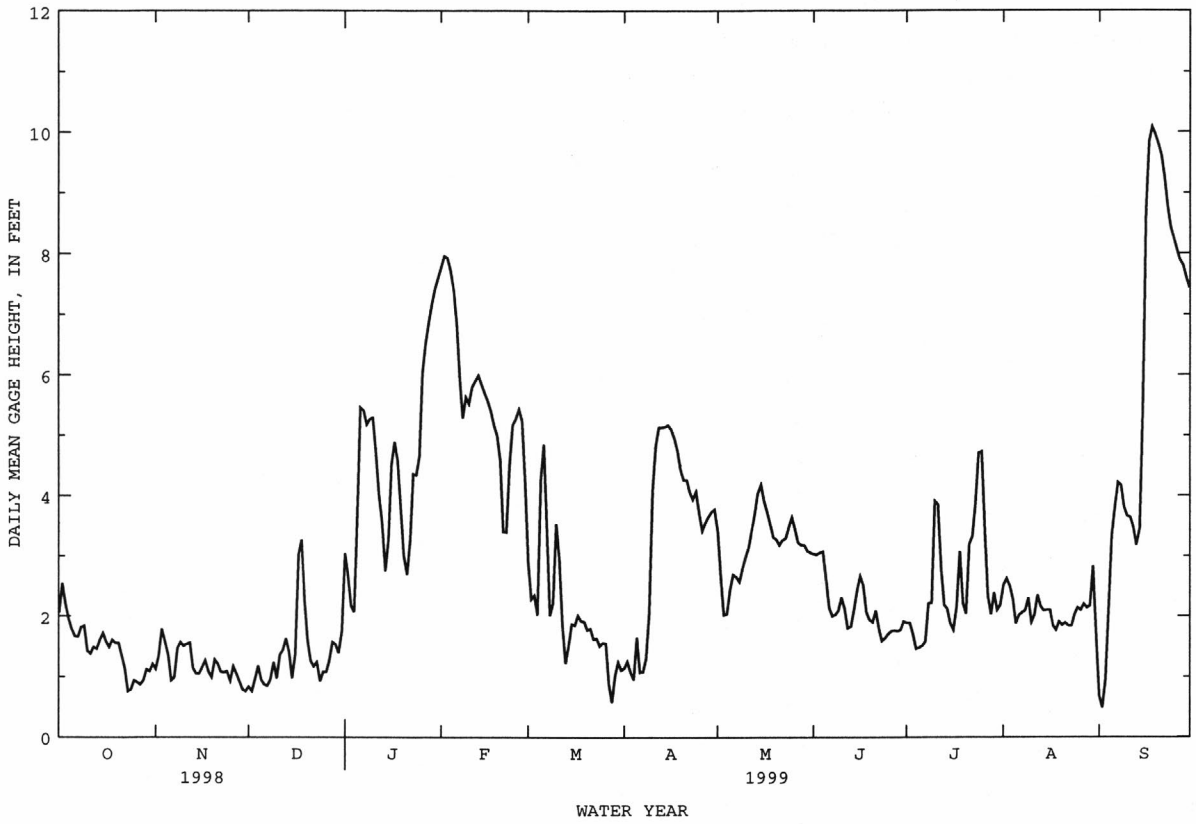
EXTREMES FOR CURRENT YEAR.--Maximum, 10.13 ft, Sept. 18; minimum, 0.24 ft, Mar. 28.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.06	1.13	.83	3.04	7.78	2.90	1.14	3.41	3.03	1.89	2.51	.68
2	2.55	1.35	.76	2.67	7.96	2.28	1.25	2.64	3.02	1.89	2.62	.48
3	2.21	1.79	.96	2.17	7.93	2.34	1.07	2.02	3.05	1.71	2.50	.94
4	1.96	1.58	1.18	2.07	7.73	2.02	.95	2.04	3.07	1.46	2.29	2.12
5	1.79	1.36	.95	3.67	7.41	4.28	1.65	2.44	2.63	1.48	1.88	3.33
6	1.67	.94	.87	5.46	6.87	4.85	1.07	2.69	2.14	1.51	2.01	3.79
7	1.66	.99	.85	5.41	5.96	3.44	1.08	2.65	2.00	1.58	2.06	4.22
8	1.82	1.47	.95	5.18	5.28	2.01	1.30	2.57	2.02	2.21	2.09	4.17
9	1.84	1.57	1.24	5.27	5.63	2.22	2.06	2.79	2.09	2.22	2.30	3.80
10	1.43	1.51	.97	5.29	5.52	3.53	4.09	2.98	2.31	3.91	1.90	3.66
11	1.38	1.54	1.36	4.70	5.80	2.96	4.82	3.14	2.13	3.85	2.02	3.64
12	1.49	1.56	1.44	4.01	5.90	1.83	5.13	3.42	1.80	2.79	2.35	3.47
13	1.46	1.14	1.63	3.56	5.99	1.22	5.13	3.69	1.83	2.18	2.16	3.18
14	1.61	1.05	1.41	2.75	5.84	1.51	5.14	4.04	2.11	2.12	2.09	3.45
15	1.72	1.05	.97	3.26	5.70	1.87	5.17	4.18	2.43	1.88	2.10	5.39
16	1.58	1.16	1.37	4.51	5.57	1.85	5.10	3.91	2.66	1.77	2.10	8.67
17	1.49	1.27	3.02	4.89	5.40	2.01	4.95	3.72	2.51	2.15	1.84	9.84
18	1.61	1.08	3.27	4.58	5.17	1.92	4.74	3.52	2.07	3.07	1.77	10.08
19	1.56	.99	2.25	3.79	4.99	1.91	4.43	3.31	1.94	2.21	1.91	9.96
20	1.56	1.28	1.59	3.00	4.59	1.77	4.26	3.27	1.90	2.04	1.85	9.81
21	1.35	1.21	1.26	2.69	3.40	1.79	4.26	3.18	2.09	3.19	1.89	9.61
22	1.14	1.08	1.17	3.25	3.39	1.62	4.06	3.26	1.80	3.32	1.84	9.25
23	.76	1.07	1.24	4.36	4.51	1.63	3.94	3.29	1.59	3.87	1.84	8.78
24	.79	1.09	.92	4.34	5.17	1.51	4.07	3.48	1.63	4.71	2.03	8.43
25	.94	.93	1.08	4.65	5.27	1.56	3.71	3.64	1.70	4.73	2.14	8.25
26	e.91	1.17	1.08	6.05	5.43	1.55	3.42	3.44	1.75	3.36	2.10	8.07
27	e.87	1.05	1.27	6.52	5.24	.88	3.55	3.22	1.76	2.33	2.20	7.90
28	.94	.92	1.57	6.89	4.19	.57	3.65	3.18	1.75	2.03	2.14	7.81
29	1.12	.79	1.53	7.18	---	1.01	3.73	3.18	1.77	2.39	2.17	7.61
30	1.09	.76	1.39	7.43	---	1.24	3.77	3.08	1.91	2.10	2.83	7.44
31	1.21	---	1.76	7.60	---	1.11	---	3.05	---	2.18	1.66	---
MEAN	1.47	1.20	1.36	4.52	5.70	2.04	3.42	3.18	2.15	2.52	2.10	5.93
MAX	2.55	1.79	3.27	7.60	7.96	4.85	5.17	4.18	3.07	4.73	2.83	10.08
MIN	.76	.76	.76	2.07	3.39	.57	.95	2.02	1.59	1.46	1.66	.48

e Estimated.

02081054 ROANOKE RIVER AT WILLIAMSTON, NC--Continued



0208108600 CONINE CREEK AT US HIGHWAY 17 NR WILLAMSTON, NC

LOCATION.--Lat 35°53'25", long 77°01'10", North American Datum of 1983, Martin County, Hydrologic Unit 03010107, on bridge at U.S. Highway 17 and 3 mi northwest of Williamston.

DRAINAGE AREA.--8,940 mi^2.

PERIOD OF RECORD.--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 sea level.

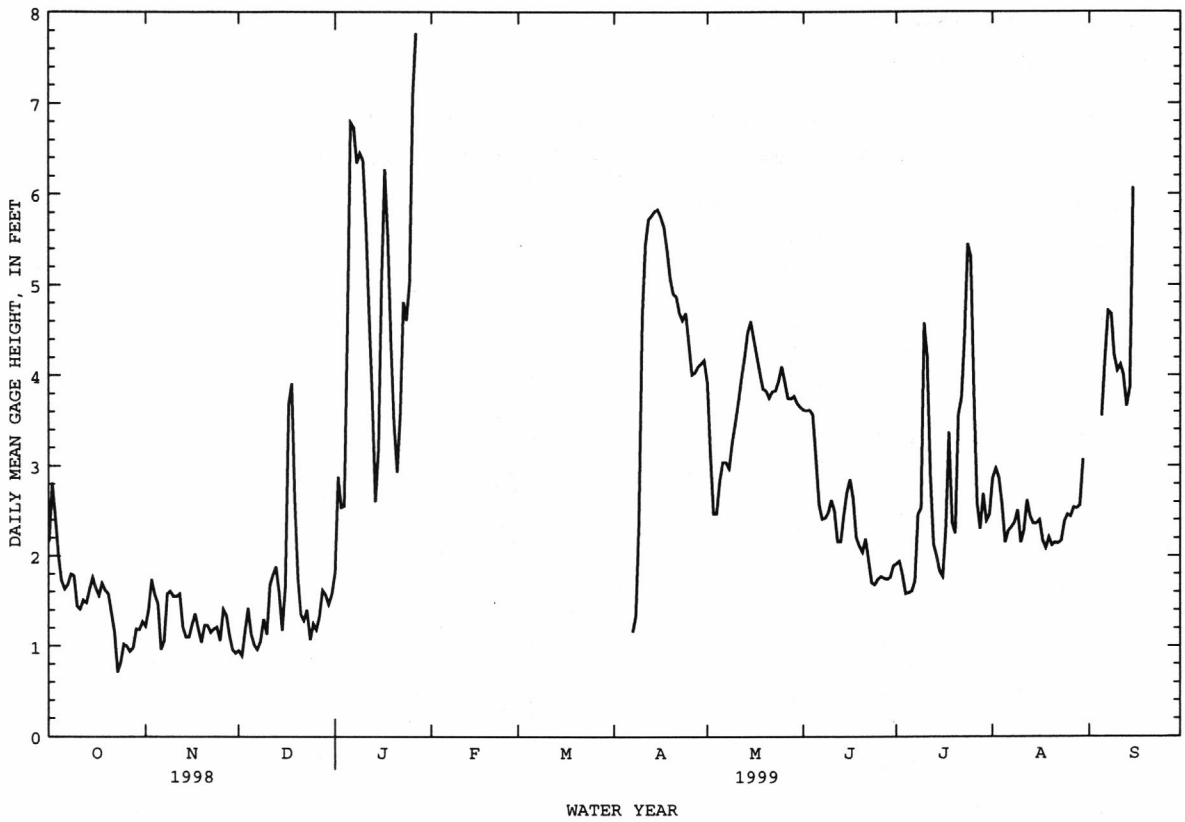
EXTREMES FOR PERIOD OF RECORD.--Maximum recorded gage height, undetermined; minimum recorded gage height, 0.68 ft, Oct. 23, 24, 1998.

EXTREMES FOR CURRENT YEAR.--Maximum recorded gage height, undetermined; minimum recorded gage height, 0.68 ft, Oct. 23, 24.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.16	1.22	.95	1.82	---	---	---	3.91	3.62	1.91	2.86	---
2	2.81	1.41	.89	2.88	---	---	---	3.11	3.61	1.94	2.97	---
3	2.43	1.74	1.17	2.54	---	---	---	2.47	3.62	1.79	2.87	---
4	2.01	1.57	1.42	2.55	---	---	---	2.47	3.57	1.58	2.57	---
5	1.73	1.47	1.13	4.49	---	---	---	2.83	3.10	1.59	2.15	3.55
6	1.63	.96	1.01	6.79	---	---	---	3.04	2.57	1.61	2.28	4.16
7	1.68	1.06	.96	6.73	---	---	1.16	3.04	2.41	1.72	2.32	4.71
8	1.80	1.58	1.05	6.34	---	---	1.34	2.97	2.42	2.46	2.37	4.68
9	1.78	1.61	1.30	6.45	---	---	2.37	3.26	2.48	2.53	2.51	4.22
10	1.44	1.55	1.13	6.37	---	---	4.63	3.48	2.62	4.58	2.15	4.05
11	1.41	1.55	1.68	5.64	---	---	5.44	3.71	2.50	4.21	2.28	4.12
12	1.51	1.58	1.79	4.67	---	---	5.72	3.97	2.16	2.87	2.62	4.00
13	1.48	1.21	1.88	3.78	---	---	5.76	4.20	2.16	2.13	2.44	3.66
14	1.63	1.10	1.59	2.60	---	---	5.81	4.47	2.46	2.00	2.36	3.86
15	1.76	1.10	1.17	3.18	---	---	5.83	4.60	2.71	1.83	2.36	6.07
16	1.64	1.24	1.67	5.05	---	---	5.75	4.40	2.85	1.77	2.40	---
17	1.56	1.36	3.68	6.27	---	---	5.63	4.21	2.64	2.32	2.17	---
18	1.70	1.18	3.91	5.54	---	---	5.38	4.02	2.21	3.37	2.09	---
19	1.62	1.04	2.60	4.39	---	---	5.07	3.85	2.11	2.37	2.21	---
20	1.58	1.23	1.76	3.48	---	---	4.90	3.83	2.04	2.25	2.12	---
21	1.37	1.23	1.35	2.93	---	---	4.87	3.75	2.19	3.57	2.15	---
22	1.15	1.15	1.28	3.58	---	---	4.69	3.82	1.94	3.75	2.14	---
23	.71	1.19	1.40	4.81	---	---	4.61	3.83	1.70	4.45	2.17	---
24	.82	1.21	1.07	4.61	---	---	4.69	3.94	1.68	5.45	2.38	---
25	1.02	1.06	1.25	5.02	---	---	4.35	4.10	1.74	5.30	2.46	---
26	1.00	1.41	1.18	7.09	---	---	4.01	3.93	1.77	3.77	2.44	---
27	.94	1.34	1.33	7.77	---	---	4.03	3.75	1.75	2.59	2.54	---
28	.98	1.12	1.62	---	---	---	4.10	3.74	1.74	2.30	2.53	---
29	1.19	.96	1.57	---	---	---	4.13	3.77	1.76	2.69	2.56	---
30	1.18	.92	1.46	---	---	---	4.17	3.69	1.89	2.39	3.07	---
31	1.27	---	1.58	---	---	---	---	3.65	---	2.46	---	---
MEAN	1.52	1.28	1.54	---	---	---	---	3.67	2.40	2.76	---	---
MAX	2.81	1.74	3.91	---	---	---	---	4.60	3.62	5.45	---	---
MIN	.71	.92	.89	---	---	---	---	2.47	1.68	1.58	---	---

0208108600 CONINE CREEK AT US HIGHWAY 17 NR WILLAMSTON, NC--Continued



355326076565301 DEVILS GUT TRANSECT (SITE #1)

LOCATION.--Lat 35°53'27", long 76°56'52", North American Datum of 1983, Martin County, Hydrologic Unit 03010107, approximately 7 mi south of Windsor and 8.1 mi north-northwest of Jamesville.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--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 sea level.

EXTREMES FOR PERIOD OF RECORD.--Maximum, 7.29 ft, Sept. 18, 19, 1999; minimum, -0.87 ft, Sept. 3, 4, 1999.

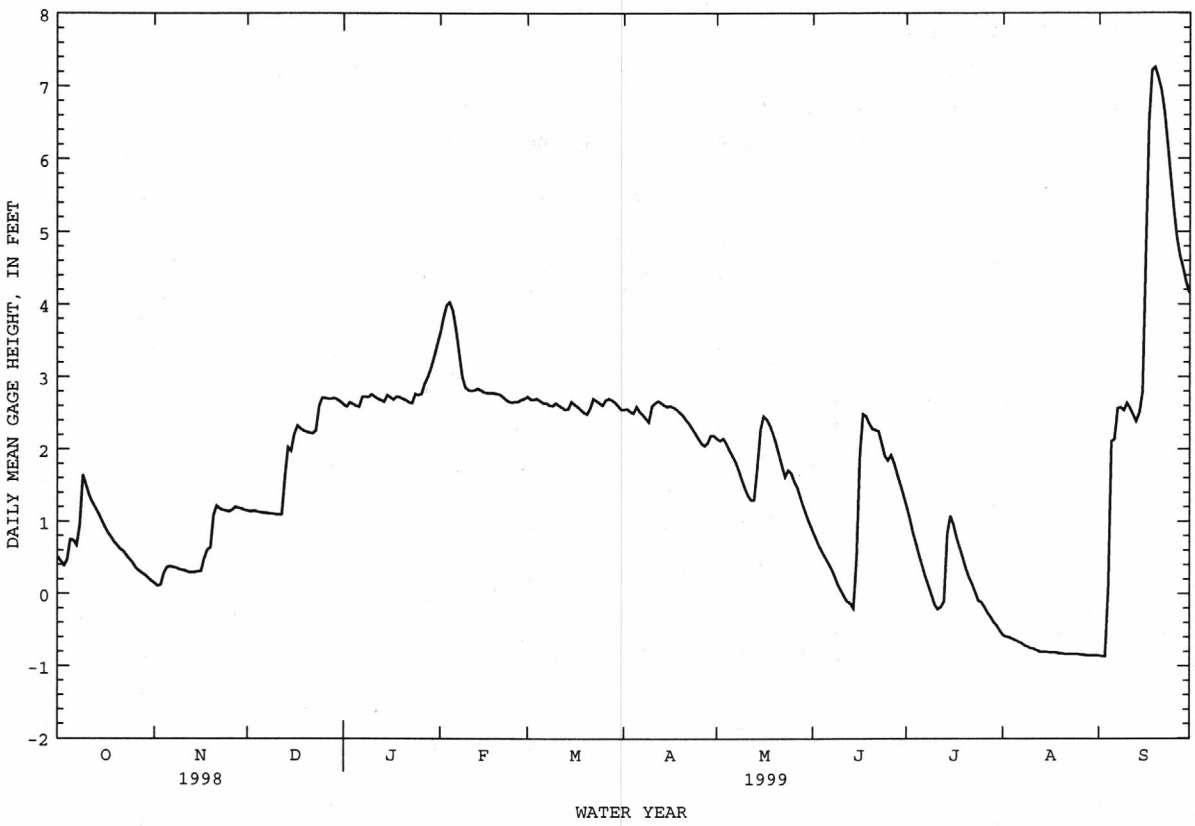
EXTREMES FOR CURRENT YEAR.--Maximum, 7.29 ft, Sept. 18, 19; minimum, -0.87 ft, Sept. 3, 4.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.51	.15	1.15	2.62	3.61	2.73	2.55	2.15	.86	1.21	-.57	-.85
2	.45	.11	1.14	2.59	3.82	2.69	2.56	2.12	.76	1.04	-.59	-.86
3	.39	.12	1.15	2.65	3.99	2.69	2.52	2.15	.66	.85	-.60	-.86
4	.47	.29	1.14	2.63	4.03	2.70	2.50	2.08	.58	.69	-.62	.06
5	.75	.37	1.13	2.60	3.91	2.67	2.59	1.99	.50	.53	-.64	2.11
6	.74	.38	1.12	2.59	3.65	2.64	2.52	1.91	.42	.39	-.66	2.14
7	.67	.37	1.12	2.73	3.33	2.64	2.48	1.83	.34	.25	-.68	2.57
8	.95	.36	1.11	2.73	3.01	2.61	2.43	1.71	.24	.12	-.71	2.58
9	1.65	.34	1.11	2.72	2.86	2.60	2.38	1.58	.13	-.01	-.73	2.54
10	1.51	.33	1.10	2.76	2.82	2.64	2.60	1.46	.05	-.14	-.75	2.64
11	1.37	.32	1.10	2.73	2.81	2.61	2.64	1.36	-.03	-.21	-.76	2.57
12	1.27	.30	1.10	2.70	2.82	2.58	2.67	1.30	-.10	-.18	-.78	2.48
13	1.19	.30	1.62	2.68	2.84	2.55	2.64	1.30	-.13	-.10	-.80	2.39
14	1.11	.30	2.03	2.66	2.82	2.56	2.61	1.72	-.20	.82	-.80	2.51
15	1.02	.31	1.98	2.75	2.79	2.66	2.59	2.27	.50	1.08	-.80	2.79
16	.93	.31	2.21	2.72	2.78	2.62	2.60	2.46	1.92	.96	-.81	4.74
17	.85	.48	2.33	2.69	2.78	2.59	2.58	2.42	2.49	.78	-.81	6.55
18	.79	.61	2.29	2.73	2.78	2.55	2.55	2.34	2.46	.64	-.81	7.22
19	.72	.64	2.26	2.72	2.77	2.51	2.51	2.23	2.36	.50	-.82	7.26
20	.67	1.09	2.24	2.70	2.76	2.49	2.47	2.10	2.28	.35	-.82	7.12
21	.62	1.22	2.23	2.68	2.73	2.57	2.41	1.94	2.27	.23	-.83	6.94
22	.59	1.18	2.22	2.65	2.69	2.70	2.36	1.78	e2.25	.14	-.83	6.64
23	.53	1.16	2.26	2.64	2.66	2.67	2.29	1.62	e2.08	.03	-.83	6.20
24	.48	1.15	2.60	2.77	2.65	2.64	2.22	1.71	1.91	-.09	-.83	5.75
25	.43	1.14	2.71	2.75	2.66	2.61	2.15	1.67	1.85	-.11	-.83	5.32
26	.36	1.16	2.71	2.77	2.66	2.68	2.08	1.55	1.92	-.18	-.84	4.94
27	.32	1.20	2.70	2.91	2.69	2.70	2.05	1.47	1.80	-.26	-.84	4.68
28	.29	1.19	2.70	3.01	2.70	2.68	2.09	1.33	1.65	-.32	-.85	4.51
29	.26	1.18	2.71	3.13	---	2.65	2.19	1.20	1.51	-.39	-.85	4.31
30	.22	1.16	2.69	3.28	---	2.60	2.19	1.07	1.36	-.44	-.85	4.16
31	.18	---	2.66	3.45	---	2.55	---	.96	---	-.51	-.85	---
MEAN	.72	.64	1.89	2.77	3.01	2.63	2.43	1.77	1.16	.25	-.77	3.71
MAX	1.65	1.22	2.71	3.45	4.03	2.73	2.67	2.46	2.49	1.21	-.57	7.26
MIN	.18	.11	1.10	2.59	2.65	2.49	2.05	.96	-.20	-.51	-.85	-.86

e Estimated.

355326076565301 DEVILS GUT TRANSECT (SITE #1)--Continued



355024076562301 DEVILS GUT TRANSECT (SITE #2)

LOCATION.--Lat 35°50'25", long 76°56'18", North American Datum 1983, Martin County, Hydrologic Unit 03010107, on Devils Gut approximately 3.15 mi upstream of confluence with Roanoke River and 3.1 mi north west of Jamesville.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--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 sea level.

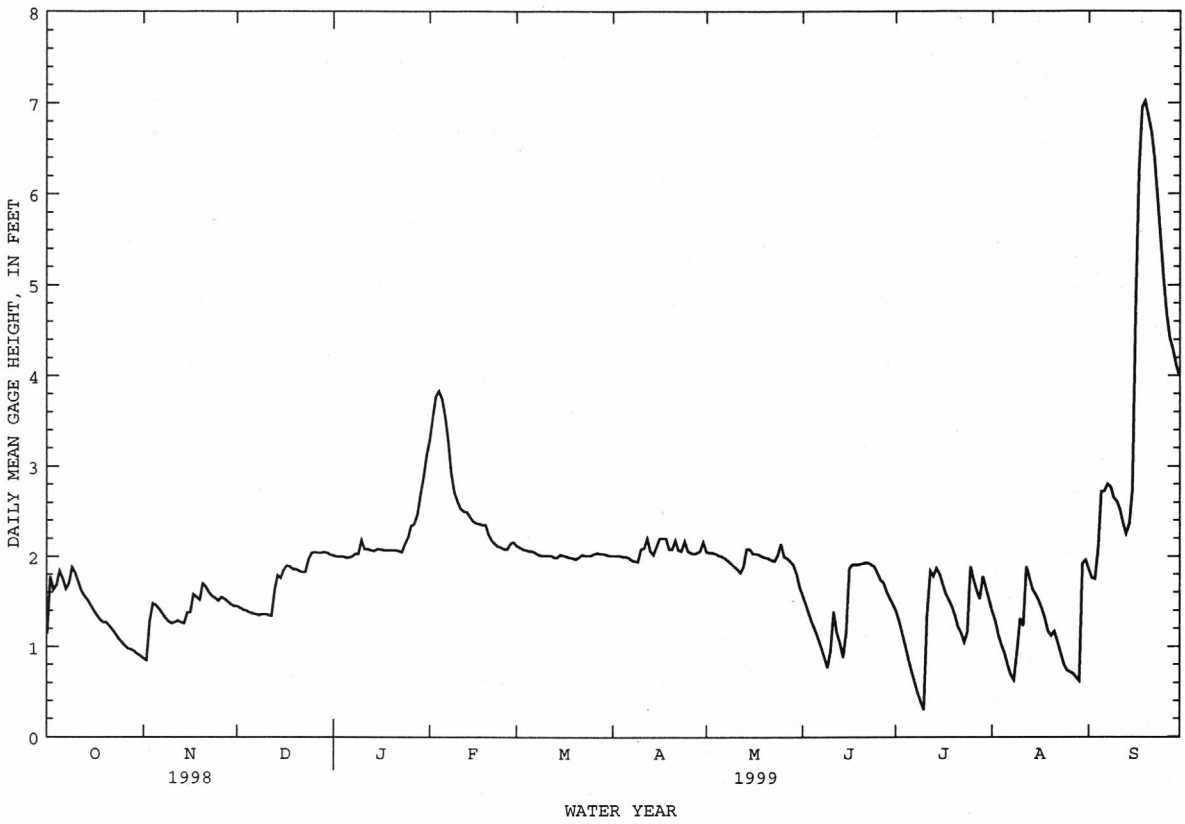
EXTREMES FOR PERIOD OF RECORD.--Maximum, 7.05 ft, Sept. 18, 19, 1999; minimum, 0.25 ft, July 10, 11, 1999.

EXTREMES FOR CURRENT YEAR.--Maximum, 7.05 ft, Sept. 18, 19; minimum, 0.25 ft, July 10, 11.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.14	.87	1.45	2.01	3.29	2.12	2.01	2.05	1.57	1.40	1.39	1.86
2	1.78	.85	1.43	2.00	3.54	2.10	2.01	2.04	1.47	1.29	1.28	1.76
3	1.63	1.28	1.41	2.00	3.77	2.08	2.01	2.04	1.37	1.16	1.13	1.75
4	1.68	1.48	1.40	2.00	3.83	2.07	2.00	2.03	1.27	1.01	1.02	2.09
5	1.84	1.46	1.38	1.99	3.74	2.06	2.00	2.01	1.19	.86	.93	2.72
6	1.75	1.42	1.37	1.99	3.54	2.06	1.99	2.00	1.09	.73	.80	2.72
7	1.64	1.37	1.36	2.00	3.28	2.04	1.96	1.98	.99	.61	.69	2.80
8	1.70	1.32	1.35	2.03	2.92	2.02	1.95	1.95	.88	.49	.63	2.77
9	1.88	1.28	1.36	2.03	2.71	2.01	1.94	1.92	.77	.39	.96	2.65
10	1.82	1.26	1.36	2.18	2.61	2.01	2.08	1.89	.95	.30	1.31	2.61
11	1.72	1.27	1.35	2.08	2.53	2.01	2.09	1.86	1.39	1.34	1.23	2.52
12	1.62	1.29	1.34	2.08	2.50	2.01	2.20	1.82	1.16	1.84	1.89	2.37
13	1.56	1.27	1.62	2.07	2.49	1.99	2.06	1.89	1.04	1.78	1.76	2.25
14	1.52	1.26	1.79	2.06	2.44	1.99	2.02	2.08	.88	1.87	1.64	2.36
15	1.46	1.38	1.76	2.08	2.39	2.02	2.11	2.08	1.16	1.81	1.58	2.74
16	1.40	1.38	1.85	2.08	2.37	2.01	2.20	2.03	1.87	1.70	1.51	4.81
17	1.35	1.58	1.90	2.07	2.36	2.00	2.20	2.03	1.91	1.59	1.42	6.26
18	1.30	1.55	1.89	2.07	2.35	1.99	2.20	2.02	1.91	1.52	1.31	6.95
19	1.27	1.52	1.86	2.07	2.35	1.98	2.08	2.00	1.91	1.44	1.17	7.02
20	1.27	1.70	1.86	2.07	2.24	1.97	2.08	1.99	1.92	1.34	1.12	6.86
21	1.23	1.66	1.84	2.07	2.18	1.99	2.18	1.98	1.93	1.22	1.17	6.68
22	1.19	1.60	1.83	2.06	2.14	2.02	2.07	1.96	1.93	1.15	1.06	6.39
23	1.14	1.56	1.83	2.05	2.11	2.01	2.06	1.95	1.91	1.05	.93	5.95
24	1.09	1.54	1.97	2.14	2.10	2.01	2.17	2.02	1.89	1.16	.81	5.49
25	1.05	1.51	2.04	2.21	2.08	2.01	2.06	2.14	1.82	1.89	.74	5.05
26	1.01	1.55	2.05	2.34	2.08	2.03	2.04	2.00	1.74	1.74	.72	4.68
27	.98	1.53	2.04	2.36	2.14	2.04	2.03	1.98	1.71	1.62	.70	4.42
28	.97	1.50	2.04	2.47	2.16	2.03	2.04	1.95	1.61	1.53	.66	4.29
29	.95	1.47	2.05	2.69	---	2.03	2.06	1.91	1.54	1.78	.62	4.12
30	.92	1.45	2.04	2.88	---	2.02	2.16	1.81	1.47	1.65	1.92	4.00
31	.90	---	2.02	3.12	---	2.01	---	1.66	---	1.52	1.96	---
MEAN	1.38	1.41	1.70	2.17	2.65	2.02	2.07	1.97	1.48	1.32	1.16	3.96
MAX	1.88	1.70	2.05	3.12	3.83	2.12	2.20	2.14	1.93	1.89	1.96	7.02
MIN	.90	.85	1.34	1.99	2.08	1.97	1.94	1.66	.77	.30	.62	1.75

355024076562301 DEVILS GUT TRANSECT (SITE #2)--Continued



354900076554101 DEVILS GUT TRANSECT (SITE #3)

LOCATION.--Lat 35°49'03", long 76°55'28", North American Datum of 1983, Martin County, Hydrologic Unit 03010107, approximately 1.85 mi west-northwest of Jamesville on US Hwy 64 and 0.3 mi north of US Hwy 64 on private dirt road.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--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 sea level.

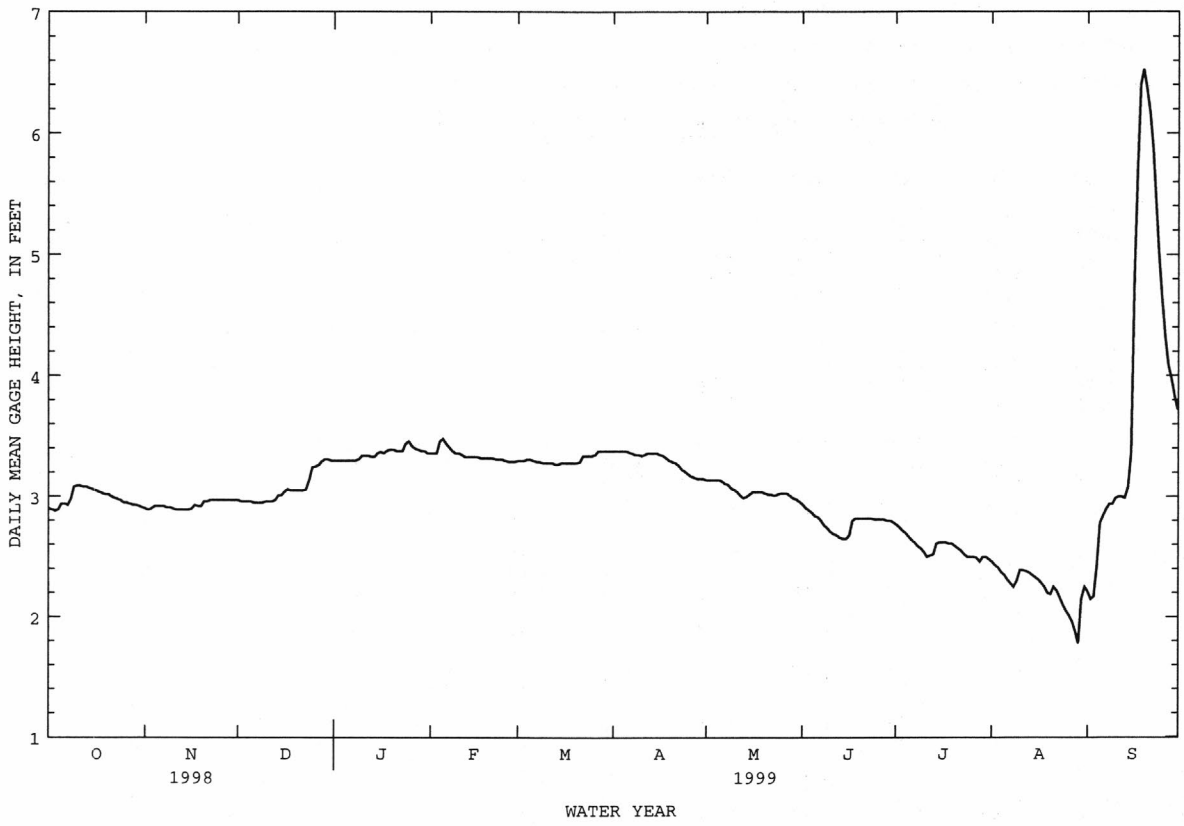
EXTREMES FOR PERIOD OF RECORD.--Maximum, 6.54 ft, Sept. 19, 1999; minimum, 1.73 ft, Aug. 29, 30, 1999.

EXTREMES FOR CURRENT YEAR.--Maximum, 6.54 ft, Sept. 19; minimum, 1.73 ft, Aug. 29, 30.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.90	2.90	2.97	3.30	3.36	3.30	3.38	3.14	2.94	2.77	2.46	2.21
2	2.89	2.89	2.96	3.30	3.36	3.30	3.38	3.14	2.91	2.75	2.43	2.15
3	2.88	2.90	2.96	3.30	3.36	3.30	3.38	3.14	2.89	2.72	2.41	2.17
4	2.89	2.92	2.96	3.30	3.46	3.31	3.38	3.14	2.87	2.70	2.37	2.43
5	2.94	2.92	2.96	3.30	3.48	3.31	3.38	3.14	2.84	2.67	2.35	2.78
6	2.94	2.92	2.95	3.30	3.44	3.30	3.37	3.13	2.83	2.64	2.31	2.84
7	2.93	2.92	2.95	3.30	3.41	3.29	3.36	3.11	2.80	2.62	2.28	2.90
8	2.98	2.91	2.95	3.30	3.38	3.29	3.35	3.10	2.76	2.59	2.25	2.94
9	3.08	2.91	2.95	3.31	3.36	3.28	3.35	3.07	2.74	2.57	2.30	2.94
10	3.09	2.90	2.96	3.34	3.36	3.28	3.34	3.06	2.71	2.54	2.39	2.99
11	3.09	2.89	2.96	3.34	3.35	3.28	3.35	3.04	2.69	2.50	2.39	3.00
12	3.08	2.89	2.96	3.34	3.33	3.28	3.36	3.01	2.68	2.51	2.38	3.00
13	3.08	2.89	2.97	3.33	3.33	3.27	3.36	2.99	2.66	2.52	2.37	2.99
14	3.07	2.89	3.01	3.33	3.33	3.27	3.36	3.00	2.65	2.61	2.35	3.08
15	3.06	2.89	3.01	3.36	3.33	3.28	3.36	3.02	2.65	2.62	2.33	3.36
16	3.05	2.90	3.04	3.37	3.33	3.28	3.35	3.04	2.68	2.62	2.31	4.79
17	3.04	2.93	3.06	3.36	3.32	3.28	3.34	3.04	2.80	2.62	2.28	5.69
18	3.03	2.92	3.05	3.38	3.32	3.28	3.32	3.04	2.82	2.61	2.25	6.40
19	3.02	2.92	3.05	3.39	3.32	3.28	3.30	3.04	2.82	2.61	2.20	6.53
20	3.02	2.96	3.05	3.39	3.32	3.28	3.29	3.03	2.82	2.59	2.19	6.37
21	3.00	2.96	3.05	3.38	3.32	3.29	3.28	3.02	2.82	2.57	2.25	6.16
22	2.99	2.97	3.05	3.38	3.31	3.34	3.26	3.02	2.82	2.55	2.22	5.87
23	2.98	2.97	3.06	3.38	3.31	3.34	3.23	3.01	2.82	2.52	2.16	5.42
24	2.97	2.97	3.14	3.44	3.31	3.34	3.21	3.02	2.81	2.50	2.10	4.98
25	2.95	2.97	3.24	3.46	3.30	3.34	3.19	3.03	2.81	2.50	2.05	4.63
26	2.95	2.97	3.25	3.42	3.29	3.35	3.17	3.03	2.81	2.50	2.01	4.32
27	2.94	2.97	3.26	3.40	3.29	3.38	3.16	3.03	2.81	2.49	1.96	4.09
28	2.93	2.97	3.29	3.39	3.29	3.38	3.15	3.01	2.80	2.46	1.88	3.97
29	2.93	2.97	3.31	3.38	---	3.38	3.15	2.99	2.80	2.50	1.78	3.83
30	2.92	2.97	3.31	3.38	---	3.38	3.15	2.98	2.79	2.50	2.15	3.72
31	2.91	---	3.30	3.36	---	3.38	---	2.96	---	2.48	2.25	---
MEAN	2.98	2.93	3.06	3.36	3.35	3.31	3.30	3.05	2.79	2.58	2.24	3.95
MAX	3.09	2.97	3.31	3.46	3.48	3.38	3.38	3.14	2.94	2.77	2.46	6.53
MIN	2.88	2.89	2.95	3.30	3.29	3.27	3.15	2.96	2.65	2.46	1.78	2.15

354900076554101 DEVILS GUT TRANSECT (SITE #3)--Continued



0208108650 ROANOKE RIVER NR WOODARD, NC

LOCATION.--Lat 35°53'51", long 76°55'12", North American Datum of 1983, Bertie County, Hydrologic Unit 03010107, on left bank of river at private fishing pier, approximately 6.0 mi north-northwest of Jamesville.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--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 sea level.

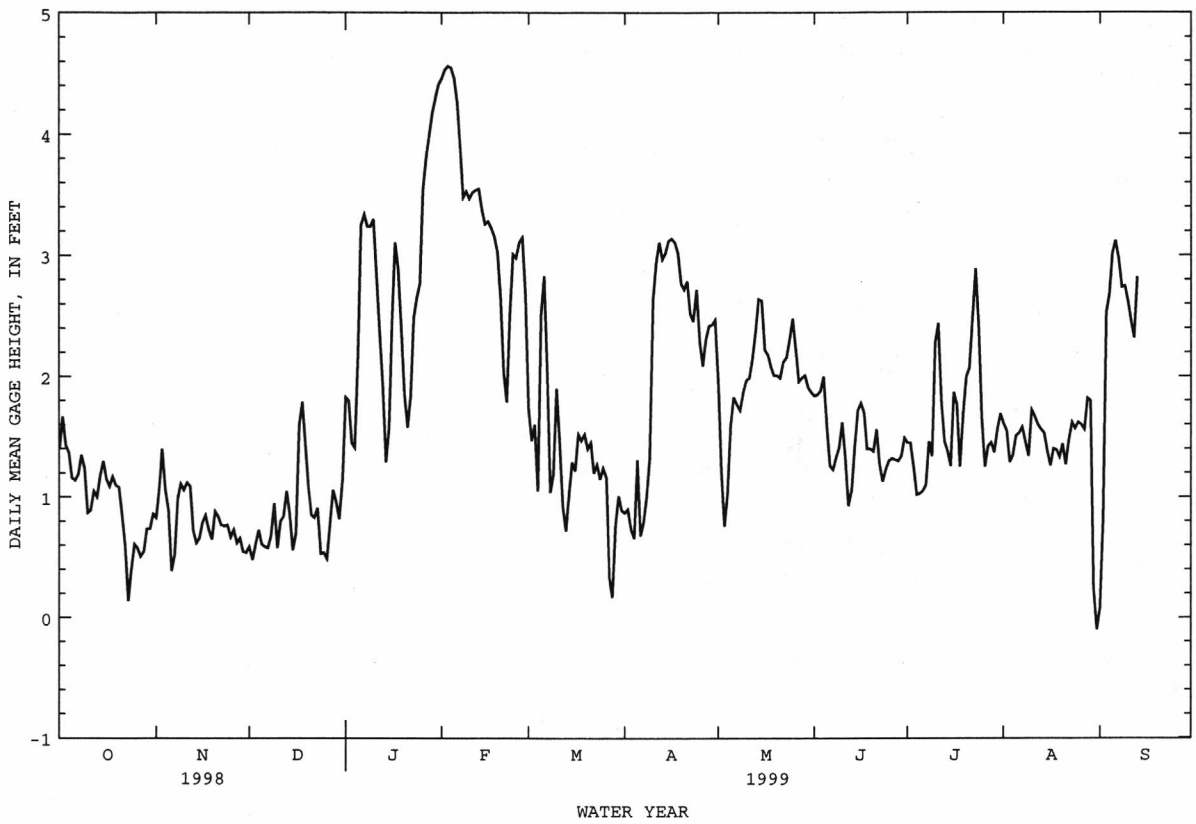
EXTREMES FOR PERIOD OF RECORD.--Maximum recorded gage height, 5.79 ft, Sept. 22, 23, 1996; minimum recorded gage height, -0.17 ft, Mar. 28, 1999.

EXTREMES FOR CURRENT YEAR.--Maximum recorded gage height, 4.68 ft, Sept. 14; minimum recorded gage height, -0.17 ft, Mar. 28.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.40	.83	.59	1.83	4.46	1.73	.87	1.94	1.84	1.45	1.61	.08
2	1.67	1.06	.48	1.80	4.53	1.47	.90	1.21	1.85	1.45	1.55	.82
3	1.43	1.40	.61	1.45	4.56	1.60	.73	.76	1.88	1.26	1.29	2.53
4	1.37	1.06	.73	1.41	4.55	1.05	.66	1.03	2.00	1.02	1.35	2.68
5	1.16	.89	.61	2.16	4.46	2.52	1.31	1.60	1.60	1.03	1.51	3.02
6	1.14	.39	.59	3.25	4.26	2.83	.68	1.83	1.26	1.05	1.53	3.12
7	1.19	.52	.58	3.34	3.89	2.03	.79	1.77	1.23	1.10	1.58	2.97
8	1.35	.99	.68	3.24	3.48	1.04	1.00	1.72	1.33	1.46	1.46	2.74
9	1.24	1.11	.95	3.24	3.53	1.19	1.33	1.87	1.41	1.34	1.34	2.75
10	.87	1.06	.58	3.30	3.47	1.90	2.64	1.97	1.62	2.28	1.72	2.62
11	.89	1.12	.80	2.84	3.52	1.47	2.94	1.99	1.33	2.44	1.67	2.46
12	1.05	1.09	.84	2.37	3.54	.92	3.11	2.15	.93	1.78	1.60	2.32
13	1.00	.72	1.05	1.94	3.55	.72	2.97	2.37	1.06	1.46	1.56	2.82
14	1.18	.62	.86	1.29	3.38	1.03	3.02	2.64	1.43	1.38	1.53	---
15	1.30	.66	.56	1.57	3.26	1.29	3.12	2.63	1.72	1.26	1.39	---
16	1.15	.79	.70	2.48	3.28	1.22	3.14	2.22	1.78	1.87	1.26	---
17	1.09	.85	1.60	3.11	3.23	1.52	3.11	2.18	1.70	1.77	1.40	---
18	1.17	.73	1.79	2.89	3.16	1.47	3.02	2.08	1.40	1.25	1.39	---
19	1.10	.65	1.43	2.39	3.03	1.52	2.77	2.01	1.40	1.70	1.33	---
20	1.08	.88	1.08	1.86	2.65	1.40	2.72	2.01	1.38	2.00	1.44	---
21	.85	.84	.85	1.58	2.04	1.45	2.79	1.99	1.56	2.07	1.27	---
22	.60	.77	.83	1.84	1.79	1.20	2.52	2.12	1.27	2.49	1.47	---
23	.14	.76	.91	2.49	2.52	1.27	2.46	2.16	1.13	2.89	1.62	---
24	.40	.77	.53	2.65	3.01	1.15	2.72	2.31	1.23	2.41	1.57	---
25	.61	.67	.54	2.77	2.98	1.24	2.29	2.48	1.30	1.66	1.62	---
26	.58	.73	.49	3.54	3.11	1.16	2.09	2.23	1.32	1.25	1.60	---
27	.51	.62	.78	3.80	3.15	.33	2.31	1.96	1.31	1.42	1.56	---
28	.55	.66	1.06	4.00	2.67	.17	2.42	1.99	1.30	1.45	1.82	---
29	.74	.55	.96	4.18	---	.77	2.43	2.01	1.34	1.37	1.80	---
30	.74	.54	.82	4.30	---	1.01	2.47	1.91	1.49	1.56	.24	---
31	.86	---	1.15	4.41	---	.89	---	1.87	---	1.69	-.10	---
MEAN	.98	.81	.84	2.69	3.39	1.31	2.18	1.97	1.45	1.63	1.42	---
MAX	1.67	1.40	1.79	4.41	4.56	2.83	3.14	2.64	2.00	2.89	1.82	---
MIN	.14	.39	.48	1.29	1.79	.17	.66	.76	.93	1.02	-.10	---

0208108650 ROANOKE RIVER NR WOODARD, NC--Continued



02081094 ROANOKE RIVER AT JAMESVILLE, NC

LOCATION.--Lat 35°48'49", long 76°53'37", North American Datum of 1983, 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 mi^2.

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 sea level, National Geodetic Vertical Datum of 1929. Satellite telemetry at station.

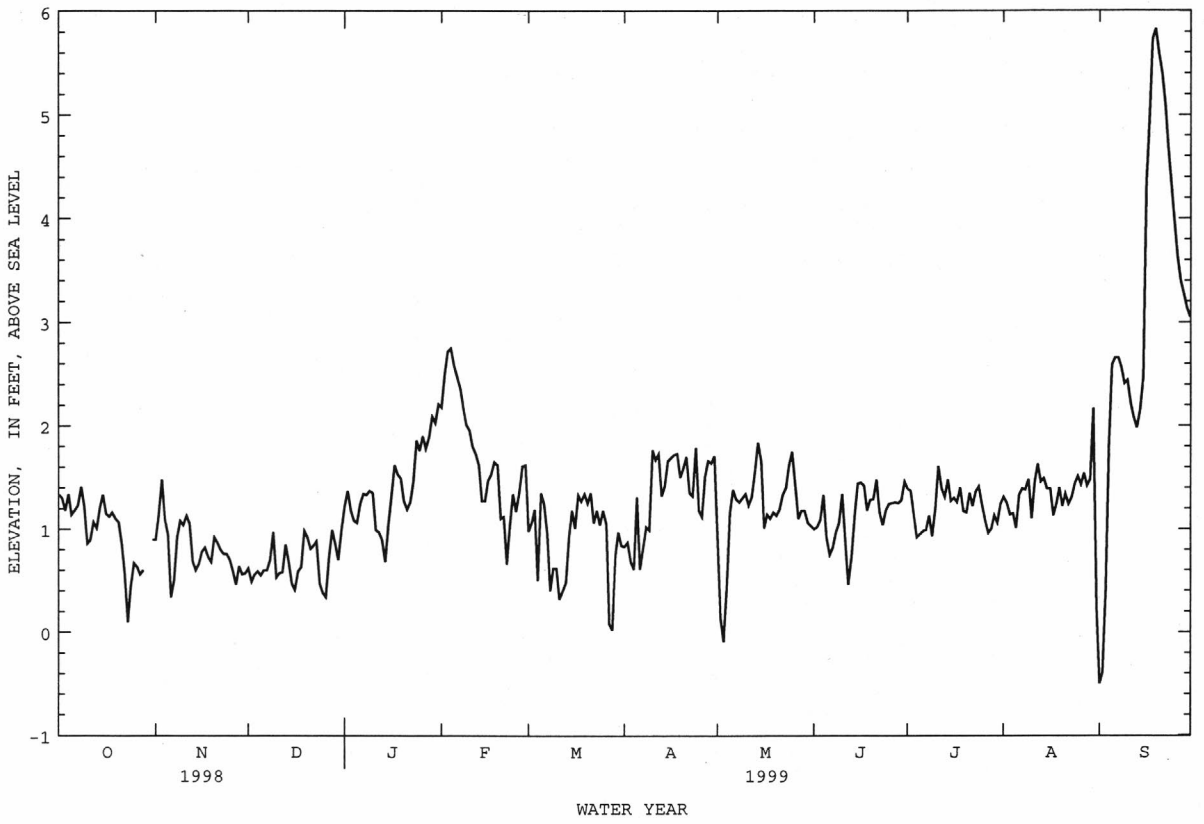
EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 5.87 ft, Sept. 18, 19, 1999; minimum elevation, -1.14 ft, Sept. 1, 1993.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 5.87 ft, Sept. 18, 19; minimum elevation, -0.78 ft, Sept. 2.

ELEVATION, FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.33	.90	.62	1.22	2.18	.98	.83	.90	1.00	1.39	1.31	-.50
2	1.30	1.14	.49	1.37	2.50	1.06	.87	.14	1.02	1.37	1.25	-.39
3	1.18	1.48	.56	1.18	2.72	1.19	.68	-.09	1.09	1.15	1.14	.41
4	1.34	1.09	.59	1.08	2.75	.50	.61	.44	1.33	.92	1.15	1.80
5	1.14	.95	.55	1.06	2.58	1.35	1.31	1.16	.92	.95	1.01	2.59
6	1.18	.34	.60	1.24	2.47	1.24	.61	1.38	.75	.98	1.33	2.66
7	1.23	.50	.60	1.34	2.36	.96	.81	1.29	.82	.99	1.39	2.66
8	1.41	.92	.70	1.33	2.17	.40	1.02	1.26	.97	1.13	1.38	2.56
9	1.23	1.08	.97	1.37	2.01	.62	.99	1.30	1.06	.93	1.48	2.41
10	.86	1.04	.53	1.35	1.96	.62	1.77	1.34	1.34	1.19	1.10	2.44
11	.89	1.13	.57	.99	1.80	.32	1.67	1.23	.90	1.61	1.45	2.22
12	1.07	1.05	.58	.97	1.73	.40	1.73	1.31	.46	1.39	1.63	2.08
13	1.01	.69	.85	.90	1.62	.48	1.32	1.55	.73	1.31	1.46	1.98
14	1.21	.60	.68	.68	1.27	.92	1.42	1.84	1.13	1.48	1.49	2.16
15	1.33	.66	.47	1.04	1.27	1.18	1.66	1.66	1.44	1.27	1.39	2.46
16	1.15	.78	.41	1.32	1.47	1.01	1.69	1.01	1.45	1.30	1.39	4.34
17	1.12	.82	.59	1.62	1.53	1.33	1.72	1.14	1.42	1.26	1.13	4.97
18	1.16	.73	.63	1.53	1.65	1.27	1.73	1.10	1.18	1.40	1.24	5.73
19	1.10	.68	.98	1.49	1.62	1.34	1.50	1.16	1.28	1.17	1.40	5.83
20	1.07	.92	.92	1.27	1.10	1.25	1.59	1.13	1.29	1.16	1.22	5.60
21	.85	.87	.81	1.19	1.12	1.35	1.70	1.19	1.48	1.35	1.34	5.40
22	.57	.80	.84	1.26	.66	1.06	1.35	1.33	1.16	1.22	1.24	5.11
23	.10	.76	.88	1.46	1.04	1.18	1.32	1.40	1.04	1.36	1.31	4.68
24	.44	.76	.47	1.86	1.34	1.04	1.79	1.62	1.18	1.41	1.44	4.33
25	.67	.70	.38	1.76	1.17	1.18	1.18	1.75	1.24	1.24	1.51	3.97
26	.63	.59	.34	1.90	1.36	1.05	1.12	1.42	1.25	1.08	1.43	3.63
27	.56	.46	.72	1.78	1.61	.08	1.51	1.10	1.26	.96	1.54	3.40
28	.60	.64	.99	1.89	1.62	.02	1.66	1.18	1.25	1.00	1.42	3.27
29	---	.56	.86	2.09	---	.73	1.64	1.18	1.28	1.13	1.48	3.14
30	---	.57	.70	2.03	---	.97	1.71	1.06	1.46	1.06	2.17	3.05
31	.90	---	.99	2.21	---	.84	---	1.03	---	1.24	.25	---
MEAN	---	.81	.67	1.41	1.74	.90	1.35	1.18	1.14	1.21	1.34	3.13
MAX	---	1.48	.99	2.21	2.75	1.35	1.79	1.84	1.48	1.61	2.17	5.83
MIN	---	.34	.34	.68	.66	.02	.61	-.09	.46	.92	.25	-.50

02081094 ROANOKE RIVER AT JAMESVILLE, NC--Continued



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 U.S. Fish and Wildlife Service to define water-quality characteristics in the Roanoke River Basin below Roanoke Rapids Dam.

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	7.4, several days during period	5.6, May 3, 1998, September 18, 19, 1999
WATER TEMPERATURE, °C	30.8, August 2, 1999	5.4, January 1, 1999
DISSOLVED OXYGEN, mg/L	14.3, January 8, 1999	2.5, September 1, 1998
DISSOLVED OXYGEN, PERCENT SATURATION,%	112, January 8, 1999	31, September 1, 1998

EXTREMES FOR CURRENT YEAR.--

CONSTITUENT	MAXIMUM RECORDED	MINIMUM RECORDED
SPECIFIC CONDUCTANCE, microsiemens	182, April 11	36, September 19-21
pH, standard units	7.4, several days during year	5.6, September 18, 19
WATER TEMPERATURE, °C	30.8, August 2	5.4, January 1
DISSOLVED OXYGEN, mg/L	14.3, January 8	3.1, September 29, 30
DISSOLVED OXYGEN, PERCENT SATURATION,%	112, January 8	35, September 29, 30

02081094 ROANOKE RIVER AT JAMESVILLE, NC--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	126	122	124	127	125	127	137	134	137	114	108	112
2	126	118	122	126	124	125	141	129	138	119	114	116
3	121	120	120	127	123	124	129	109	117	124	115	120
4	128	121	125	125	123	124	137	110	125	124	103	115
5	127	115	124	124	122	123	140	136	138	106	100	101
6	116	112	114	125	122	123	140	136	139	123	103	113
7	122	112	115	128	125	126	136	134	135	108	102	104
8	123	113	119	129	128	128	135	131	133	108	105	106
9	125	114	117	131	128	129	134	125	132	110	106	108
10	133	125	131	133	127	130	125	110	115	118	107	111
11	136	132	134	135	132	133	133	113	125	121	109	113
12	136	135	136	135	112	122	138	132	137	---	---	---
13	140	135	138	127	116	122	138	135	136	115	111	113
14	142	139	140	116	109	111	136	117	129	126	112	120
15	142	140	141	122	115	119	117	110	115	118	112	114
16	143	140	141	124	120	121	111	108	109	129	117	122
17	142	140	140	125	122	123	114	111	113	135	111	127
18	142	140	140	126	123	125	121	105	116	111	96	102
19	141	139	141	129	125	127	105	98	102	114	105	109
20	141	139	140	129	126	128	101	99	100	106	101	103
21	142	140	141	129	127	128	102	100	101	102	100	101
22	142	140	141	130	126	127	106	102	105	107	101	102
23	142	141	142	128	126	127	105	103	104	117	107	112
24	142	136	141	128	123	126	109	105	107	129	117	123
25	142	131	135	135	123	128	117	106	109	125	106	110
26	145	142	143	138	135	136	123	117	121	112	104	108
27	144	141	143	137	133	135	122	116	120	107	97	102
28	142	137	139	138	133	136	119	115	118	111	106	108
29	139	128	133	137	127	133	116	113	114	113	110	111
30	130	125	128	136	124	129	115	108	112	110	109	110
31	128	124	125	---	---	---	109	103	105	110	106	108
MONTH	145	112	133	138	109	126	141	98	120	---	---	---

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	108	106	107	127	125	126	---	---	---	129	119	123
2	108	106	107	128	126	127	---	---	---	137	119	125
3	106	104	105	135	128	132	---	---	---	144	122	130
4	104	102	103	143	129	135	---	---	---	142	118	127
5	107	103	105	149	141	145	---	---	---	132	117	120
6	109	104	106	151	144	147	---	---	---	129	118	120
7	108	107	107	145	136	139	---	---	---	131	117	122
8	119	104	107	138	135	136	151	149	150	135	117	124
9	114	105	107	138	135	136	173	151	156	149	128	130
10	126	113	117	157	136	142	178	156	163	154	127	131
11	118	109	112	167	151	163	182	123	148	167	128	139
12	119	112	115	151	137	140	123	121	122	128	126	127
13	116	112	114	145	141	143	139	120	122	132	124	126
14	119	113	115	144	138	141	138	120	126	143	121	124
15	117	113	115	145	138	141	148	120	128	136	119	122
16	120	117	118	142	140	141	---	---	---	120	118	119
17	121	119	120	158	142	153	127	120	120	119	118	118
18	121	120	121	161	157	159	122	119	120	121	119	119
19	123	120	121	159	154	156	121	118	119	---	---	---
20	124	120	122	156	145	151	122	118	119	121	120	120
21	126	122	124	145	133	137	138	120	123	121	119	120
22	123	121	122	---	---	---	136	120	126	122	120	121
23	128	122	124	---	---	---	127	120	121	122	120	122
24	142	127	133	142	141	141	124	120	120	122	120	121
25	130	128	128	149	142	145	129	120	121	123	121	122
26	132	127	129	149	147	148	121	120	120	124	121	123
27	134	127	130	154	148	152	121	119	120	124	121	123
28	139	127	133	154	149	151	136	121	124	123	118	122
29	---	---	---	149	145	146	134	121	124	124	122	123
30	---	---	---	151	144	145	127	120	122	123	121	122
31	---	---	---	148	145	146	---	---	---	123	121	122
MONTH	142	102	117	---	---	---	---	---	---	---	---	---

02081094 ROANOKE RIVER AT JAMESVILLE, NC--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	123	117	122	148	144	146	134	122	130	138	137	137
2	126	122	124	148	143	146	134	121	128	141	137	139
3	127	123	125	143	141	142	138	132	137	144	140	142
4	125	123	124	141	138	140	137	122	128	141	134	139
5	125	123	124	138	137	138	138	124	133	137	131	134
6	126	123	125	139	136	138	135	126	129	131	125	128
7	126	124	125	---	---	---	132	125	128	136	128	132
8	129	122	127	141	139	140	135	128	132	131	111	122
9	133	129	131	141	137	140	138	131	135	111	102	106
10	134	133	133	138	121	133	142	137	140	107	101	104
11	134	132	133	134	117	125	143	142	142	108	101	105
12	138	131	132	129	116	119	144	142	143	109	104	106
13	137	134	135	117	113	115	143	140	141	113	109	112
14	138	135	136	118	113	114	141	139	140	113	107	111
15	138	134	136	128	118	122	144	140	142	107	89	101
16	138	133	135	123	118	120	142	140	141	91	47	68
17	135	131	133	134	119	127	142	140	141	57	46	51
18	135	131	131	142	134	136	142	138	140	56	42	47
19	133	131	132	149	141	146	145	139	143	42	36	39
20	133	131	132	151	139	147	141	136	138	36	36	36
21	134	132	133	139	119	123	141	138	140	39	36	37
22	139	133	134	142	119	130	141	137	138	43	39	41
23	---	---	---	140	115	124	144	141	143	48	42	45
24	141	138	139	131	116	123	145	143	144	55	48	51
25	---	---	---	127	116	120	145	143	144	64	55	59
26	144	139	142	127	116	121	146	144	145	73	64	69
27	145	139	142	124	118	120	146	144	145	81	73	78
28	143	140	141	121	119	120	145	141	144	86	81	84
29	146	140	143	132	120	124	141	138	139	92	86	89
30	148	142	145	132	126	129	140	135	138	95	92	93
31	---	---	---	131	126	128	138	136	137	---	---	---
MONTH	---	---	---	---	---	---	146	121	138	144	36	90

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

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

02081094 ROANOKE RIVER AT JAMESVILLE, NC--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

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

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	7.2	7.2	7.2	7.0	6.9	7.0	7.0	6.9	7.0	7.0	6.9	7.0
2	7.2	7.1	7.2	7.0	6.9	7.0	7.1	7.0	7.0	7.1	7.0	7.0
3	7.1	7.1	7.1	7.1	7.0	7.0	7.1	7.0	7.0	7.1	7.0	7.0
4	7.1	7.1	7.1	7.1	7.0	7.0	7.1	7.0	7.0	7.1	7.0	7.0
5	7.1	7.1	7.1	7.1	7.0	7.0	7.0	7.0	7.0	7.1	6.8	7.0
6	7.1	7.1	7.1	7.1	7.0	7.0	7.1	7.0	7.0	7.0	6.8	6.9
7	7.1	7.1	7.1	---	---	---	7.0	7.0	7.0	6.9	6.8	6.9
8	7.1	6.9	7.0	7.1	7.0	7.1	7.1	7.0	7.0	6.8	6.5	6.6
9	7.0	6.9	7.0	7.2	7.1	7.1	7.1	7.0	7.0	6.5	6.3	6.4
10	7.0	6.9	6.9	7.1	7.0	7.1	7.1	7.0	7.0	6.4	6.3	6.4
11	7.0	6.9	6.9	7.0	7.0	7.0	7.1	6.9	7.0	6.4	6.3	6.3
12	7.0	6.9	6.9	7.0	6.9	6.9	7.1	6.9	7.0	6.4	6.3	6.3
13	7.0	6.9	6.9	7.0	6.9	6.9	7.1	7.0	7.0	6.4	6.3	6.3
14	6.9	6.9	6.9	7.0	6.9	6.9	7.1	7.0	7.1	6.4	6.3	6.3
15	7.0	6.9	6.9	7.0	6.9	6.9	7.1	7.0	7.1	6.4	6.3	6.3
16	7.0	6.9	6.9	6.9	6.8	6.9	7.1	7.0	7.1	6.4	5.8	6.2
17	6.9	6.9	6.9	7.0	6.9	6.9	7.1	7.0	7.1	5.8	5.8	5.8
18	6.9	6.8	6.9	7.1	7.0	7.0	7.1	6.9	7.0	5.8	5.6	5.7
19	6.9	6.8	6.9	7.1	7.0	7.0	7.1	7.0	7.0	5.7	5.6	5.6
20	6.9	6.8	6.9	7.0	7.0	7.0	7.0	6.9	7.0	5.7	5.7	5.7
21	6.9	6.8	6.8	7.0	6.9	7.0	7.0	6.9	7.0	5.8	5.7	5.8
22	6.8	6.8	6.8	7.0	7.0	7.0	7.0	7.0	7.0	5.9	5.8	5.8
23	---	---	---	7.0	6.9	7.0	7.0	6.9	7.0	6.0	5.9	5.9
24	7.0	6.9	6.9	7.0	7.0	7.0	7.1	7.0	7.0	6.0	6.0	6.0
25	---	---	---	7.0	6.9	6.9	7.1	7.0	7.0	6.1	6.0	6.1
26	7.0	6.9	7.0	6.9	6.9	6.9	7.0	7.0	7.0	6.2	6.1	6.1
27	7.0	6.9	6.9	6.9	6.9	6.9	7.0	7.0	7.0	6.2	6.2	6.2
28	7.0	6.9	6.9	7.0	6.9	6.9	7.0	7.0	7.0	6.2	6.2	6.2
29	7.0	6.9	7.0	7.0	6.9	6.9	7.0	7.0	7.0	6.3	6.2	6.2
30	7.0	6.9	7.0	6.9	6.8	6.9	7.1	6.9	7.0	6.3	6.2	6.3
31	---	---	---	7.0	6.9	6.9	6.9	6.9	6.9	---	---	---
MONTH	---	---	---	---	---	---	7.1	6.9	7.0	7.1	5.6	6.3

02081094 ROANOKE RIVER AT JAMESVILLE, NC--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	26.3	25.7	26.0	17.0	16.6	16.8	13.9	13.4	13.6	5.9	5.4	5.7
2	26.2	25.5	25.8	16.9	16.6	16.8	13.8	13.5	13.6	6.0	5.7	5.8
3	25.5	25.0	25.2	16.9	16.6	16.7	13.7	13.4	13.6	6.6	5.8	6.3
4	25.2	24.6	24.8	16.6	16.1	16.4	13.7	13.5	13.6	6.8	6.3	6.5
5	24.6	24.0	24.2	16.1	15.5	15.8	14.0	13.5	13.7	6.8	6.1	6.4
6	24.1	23.9	23.9	15.5	14.9	15.1	14.4	14.0	14.2	6.9	6.2	6.4
7	23.9	23.5	23.6	14.9	14.2	14.5	14.8	14.4	14.6	6.2	5.6	5.8
8	23.6	23.3	23.5	14.2	13.6	13.9	15.1	14.7	14.9	5.8	5.6	5.7
9	23.3	22.5	22.9	13.6	13.1	13.3	15.1	14.7	14.9	6.5	5.7	6.1
10	22.5	22.1	22.2	13.1	12.8	13.0	14.7	14.4	14.5	6.7	6.4	6.5
11	22.2	21.9	22.0	13.5	13.1	13.3	14.5	14.3	14.4	6.6	6.2	6.3
12	22.0	21.8	21.9	13.7	13.4	13.6	14.4	14.3	14.3	6.3	6.0	6.2
13	22.0	21.7	21.8	13.8	13.7	13.7	14.3	13.5	13.9	6.6	6.2	6.4
14	21.8	21.5	21.7	13.9	13.8	13.9	13.5	12.4	12.9	7.1	6.6	6.8
15	21.5	21.1	21.3	14.4	13.9	14.1	12.4	12.0	12.1	7.9	7.1	7.6
16	21.1	20.6	20.9	14.6	14.2	14.4	12.1	11.8	12.0	8.3	7.7	8.0
17	20.6	20.4	20.5	15.0	14.6	14.8	11.8	10.9	11.5	8.7	7.9	8.4
18	20.5	20.2	20.4	14.9	14.4	14.5	10.9	10.1	10.5	8.8	7.9	8.4
19	20.4	20.3	20.4	14.4	13.9	14.2	11.1	10.9	11.0	8.7	8.3	8.5
20	20.7	20.4	20.5	14.1	13.9	14.0	11.0	10.9	10.9	8.9	8.4	8.6
21	20.4	19.7	20.1	14.2	14.0	14.1	11.1	10.9	11.0	9.3	8.7	9.0
22	19.7	18.7	19.3	14.1	13.9	14.0	11.4	11.1	11.2	9.9	9.2	9.5
23	18.7	18.4	18.5	14.2	13.9	14.1	11.2	10.3	10.7	10.8	9.9	10.4
24	18.6	18.3	18.4	14.6	14.2	14.4	10.3	9.6	10.0	11.0	10.6	10.8
25	18.5	18.0	18.3	14.3	14.0	14.1	9.6	8.7	9.1	11.2	10.6	10.9
26	18.2	17.9	18.0	14.1	13.9	14.0	8.7	7.7	8.1	10.9	10.5	10.7
27	17.9	17.6	17.7	13.9	13.4	13.7	7.7	7.4	7.6	10.8	9.6	10.3
28	17.6	17.3	17.4	13.7	13.3	13.4	7.4	6.9	7.2	9.8	9.4	9.6
29	17.3	17.0	17.1	13.3	13.1	13.2	6.9	6.5	6.7	9.7	9.2	9.4
30	17.0	16.6	16.8	13.4	13.1	13.2	6.5	6.2	6.4	9.4	9.0	9.2
31	17.0	16.7	16.8	---	---	---	6.2	5.9	6.1	9.1	8.4	8.7
MONTH	26.3	16.6	21.0	17.0	12.8	14.4	15.1	5.9	11.6	11.2	5.4	7.9

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	8.7	8.0	8.3	8.7	8.2	8.5	14.1	13.4	13.7	16.5	15.7	16.1
2	9.4	8.7	9.0	9.0	8.4	8.7	15.1	14.1	14.6	15.7	15.2	15.3
3	10.0	9.2	9.5	9.7	8.6	9.1	15.9	15.0	15.4	16.0	15.1	15.5
4	10.0	9.7	9.8	9.9	9.3	9.6	17.0	15.8	16.3	16.2	15.7	15.9
5	9.8	9.3	9.6	9.8	9.3	9.6	17.3	16.8	17.1	16.5	16.1	16.3
6	9.7	9.0	9.3	9.7	9.2	9.5	17.5	16.9	17.2	17.4	16.5	17.0
7	10.1	9.5	9.7	9.5	8.9	9.2	18.2	17.5	17.8	18.8	17.4	18.1
8	10.6	10.1	10.3	9.3	8.9	9.1	18.8	18.1	18.4	19.8	18.8	19.4
9	10.4	9.9	10.1	9.0	8.3	8.5	19.8	18.7	19.2	20.4	19.6	20.0
10	10.9	10.3	10.5	8.5	8.1	8.3	19.7	19.4	19.6	21.0	20.2	20.4
11	10.7	10.1	10.3	8.2	7.8	8.0	19.6	17.9	18.5	21.2	20.5	20.8
12	11.0	10.3	10.6	8.5	7.8	8.1	17.9	17.3	17.5	21.6	20.9	21.3
13	10.8	10.1	10.5	8.3	7.8	8.1	17.3	16.3	16.8	21.9	21.1	21.6
14	10.1	9.5	9.7	8.5	8.2	8.3	16.3	15.3	15.7	21.6	20.1	21.0
15	9.5	8.9	9.2	8.6	8.4	8.5	16.1	15.7	15.9	20.1	19.0	19.8
16	9.4	8.8	9.0	8.9	8.2	8.6	---	---	---	19.2	18.5	18.9
17	9.5	8.9	9.1	9.5	8.7	9.1	16.4	15.8	15.9	18.8	18.2	18.6
18	9.8	9.4	9.5	10.3	9.5	9.8	16.0	15.6	15.8	18.9	17.8	18.3
19	9.9	9.6	9.7	10.6	10.0	10.3	15.9	15.5	15.7	---	---	---
20	9.8	9.5	9.7	10.9	10.3	10.6	16.2	15.8	16.0	20.1	19.1	19.6
21	9.5	9.0	9.4	11.3	10.9	11.1	16.5	15.6	16.0	20.6	19.5	20.0
22	9.0	8.2	8.6	12.2	11.3	11.8	17.2	16.2	16.7	21.2	20.0	20.5
23	8.2	7.8	7.9	13.1	12.0	12.5	18.0	17.0	17.5	21.8	20.3	21.0
24	8.0	7.6	7.8	13.8	12.7	13.2	18.3	17.8	18.0	22.4	21.8	22.0
25	7.9	7.5	7.7	13.8	13.4	13.7	18.4	17.7	18.0	22.8	21.7	22.2
26	7.8	7.2	7.5	13.8	13.1	13.5	18.9	17.9	18.4	22.6	22.2	22.4
27	7.8	7.4	7.6	13.1	12.5	12.7	19.3	18.6	18.9	23.1	22.2	22.6
28	8.3	7.7	7.9	12.7	12.1	12.4	18.9	17.8	18.3	22.9	22.2	22.6
29	---	---	---	12.9	12.4	12.6	17.8	17.1	17.5	23.1	22.0	22.6
30	---	---	---	13.2	12.7	13.0	17.1	16.5	16.8	23.5	22.5	23.0
31	---	---	---	13.4	12.9	13.2	---	---	---	23.9	23.0	23.4
MONTH	11.0	7.2	9.2	13.8	7.8	10.3	---	---	---	---	---	---

02081094 ROANOKE RIVER AT JAMESVILLE, NC--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	24.5	23.3	23.9	26.9	26.5	26.7	30.6	29.9	30.3	26.0	25.2	25.5
2	24.8	23.6	24.2	27.3	26.8	27.0	30.8	30.0	30.4	25.2	24.2	24.6
3	24.7	23.6	24.1	27.6	27.0	27.3	30.5	29.9	30.2	24.2	23.8	24.0
4	25.1	23.8	24.3	27.9	27.2	27.5	30.1	29.5	29.8	23.8	23.5	23.6
5	25.4	24.4	24.9	28.4	27.5	27.9	29.7	29.2	29.5	23.7	23.3	23.5
6	25.5	24.9	25.2	28.9	28.2	28.5	29.5	28.8	29.1	23.6	23.2	23.4
7	26.1	25.4	25.7	---	---	---	29.5	29.0	29.3	24.3	23.6	23.9
8	26.6	25.5	26.1	30.1	29.2	29.5	29.5	29.3	29.4	24.5	24.1	24.3
9	27.2	26.1	26.6	30.3	29.5	30.0	29.3	28.7	29.1	24.6	24.2	24.4
10	27.3	26.3	26.7	30.1	28.6	29.6	29.2	28.5	28.8	24.8	24.5	24.7
11	27.3	26.4	26.9	28.8	27.8	28.4	29.4	28.9	29.1	24.9	24.4	24.6
12	27.0	26.1	26.5	28.0	27.1	27.5	29.3	29.0	29.2	24.9	24.4	24.6
13	26.3	25.6	26.0	27.1	26.6	26.8	29.2	28.7	29.0	24.9	24.3	24.5
14	26.1	25.3	25.8	26.6	26.4	26.5	29.2	28.8	29.0	24.6	24.0	24.2
15	26.0	25.3	25.5	26.6	26.4	26.5	29.2	28.9	29.1	24.0	23.5	23.7
16	25.4	24.6	24.9	26.5	26.2	26.3	29.6	29.0	29.3	23.5	22.6	23.1
17	24.9	24.2	24.4	26.5	26.3	26.4	30.0	29.3	29.6	22.6	21.6	22.0
18	24.4	23.9	24.1	26.4	25.9	26.1	29.8	29.3	29.6	21.6	21.2	21.4
19	24.0	23.0	23.4	27.8	26.2	27.1	29.8	29.5	29.6	21.4	21.0	21.2
20	23.3	22.9	23.1	28.5	27.8	28.1	29.7	29.1	29.2	21.2	20.8	21.0
21	23.2	23.0	23.1	28.1	27.4	27.6	29.7	28.9	29.2	21.1	20.8	20.9
22	23.0	22.5	22.7	29.3	27.7	28.6	29.5	29.3	29.4	20.9	19.6	20.2
23	---	---	---	29.1	28.2	28.7	29.4	28.8	29.0	19.6	19.0	19.2
24	23.6	22.9	23.2	29.0	28.2	28.8	28.8	28.4	28.6	19.2	18.7	19.0
25	---	---	---	28.5	27.5	28.0	28.4	28.0	28.2	19.5	18.9	19.2
26	24.2	23.8	24.0	28.7	28.2	28.4	28.0	27.9	28.0	20.3	19.5	19.9
27	24.9	24.1	24.3	28.3	27.9	28.0	28.3	27.9	28.1	20.8	20.3	20.5
28	25.6	24.9	25.2	28.6	27.9	28.2	28.3	27.8	28.1	21.2	20.8	21.0
29	26.3	25.6	25.9	29.3	28.3	28.8	28.1	27.7	27.9	21.7	21.2	21.4
30	26.5	26.3	26.4	30.0	28.7	29.3	27.9	26.1	27.2	21.7	21.2	21.6
31	---	---	---	30.6	29.7	30.1	26.2	25.9	26.0	---	---	---
MONTH	---	---	---	---	---	---	30.8	25.9	29.0	26.0	18.7	22.5

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	6.6	6.4	6.5	8.7	8.4	8.6	9.0	8.6	8.8	13.2	12.7	12.9
2	6.7	6.3	6.5	8.7	8.3	8.5	8.8	8.4	8.6	13.4	13.2	13.3
3	6.9	6.7	6.8	8.6	8.2	8.4	8.9	8.4	8.7	13.4	13.0	13.2
4	6.9	6.6	6.8	8.5	8.3	8.4	8.9	8.4	8.7	13.2	12.8	13.0
5	6.8	6.5	6.7	8.4	8.0	8.3	8.9	8.6	8.7	13.7	12.8	13.2
6	6.8	6.6	6.7	8.8	8.3	8.5	8.8	8.4	8.6	13.8	12.2	13.1
7	6.7	6.5	6.6	9.0	8.7	8.8	8.6	8.0	8.4	14.2	13.1	13.9
8	6.8	6.5	6.7	9.2	9.0	9.1	9.0	8.2	8.6	14.3	14.0	14.2
9	6.9	6.6	6.7	9.5	9.2	9.3	9.0	8.6	8.9	14.0	13.4	13.7
10	6.6	6.4	6.5	9.7	9.4	9.6	9.2	8.9	9.1	13.7	13.4	13.6
11	6.6	6.4	6.5	9.8	9.5	9.6	9.1	8.8	9.0	13.5	13.2	13.4
12	6.7	6.5	6.6	9.7	9.4	9.6	9.2	9.0	9.1	---	---	---
13	6.8	6.4	6.6	9.6	9.3	9.4	9.6	9.2	9.4	---	---	---
14	6.9	6.5	6.7	9.5	9.3	9.4	10.1	9.6	9.9	---	---	---
15	7.0	6.7	6.9	9.4	9.0	9.2	10.4	10.1	10.2	---	---	---
16	7.2	6.9	7.0	9.2	8.9	9.1	10.5	9.9	10.3	11.0	10.6	10.8
17	7.3	7.0	7.2	9.0	8.8	8.9	11.0	10.3	10.6	11.2	10.7	10.9
18	7.4	7.1	7.3	9.1	8.9	9.0	11.1	10.8	11.0	11.2	10.3	10.6
19	7.6	7.2	7.4	9.1	8.7	8.9	10.9	10.7	10.8	10.5	10.2	10.4
20	7.6	7.2	7.5	9.0	8.8	8.9	10.8	10.6	10.7	10.3	10.0	10.2
21	7.7	7.5	7.6	9.0	8.6	8.8	10.7	10.3	10.6	10.1	9.7	9.9
22	8.0	7.6	7.8	8.9	8.6	8.7	10.6	10.3	10.5	9.8	9.4	9.5
23	8.1	7.9	8.0	8.7	8.3	8.5	10.9	10.5	10.8	9.8	9.3	9.5
24	8.1	7.6	7.9	8.6	8.3	8.5	11.1	10.7	10.9	10.0	9.7	9.9
25	8.1	7.7	7.9	8.6	8.4	8.5	11.3	10.9	11.0	9.9	9.5	9.7
26	8.0	7.7	7.9	8.9	8.5	8.7	11.8	11.0	11.5	10.0	9.4	9.8
27	8.1	7.8	7.9	9.2	8.8	9.0	12.0	11.8	11.9	10.4	9.1	9.6
28	8.2	7.8	8.0	9.3	9.1	9.2	12.4	11.9	12.2	10.6	10.1	10.3
29	8.6	8.1	8.4	9.3	9.0	9.2	12.6	12.3	12.5	10.7	10.2	10.4
30	8.7	8.3	8.5	9.3	8.9	9.1	12.9	12.5	12.7	10.4	10.2	10.3
31	8.7	8.5	8.6	---	---	---	12.9	12.5	12.7	10.3	10.0	10.1
MONTH	8.7	6.3	7.2	9.8	8.0	8.9	12.9	8.0	10.2	---	---	---

02081094 ROANOKE RIVER AT JAMESVILLE, NC--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

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

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	6.3	5.9	6.1	6.0	5.3	5.6	6.4	5.9	6.1
2	---	---	---	6.4	5.9	6.2	6.1	5.7	6.0	6.5	6.2	6.4
3	---	---	---	6.5	6.0	6.2	6.0	5.7	5.8	6.6	5.7	6.3
4	---	---	---	6.6	6.1	6.3	5.9	5.5	5.7	7.2	6.0	6.6
5	---	---	---	6.6	6.1	6.4	5.7	5.2	5.5	7.2	6.0	6.7
6	---	---	---	6.5	6.0	6.3	5.9	5.3	5.6	6.8	5.8	6.5
7	---	---	---	---	---	---	5.9	5.4	5.7	6.7	6.0	6.3
8	---	---	---	6.7	6.1	6.4	6.1	5.6	5.7	6.0	4.8	5.3
9	6.9	6.4	6.7	6.5	5.9	6.2	6.1	5.7	5.9	4.8	3.9	4.3
10	7.0	5.9	6.5	6.2	5.6	5.9	5.9	5.2	5.7	4.7	4.0	4.3
11	6.8	6.4	6.6	5.9	5.4	5.7	5.9	4.7	5.5	4.3	3.9	4.0
12	6.6	6.0	6.3	5.5	5.3	5.4	5.8	4.9	5.6	4.4	3.9	4.1
13	6.3	6.0	6.1	5.5	5.2	5.3	5.9	5.3	5.6	4.4	3.8	4.0
14	6.3	6.0	6.2	5.4	4.6	5.2	6.0	5.6	5.8	4.8	3.7	4.2
15	6.3	6.0	6.2	5.3	4.9	5.1	6.0	5.6	5.8	5.8	4.2	4.7
16	6.3	5.9	6.1	5.4	4.6	5.0	5.8	5.6	5.7	6.3	4.6	5.5
17	6.2	5.9	6.0	5.7	5.0	5.4	5.9	5.4	5.7	4.7	4.1	4.3
18	6.0	5.7	5.9	6.3	5.6	6.0	5.9	5.3	5.6	4.5	4.3	4.4
19	6.3	5.5	6.0	6.3	5.9	6.1	5.9	5.2	5.6	4.4	4.2	4.3
20	6.2	5.8	6.1	6.0	5.5	5.7	5.7	5.2	5.5	4.3	4.2	4.2
21	6.0	5.7	5.8	6.6	5.7	6.2	5.7	5.1	5.4	4.6	4.2	4.4
22	5.9	5.6	5.8	6.6	5.7	6.2	5.9	5.5	5.7	4.5	4.4	4.4
23	---	---	---	6.2	5.7	6.0	5.9	5.1	5.6	4.6	4.5	4.5
24	6.3	6.0	6.2	6.2	5.9	6.1	6.2	5.5	5.9	4.5	4.3	4.4
25	---	---	---	6.0	5.7	5.9	6.1	5.7	5.9	4.3	4.0	4.2
26	6.4	6.1	6.2	5.8	5.5	5.7	6.0	5.6	5.9	4.0	3.7	3.8
27	6.5	6.1	6.3	5.6	5.4	5.5	5.9	5.4	5.7	3.7	3.5	3.6
28	6.5	5.9	6.3	6.1	5.4	5.6	6.0	5.6	5.8	3.7	3.4	3.6
29	6.4	5.9	6.2	6.1	5.6	5.9	6.0	5.6	5.9	3.4	3.1	3.3
30	6.4	6.0	6.2	5.8	5.1	5.4	6.4	5.8	6.1	3.3	3.1	3.2
31	---	---	---	5.8	5.3	5.6	6.0	5.6	5.8	---	---	---
MONTH	---	---	---	---	---	---	6.4	4.7	5.7	7.2	3.1	4.7

02081094 ROANOKE RIVER AT JAMESVILLE, NC--Continued

OXYGEN DISSOLVED (% OF SATURATION), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	81	79	80	90	88	89	86	83	85	105	100	102
2	82	77	80	91	86	89	85	81	83	107	104	105
3	84	81	82	89	85	88	87	82	84	108	105	106
4	84	80	82	88	85	86	86	82	84	106	104	105
5	82	77	80	86	82	84	86	84	85	109	104	106
6	81	78	79	88	83	86	86	83	85	109	99	104
7	79	77	78	89	86	87	86	80	83	112	104	109
8	80	77	78	90	88	89	88	82	85	112	110	111
9	80	76	78	91	89	90	88	84	87	110	108	109
10	76	73	74	93	90	92	90	86	88	110	108	109
11	76	73	74	94	92	93	88	85	87	108	105	106
12	77	74	75	94	91	93	89	87	88	---	---	---
13	77	73	75	93	90	92	91	88	90	---	---	---
14	78	74	76	93	91	92	93	91	92	---	---	---
15	78	76	77	92	88	90	95	92	93	---	---	---
16	80	77	79	90	87	88	96	91	94	93	89	91
17	81	78	80	89	87	88	98	93	96	95	92	93
18	82	79	81	89	87	88	99	96	98	94	88	91
19	84	80	82	89	86	87	97	96	97	90	87	89
20	84	80	83	89	86	87	97	95	96	88	86	87
21	84	83	84	88	84	87	96	93	95	86	84	86
22	86	83	85	87	84	86	96	93	95	85	83	84
23	86	85	85	85	81	84	97	94	96	88	83	85
24	86	81	84	85	82	84	97	94	96	90	88	89
25	86	82	84	85	82	84	96	92	94	90	86	88
26	84	81	83	87	83	85	98	92	95	90	85	88
27	84	81	83	88	84	86	98	97	98	92	82	86
28	85	81	84	88	86	88	100	97	99	93	90	91
29	90	84	88	89	85	87	102	99	101	93	88	91
30	90	86	89	88	85	86	103	100	102	91	89	90
31	91	89	90	---	---	---	103	100	101	90	86	88
MONTH	91	73	81	94	81	88	103	80	92	---	---	---

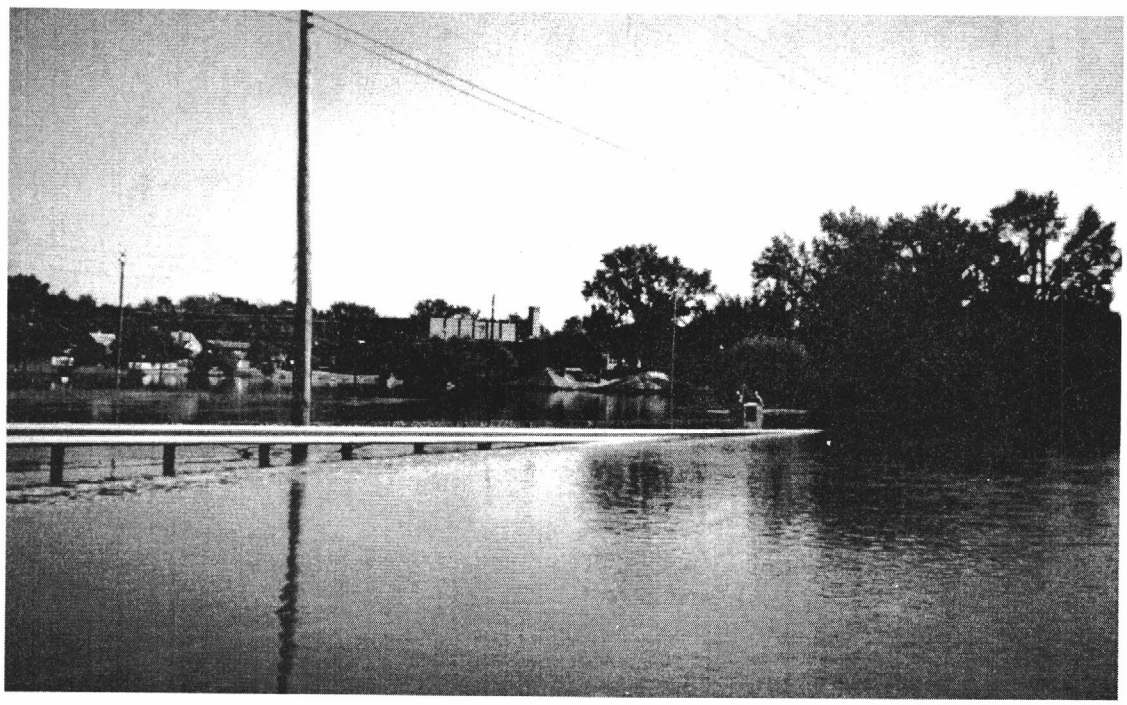
OXYGEN DISSOLVED (% OF SATURATION), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	88	86	87	97	94	96	76	70	74	69	64	66
2	87	84	86	96	94	95	75	66	72	68	67	67
3	85	80	82	96	93	94	75	69	73	68	66	67
4	80	76	78	95	92	94	75	68	72	68	66	67
5	82	76	79	96	92	93	78	71	75	67	66	66
6	83	80	81	98	96	97	77	72	74	68	66	67
7	82	77	79	100	97	99	79	71	76	70	64	67
8	78	75	76	99	97	98	78	72	76	70	67	69
9	83	76	79	98	96	97	83	77	80	70	66	68
10	---	---	---	---	---	---	84	80	82	71	68	70
11	93	85	88	100	96	98	83	75	79	70	66	68
12	95	93	93	103	99	101	83	80	81	69	63	67
13	96	93	94	101	95	99	82	76	79	68	62	65
14	95	91	93	98	95	97	83	80	81	68	64	66
15	93	91	92	98	94	96	82	79	80	66	62	64
16	94	91	93	95	93	94	---	---	---	63	58	60
17	94	92	93	94	91	92	81	77	78	62	58	60
18	94	93	94	93	90	91	78	75	76	62	58	60
19	94	90	92	93	90	92	75	73	74	---	---	---
20	94	91	92	93	86	89	75	73	74	65	60	62
21	92	90	91	89	84	86	76	74	74	66	62	64
22	93	89	91	88	84	86	75	72	74	67	62	64
23	96	92	94	85	81	83	74	70	73	---	---	---
24	101	95	98	82	78	80	71	69	70	---	---	---
25	102	99	100	80	71	77	70	68	69	---	---	---
26	102	100	101	79	75	77	71	68	69	---	---	---
27	102	100	101	77	73	76	71	66	68	---	---	---
28	102	97	100	76	72	74	68	64	66	---	---	---
29	---	---	---	76	69	73	68	65	66	---	---	---
30	---	---	---	76	68	73	68	65	66	---	---	---
31	---	---	---	75	71	73	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

02081094 ROANOKE RIVER AT JAMESVILLE, NC--Continued

OXYGEN DISSOLVED (% OF SATURATION), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	78	73	76	79	70	74	76	72	74
2	---	---	---	80	73	77	81	74	79	77	73	75
3	---	---	---	82	74	77	79	74	76	77	67	74
4	---	---	---	83	76	79	77	72	75	84	69	77
5	---	---	---	84	76	80	74	67	71	85	70	79
6	---	---	---	83	76	80	77	68	72	79	67	75
7	---	---	---	---	---	---	76	70	73	78	70	74
8	---	---	---	86	79	82	79	72	74	71	57	63
9	88	80	84	85	76	80	79	73	76	58	46	52
10	89	74	82	81	73	76	76	67	72	56	47	50
11	86	80	83	76	68	72	75	61	71	51	45	47
12	83	75	79	69	66	67	75	63	72	52	46	48
13	79	74	76	68	64	66	76	68	72	53	45	47
14	79	73	76	66	56	63	77	72	74	56	43	49
15	78	73	76	65	60	62	78	73	74	67	49	54
16	77	72	75	67	56	61	75	72	74	72	52	63
17	75	71	73	70	61	66	78	70	74	54	47	49
18	72	68	70	76	68	73	76	69	72	50	48	49
19	74	66	70	78	74	76	77	68	73	48	46	47
20	73	67	70	76	69	72	74	67	71	48	46	46
21	70	67	68	83	72	77	74	65	70	51	47	49
22	70	66	68	83	74	79	77	72	74	50	48	49
23	---	---	---	80	73	76	76	66	72	49	48	48
24	72	69	71	79	76	77	79	71	75	48	46	47
25	---	---	---	76	72	74	77	73	75	47	43	45
26	75	71	73	73	70	72	76	70	74	43	40	42
27	77	72	74	71	68	70	75	68	73	40	38	39
28	78	70	76	78	68	71	76	71	73	40	38	39
29	78	72	75	79	71	75	75	71	74	38	35	37
30	78	73	76	74	66	70	79	73	76	37	35	36
31	---	---	---	77	69	73	73	68	71	---	---	---
MONTH	---	---	---	---	---	---	81	61	73	85	35	54



Floodwaters of the Tar River near downtown Rocky Mount, N.C., September 1999.

355312076533601 COW CREEK TRANSECT (SITE #1)

LOCATION.--Lat 35°53'44", long 76°55'56", North American Datum of 1983, Martin County, Hydrologic Unit 03010107, approximately 2.1 mi southwest of Woodard on SR 1518.

DRAINAGE AREA.--Indeterminate.

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

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

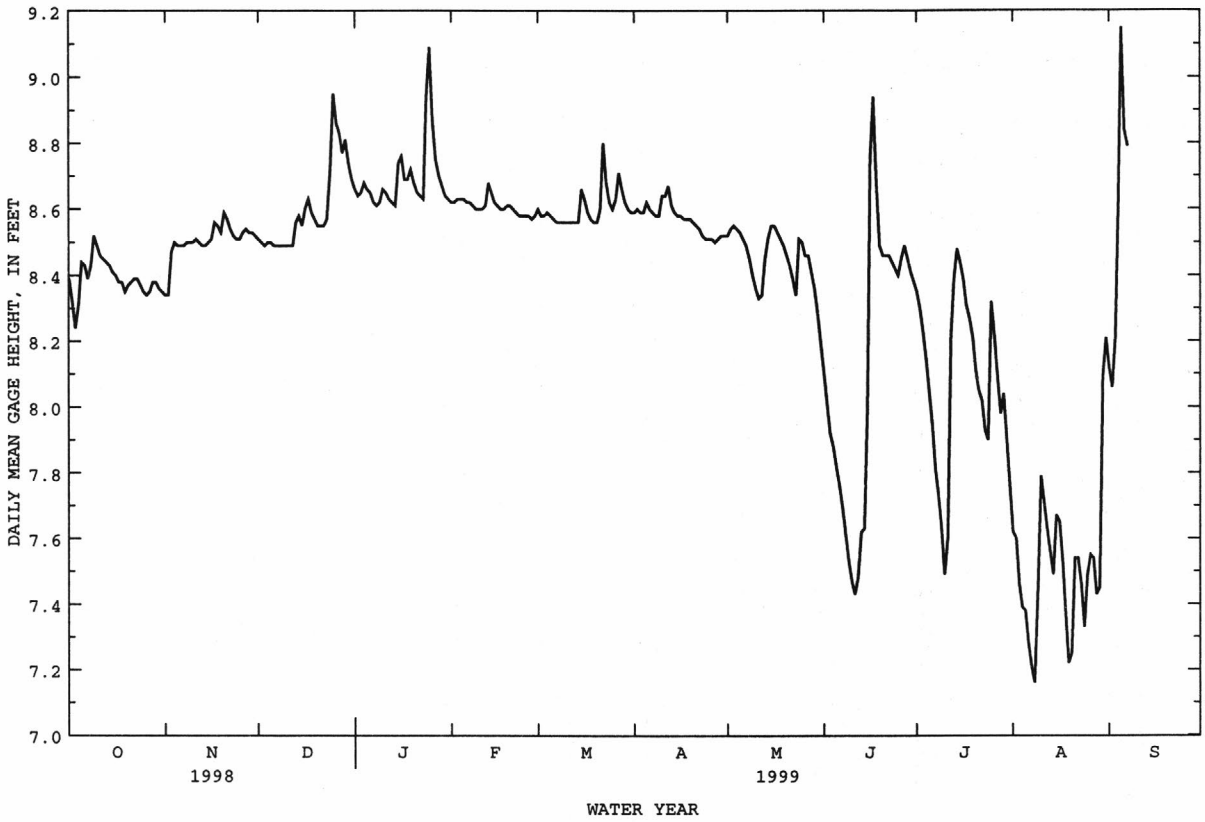
EXTREMES FOR PERIOD OF RECORD.--Maximum recorded gage height, 9.54 ft, Feb. 4, 1998; minimum recorded gage height, 6.93 ft, Aug. 17, 18, 1997.

EXTREMES FOR CURRENT YEAR.--Maximum recorded gage height, 9.24 ft, Sept. 5; minimum recorded gage height, 7.08 ft, Aug. 8, 9.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.39	8.34	8.51	8.66	8.62	8.60	8.59	8.52	8.10	8.35	7.62	8.12
2	8.32	8.34	8.50	8.64	8.62	8.58	8.60	8.54	8.01	8.30	7.60	8.06
3	8.24	8.47	8.49	8.65	8.63	8.58	8.59	8.55	7.92	8.23	7.46	8.21
4	8.31	8.50	8.50	8.68	8.63	8.59	8.59	8.54	7.88	8.14	7.39	8.61
5	8.44	8.49	8.50	8.66	8.63	8.58	8.62	8.53	7.82	8.04	7.38	9.15
6	8.43	8.49	8.49	8.65	8.62	8.57	8.60	8.51	7.76	7.94	7.28	8.84
7	8.39	8.49	8.49	8.62	8.62	8.56	8.59	8.49	7.69	7.81	7.21	8.79
8	8.43	8.50	8.49	8.61	8.61	8.56	8.58	8.45	7.61	7.73	7.16	---
9	8.52	8.50	8.49	8.62	8.60	8.56	8.58	8.40	7.53	7.63	7.45	---
10	8.49	8.50	8.49	8.66	8.60	8.56	8.64	8.36	7.47	7.49	7.79	---
11	8.46	8.51	8.49	8.65	8.60	8.56	8.64	8.33	7.43	7.60	7.71	---
12	8.45	8.50	8.49	8.63	8.61	8.56	8.67	8.34	7.48	8.22	7.63	---
13	8.44	8.49	8.56	8.62	8.68	8.56	8.61	8.45	7.62	8.39	7.56	---
14	8.43	8.49	8.58	8.61	8.65	8.56	8.59	8.51	7.63	8.48	7.49	---
15	8.41	8.50	8.55	8.74	8.62	8.66	8.58	8.55	8.00	8.44	7.67	---
16	8.40	8.51	8.60	8.76	8.61	8.63	8.58	8.55	8.75	8.39	7.65	---
17	8.38	8.56	8.63	8.69	8.60	8.59	8.57	8.53	8.94	8.31	7.53	---
18	8.38	8.55	8.59	8.69	8.60	8.57	8.57	8.51	8.68	8.27	7.37	---
19	8.35	8.53	8.57	8.72	8.61	8.56	8.57	8.49	8.49	8.21	7.22	---
20	8.37	8.59	8.55	8.68	8.61	8.56	8.56	8.46	8.46	8.11	7.25	---
21	8.38	8.57	8.55	8.65	8.60	8.60	8.55	8.43	8.46	8.05	7.54	---
22	8.39	8.54	8.55	8.64	8.59	8.80	8.54	8.39	8.46	8.02	7.54	---
23	8.39	8.52	8.57	8.63	8.58	8.68	8.52	8.34	8.44	7.93	7.46	---
24	8.37	8.51	8.72	8.94	8.58	8.62	8.51	8.51	8.42	7.90	7.33	---
25	8.35	8.51	8.95	9.09	8.58	8.60	8.51	8.50	8.40	8.32	7.49	---
26	8.34	8.53	8.86	8.87	8.58	8.63	8.51	8.46	8.45	8.21	7.55	---
27	8.35	8.54	8.83	8.75	8.57	8.71	8.50	8.46	8.49	8.09	7.54	---
28	8.38	8.53	8.77	8.70	8.58	8.66	8.51	8.41	8.45	7.98	7.43	---
29	8.38	8.53	8.81	8.67	---	8.62	8.52	8.36	8.41	8.04	7.45	---
30	8.36	8.52	8.74	8.64	---	8.60	8.52	8.28	8.38	7.90	8.09	---
31	8.35	---	8.69	8.63	---	8.59	---	8.19	---	7.76	8.21	---
MEAN	8.39	8.51	8.60	8.69	8.61	8.60	8.57	8.45	8.12	8.07	7.52	---
MAX	8.52	8.59	8.95	9.09	8.68	8.80	8.67	8.55	8.94	8.48	8.21	---
MIN	8.24	8.34	8.49	8.61	8.57	8.56	8.50	8.19	7.43	7.49	7.16	---

355312076533601 COW CREEK TRANSECT (SITE #1)--Continued



355205076522501 COW CREEK TRANSECT (SITE #2)

LOCATION.--Lat 35°52'04", long 76°52'24", North American Datum of 1983, Bertie County, Hydrologic Unit 03010107, on Charleston Creek approximately 1.2 mi upstream of confluence with Broad Creek and 6.7 mi west of Plymouth.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--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 sea level.

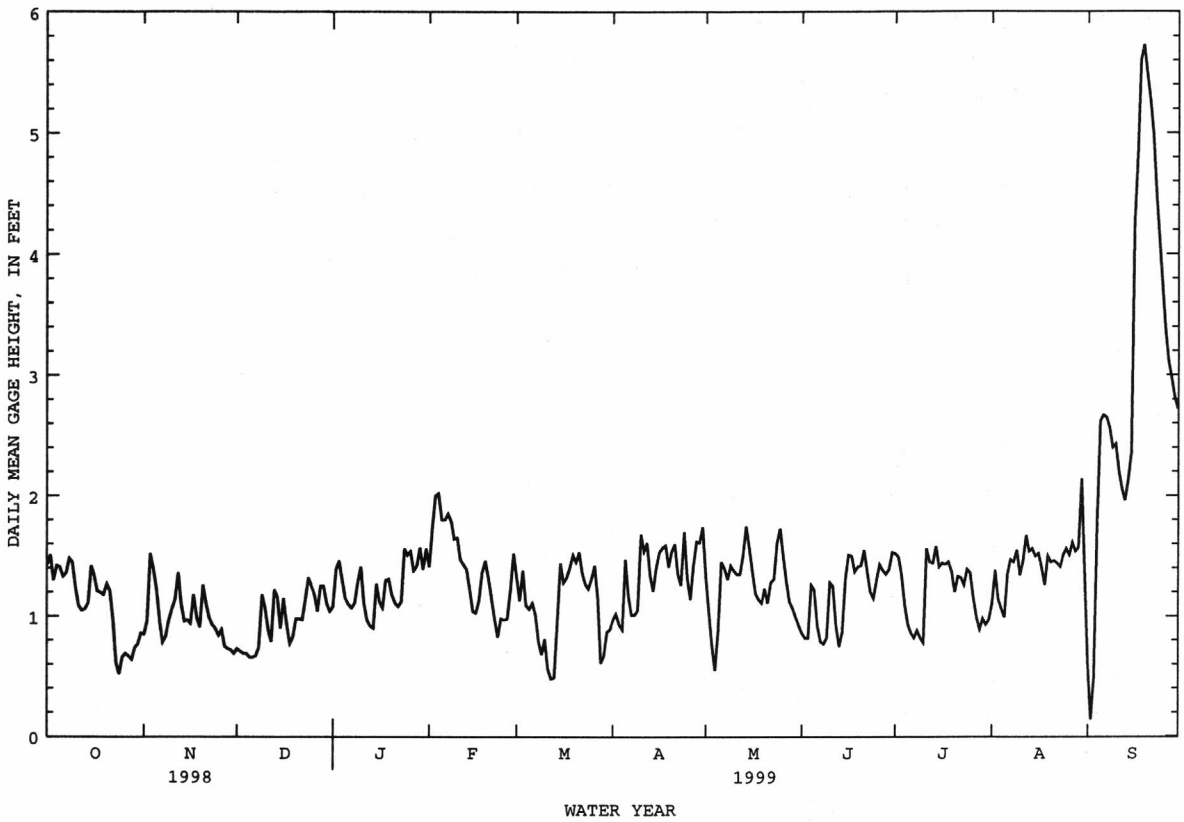
EXTREMES FOR PERIOD OF RECORD.--Maximum, 5.76 ft, Sept. 19, 1999; minimum, 0.11 ft, Sept. 2, 1999.

EXTREMES FOR CURRENT YEAR.--Maximum, 5.76 ft, Sept. 19; minimum elevation, 0.11 ft, Sept. 2.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.43	.85	.73	1.08	1.41	1.32	.97	1.32	.86	1.52	1.10	.60
2	1.51	.96	.71	1.39	1.74	1.13	1.02	1.03	.82	1.49	1.38	.14
3	1.30	1.52	.69	1.46	2.00	1.38	.93	.76	.82	1.35	1.14	.48
4	1.42	1.39	.69	1.30	2.02	1.09	.89	.55	1.26	1.09	1.06	1.80
5	1.41	1.22	.66	1.15	1.80	1.06	1.47	.89	1.22	.93	.99	2.62
6	1.33	.96	.66	1.10	1.80	1.11	1.17	1.45	.92	.86	1.35	2.67
7	1.36	.78	.67	1.07	1.85	1.01	1.01	1.40	.79	.82	1.47	2.65
8	1.48	.83	.74	1.11	1.79	.79	1.01	1.31	.77	.88	1.45	2.56
9	1.45	.96	1.18	1.28	1.64	.68	1.05	1.42	.82	.82	1.55	2.40
10	1.24	1.06	1.07	1.41	1.65	.81	1.68	1.38	1.28	.78	1.34	2.43
11	1.09	1.14	.89	1.11	1.47	.56	1.54	1.35	1.25	1.56	1.46	2.20
12	1.05	1.36	.79	.97	1.43	.48	1.61	1.35	.93	1.45	1.67	2.06
13	1.06	1.10	1.22	.92	1.39	.49	1.34	1.51	.75	1.44	1.54	1.96
14	1.11	.96	1.16	.90	1.22	.97	1.21	1.75	.87	1.58	1.56	2.14
15	1.42	.97	.90	1.27	1.04	1.44	1.40	1.56	1.31	1.41	1.50	2.36
16	1.34	.94	1.15	1.12	1.03	1.28	1.53	1.37	1.51	1.44	1.52	4.26
17	1.21	1.18	.93	1.07	1.13	1.32	1.57	1.19	1.50	1.43	1.40	4.83
18	1.20	.99	.77	1.30	1.36	1.40	1.59	1.14	1.37	1.45	1.26	5.60
19	1.18	.91	.83	1.31	1.46	1.51	1.41	1.11	1.41	1.37	1.50	5.73
20	1.27	1.26	.98	1.18	1.31	1.45	1.54	1.23	1.42	1.20	1.45	5.50
21	1.21	1.11	.98	1.11	1.14	1.53	1.60	1.11	1.55	1.33	1.46	5.27
22	.97	.99	.97	1.08	.97	1.36	1.35	1.28	1.37	1.32	1.44	4.99
23	.61	.93	1.13	1.12	.83	1.27	1.26	1.31	1.20	1.26	1.41	4.51
24	.52	.90	1.32	1.56	.98	1.23	1.70	1.61	1.15	1.39	1.51	4.14
25	.66	.84	1.25	1.51	.97	1.31	1.32	1.73	1.30	1.36	1.56	3.77
26	.69	.89	1.18	1.54	.98	1.42	1.14	1.50	1.43	1.15	1.51	3.39
27	.67	.75	1.04	1.38	1.22	1.15	1.42	1.29	1.38	.99	1.61	3.12
28	.64	.73	1.25	1.42	1.52	.61	1.62	1.12	1.35	.89	1.54	2.97
29	.74	.72	1.25	1.57	---	.67	1.61	1.07	1.39	.98	1.57	2.82
30	.77	.69	1.11	1.39	---	.87	1.74	.99	1.53	.93	2.14	2.72
31	.86	---	1.04	1.56	---	.89	---	.92	---	.97	1.32	---
MEAN	1.10	1.00	.97	1.25	1.40	1.08	1.36	1.26	1.18	1.21	1.44	3.09
MAX	1.51	1.52	1.32	1.57	2.02	1.53	1.74	1.75	1.55	1.58	2.14	5.73
MIN	.52	.69	.66	.90	.83	.48	.89	.55	.75	.78	.99	.14

355205076522501 COW CREEK TRANSECT (SITE #2)--Continued



355149076504001 COW CREEK TRANSECT (SITE #3)

LOCATION.--Lat 35°51'50", long 76°50'39", North American Datum of 1983, Bertie County, Hydrologic Unit 03010107, on Cow Creek approximately 0.5 mi upstream of confluence with Broad Creek and 5.2 mi west of Plymouth.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--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 sea level.

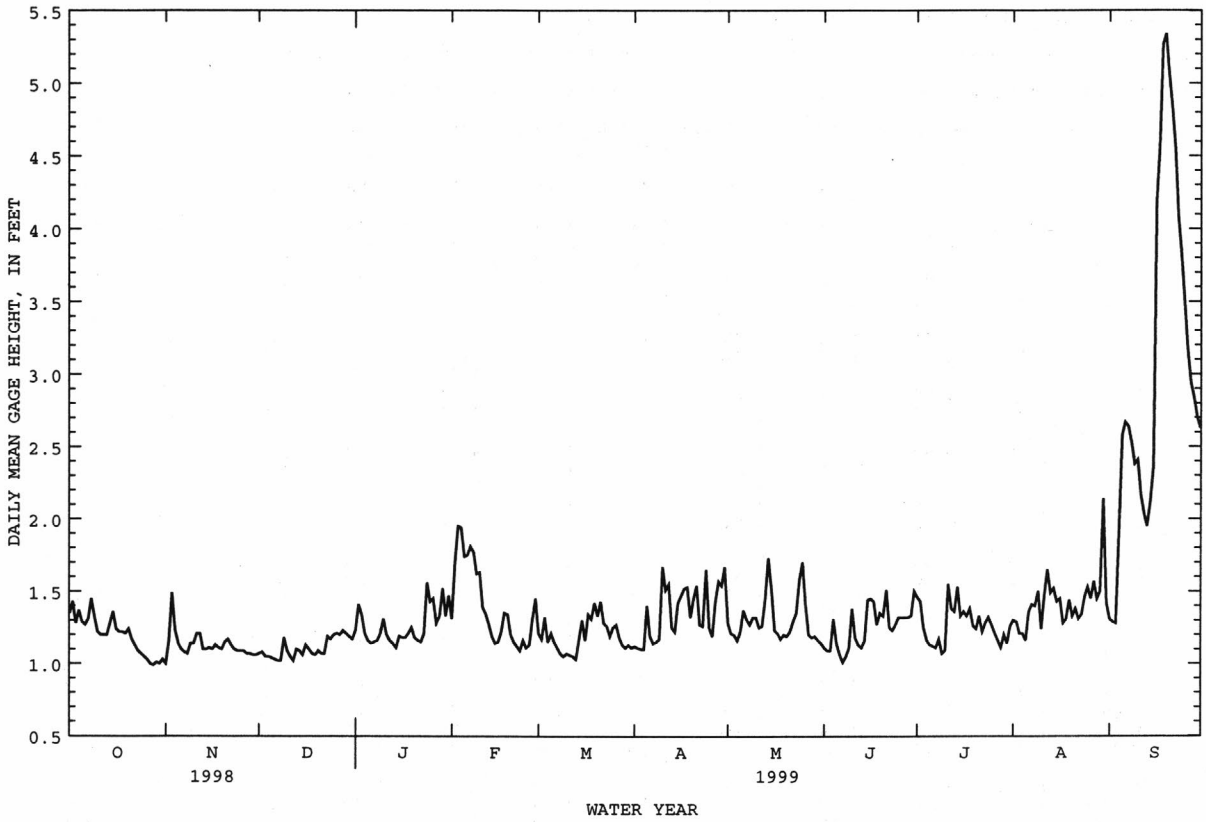
EXTREMES FOR PERIOD OF RECORD.--Maximum, 5.40 ft, Sept. 18, 19, 1999; minimum, 0.90 ft, Aug. 7, 1998.

EXTREMES FOR CURRENT YEAR.--Maximum, 5.40 ft, Sept. 18, 19; minimum elevation, 0.97 ft, June 7.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.35	1.00	1.07	1.23	1.31	1.21	1.12	1.28	1.11	1.46	1.30	1.31
2	1.43	1.16	1.08	1.41	1.70	1.17	1.11	1.21	1.09	1.43	1.29	1.29
3	1.28	1.49	1.05	1.34	1.95	1.32	1.10	1.20	1.09	1.25	1.21	1.28
4	1.37	1.23	1.05	1.21	1.94	1.15	1.10	1.16	1.31	1.16	1.21	1.92
5	1.29	1.14	1.04	1.16	1.74	1.21	1.40	1.22	1.14	1.13	1.16	2.58
6	1.27	1.10	1.03	1.14	1.75	1.15	1.19	1.37	1.06	1.12	1.36	2.67
7	1.31	1.08	1.02	1.15	1.81	1.11	1.14	1.31	1.01	1.11	1.41	2.64
8	1.45	1.07	1.02	1.16	1.77	1.07	1.15	1.27	1.05	1.17	1.40	2.53
9	1.33	1.14	1.18	1.21	1.62	1.05	1.17	1.32	1.11	1.07	1.50	2.38
10	1.22	1.14	1.09	1.31	1.63	1.07	1.67	1.32	1.38	1.09	1.24	2.41
11	1.20	1.21	1.05	1.20	1.39	1.06	1.51	1.25	1.18	1.55	1.47	2.17
12	1.20	1.21	1.02	1.16	1.34	1.05	1.55	1.26	1.13	1.38	1.65	2.04
13	1.20	1.10	1.10	1.14	1.27	1.03	1.25	1.45	1.11	1.36	1.49	1.95
14	1.28	1.10	1.09	1.11	1.19	1.17	1.22	1.73	1.16	1.53	1.52	2.12
15	1.36	1.11	1.06	1.19	1.14	1.30	1.42	1.51	1.44	1.33	1.43	2.36
16	1.24	1.10	1.13	1.18	1.15	1.16	1.47	1.23	1.45	1.36	1.45	4.18
17	1.22	1.13	1.10	1.18	1.22	1.34	1.52	1.21	1.43	1.33	1.28	4.58
18	1.22	1.11	1.07	1.21	1.35	1.31	1.53	1.17	1.27	1.38	1.31	5.27
19	1.21	1.10	1.06	1.25	1.34	1.42	1.32	1.20	1.35	1.26	1.44	5.34
20	1.24	1.15	1.09	1.18	1.20	1.33	1.45	1.19	1.33	1.24	1.33	5.07
21	1.17	1.17	1.07	1.16	1.15	1.43	1.54	1.22	1.51	1.33	1.38	4.83
22	1.13	1.13	1.07	1.15	1.12	1.28	1.27	1.29	1.25	1.22	1.31	4.55
23	1.09	1.10	1.19	1.21	1.09	1.26	1.26	1.35	1.23	1.28	1.34	4.08
24	1.07	1.09	1.17	1.56	1.16	1.19	1.65	1.58	1.27	1.32	1.46	3.82
25	1.05	1.09	1.20	1.43	1.11	1.25	1.25	1.70	1.32	1.27	1.53	3.50
26	1.03	1.09	1.21	1.45	1.13	1.27	1.19	1.41	1.32	1.21	1.45	3.17
27	1.00	1.07	1.20	1.28	1.31	1.18	1.43	1.20	1.32	1.16	1.57	2.95
28	.99	1.07	1.23	1.33	1.45	1.13	1.57	1.18	1.32	1.11	1.45	2.84
29	1.01	1.06	1.21	1.52	---	1.11	1.54	1.19	1.33	1.20	1.50	2.71
30	1.00	1.06	1.19	1.33	---	1.13	1.67	1.16	1.50	1.14	2.14	2.63
31	1.03	---	1.17	1.47	---	1.11	---	1.14	---	1.26	1.42	---
MEAN	1.20	1.13	1.11	1.26	1.40	1.19	1.36	1.30	1.25	1.26	1.42	3.04
MAX	1.45	1.49	1.23	1.56	1.95	1.43	1.67	1.73	1.51	1.55	2.14	5.34
MIN	.99	1.00	1.02	1.11	1.09	1.03	1.10	1.14	1.01	1.07	1.16	1.28

355149076504001 COW CREEK TRANSECT (SITE #3)--Continued



355140076484201 COW CREEK TRANSECT (SITE #4)

LOCATION.--Lat 35°51'41", long 76°48'40", North American Datum of 1983, Martin County, Hydrologic Unit 03010107, on Highland Prong approximately 1.4 mi upstream of confluence with Roanoke River and 3.35 mi west of Plymouth.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--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 sea level.

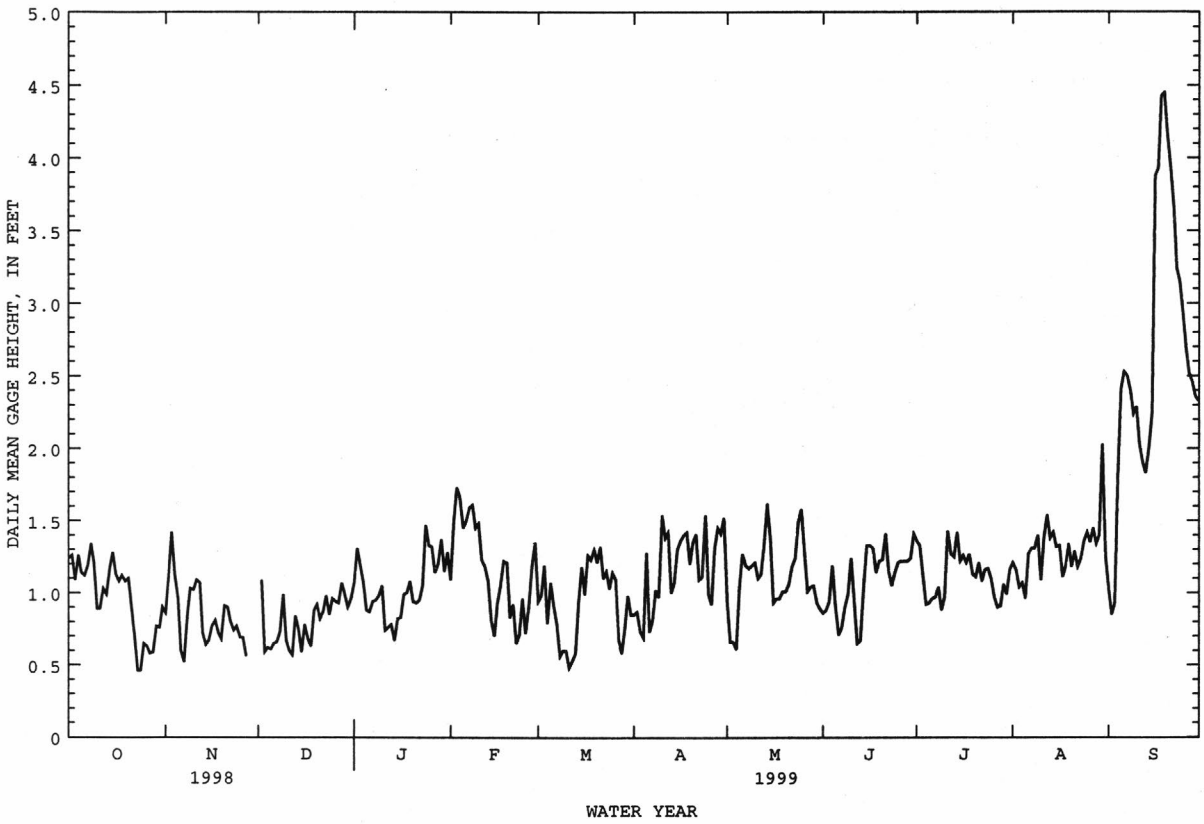
EXTREMES FOR PERIOD OF RECORD.--Maximum recorded gage height, 4.67 ft, Sept. 16, 1999; minimum recorded gage height, 0.41 ft, Oct. 23, 24, 1998.

EXTREMES FOR CURRENT YEAR.--Maximum recorded gage height, 4.67 ft, Sept. 16; minimum recorded gage height, 0.41 ft, Oct. 23, 24.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.24	.86	---	1.07	1.09	.94	.85	.94	.86	1.36	1.21	1.03
2	1.26	1.10	1.09	1.31	1.50	.98	.87	.66	.88	1.33	1.16	.85
3	1.09	1.42	.59	1.19	1.73	1.19	.73	.66	.94	1.13	1.04	.93
4	1.26	1.12	.62	1.07	1.66	.79	.69	.61	1.19	.92	1.07	1.82
5	1.14	.96	.61	.88	1.45	1.07	1.28	1.04	.91	.93	.96	2.41
6	1.12	.60	.65	.87	1.50	.91	.73	1.27	.71	.96	1.27	2.53
7	1.19	.52	.66	.94	1.59	.78	.81	1.19	.76	.97	1.31	2.50
8	1.34	.84	.73	.95	1.61	.56	1.02	1.17	.90	1.04	1.31	2.40
9	1.21	1.03	.99	.98	1.45	.60	.97	1.19	.99	.88	1.40	2.24
10	.89	1.02	.67	1.05	1.48	.60	1.54	1.21	1.24	.97	1.09	2.29
11	.89	1.09	.60	.74	1.23	.48	1.38	1.10	.95	1.43	1.39	2.03
12	1.03	1.07	.57	.76	1.18	.53	1.42	1.13	.65	1.27	1.54	1.91
13	.99	.72	.84	.78	1.08	.58	1.00	1.34	.67	1.25	1.38	1.83
14	1.17	.64	.75	.67	.81	.94	1.07	1.62	1.04	1.42	1.42	2.01
15	1.28	.67	.59	.82	.70	1.18	1.30	1.38	1.33	1.22	1.32	2.25
16	1.13	.77	.78	.83	.93	.99	1.36	.93	1.33	1.26	1.33	3.88
17	1.08	.81	.68	.99	1.05	1.26	1.40	.96	1.31	1.21	1.11	3.93
18	1.12	.72	.63	1.00	1.22	1.23	1.42	.96	1.14	1.27	1.19	4.43
19	1.08	.68	.88	1.08	1.21	1.30	1.20	1.01	1.22	1.13	1.34	4.45
20	1.10	.91	.92	.94	.83	1.21	1.35	1.01	1.23	1.11	1.18	4.16
21	.89	.90	.82	.93	.92	1.32	1.41	1.06	1.41	1.21	1.29	3.92
22	.70	.80	.87	.95	.65	1.10	1.09	1.18	1.15	1.08	1.18	3.66
23	.46	.74	.98	1.05	.71	1.15	1.11	1.24	1.05	1.16	1.24	3.24
24	.46	.77	.85	1.47	.96	1.03	1.54	1.49	1.14	1.17	1.36	3.15
25	.65	.69	.96	1.33	.72	1.14	.99	1.58	1.21	1.10	1.42	2.94
26	.63	.69	.94	1.32	.91	1.09	.92	1.29	1.22	.97	1.35	2.70
27	.58	.56	.93	1.14	1.19	.68	1.31	1.01	1.22	.90	1.45	2.52
28	.59	---	1.07	1.20	1.35	.58	1.45	1.04	1.22	.91	1.34	2.46
29	.77	---	.99	1.37	---	.75	1.41	1.05	1.24	1.06	1.40	2.36
30	.76	---	.90	1.15	---	.98	1.52	.93	1.41	.99	2.03	2.33
31	.90	---	.96	1.28	---	.85	---	.89	---	1.16	1.25	---
MEAN	.97	---	---	1.04	1.17	.93	1.17	1.10	1.08	1.12	1.30	2.64
MAX	1.34	---	---	1.47	1.73	1.32	1.54	1.62	1.41	1.43	2.03	4.45
MIN	.46	---	---	.67	.65	.48	.69	.61	.65	.88	.96	.85

355140076484201 COW CREEK TRANSECT (SITE #4)--Continued



0208111310 CASHIE RIVER AT SECONDARY ROAD 1257 NEAR WINDSOR, NC

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

DRAINAGE AREA.--108 mi^2.

PERIOD OF RECORD.--1987 to current year.

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

REMARKS.--Records fair except those below 10 ft^3/s, which are poor. Maximum discharge for current water year and period of record, from rating curve extended above 5,500 ft^3/s on basis of logarithmic plotting. Maximum gage height for current year and period of record, from flood mark. Periods of no flow occur periodically.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.03	.00	9.8	161	151	82	85	4.8	.08	.67	.07	2.5
2	.02	.00	6.4	117	130	119	74	4.9	.06	.75	.03	7.3
3	.01	.52	4.5	102	124	128	65	5.1	.04	.50	.02	7.1
4	.04	1.1	3.3	125	126	132	59	5.0	.03	.20	.02	38
5	.06	.77	3.0	265	125	128	62	4.5	.03	.11	.06	161
6	.02	.60	3.4	387	123	114	70	3.7	.02	.08	.14	444
7	.01	.62	3.2	280	113	102	65	3.1	.02	.04	.05	1600
8	.18	.64	3.3	178	103	90	57	2.5	.02	.02	.03	3210
9	.57	.94	5.4	122	91	79	50	1.9	.01	.02	.07	1990
10	.10	1.3	6.3	98	79	79	49	1.3	.01	.07	.08	1280
11	.04	1.9	6.0	85	70	77	45	.95	.01	.31	.04	1260
12	.02	2.3	5.2	72	64	74	46	.74	.01	.28	.03	706
13	.01	2.7	12	65	63	69	43	.71	.01	.42	.03	494
14	.01	2.8	26	60	65	67	42	1.6	.02	2.5	.19	455
15	.01	2.9	34	108	68	87	45	10	.17	3.8	.85	877
16	.03	3.2	45	288	75	164	40	15	.68	6.5	.17	e8500
17	.09	7.7	73	436	81	388	34	13	13	6.2	.08	e14500
18	.08	6.7	85	473	86	376	30	23	57	6.6	.05	e8800
19	.04	7.1	64	399	100	257	28	36	55	3.1	.03	e5000
20	.06	12	52	333	135	176	29	27	36	1.4	.03	e1950
21	.03	12	44	298	156	131	32	16	46	.80	.04	759
22	.02	15	37	244	159	120	32	9.9	40	.70	.09	619
23	.01	16	31	190	136	113	28	5.9	30	.58	.08	572
24	.01	13	55	243	111	102	21	3.8	20	.66	.05	485
25	.00	9.1	145	797	92	105	16	2.3	11	1.2	.27	371
26	.00	22	232	1200	80	114	12	1.4	7.2	.63	.59	276
27	.00	24	240	977	71	131	8.1	.89	5.6	.35	.29	212
28	.00	27	255	613	69	154	5.9	.49	3.0	.28	.13	185
29	.01	21	289	388	---	143	5.2	.28	1.4	.23	.09	188
30	.01	15	281	267	---	120	4.7	.21	.71	.15	.39	200
31	.00	---	210	197	---	101	---	.11	---	.11	.52	---
TOTAL	1.52	229.89	2269.8	9568	2846	4122	1182.9	206.08	327.13	39.26	4.61	55148.9
MEAN	.049	7.66	73.2	309	102	133	39.4	6.65	10.9	1.27	.15	1838
MAX	.57	27	289	1200	159	388	85	36	57	6.6	.85	14500
MIN	.00	.00	3.0	60	63	67	4.7	.11	.01	.02	.02	2.5
CFSM	.00	.07	.68	2.86	.94	1.23	.37	.06	.10	.01	.00	17.0
IN.	.00	.08	.78	3.30	.98	1.42	.41	.07	.11	.01	.00	19.00

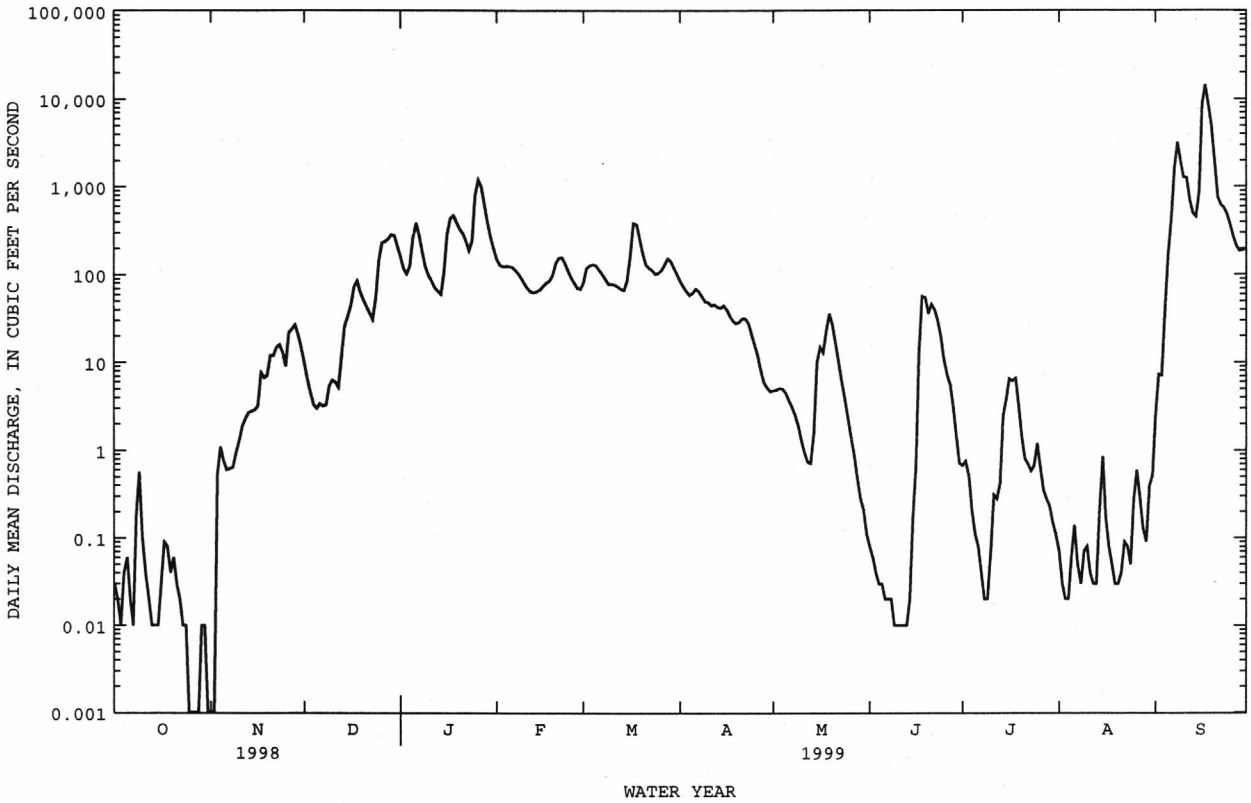
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1999, BY WATER YEAR (WY)

MEAN	37.2	39.0	86.5	207	214	261	134	61.4	43.9	28.4	83.9	183
MAX	200	158	254	509	651	663	326	321	129	102	488	1838
(WY)	1997	1993	1990	1993	1998	1989	1989	1989	1992	1991	1992	1999
MIN	.000	.065	1.70	52.6	64.1	58.3	5.25	1.07	.010	.000	.009	.000
(WY)	1995	1995	1995	1995	1991	1988	1995	1994	1994	1994	1993	1994

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1987 - 1999	
ANNUAL TOTAL	43636.15		75946.09			
ANNUAL MEAN	120		208		117	
HIGHEST ANNUAL MEAN					208	1999
LOWEST ANNUAL MEAN					57.1	1988
HIGHEST DAILY MEAN	2870	Feb 6	14500	Sep 17	14500	Sep 17 1999
LOWEST DAILY MEAN	.00	Jul 15	.00	Oct 25	.00	Jul 30 1987
ANNUAL SEVEN-DAY MINIMUM	.00	Aug 1	.00	Oct 25	.00	Oct 8 1987
INSTANTANEOUS PEAK FLOW			15700*	Sep 16	15700*	Sep 16 1999
INSTANTANEOUS PEAK STAGE			18.52*	Sep 16	18.52*	Sep 16 1999
INSTANTANEOUS LOW FLOW			.00*	Oct 24	.00*	Jul 29 1987
ANNUAL RUNOFF (CFSM)	1.11		1.93		1.08	
ANNUAL RUNOFF (INCHES)	15.03		26.16		14.66	
10 PERCENT EXCEEDS	363		280		285	
50 PERCENT EXCEEDS	15		12		25	
90 PERCENT EXCEEDS	.00		.03		.04	

e Estimated.
* See REMARKS.

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



0208113400 CASHIE RIVER AT SAN SOUCI FERRY, NC

LOCATION.--Lat 35°54'43", long 76°49'03", North American Datum of 1983, Bertie County, Hydrologic Unit 03010107, on pier at San Souci ferry near SR 1500 and 9.5 mi southeast of Windsor.

DRAINAGE AREA.--293 mi^2.

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 sea level.

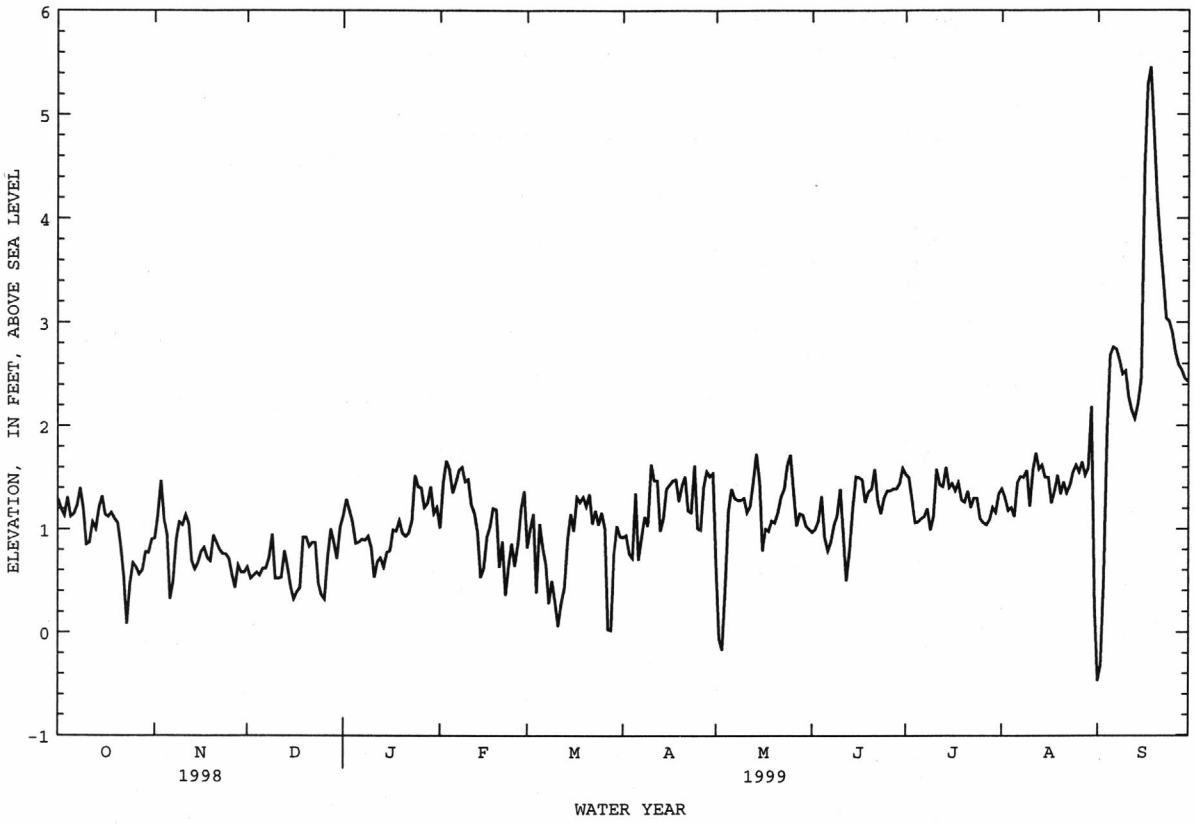
EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 5.65 ft, Sept. 17, 18, 1999; minimum elevation, -0.81 ft, Mar. 4, 1999.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 5.65 ft, Sept. 17, 18; minimum elevation, -0.81 ft, Mar. 4.

ELEVATION, FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.29	.91	.63	1.13	1.01	.82	.92	.63	.97	1.53	1.39	-.47
2	1.19	1.14	.52	1.29	1.45	1.00	.94	-.06	1.00	1.50	1.30	-.32
3	1.13	1.47	.55	1.18	1.66	1.15	.76	-.17	1.08	1.29	1.18	.52
4	1.31	1.09	.58	1.06	1.58	.38	.72	.43	1.32	1.06	1.21	1.91
5	1.12	.94	.55	.86	1.35	1.05	1.35	1.18	.92	1.07	1.12	2.68
6	1.15	.32	.62	.87	1.45	.82	.70	1.39	.79	1.10	1.45	2.76
7	1.23	.49	.62	.90	1.57	.66	.92	1.30	.88	1.12	1.51	2.74
8	1.40	.90	.72	.89	1.60	.28	1.12	1.28	1.04	1.20	1.50	2.63
9	1.20	1.07	.95	.93	1.46	.50	1.03	1.28	1.13	.99	1.57	2.50
10	.85	1.04	.52	.82	1.48	.30	1.63	1.30	1.39	1.12	1.22	2.53
11	.87	1.14	.52	.53	1.24	.06	1.47	1.16	.94	1.58	1.57	2.28
12	1.07	1.05	.53	.68	1.15	.29	1.47	1.22	.50	1.43	1.74	2.15
13	1.00	.69	.79	.72	.97	.44	.98	1.46	.80	1.41	1.58	2.07
14	1.21	.61	.63	.63	.53	.90	1.10	1.73	1.21	1.60	1.62	2.22
15	1.32	.67	.44	.77	.62	1.15	1.39	1.46	1.51	1.40	1.50	2.47
16	1.14	.78	.32	.79	.92	.98	1.43	.79	1.50	1.44	1.50	4.47
17	1.12	.82	.39	.99	1.02	1.31	1.47	1.00	1.48	1.37	1.25	5.29
18	1.16	.72	.43	.98	1.20	1.26	1.48	.98	1.26	1.45	1.37	5.46
19	1.10	.69	.92	1.08	1.19	1.31	1.27	1.08	1.36	1.28	1.52	4.86
20	1.06	.94	.92	.96	.63	1.22	1.42	1.06	1.39	1.26	1.34	4.21
21	.83	.87	.83	.93	.88	1.34	1.51	1.16	1.58	1.37	1.46	3.76
22	.54	.80	.87	.96	.36	1.05	1.18	1.31	1.27	1.21	1.35	3.42
23	.08	.76	.87	1.08	.64	1.18	1.16	1.39	1.15	1.30	1.42	3.04
24	.46	.76	.47	1.52	.86	1.04	1.62	1.62	1.30	1.30	1.55	3.01
25	.67	.71	.36	1.41	.64	1.16	1.01	1.72	1.37	1.10	1.62	2.90
26	.63	.56	.32	1.40	.86	1.00	.99	1.37	1.37	1.06	1.55	2.71
27	.56	.43	.72	1.21	1.20	.03	1.41	1.03	1.39	1.04	1.65	2.59
28	.60	.65	1.00	1.25	1.37	.02	1.56	1.15	1.39	1.09	1.52	2.54
29	.78	.58	.87	1.41	---	.77	1.51	1.14	1.44	1.21	1.59	2.46
30	.77	.58	.71	1.15	---	1.03	1.54	1.03	1.59	1.16	2.19	2.43
31	.90	---	1.02	1.21	---	.93	---	1.00	---	1.34	.26	---
MEAN	.96	.81	.65	1.02	1.10	.82	1.24	1.11	1.21	1.27	1.44	2.73
MAX	1.40	1.47	1.02	1.52	1.66	1.34	1.63	1.73	1.59	1.60	2.19	5.46
MIN	.08	.32	.32	.53	.36	.02	.70	-.17	.50	.99	.26	-.47

0208113400 CASHIE RIVER AT SAN SOUCI FERRY, NC--Continued



0208114055 ROANOKE RIVER AT PLYMOUTH, NC

LOCATION.--Lat 35°53'00", long 76°45'18", North American Datum, 1983, Washington County, Hydrologic Unit 03010107, at pier on right bank, 250 ft upstream of city boat ramp, approximately 8 mi upstream from mouth, at Plymouth.

DRAINAGE AREA.--9,350 mi^2.

PERIOD OF RECORD.--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 sea level.

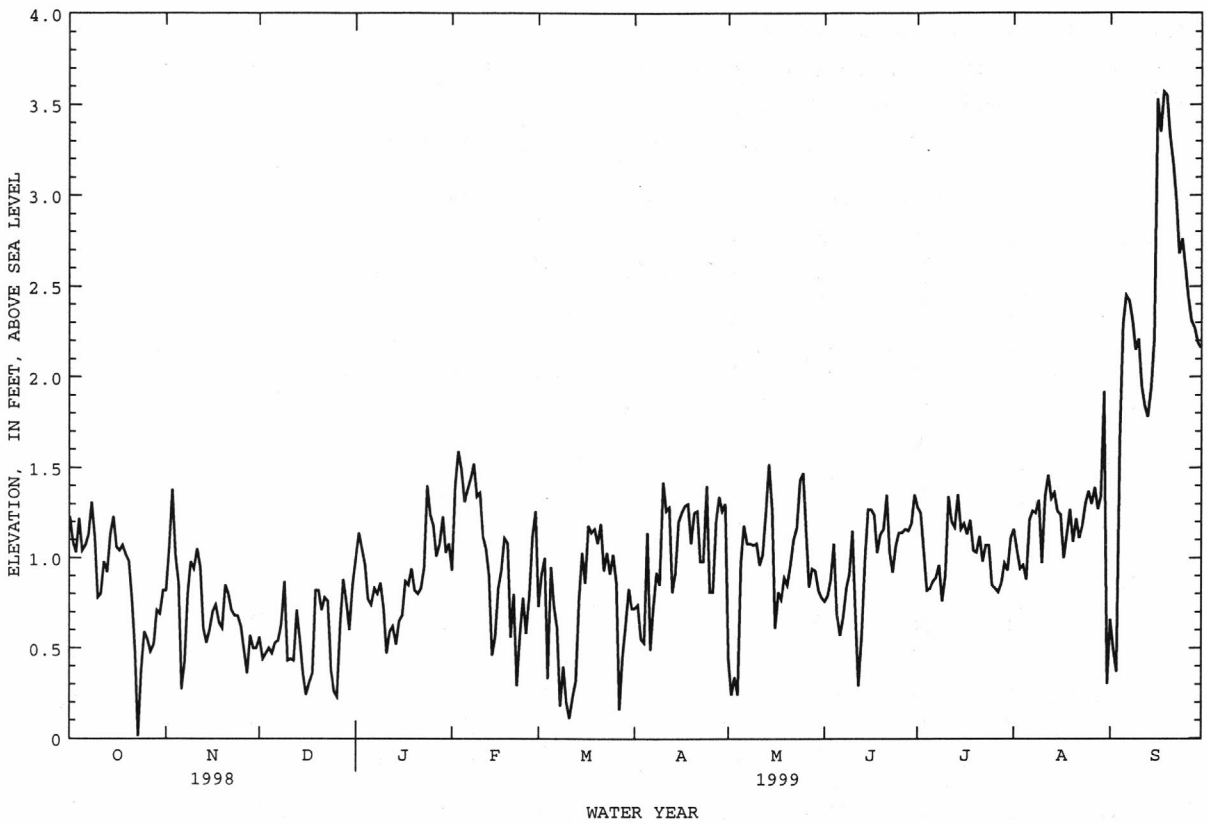
EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 4.71 ft, Sept. 16, 1999; minimum elevation, -0.86 ft, Mar. 4, 1999.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 4.71 ft, Sept. 16; minimum elevation, -0.86 ft, Mar. 4.

ELEVATION, FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.23	.82	.56	1.00	.93	.73	.72	.44	.76	1.28	1.16	.66
2	1.09	1.06	.44	1.14	1.40	.91	.74	.24	.79	1.25	1.04	.49
3	1.03	1.38	.47	1.05	1.59	1.00	.55	.34	.88	1.04	.94	.37
4	1.22	1.01	.50	.96	1.49	.33	.53	.24	1.08	.82	.96	1.67
5	1.04	.86	.47	.77	1.31	.95	1.14	.98	.69	.83	.88	2.29
6	1.07	.27	.53	.74	1.38	.73	.49	1.18	.57	.87	1.21	2.45
7	1.13	.42	.54	.83	1.44	.61	.73	1.08	.67	.89	1.26	2.42
8	1.31	.80	.63	.80	1.52	.18	.92	1.08	.83	.96	1.25	2.31
9	1.12	.98	.87	.86	1.34	.40	.85	1.07	.91	.76	1.32	2.15
10	.78	.94	.43	.72	1.36	.20	1.42	1.08	1.15	.90	.97	2.21
11	.80	1.05	.44	.47	1.12	.11	1.26	.96	.70	1.34	1.34	1.95
12	.98	.95	.43	.59	1.05	.23	1.28	1.02	.29	1.20	1.46	1.84
13	.92	.61	.71	.62	.90	.32	.81	1.25	.58	1.17	1.33	1.78
14	1.13	.53	.55	.52	.46	.77	.92	1.52	.99	1.35	1.36	1.94
15	1.23	.60	.36	.65	.56	1.03	1.20	1.27	1.27	1.16	1.26	2.21
16	1.06	.70	.24	.68	.83	.86	1.25	.61	1.27	1.19	1.24	3.53
17	1.04	.74	.31	.87	.93	1.18	1.29	.81	1.24	1.13	1.00	3.35
18	1.07	.64	.36	.85	1.11	1.14	1.30	.77	1.03	1.21	1.13	3.57
19	1.02	.61	.82	.94	1.08	1.16	1.08	.89	1.13	1.04	1.27	3.55
20	.98	.85	.82	.82	.56	1.08	1.25	.85	1.16	1.03	1.09	3.32
21	.77	.80	.71	.80	.80	1.19	1.26	.96	1.35	1.12	1.22	3.17
22	.48	.71	.78	.83	.29	.93	.98	1.10	1.03	.98	1.11	2.97
23	.01	.68	.76	.94	.57	1.03	.98	1.17	.92	1.07	1.18	2.68
24	.38	.68	.38	1.40	.78	.91	1.40	1.43	1.07	1.07	1.30	2.76
25	.59	.62	.26	1.24	.58	1.02	.81	1.47	1.14	.85	1.37	2.60
26	.55	.49	.23	1.18	.79	.86	.81	1.15	1.14	.83	1.30	2.43
27	.48	.36	.62	1.01	1.12	.16	1.20	.84	1.16	.81	1.39	2.31
28	.52	.57	.88	1.08	1.26	.45	1.34	.94	1.15	.86	1.27	2.27
29	.71	.50	.76	1.23	---	.63	1.26	.93	1.19	.97	1.34	2.19
30	.69	.50	.60	1.03	---	.83	1.30	.82	1.35	.93	1.92	2.16
31	.82	---	.86	1.08	---	.72	---	.78	---	1.11	.30	---
MEAN	.88	.72	.56	.89	1.02	.73	1.04	.94	.98	1.03	1.20	2.32
MAX	1.31	1.38	.88	1.40	1.59	1.19	1.42	1.52	1.35	1.35	1.92	3.57
MIN	.01	.27	.23	.47	.29	.11	.49	.24	.29	.76	.30	.37

0208114055 ROANOKE RIVER AT PLYMOUTH, NC--Continued



0208114150 ROANOKE RIVER AT NC 45 NR WESTOVER, NC

LOCATION.--Lat 35°54'54", long 76°43'22", North American Datum of 1983, Bertie County, Hydrologic Unit 03010107, 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 mi^2.

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 sea level. Satellite telemetry at station.

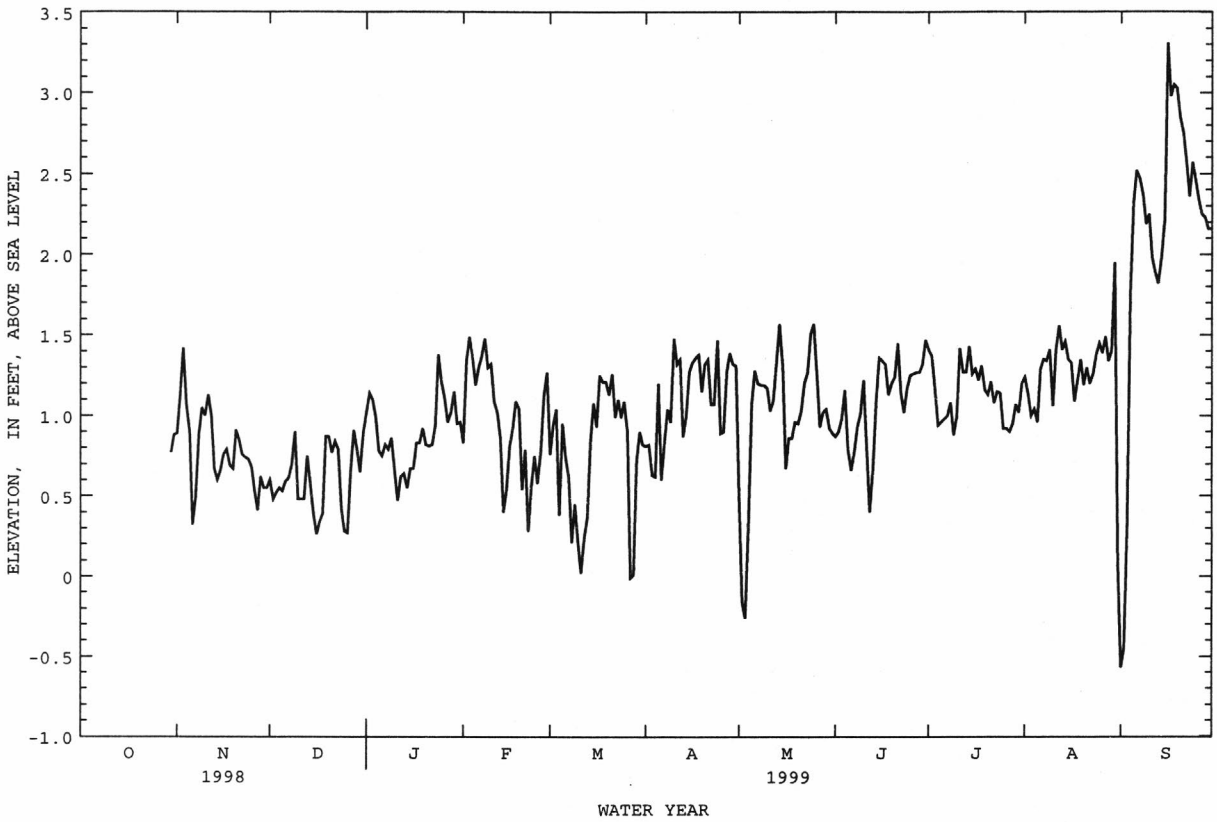
EXTREMES FOR PERIOD OF RECORD.--Maximum recorded elevation, 4.68 ft, Sept. 16, 1999; minimum recorded elevation, -1.20 ft, Sept. 1, 1993.

EXTREMES FOR CURRENT YEAR.--Maximum recorded elevation, 4.68 ft, Sept. 16; minimum recorded elevation, -0.81 ft, Sept. 2.

ELEVATION, FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	.89	.60	1.02	.83	.76	.81	.47	.87	1.41	1.24	-.57
2	---	1.13	.48	1.14	1.34	.94	.82	-.16	.90	1.37	1.13	-.45
3	---	1.42	.52	1.10	1.49	1.04	.63	-.26	.98	1.17	1.00	.33
4	---	1.06	.55	.99	1.37	.38	.62	.32	1.16	.94	1.04	1.77
5	---	.90	.53	.78	1.19	.95	1.20	1.07	.79	.96	.96	2.32
6	---	.32	.59	.75	1.30	.74	.60	1.28	.66	.98	1.29	2.52
7	---	.49	.61	.82	1.37	.62	.83	1.20	.77	1.00	1.35	2.47
8	---	.88	.69	.79	1.48	.21	1.04	1.19	.93	1.08	1.34	2.37
9	---	1.05	.90	.86	1.30	.45	.96	1.19	1.01	.88	1.41	2.19
10	---	1.00	.48	.66	1.32	.22	1.48	1.17	1.22	.99	1.06	2.25
11	---	1.13	.48	.47	1.09	.02	1.32	1.03	.80	1.42	1.41	1.98
12	---	1.00	.48	.62	1.02	.24	1.35	1.09	.40	1.27	1.56	1.89
13	---	.67	.75	.64	.86	.37	.87	1.32	.67	1.27	1.41	1.82
14	---	.60	.58	.55	.40	.84	.99	1.57	1.09	1.43	1.46	1.99
15	---	.66	.39	.67	.54	1.08	1.27	1.31	1.36	1.26	1.35	2.22
16	---	.76	.26	.67	.81	.93	1.33	.67	1.34	1.29	1.33	3.31
17	---	.79	.34	.83	.92	1.25	1.36	.86	1.32	1.22	1.09	2.98
18	---	.69	.39	.83	1.09	1.21	1.38	.86	1.13	1.31	1.22	3.05
19	---	.67	.87	.92	1.04	1.21	1.15	.96	1.20	1.16	1.35	3.03
20	---	.91	.87	.82	.54	1.13	1.32	.95	1.24	1.13	1.19	2.85
21	---	.85	.77	.81	.79	1.26	1.35	1.03	1.45	1.21	1.30	2.75
22	---	.76	.84	.82	.28	.99	1.07	1.20	1.14	1.08	1.20	2.57
23	---	.74	.79	.94	.56	1.10	1.07	1.27	1.02	1.15	1.26	2.36
24	---	.73	.42	1.38	.75	.99	1.47	1.51	1.17	1.14	1.38	2.57
25	---	.68	.28	1.21	.58	1.09	.89	1.57	1.25	.92	1.45	2.46
26	---	.53	.27	1.11	.78	.90	.90	1.26	1.26	.92	1.39	2.34
27	---	.41	.66	.96	1.13	-.01	1.27	.93	1.27	.90	1.49	2.25
28	---	.62	.91	1.02	1.27	.01	1.39	1.02	1.27	.95	1.34	2.23
29	---	.55	.79	1.15	---	.72	1.32	1.04	1.32	1.07	1.40	2.16
30	.77	.55	.65	.95	---	.90	1.31	.92	1.47	1.02	1.95	2.16
31	.88	---	.90	.96	---	.82	---	.89	---	1.20	.07	---
MEAN	---	.78	.60	.88	.98	.75	1.11	.99	1.08	1.13	1.27	2.14
MAX	---	1.42	.91	1.38	1.49	1.26	1.48	1.57	1.47	1.43	1.95	3.31
MIN	---	.32	.26	.47	.28	-.01	.60	-.26	.40	.88	.07	-.57

0208114150 ROANOKE RIVER AT NC 45 NR 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: November 1997 to current year.

pH: November 1997 to current year.

WATER TEMPERATURE: November 1997 to current year.

DISSOLVED OXYGEN: November 1997 to current year.

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

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

REMARKS.--Station operated in cooperation with U.S. Fish and Wildlife Service to define water-quality characteristics in the Roanoke River Basin below Roanoke Rapids Dam.

EXTREMES FOR PERIOD OF DAILY RECORD.--

CONSTITUENT	MAXIMUM RECORDED	MINIMUM RECORDED
SPECIFIC CONDUCTANCE, microsiemens	10900, July 3, 1999	48, September 21, 1999
pH, standard units	7.5, April 30, 1999	5.8, March 4, 1998, September 18-22, 1999
WATER TEMPERATURE, °C	31.0, July 30, 1998, August 2, 1999	5.1, January 2, 1999
DISSOLVED OXYGEN, mg/L	13.5, February 27, 1999	<1.0, many days during period
DISSOLVED OXYGEN, PERCENT SATURATION,%	115, November 30, 1999	<10, many days during period

EXTREMES FOR CURRENT YEAR.--

CONSTITUENT	MAXIMUM RECORDED	MINIMUM RECORDED
SPECIFIC CONDUCTANCE. microsiemens	10900, July 3	48, September 21
pH, standard units	7.5, April 30	5.8, September 18-22
WATER TEMPERATURE, °C	31.0, August 2	5.1, January 2
DISSOLVED OXYGEN, mg/L	13.5, February 26, 27	<1.0, many days during the year
DISSOLVED OXYGEN, PERCENT SATURATION,%	115, November 30	<10, many days during the year

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

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	2880	163	1060	197	186	192	3170	2970	3080	178	130	150
2	2880	157	534	205	191	199	3280	3040	3170	130	118	126
3	171	151	159	466	159	223	3290	3040	3200	155	124	129
4	1500	164	246	227	192	212	3140	2830	3090	165	127	141
5	1740	174	522	220	170	193	3510	3000	3140	159	141	150
6	190	131	164	207	171	181	5470	3510	4520	141	121	126
7	190	145	175	204	189	198	7060	5330	6260	139	126	134
8	189	168	178	202	166	178	7110	6360	6750	135	128	131
9	206	184	194	1890	202	487	7780	5300	6630	138	131	135
10	195	160	169	2290	246	1560	6520	5370	6020	181	126	135
11	179	160	171	2350	1830	2190	6210	3280	5930	142	132	137
12	193	168	184	1860	258	1000	5870	395	942	142	133	138
13	210	182	200	270	218	242	3870	237	929	148	133	137
14	222	195	211	1080	192	211	4200	174	1380	147	136	142
15	796	207	312	2270	1080	2120	190	161	178	159	144	149
16	250	189	223	2290	1900	2220	224	162	190	160	135	143
17	216	196	206	2290	1440	2190	213	137	159	150	137	143
18	224	208	215	2180	148	1210	152	131	136	155	134	147
19	790	211	287	214	162	194	163	140	148	135	118	127
20	1350	201	744	1700	196	641	4250	154	3620	145	122	137
21	233	205	220	1860	383	1390	4360	4110	4240	159	137	145
22	222	191	204	1450	244	491	4510	4280	4410	167	138	147
23	265	204	227	1160	212	370	4420	510	2580	151	130	138
24	1100	213	324	1240	211	820	3230	203	1170	148	129	139
25	1490	823	1390	865	174	282	218	151	171	151	141	145
26	1470	575	1280	233	182	214	160	141	150	158	127	137
27	1440	619	1290	221	173	186	165	133	151	135	122	129
28	1340	386	1140	207	167	181	175	141	161	130	121	126
29	1240	197	869	2080	172	645	184	142	157	144	126	129
30	417	201	226	2980	2080	2720	159	145	153	132	129	131
31	361	189	217	---	---	---	178	138	153	136	127	131
MONTH	2880	131	437	2980	148	771	7780	131	2350	181	118	137

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	131	127	128	156	145	151	238	187	212	146	130	136
2	130	128	129	189	155	175	225	193	212	151	136	141
3	131	124	127	192	154	175	229	196	220	177	135	145
4	126	119	122	207	145	168	214	198	203	162	142	153
5	124	117	120	249	143	172	271	200	219	162	148	156
6	125	123	124	171	158	165	268	188	226	164	143	153
7	129	125	128	184	161	171	232	185	203	155	136	145
8	135	128	130	183	168	174	254	218	232	1950	136	466
9	139	128	130	190	157	178	264	235	245	1960	109	511
10	138	129	132	191	155	166	326	175	223	146	109	117
11	150	138	144	163	151	157	201	175	186	162	134	142
12	150	142	144	207	161	178	216	147	179	158	134	142
13	154	142	145	260	180	210	158	139	146	143	125	134
14	152	140	144	251	169	203	155	138	142	148	118	132
15	151	145	148	235	161	208	148	138	141	153	131	137
16	151	145	148	241	178	205	149	136	141	139	126	133
17	155	144	150	190	176	182	170	142	150	144	128	135
18	166	149	153	202	187	195	155	141	147	142	120	128
19	163	144	152	281	173	208	153	141	147	133	121	126
20	153	142	145	222	172	192	157	142	149	134	119	126
21	153	146	150	222	175	196	235	141	151	129	117	124
22	160	146	152	226	183	210	153	143	148	133	123	128
23	155	146	151	223	174	186	153	142	145	133	127	129
24	152	143	147	203	180	188	229	138	148	3150	129	1220
25	162	146	153	258	171	206	150	137	142	3130	117	955
26	155	145	150	249	144	196	148	139	143	133	118	122
27	151	145	149	215	172	196	186	136	149	132	120	124
28	151	147	150	219	184	203	155	120	137	135	121	125
29	---	---	---	217	177	205	167	117	137	131	121	125
30	---	---	---	264	178	222	247	123	140	126	120	123
31	---	---	---	265	192	231	---	---	---	129	118	123
MONTH	166	117	141	281	143	189	326	117	172	3150	109	218

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

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	5020	119	1200	9630	8820	9240	6100	5570	5770	202	170	183
2	5890	5020	5360	10800	9420	9820	5940	346	3330	221	187	202
3	6090	5850	5980	10900	10700	10800	435	273	302	337	190	228
4	8420	162	4170	10800	10700	10800	305	272	289	4790	204	1640
5	240	116	125	10700	10400	10600	1990	288	567	4500	643	2220
6	129	118	123	10500	10200	10400	3600	1990	2940	2880	288	1300
7	3770	123	618	10200	9410	10000	4290	3490	3930	423	148	197
8	4160	3740	3960	9700	9270	9460	5210	4270	4570	171	145	155
9	4650	4130	4420	9380	9110	9250	5670	2010	4970	159	138	151
10	4660	139	3460	9200	8620	9050	4990	3740	4480	4690	128	660
11	206	126	144	9000	567	5650	5170	4720	4960	135	126	130
12	147	125	134	619	184	288	5140	3340	4480	142	117	133
13	150	132	142	223	178	192	4520	4100	4350	164	131	140
14	3730	135	2020	2440	191	791	5410	4270	4930	231	128	150
15	5040	3370	4300	254	199	225	5200	4180	5060	334	133	155
16	3440	122	1160	4800	215	3320	5400	1670	4120	737	88	210
17	161	122	133	5020	4600	4850	3790	769	2430	88	70	75
18	153	122	137	5840	4710	4940	5070	3790	4480	70	64	67
19	151	105	128	6790	5680	6110	5090	4680	4930	64	53	58
20	188	124	141	6970	6790	6880	4980	4490	4780	53	49	51
21	162	129	138	6860	672	4770	4600	4190	4340	49	48	48
22	181	155	171	765	232	436	4240	4130	4200	51	49	50
23	201	173	189	233	53	206	4290	3330	4140	56	51	53
24	209	165	191	229	201	212	4260	460	3260	61	55	58
25	190	174	185	225	200	208	631	404	451	69	60	64
26	198	187	193	226	209	215	4320	433	2440	80	68	74
27	5430	197	4210	241	221	228	5150	3140	4730	90	79	84
28	6260	5420	5870	4740	241	3190	5010	2880	4520	96	90	92
29	6760	6260	6510	5010	3630	4720	4760	3030	4460	101	96	99
30	8900	6700	8520	5650	4780	5050	4650	1510	3560	106	101	104
31	---	---	---	5680	5250	5600	1510	163	329	---	---	---
MONTH	8900	105	2130	10900	53	5080	6100	163	3620	4790	48	294

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

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

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

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

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

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

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

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

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	26.3	25.6	25.9	18.3	17.6	17.9	13.8	13.7	13.8	6.7	5.9	6.4
2	25.9	24.8	25.3	18.0	17.6	17.8	13.9	13.8	13.9	5.9	5.1	5.7
3	25.2	24.5	24.9	18.0	17.0	17.6	14.1	13.9	14.0	7.1	5.8	6.6
4	25.1	24.2	24.8	17.3	16.2	16.8	14.2	14.1	14.1	7.5	6.8	7.1
5	24.8	24.1	24.5	16.2	15.0	15.6	14.5	14.1	14.3	7.1	6.2	6.5
6	24.7	23.9	24.3	15.0	14.5	14.7	14.5	14.5	14.5	6.2	6.0	6.1
7	24.8	23.6	24.3	14.6	13.7	14.3	14.5	14.4	14.5	6.8	6.0	6.4
8	24.5	24.0	24.2	14.5	13.8	14.2	14.9	14.4	14.6	6.3	6.0	6.1
9	24.1	23.7	23.9	14.5	12.6	14.0	15.3	14.6	14.9	6.7	5.9	6.3
10	23.8	23.0	23.3	14.6	12.6	13.2	15.1	14.9	15.0	6.8	6.4	6.5
11	23.3	22.8	23.0	14.0	12.9	13.3	15.1	14.9	15.0	6.7	6.3	6.5
12	23.0	22.4	22.7	15.1	13.9	14.6	15.1	13.5	14.0	6.8	6.4	6.6
13	22.9	22.3	22.5	15.0	14.5	14.7	14.1	13.5	13.9	7.0	6.5	6.8
14	22.7	22.2	22.4	14.5	13.9	14.1	13.8	13.2	13.5	7.3	6.8	7.0
15	22.2	21.5	21.9	14.5	14.0	14.1	13.3	12.5	12.9	8.2	7.3	7.8
16	22.1	21.5	21.8	14.1	14.0	14.1	13.2	12.7	13.0	8.0	7.5	7.8
17	22.1	21.2	21.4	14.3	14.0	14.0	12.9	11.6	12.0	8.7	7.8	8.2
18	21.7	21.1	21.3	14.9	14.0	14.4	11.6	10.9	11.2	9.4	8.7	9.1
19	21.7	20.7	21.4	14.9	14.3	14.7	10.9	10.5	10.6	9.3	8.7	9.0
20	21.8	20.3	21.0	15.2	14.1	14.7	10.6	10.0	10.1	9.3	8.9	9.1
21	21.6	20.9	21.2	15.1	14.0	14.4	10.3	10.1	10.2	9.7	9.0	9.3
22	20.9	19.0	19.9	15.1	14.4	14.8	10.5	10.2	10.4	10.3	9.5	9.8
23	19.1	18.3	18.7	15.1	14.5	14.7	11.3	10.5	11.0	11.2	10.1	10.6
24	18.9	16.9	18.2	15.2	14.2	14.7	11.2	9.9	10.7	11.6	11.2	11.4
25	17.6	16.8	17.0	15.0	14.5	14.7	9.9	8.9	9.5	11.6	11.2	11.4
26	17.9	16.9	17.2	14.9	14.6	14.8	9.0	8.4	8.7	11.4	10.8	11.1
27	18.4	17.1	17.3	14.8	14.3	14.5	8.5	8.0	8.3	11.2	10.6	10.9
28	18.6	17.1	17.5	14.6	14.0	14.2	8.5	8.3	8.4	11.3	10.3	10.8
29	19.1	17.4	18.0	14.2	13.8	14.0	8.4	8.0	8.2	10.3	10.0	10.2
30	18.7	18.2	18.4	13.8	13.6	13.7	8.1	7.6	7.9	10.0	9.4	9.6
31	18.6	18.2	18.4	---	---	---	7.6	6.6	7.0	9.4	8.6	8.9
MONTH	26.3	16.8	21.5	18.3	12.6	14.8	15.3	6.6	11.9	11.6	5.1	8.2

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	8.6	8.3	8.5	9.2	8.3	8.6	14.8	14.1	14.5	16.2	15.6	15.8
2	9.3	8.5	8.9	9.2	8.3	8.6	15.7	14.8	14.9	16.0	15.3	15.5
3	9.9	9.2	9.6	10.6	8.9	9.7	16.3	15.5	15.8	15.9	15.1	15.4
4	10.2	9.7	10.0	9.9	9.3	9.6	17.0	16.0	16.3	16.1	15.6	15.9
5	10.0	9.7	9.9	10.1	9.3	9.7	17.7	16.7	17.3	17.0	16.1	16.3
6	9.8	9.5	9.6	10.3	9.6	10.0	17.4	16.5	17.0	18.0	17.0	17.5
7	10.2	9.4	9.8	10.3	9.7	10.0	17.3	17.0	17.1	19.0	17.7	18.2
8	10.6	10.1	10.3	9.8	8.9	9.2	18.0	17.1	17.4	20.2	15.6	18.6
9	10.7	10.3	10.5	9.2	8.7	9.0	20.3	17.1	18.7	20.3	15.5	19.2
10	10.9	10.4	10.6	9.1	8.3	8.7	20.2	19.5	19.9	21.5	20.2	20.8
11	11.1	10.7	10.9	8.8	7.7	8.3	19.9	19.1	19.4	21.6	20.9	21.2
12	11.3	10.8	11.0	9.3	8.4	8.8	19.2	18.0	18.8	21.6	21.0	21.2
13	11.2	10.6	11.0	9.1	8.3	8.7	18.0	17.1	17.5	22.0	21.2	21.5
14	10.6	9.8	10.1	9.1	8.5	8.7	17.6	16.9	17.2	21.9	21.0	21.5
15	9.9	9.5	9.7	9.3	8.7	9.1	17.0	16.2	16.4	21.0	19.4	20.1
16	9.8	9.3	9.5	9.4	8.5	8.8	17.3	16.2	16.7	19.6	18.7	19.1
17	9.9	9.4	9.7	10.1	8.8	9.1	17.1	16.4	16.7	19.8	18.6	19.0
18	9.9	9.7	9.8	11.0	9.8	10.3	16.6	16.0	16.3	20.0	19.1	19.5
19	10.0	9.6	9.8	11.7	10.6	11.2	16.8	16.0	16.4	19.9	19.1	19.4
20	10.1	9.8	9.9	11.9	10.8	11.5	17.0	16.1	16.5	20.5	19.5	19.9
21	10.0	9.3	9.7	12.1	11.3	11.6	17.2	16.3	16.7	20.6	20.3	20.4
22	9.3	8.6	8.9	12.2	11.3	11.8	18.1	16.6	17.2	21.7	20.6	21.2
23	8.8	7.9	8.3	12.6	11.6	12.0	19.0	17.6	18.1	22.3	21.3	21.8
24	7.9	7.5	7.8	13.3	12.3	12.7	18.8	18.2	18.6	22.3	20.5	21.5
25	8.1	7.7	7.9	13.9	13.3	13.6	18.8	17.7	18.2	22.8	20.5	21.9
26	8.2	7.7	7.9	13.7	12.9	13.4	19.1	18.1	18.6	22.9	22.6	22.7
27	8.2	7.7	8.0	12.9	12.3	12.6	19.3	18.7	19.0	22.9	22.4	22.6
28	8.7	8.1	8.4	12.4	12.1	12.2	19.2	18.2	18.8	23.3	22.6	22.9
29	---	---	---	13.0	12.4	12.8	18.4	16.9	17.6	23.9	23.3	23.5
30	---	---	---	14.5	12.8	13.4	17.2	15.1	16.2	23.8	23.4	23.6
31	---	---	---	14.8	13.9	14.3	---	---	---	24.4	23.6	23.9
MONTH	11.3	7.5	9.5	14.8	7.7	10.6	20.3	14.1	17.3	24.4	15.1	20.1

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

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	24.7	21.6	23.6	24.4	24.1	24.1	28.5	28.2	28.3	24.4	23.6	23.9
2	21.7	21.4	21.5	25.0	24.2	24.5	31.0	28.5	29.5	23.7	23.3	23.5
3	22.0	21.7	21.8	25.1	24.9	24.9	30.8	30.1	30.5	23.7	22.5	23.4
4	25.1	21.8	23.1	25.3	25.0	25.1	30.1	29.3	29.7	23.8	22.8	23.4
5	24.9	24.5	24.6	25.4	25.3	25.3	29.4	27.9	29.0	24.1	23.0	23.4
6	25.2	24.7	25.0	25.6	25.3	25.5	27.9	27.6	27.8	24.5	23.6	23.9
7	26.0	23.9	25.2	26.0	25.5	25.7	27.8	27.5	27.6	24.6	24.2	24.4
8	24.1	23.9	24.0	26.0	25.8	25.9	27.9	27.5	27.6	24.9	24.0	24.4
9	24.1	23.8	23.9	26.1	25.9	26.0	28.9	27.9	28.2	25.2	24.8	25.0
10	27.8	23.8	24.9	26.9	26.0	26.1	28.5	28.1	28.2	25.3	24.2	24.9
11	27.7	26.7	27.1	29.1	26.0	27.4	28.2	27.5	27.9	25.1	24.5	24.9
12	27.2	25.8	26.4	28.6	26.8	27.7	28.2	27.6	27.8	25.0	24.3	24.7
13	26.0	25.6	25.9	27.1	26.4	26.7	27.9	27.7	27.8	24.8	24.3	24.6
14	26.3	24.4	25.0	26.6	25.8	26.2	28.2	27.6	27.8	25.2	24.7	25.0
15	25.1	24.6	24.7	26.6	26.2	26.3	28.3	28.0	28.0	25.2	24.6	24.8
16	26.1	25.1	25.6	26.5	24.4	24.9	29.1	28.0	28.3	24.8	23.0	24.1
17	25.2	24.4	24.8	24.6	24.4	24.5	29.4	28.5	28.8	23.0	22.0	22.4
18	24.4	23.7	24.0	25.0	24.5	24.6	28.6	28.3	28.4	22.0	21.5	21.7
19	24.1	23.0	23.5	25.2	24.9	25.0	28.5	28.3	28.4	21.5	21.1	21.3
20	23.7	23.0	23.4	25.1	25.0	25.1	28.7	28.3	28.4	21.3	21.0	21.2
21	24.0	23.6	23.8	28.1	25.1	26.1	28.8	28.4	28.6	21.2	21.0	21.1
22	23.9	23.5	23.6	28.5	28.0	28.4	28.7	28.5	28.6	21.0	19.7	20.3
23	24.2	23.1	23.4	29.8	28.5	28.8	28.8	28.5	28.6	19.7	19.1	19.3
24	24.1	23.7	23.8	30.0	29.2	29.6	29.1	28.5	28.7	19.3	18.9	19.1
25	24.2	23.9	24.0	29.4	28.6	29.0	29.1	28.7	28.9	19.5	19.0	19.2
26	25.1	24.1	24.3	29.1	28.3	28.7	29.1	27.5	28.2	20.3	19.4	19.8
27	24.5	23.6	23.7	29.1	28.9	29.0	28.0	27.4	27.5	20.9	20.2	20.6
28	24.1	23.6	23.9	29.1	28.4	28.6	28.0	27.5	27.6	21.2	20.8	21.0
29	25.0	24.1	24.5	28.6	28.3	28.4	28.0	27.5	27.6	21.9	21.2	21.5
30	24.9	24.0	24.1	28.4	28.2	28.3	28.2	25.9	27.0	22.2	21.7	21.9
31	---	---	---	28.3	28.2	28.3	26.1	24.4	25.3	---	---	---
MONTH	27.8	21.4	24.2	30.0	24.1	26.6	31.0	24.4	28.2	25.3	18.9	22.6

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

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

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

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	11.9	11.5	11.6	13.2	12.7	12.9	8.2	6.4	7.8	9.2	8.0	8.7
2	11.7	11.3	11.5	13.0	12.0	12.4	7.8	7.0	7.4	9.2	7.2	8.5
3	11.3	10.8	11.1	12.4	11.5	11.9	7.4	6.5	7.1	8.8	7.6	8.2
4	10.8	10.3	10.5	12.1	11.4	11.8	7.4	6.6	7.1	8.6	7.5	7.9
5	10.5	10.3	10.4	11.9	10.9	11.5	7.1	5.4	6.4	8.2	5.7	7.2
6	10.8	10.4	10.6	11.5	10.2	11.0	6.4	4.3	5.4	7.8	5.9	7.1
7	10.8	10.6	10.7	11.6	10.7	11.0	6.3	4.2	5.4	7.8	6.2	7.2
8	10.7	10.4	10.5	12.0	11.2	11.5	5.5	4.2	4.9	8.1	5.4	7.1
9	10.5	10.2	10.4	11.8	11.1	11.4	5.9	3.8	5.1	8.2	5.9	7.5
10	11.0	10.4	10.6	11.9	11.1	11.4	6.4	5.1	5.8	8.2	6.7	7.7
11	11.1	10.8	10.9	12.1	11.1	11.7	6.7	5.9	6.4	8.0	6.6	7.5
12	11.7	10.9	11.3	11.7	9.9	11.0	7.3	5.7	6.6	7.9	6.5	7.2
13	11.9	11.5	11.7	11.2	8.4	10.2	7.6	7.0	7.2	7.7	6.2	6.9
14	12.3	11.8	12.0	11.2	8.5	10.2	7.8	7.0	7.4	7.8	6.8	7.4
15	12.2	11.8	11.9	11.3	9.1	10.2	8.1	7.6	7.9	8.1	6.4	7.5
16	12.1	11.8	11.9	10.8	8.8	10.1	8.2	7.7	7.9	7.9	7.3	7.6
17	12.2	11.8	12.0	10.9	9.0	10.2	8.2	7.7	7.9	7.8	7.0	7.4
18	12.2	11.8	12.0	10.4	7.6	9.5	8.2	7.0	7.9	8.4	6.8	7.3
19	12.1	11.7	11.9	10.3	6.6	9.3	8.2	7.7	7.9	7.2	6.9	7.0
20	11.8	11.4	11.6	10.5	8.4	9.6	8.7	7.1	7.9	7.3	6.9	7.1
21	11.9	11.4	11.6	9.9	8.4	9.3	8.5	7.8	8.2	7.3	6.8	7.0
22	12.2	11.8	11.9	9.6	7.5	8.8	8.5	8.3	8.4	7.4	6.0	7.1
23	12.2	11.8	11.9	10.3	8.5	9.5	8.7	8.2	8.5	7.3	6.8	7.1
24	12.9	12.1	12.5	9.9	8.7	9.3	8.6	8.0	8.4	7.2	5.4	6.5
25	13.2	12.7	12.9	9.4	8.6	9.0	8.3	7.8	8.1	6.2	5.1	5.7
26	13.5	12.9	13.1	9.9	8.8	9.2	8.2	8.0	8.1	5.7	4.9	5.3
27	13.5	13.2	13.3	9.5	8.9	9.2	8.3	7.8	8.1	5.5	4.7	5.1
28	13.4	13.0	13.2	9.2	8.3	8.9	8.4	7.9	8.1	5.5	4.6	5.1
29	---	---	---	8.6	7.6	8.1	8.8	8.2	8.4	5.1	1.2	4.4
30	---	---	---	8.0	7.0	7.5	9.6	7.3	8.4	4.9	.0	.8
31	---	---	---	8.1	7.1	7.5	---	---	---	5.8	.0	2.9
MONTH	13.5	10.2	11.6	13.2	6.6	10.2	9.6	3.8	7.3	9.2	.0	6.7

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	5.7	.3	4.0	3.4	2.5	2.8	.5	.5	.5	6.2	5.4	5.9
2	1.1	.0	.4	4.4	2.5	3.3	5.4	.5	2.1	6.8	6.1	6.4
3	1.8	.9	1.2	4.8	3.8	4.2	6.1	4.3	5.1	7.2	6.6	6.9
4	6.6	1.3	3.4	---	---	---	6.0	5.0	5.6	8.1	6.9	7.4
5	6.7	6.1	6.3	---	---	---	5.3	3.3	4.3	7.7	6.2	6.9
6	6.5	5.7	6.2	---	---	---	4.3	2.7	3.6	6.5	5.0	6.0
7	6.4	4.7	5.8	---	---	---	3.5	1.9	3.0	5.7	5.0	5.5
8	5.7	5.0	5.3	---	---	---	3.0	1.0	2.4	5.6	4.6	5.1
9	5.3	4.4	4.8	---	---	---	3.3	.8	1.6	4.7	3.0	4.0
10	6.7	4.0	4.7	---	---	---	1.8	.8	1.1	4.7	2.0	3.0
11	6.5	5.4	6.0	---	---	---	4.1	.8	1.7	2.8	1.8	2.2
12	6.2	5.4	6.0	---	---	---	3.7	2.1	3.0	2.0	1.5	1.7
13	5.8	4.8	5.3	---	---	---	3.4	.8	2.0	2.1	1.5	1.8
14	5.9	4.2	5.5	4.9	2.5	4.3	4.1	2.7	3.5	2.6	1.7	2.2
15	5.7	4.8	5.3	4.7	2.0	3.9	4.0	1.6	2.9	5.5	2.1	3.1
16	5.7	4.0	4.8	4.7	1.5	3.1	3.6	1.0	2.6	6.2	3.5	4.7
17	5.9	5.3	5.6	4.7	2.0	3.9	3.8	.8	2.2	3.6	2.5	3.0
18	6.0	5.4	5.7	---	---	---	3.1	.9	1.9	3.0	2.5	2.7
19	6.4	5.8	6.0	---	---	---	2.7	1.0	2.2	3.4	3.0	3.2
20	6.5	5.4	5.9	---	---	---	2.0	.8	1.3	3.4	3.3	3.3
21	6.1	5.1	5.8	---	---	---	1.8	.8	1.1	3.8	3.3	3.6
22	7.3	5.8	6.2	---	---	---	1.5	.9	1.1	3.9	3.7	3.8
23	6.7	5.7	6.3	---	---	---	2.3	.9	1.3	3.9	3.6	3.8
24	6.7	5.5	6.1	6.5	5.7	6.1	4.5	1.0	2.0	4.0	3.7	3.9
25	6.2	5.4	5.8	6.3	4.7	5.5	5.6	2.5	4.2	3.8	3.5	3.7
26	7.2	5.0	5.8	5.8	4.6	5.4	4.5	1.0	2.8	3.6	3.3	3.4
27	6.1	5.4	5.7	5.2	3.7	4.6	4.6	2.8	4.1	3.4	3.0	3.1
28	6.3	4.1	5.8	3.9	.6	1.4	4.3	3.4	3.9	3.1	2.8	3.0
29	5.3	3.3	4.6	2.1	.7	1.1	3.5	2.8	3.3	3.0	2.7	2.8
30	4.7	2.3	2.9	1.2	.6	.9	6.5	2.9	5.4	3.1	2.7	3.0
31	---	---	---	.7	.5	.5	5.7	4.6	5.1	---	---	---
MONTH	7.3	.0	5.1	---	---	---	6.5	.5	2.8	8.1	1.5	4.0

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

OXYGEN DISSOLVED (% OF SATURATION), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	76	56	69	94	85	89	114	107	110	---	---	---
2	82	63	75	92	85	88	109	100	104	---	---	---
3	78	72	74	94	86	90	102	98	100	---	---	---
4	75	65	71	96	88	91	98	92	94	---	---	---
5	76	59	69	106	90	95	92	87	90	---	---	---
6	82	70	75	103	96	99	90	72	80	---	---	---
7	78	70	74	101	94	97	74	62	67	---	---	---
8	77	68	73	100	94	97	---	---	---	---	---	---
9	77	69	72	109	94	98	---	---	---	---	---	---
10	74	65	69	110	92	103	61	54	58	---	---	---
11	72	64	69	104	100	102	59	47	53	---	---	---
12	74	61	68	102	95	99	90	48	81	---	---	---
13	76	61	67	101	95	98	91	75	87	---	---	---
14	70	59	65	102	91	100	96	77	89	---	---	---
15	74	60	67	110	90	106	100	94	95	---	---	---
16	79	62	69	107	102	105	100	94	96	96	94	96
17	77	67	72	104	98	102	102	94	97	98	94	96
18	75	65	72	108	94	100	102	98	99	101	97	99
19	77	68	74	108	96	101	103	99	100	100	94	97
20	82	70	77	110	93	99	108	98	106	96	93	95
21	80	72	77	111	99	105	106	102	104	95	92	94
22	87	70	79	103	93	96	103	99	101	94	91	93
23	84	68	80	100	89	95	100	87	93	95	92	94
24	99	74	82	105	93	98	99	85	91	95	93	94
25	100	84	95	107	97	100	---	---	---	97	95	96
26	93	79	89	104	97	100	---	---	---	98	96	97
27	90	77	83	103	97	100	---	---	---	100	96	98
28	83	76	79	103	96	100	---	---	---	104	94	98
29	91	74	79	110	97	101	---	---	---	104	102	103
30	88	77	83	115	109	113	---	---	---	104	102	103
31	96	78	86	---	---	---	---	---	---	104	102	103
MONTH	100	56	75	115	85	99	---	---	---	---	---	---

OXYGEN DISSOLVED (% OF SATURATION), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	103	99	100	110	107	109	80	61	74	94	82	89
2	102	100	101	108	102	104	75	67	72	93	74	87
3	100	96	98	104	101	102	74	65	70	90	78	83
4	96	91	94	104	98	101	74	66	71	88	77	81
5	94	91	93	103	94	99	73	55	66	85	59	76
6	96	92	94	100	90	95	65	43	55	82	65	76
7	97	94	95	99	94	96	64	42	54	84	68	78
8	96	94	95	99	94	97	56	42	49	85	61	77
9	95	90	93	99	94	96	65	39	54	92	62	84
10	97	92	94	97	94	95	69	56	63	94	76	87
11	98	96	97	98	93	96	72	64	68	91	76	86
12	104	97	101	96	84	93	75	60	69	90	75	82
13	104	103	104	92	71	86	77	71	73	88	73	80
14	105	103	104	94	72	86	79	69	75	90	78	86
15	105	102	103	93	77	86	80	76	78	90	73	84
16	103	102	102	89	74	85	83	77	80	89	82	84
17	105	102	103	92	76	86	84	78	80	86	78	83
18	104	101	103	91	67	83	82	69	78	91	76	81
19	103	101	102	91	60	83	81	76	78	78	74	75
20	102	99	100	91	76	86	89	73	79	79	76	77
21	102	99	100	89	76	84	87	80	84	80	75	77
22	103	99	101	86	68	80	90	85	86	83	66	79
23	102	98	99	95	78	87	92	88	90	83	76	80
24	105	100	102	92	82	86	91	86	90	82	60	73
25	108	105	106	89	82	85	89	83	86	71	56	64
26	110	107	108	92	83	86	89	85	87	65	56	60
27	110	109	110	88	83	85	90	85	87	63	54	59
28	111	110	110	84	76	81	90	85	87	63	53	59
29	---	---	---	80	70	75	92	86	89	60	14	51
30	---	---	---	75	67	70	96	75	87	58	0	9
31	---	---	---	78	68	72	---	---	---	68	0	34
MONTH	111	90	100	110	60	89	96	39	75	94	0	74

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

OXYGEN DISSOLVED (% OF SATURATION), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	68	3	47	41	30	34	7	6	7	72	64	69
2	13	0	5	54	30	40	72	6	27	79	71	74
3	20	10	14	60	47	52	80	58	67	84	77	80
4	79	15	40	---	---	---	77	65	72	95	80	86
5	80	72	75	---	---	---	68	43	56	90	72	81
6	78	69	74	---	---	---	54	34	46	77	60	71
7	78	56	70	---	---	---	44	24	39	67	60	64
8	68	59	63	---	---	---	39	14	31	65	55	60
9	63	52	57	---	---	---	42	10	21	56	36	48
10	85	48	57	---	---	---	23	10	14	56	24	36
11	80	67	74	---	---	---	52	9	22	34	21	27
12	78	65	73	---	---	---	47	28	39	25	18	21
13	70	58	64	---	---	---	44	11	27	25	17	21
14	71	51	66	60	30	52	54	35	46	30	20	26
15	68	58	64	58	25	48	52	19	37	65	25	36
16	68	49	58	58	19	38	46	12	33	73	40	55
17	70	63	66	56	23	47	50	11	28	41	28	34
18	71	63	67	---	---	---	40	11	24	34	28	30
19	75	67	70	---	---	---	36	13	29	37	34	36
20	75	62	69	---	---	---	26	11	18	38	36	37
21	71	60	68	---	---	---	24	11	15	42	37	40
22	85	67	72	---	---	---	20	12	14	44	40	42
23	79	66	73	---	---	---	30	12	16	43	40	41
24	78	65	71	85	74	79	58	13	26	42	40	41
25	73	63	67	81	61	72	72	32	54	41	38	39
26	86	58	68	75	59	69	58	13	37	38	36	37
27	72	63	67	67	48	60	59	36	53	37	32	34
28	76	49	70	51	7	18	55	43	49	34	31	32
29	64	40	55	26	8	14	45	36	42	33	30	31
30	58	28	35	16	8	12	81	37	67	35	30	33
31	---	---	---	9	7	7	68	55	62	---	---	---
MONTH	86	0	61	---	---	---	81	6	36	95	17	45



Vehicles stranded by impassable floodwaters at U.S. Highway 64 near Princeville and Tarboro, N.C., September 1999.

02081500 TAR RIVER NEAR TAR RIVER, NC

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

DRAINAGE AREA.--167 mi^2.

WATER-DISCHARGE RECORDS

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

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

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

REMARKS.--Records good except those for period Oct. to Dec. due to beaver activity and 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 ft^3/s, by logarithmic plotting.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.99	.68	1.4	41	68	60	533	468	7.8	6.8	2.5	2.8
2	1.1	.86	3.7	35	204	60	895	183	7.0	6.8	2.4	1.1
3	1.1	.94	2.3	1860	305	52	281	108	6.4	6.0	2.2	.83
4	1.3	.58	2.0	1690	175	46	177	80	5.9	5.5	1.9	1.2
5	1.4	.69	1.8	247	125	42	133	65	5.0	5.3	1.8	1000
6	1.4	.45	2.0	132	94	40	102	57	4.4	5.0	1.8	1970
7	1.3	.41	2.3	91	82	39	86	49	3.8	38	1.6	613
8	1.2	.47	2.8	76	74	37	78	43	3.5	295	1.4	137
9	1.3	.49	17	67	66	35	71	38	3.3	41	1.3	77
10	1.5	.36	13	58	60	36	64	34	2.8	20	1.3	95
11	3.4	.69	9.1	49	54	37	207	30	2.7	12	1.2	49
12	2.5	.82	8.8	42	53	35	248	27	2.3	8.8	1.2	28
13	1.5	.63	166	39	59	34	125	25	1.9	9.1	1.1	19
14	1.1	.52	311	39	60	62	85	25	1.8	58	1.5	15
15	.82	e.50	90	51	53	1010	74	28	38	73	4.7	78
16	.57	e.40	69	87	47	420	183	33	54	37	3.0	7330
17	.49	e.38	86	82	44	206	141	30	84	25	2.0	4910
18	.46	e.40	63	187	59	136	89	26	48	18	2.3	336
19	.46	.41	40	206	180	96	71	24	29	15	2.1	147
20	.59	.49	30	118	182	79	60	22	19	17	2.8	92
21	.47	.71	24	83	144	581	54	19	16	11	2.4	71
22	.59	.50	20	70	93	1620	48	18	14	8.3	1.5	473
23	.68	.32	17	64	75	355	44	17	12	7.1	1.4	165
24	.45	.58	39	1860	64	204	39	15	11	6.1	1.4	84
25	.62	.41	255	2700	59	176	36	14	9.3	5.4	1.6	59
26	.43	.83	130	426	56	145	34	12	8.3	4.7	25	43
27	e.40	.83	78	215	52	109	34	11	7.7	4.1	9.1	813
28	.42	1.2	63	157	52	88	36	11	8.8	4.1	5.8	2180
29	.54	1.6	63	115	---	78	47	9.9	11	4.2	2.9	5290
30	.64	1.1	60	89	---	69	1050	9.4	7.7	3.2	1.9	2100
31	.70	---	52	77	---	63	---	9.1	---	2.6	1.6	---
TOTAL	30.42	19.25	1722.2	11053	2639	6050	5125	1540.4	436.4	763.1	94.7	28179.93
MEAN	.98	.64	55.6	357	94.2	195	171	49.7	14.5	24.6	3.05	939
MAX	3.4	1.6	311	2700	305	1620	1050	468	84	295	25	7330
MIN	.40	.32	1.4	35	44	34	34	9.1	1.8	2.6	1.1	.83
CFSM	.01	.00	.33	2.14	.56	1.17	1.02	.30	.09	.15	.02	5.62
IN.	.01	.00	.38	2.46	.59	1.35	1.14	.34	.10	.17	.02	6.28

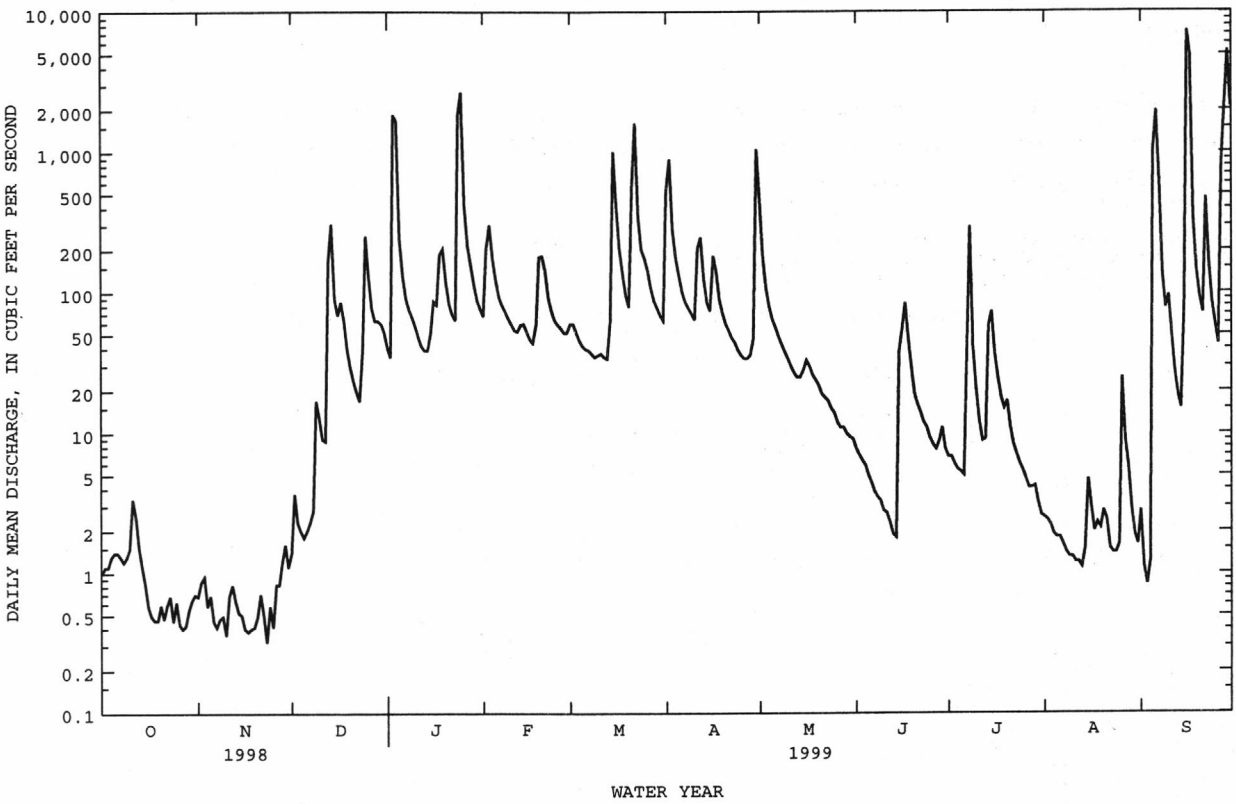
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1999, BY WATER YEAR (WY)

MEAN	64.7	112	147	262	322	337	215	121	76.9	78.7	76.5	86.8
MAX	565	599	558	819	798	1047	676	475	488	677	542	939
(WY)	1972	1973	1973	1978	1960	1998	1978	1978	1982	1975	1955	1999
MIN	.41	.28	4.39	7.04	62.6	61.0	33.1	16.9	4.30	.92	1.39	.28
(WY)	1971	1942	1942	1942	1968	1981	1995	1941	1970	1966	1976	1968

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1940 - 1999	
ANNUAL TOTAL	83354.33		57653.40			
ANNUAL MEAN	228		158		158	
HIGHEST ANNUAL MEAN					336	1973
LOWEST ANNUAL MEAN					51.0	1981
HIGHEST DAILY MEAN	9590	Mar 19	7330	Sep 16	10800	Sep 7 1996
LOWEST DAILY MEAN	.28	Sep 26	.32	Nov 23	.02	Aug 13 1977
ANNUAL SEVEN-DAY MINIMUM	.40	Sep 24	.44	Nov 14	.07	Aug 8 1977
INSTANTANEOUS PEAK FLOW			11000	Sep 16	19900*	Sep 6 1996
INSTANTANEOUS PEAK STAGE			17.59	Sep 16	24.06	Sep 6 1996
INSTANTANEOUS LOW FLOW			NOT DETERMINED		0	Aug 14 1977
ANNUAL RUNOFF (CFSM)	1.37		.95		.94	
ANNUAL RUNOFF (INCHES)	18.57		12.84		12.82	
10 PERCENT EXCEEDS	333		205		327	
50 PERCENT EXCEEDS	30		29		44	
90 PERCENT EXCEEDS	.61		.70		3.5	

e Estimated.
* See REMARKS.

02081500 TAR RIVER NEAR TAR RIVER, NC--Continued



02081500 TAR RIVER NEAR TAR RIVER, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1955, 1957 to 1960, 1969, 1972, 1976 to 1978, 1993, September 1999.

REMARKS.--Samples from current year collected during flooding from Hurricane Floyd.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN, DIS-SOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)
SEP												
17...	1045	4940	759	61	5.7	6.0	33	18.7	.014	.72	.042	<.001
19...	0945	156	--	--	--	6.6	50	--	.033	.47	.113	<.001

DATE	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	CLOS-TRIDIUM PERFRI-GENS, MF-MCP, (COL/ 100 ML) (90915)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)
SEP												
17...	.76	.021	.060	K46	2100	<1	<1.6	<8.0	<1.0	<10	420	<100
19...	.58	.010	E.043	--	--	<1	<1.6	<8.0	<1.0	<10	400	<100

DATE	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)	METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)
SEP												
17...	39	<.1	<40	1	<20	15	.60	<.0030	<.0020	<.002	<.001	<.0010
19...	89	<.1	<40	<1	<20	11	1.1	<.0030	<.0020	<.002	.006	<.0010

DATE	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)
SEP											
17...	<.0020	<.0020	<.0030	<.0030	<.0040	<.0040	<.0020	<.0020	<.002	<.001	<.0170
19...	<.0020	<.0020	<.0030	<.0030	<.0040	<.0040	<.0020	<.0020	<.002	<.001	<.0170

DATE	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DIS-SOLVED (UG/L) (39341)	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA-THION, DIS-SOLVED (UG/L) (39532)	METO-LACHLOR WATER DISSOLV (UG/L) (39415)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)
SEP											
17...	<.0020	<.0040	<.0030	<.0030	<.004	<.0020	<.005	.011	<.004	<.0040	<.0030
19...	<.0020	<.0040	<.0030	<.0030	<.004	<.0020	<.005	.008	<.004	<.0040	<.0030

DATE	PARA-THION, DIS-SOLVED (UG/L) (39542)	METHYL PARA-THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	PROP-CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)
SEP											
17...	<.004	<.0060	<.0040	<.0040	<.0020	<.0180	<.0070	<.0040	<.0130	<.0030	<.0050
19...	<.004	<.0060	<.0040	<.0040	<.0020	E.0083	<.0070	<.0040	<.0130	<.0030	<.0050

02081500 TAR RIVER NEAR TAR RIVER, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	ALPHA BHC DIS-SOLVED (UG/L) (34253)	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	P,P' DDE DISSOLV (UG/L) (34653)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
SEP											
17...	<.0100	<.0070	<.0130	<.0020	<.0010	<.0020	<.0020	<.0050	<.0060	29	387
19...	<.0100	<.0070	<.0130	<.0020	<.0010	<.0020	<.0020	<.0050	<.0060	12	5.1

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

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

DRAINAGE AREA.--427 mi^2.

WATER-DISCHARGE RECORDS

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

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

GAGE.--Water-stage recorder. Datum of gage is 176.71 ft above sea level. Prior to Nov. 21, 1973, nonrecording gage at bridge 0.4 mi upstream at 178.53 ft; Nov. 22, 1973, to June 24, 1980, at site 0.1 mi upstream at same datum. National Weather Service telephone telemetry at station. Satellite telemetry at station.

REMARKS.--Records good except for those estimated daily discharges, which are poor. Minimum discharge for current water year also occurred Aug. 13, 14.

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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	26	31	178	341	174	329	2100	59	54	18	49
2	23	26	30	188	410	182	2440	732	57	50	16	43
3	22	45	29	1300	770	163	2060	474	53	49	15	41
4	31	76	29	3990	643	175	751	332	51	49	14	77
5	39	74	29	4840	517	161	594	239	49	43	13	3110
6	37	42	29	1010	434	138	488	195	46	39	12	6050
7	34	31	30	523	371	129	377	172	43	36	11	e4000
8	60	27	31	427	319	119	305	149	42	281	10	e1000
9	128	26	41	355	272	114	263	129	40	240	10	678
10	93	27	173	301	241	122	239	112	38	67	10	1050
11	64	27	100	243	228	128	473	99	37	41	10	560
12	42	27	59	210	210	122	974	91	36	33	10	328
13	34	27	184	188	211	113	611	94	36	32	10	209
14	30	27	1300	173	213	130	437	504	41	100	14	161
15	26	31	686	269	197	1780	346	666	50	402	20	553
16	24	33	415	436	183	3050	527	315	177	179	24	13000
17	25	38	508	404	172	1020	613	206	431	84	18	22400
18	25	41	384	601	219	621	419	173	284	65	16	e8000
19	26	36	232	1090	413	491	299	152	139	56	13	e2000
20	26	36	168	649	538	388	240	137	92	43	12	e900
21	24	35	143	482	549	480	204	120	84	39	11	793
22	22	30	128	378	413	2510	181	105	83	35	11	1090
23	21	28	116	325	291	3520	160	100	78	31	11	1550
24	19	28	175	1530	229	963	142	97	67	28	10	800
25	21	28	619	4400	200	666	129	87	61	26	14	650
26	21	37	664	5760	184	612	118	81	58	25	3000	581
27	21	36	414	2040	170	525	119	80	56	23	1780	615
28	24	35	280	706	157	443	135	75	54	21	340	2910
29	26	33	243	573	---	376	207	71	53	20	140	5870
30	26	33	230	484	---	326	1090	66	54	20	87	9400
31	26	---	208	405	---	276	---	62	---	19	60	---
TOTAL	1062	1046	7708	34458	9095	20017	15270	8015	2449	2230	5740	88468
MEAN	34.3	34.9	249	1112	325	646	509	259	81.6	71.9	185	2949
MAX	128	76	1300	5760	770	3520	2440	2100	431	402	3000	22400
MIN	19	26	29	173	157	113	118	62	36	19	10	41
CFSM	.08	.08	.58	2.60	.76	1.51	1.19	.61	.19	.17	.43	6.91
IN.	.09	.09	.67	3.00	.79	1.74	1.33	.70	.21	.19	.50	7.71

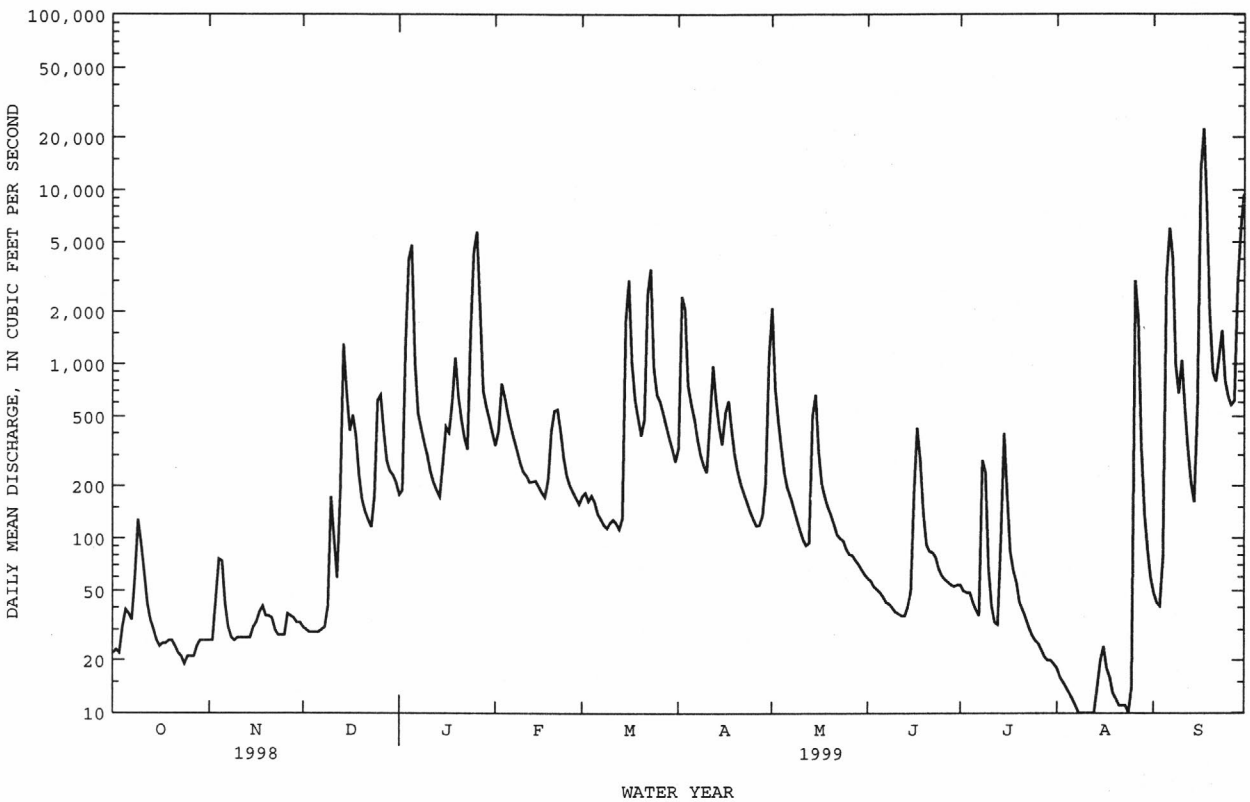
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1999, BY WATER YEAR (WY)

MEAN	159	292	401	851	802	1012	625	380	249	225	158	321
MAX	605	1192	1108	1845	1956	2726	1557	984	1451	1692	512	2949
(WY)	1997	1986	1984	1978	1998	1998	1993	1989	1982	1975	1986	1999
MIN	28.5	34.9	86.5	78.0	202	214	127	104	35.4	43.3	26.8	19.7
(WY)	1987	1999	1981	1981	1977	1988	1995	1995	1986	1986	1988	1980

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

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1964 - 1999	
ANNUAL TOTAL	242977		195558			
ANNUAL MEAN	666		536		456	
HIGHEST ANNUAL MEAN					729	1984
LOWEST ANNUAL MEAN					131	1981
HIGHEST DAILY MEAN	16600	Mar 20	22400	Sep 17	22400	Sep 17 1999
LOWEST DAILY MEAN	19	Oct 24	10	Aug 8	8.1	Aug 14 1977
ANNUAL SEVEN-DAY MINIMUM	21	Oct 21	10	Aug 7	9.2	Sep 16 1985
INSTANTANEOUS PEAK FLOW			23700	Sep 17	23700	Sep 17 1999
INSTANTANEOUS PEAK STAGE			26.05	Sep 17	26.05	Sep 17 1999
INSTANTANEOUS LOW FLOW			9.3*	Aug 9	7.3	Aug 14 1977
ANNUAL RUNOFF (CFSM)	1.56		1.25		1.07	
ANNUAL RUNOFF (INCHES)	21.17		17.04		14.51	
10 PERCENT EXCEEDS	1280		967		1020	
50 PERCENT EXCEEDS	137		129		204	
90 PERCENT EXCEEDS	27		23		40	

e Estimated.
* See REMARKS.



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

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976-1979, September 1999 to October 1999.

REMARKS.--Samples from current year collected during flooding from Hurricane Floyd.

WATER-QUALITY DATA, FOR PERIOD OCTOBER 1998 TO OCTOBER 1999

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN, DIS-SOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)
SEP 1999												
17...	1330	23400	759	74	6.8	6.0	33	19.4	.017	.64	.059	.001
19...	1145	5190	--	--	--	6.4	48	--	.007	.53	.073	.003
OCT												
05...	1430	644	758	73	6.71	6.51	65	19.0	--	--	--	--

DATE	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	CLOS-TRIDIUM PERFRI-GENS, MF-MCP, (COL/ 100 ML) (90915)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)
SEP 1999												
17...	.70	.020	.108	K47	6200	<1	<1.6	<8.0	<1.0	<10	430	<100
19...	.60	.010	.062	--	--	<1	<1.6	<8.0	<1.0	<10	430	<100
OCT												
05...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)	METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)
SEP 1999												
17...	52	<.1	<40	<1	<20	13	1.8	<.0030	<.0020	<.002	.007	<.0010
19...	66	<.1	<40	<1	<20	11	1.2	<.0030	<.0020	<.002	.007	<.0010
OCT												
05...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)
SEP 1999											
17...	<.0020	<.0020	<.0030	<.0030	<.0040	<.0040	<.0020	<.0020	<.002	<.001	<.0170
19...	<.0020	<.0020	<.0070	<.0030	<.0040	<.0040	<.0020	<.0020	<.002	<.001	<.0170
OCT											
05...	--	--	--	--	--	--	--	--	--	--	--

DATE	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DIS-SOLVED (UG/L) (39341)	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA-THION, DIS-SOLVED (UG/L) (39532)	METO-LACHLOR WATER DISSOLV (UG/L) (39415)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)
SEP 1999											
17...	<.0020	<.0040	<.0030	<.0030	<.004	<.0020	<.005	.009	<.004	<.0040	<.0030
19...	<.0020	<.0040	<.0030	<.0030	<.004	<.0020	<.005	.010	<.004	<.0040	<.0030
OCT											
05...	--	--	--	--	--	--	--	--	--	--	--

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

WATER-QUALITY DATA, FOR PERIOD OCTOBER 1998 TO OCTOBER 1999

DATE	PARA-THION, DIS-SOLVED (UG/L) (39542)	METHYL PARA-THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	PROP-CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)
SEP 1999											
17...	<.004	<.0060	<.0040	<.0040	<.0020	E.0134	<.0070	<.0040	<.0130	<.0030	<.0070
19...	<.004	<.0060	<.0040	<.0040	<.0020	E.0090	<.0070	<.0040	<.0130	<.0030	.0078
OCT											
05...	--	--	--	--	--	--	--	--	--	--	--

DATE	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	ALPHA BHC DIS-SOLVED (UG/L) (34253)	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	P,P' DDE DISSOLV (UG/L) (34653)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
SEP 1999											
17...	<.0100	<.0070	<.0130	<.0020	<.0010	<.0020	<.0020	<.0050	<.0060	212	13400
19...	<.0100	<.0070	<.0130	<.0020	<.0010	<.0020	<.0020	<.0050	<.0060	14	196
OCT											
05...	--	--	--	--	--	--	--	--	--	--	--

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

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

DRAINAGE AREA.--777 mi^2.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 85.9 ft above sea level (levels by North Carolina State Highway Commission). Satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are fair. The city of Rocky Mount diverted an average of 10.6 ft^3/s for municipal water supply, most of which was returned downstream of station as treated effluent. Minimum discharge for period of record also occurred Oct. 29, 30, 1993. Maximum gage height for period of record and current water year from floodmarks.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	117	95	89	284	592	319	430	1190	112	107	110	176
2	95	98	90	255	652	313	534	2200	105	107	110	133
3	82	101	91	1090	e800	342	2070	1260	95	105	112	116
4	86	100	91	2490	1080	347	2410	703	88	104	95	126
5	86	99	90	3340	1000	343	1220	461	105	109	95	1200
6	88	91	91	3890	754	356	833	368	93	107	94	3760
7	87	82	92	3080	590	308	632	e315	88	109	95	5480
8	87	95	91	1060	482	280	507	334	92	102	102	6470
9	86	92	81	658	427	263	457	271	134	85	102	6890
10	86	88	82	515	372	266	391	234	98	89	94	6480
11	86	83	115	428	335	253	492	211	100	89	93	6870
12	87	96	99	364	324	249	981	197	102	89	93	4450
13	95	91	94	307	306	245	1440	192	102	87	98	1510
14	95	83	92	280	290	261	1090	237	101	102	97	817
15	95	83	107	1380	282	551	715	506	98	98	95	1650
16	95	85	435	1210	272	1890	537	1080	98	135	91	e23000
17	94	89	509	1040	261	2950	568	724	100	231	97	e25000
18	94	89	511	1120	289	1880	713	445	100	199	87	20500
19	91	90	462	1080	343	997	535	342	116	156	96	17900
20	90	89	340	1500	519	672	405	279	184	134	100	e17500
21	90	88	265	1120	700	563	333	241	213	124	95	e15400
22	90	89	229	766	703	1050	308	225	189	116	97	9250
23	90	91	201	588	554	2530	285	210	166	108	95	2520
24	89	87	234	1690	424	3350	252	190	148	117	86	2110
25	82	88	414	3430	356	2090	250	171	133	119	84	1220
26	73	90	762	4310	316	1230	226	161	122	120	89	765
27	86	89	922	4710	297	1120	205	150	114	121	93	658
28	88	90	622	4750	300	977	206	140	109	122	2160	1840
29	81	90	448	2060	---	769	224	132	101	120	1540	4190
30	87	91	360	1030	---	591	285	127	93	109	554	5110
31	90	---	310	736	---	492	---	118	---	111	288	---
TOTAL	2768	2712	8419	50561	13620	27847	19534	13414	3499	3631	7137	193091
MEAN	89.3	90.4	272	1631	486	898	651	433	117	117	230	6436
MAX	117	101	922	4750	1080	3350	2410	2200	213	231	2160	25000
MIN	73	82	81	255	261	245	205	118	88	85	84	116
CFSM	.11	.12	.35	2.10	.63	1.16	.84	.56	.15	.15	.30	8.28
IN.	.13	.13	.40	2.42	.65	1.33	.94	.64	.17	.17	.34	9.24

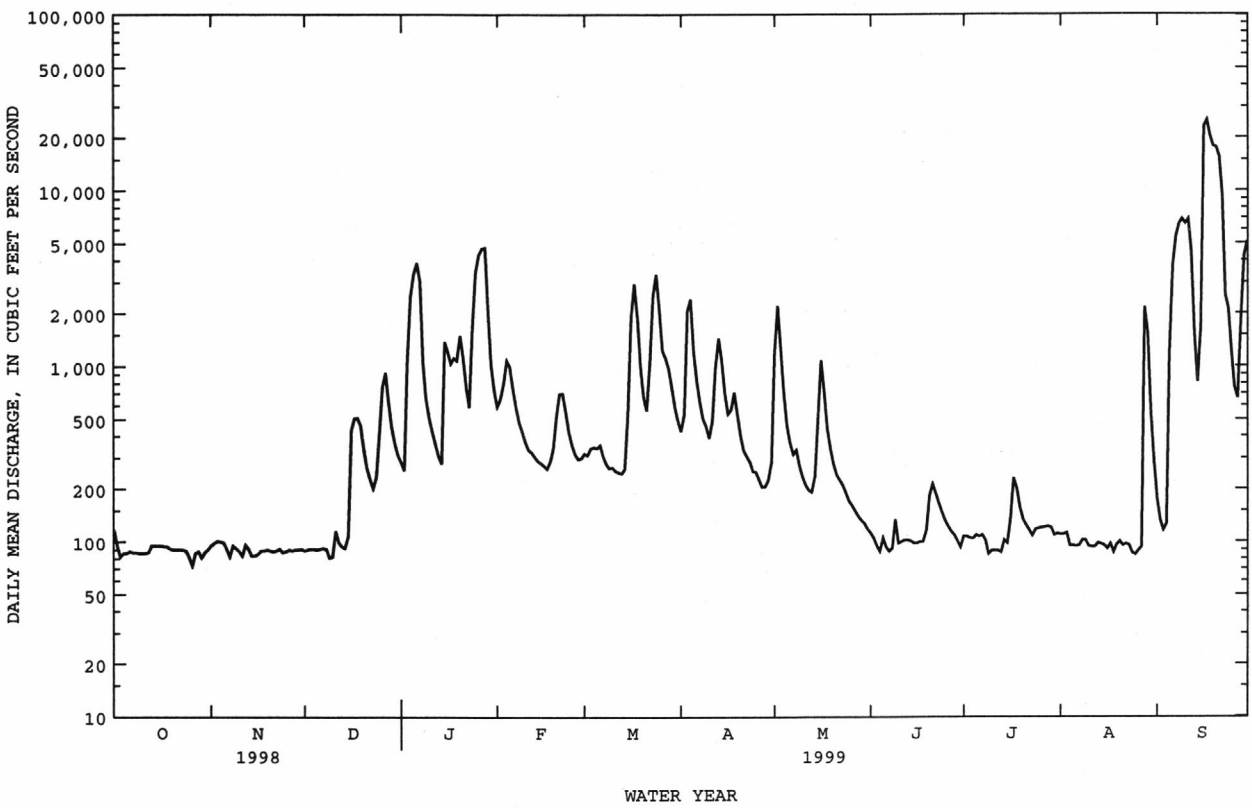
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 1999, BY WATER YEAR (WY)

MEAN	317	536	735	1403	1418	1777	1120	727	527	444	348	558
MAX	1201	1876	2406	2794	3002	3829	2864	2123	2064	2321	1045	6436
(WY)	1997	1973	1973	1978	1998	1998	1987	1989	1982	1975	1973	1999
MIN	60.2	66.2	109	186	456	358	284	192	101	67.9	77.9	75.4
(WY)	1994	1981	1992	1981	1991	1981	1981	1995	1991	1986	1988	1993

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1972 - 1999	
ANNUAL TOTAL	349012		346233			
ANNUAL MEAN	956		949		824	
HIGHEST ANNUAL MEAN					1471	1973
LOWEST ANNUAL MEAN					211	1981
HIGHEST DAILY MEAN	13300	Mar 24	25000	Sep 17	25000	Sep 17 1999
LOWEST DAILY MEAN	68	Sep 17	73	Oct 26	29	Oct 28 1993
ANNUAL SEVEN-DAY MINIMUM	83	Sep 16	84	Oct 24	36	Oct 27 1993
INSTANTANEOUS PEAK FLOW			29300	Sep 16	29300	Sep 16 1999
INSTANTANEOUS PEAK STAGE			32.89*	Sep 16	32.89*	Sep 16 1999
INSTANTANEOUS LOW FLOW			56	Jul 9	28*	Oct 28 1993
ANNUAL RUNOFF (CFSM)	1.23		1.22		1.06	
ANNUAL RUNOFF (INCHES)	16.71		16.58		14.41	
10 PERCENT EXCEEDS	2840		1880		1950	
50 PERCENT EXCEEDS	217		224		374	
90 PERCENT EXCEEDS	89		89		95	

e Estimated.
* See REMARKS.

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



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

WATER-QUALITY RECORDS

PERIOD OF RECORD.--September 1999 to October 1999.

REMARKS.--Samples from current year collected during flooding from Hurricane Floyd.

WATER-QUALITY DATA, FOR PERIOD OCTOBER 1998 TO OCTOBER 1999

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN, DIS-SOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)
SEP												
17...	1700	24000	--	--	--	5.9	29	--	.150	.69	.050	.001
19...	1400	18800	--	--	--	6.3	32	--	.079	.53	.047	.001
23...	1600	2240	751	98	8.7	6.1	47	20.4	.097	.68	.039	.003
OCT												
05...	1000	1700	754	99	8.64	6.58	53.1	21.4	--	--	--	--

DATE	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
SEP												
17...	.75	.031	.125	--	1	<1.6	<8.0	<1.0	<10	460	<100	157
19...	.57	.022	.084	--	<1	<1.6	<8.0	<1.0	<10	440	<100	59
23...	.72	.041	.083	3300	--	--	--	--	--	--	--	--
OCT												
05...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)	METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)
SEP											
17...	<.1	<40	<1	<20	12	1.6	<.0030	<.0020	<.002	.007	<.0010
19...	<.1	<40	1	<20	12	2.3	<.0030	<.0020	<.002	.006	<.0010
23...	--	--	--	--	13	1.2	--	--	--	--	--
OCT											
05...	--	--	--	--	--	--	--	--	--	--	--

DATE	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)
SEP											
17...	<.0020	<.0020	E.0141	<.0030	.0079	<.0040	<.0020	<.0020	<.002	<.001	<.0170
19...	<.0020	<.0020	<.0070	<.0030	.0053	<.0040	<.0020	<.0020	<.002	<.001	<.0170
23...	--	--	--	--	--	--	--	--	--	--	--
OCT											
05...	--	--	--	--	--	--	--	--	--	--	--

DATE	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DIS-SOLVED (UG/L) (39341)	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA-THION, DIS-SOLVED (UG/L) (39532)	METO-LACHLOR WATER DISSOLV (UG/L) (39415)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)
SEP											
17...	<.0020	<.0040	<.0030	<.0030	<.004	<.0020	<.005	.013	<.004	<.0040	<.0030
19...	<.0020	<.0040	<.0030	<.0030	<.004	<.0020	<.005	.012	<.004	<.0040	<.0030
23...	--	--	--	--	--	--	--	--	--	--	--
OCT											
05...	--	--	--	--	--	--	--	--	--	--	--

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	PARA-THION, DIS-SOLVED (UG/L) (39542)	METHYL PARA-THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	PROP-CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)
SEP											
17...	<.004	<.0060	<.0040	<.0040	<.0020	E.0119	<.0070	<.0040	<.0130	<.0030	<.0090
19...	<.004	<.0060	<.0040	<.0040	<.0020	E.0084	<.0070	<.0040	<.0130	<.0030	.0083
23...	--	--	--	--	--	--	--	--	--	--	--
OCT											
05...	--	--	--	--	--	--	--	--	--	--	--

DATE	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	ALPHA BHC DIS-SOLVED (UG/L) (34253)	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	P,P' DDE DISSOLV (UG/L) (34653)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
SEP											
17...	<.0100	<.0070	<.0130	<.0020	<.0010	<.0020	<.0020	<.0050	<.0060	94	6090
19...	<.0100	<.0070	<.0130	<.0020	<.0010	<.0020	<.0020	<.0050	<.0060	56	2840
23...	--	--	--	--	--	--	--	--	--	14	85
OCT											
05...	--	--	--	--	--	--	--	--	--	--	--

02082585 TAR RIVER AT NC 97 AT ROCKY MOUNT, NC

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

DRAINAGE AREA.--925 mi^2.

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

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

GAGE.--Water-stage recorder. Datum of gage is 53.88 ft above sea level. City of Rocky Mount telephone telemetry at station. Satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Prior to October 1996, some regulation at low flow caused by mill above station. The city of Rocky Mount diverted an average of 20.9 ft^3/s for municipal water supply, most of which was returned downstream of station as treated effluent. Minimum discharge for period of record, result of regulation. Minimum discharge for current water year also occurred June 18.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	99	92	91	320	854	605	598	970	111	82	103	208
2	96	91	80	318	932	508	550	2040	104	81	107	139
3	94	113	81	1300	995	656	1760	1330	100	96	104	121
4	95	98	81	2520	1200	544	2380	794	98	94	87	350
5	86	93	81	3500	1170	642	1280	585	71	93	81	2110
6	82	88	80	4080	982	620	904	443	63	92	81	4490
7	90	81	82	3550	844	554	774	406	89	106	81	7610
8	95	83	82	1320	753	516	595	560	89	88	82	8650
9	96	85	84	834	672	452	597	282	98	86	93	8320
10	87	93	78	736	641	461	516	297	95	85	90	8100
11	84	94	91	602	551	386	766	203	76	84	83	8110
12	82	90	85	563	584	534	1090	200	83	86	99	7970
13	89	89	108	419	510	374	1580	198	85	91	88	2900
14	95	82	100	441	528	454	1290	216	83	112	101	1380
15	95	77	103	2220	493	944	907	481	105	127	101	2690
16	90	76	445	1680	483	1780	687	1050	115	117	89	26100
17	93	110	581	1380	489	2930	642	802	179	234	87	31500
18	95	87	555	e1500	495	2130	758	609	110	214	87	25200
19	92	91	529	e1300	607	1160	704	426	103	167	87	19300
20	93	85	415	1590	767	887	509	299	178	134	88	18200
21	90	82	272	1270	911	804	428	272	237	118	85	17400
22	90	83	274	973	910	1110	448	259	227	112	82	13700
23	91	81	262	827	797	2330	311	206	206	98	84	6430
24	92	82	329	2400	654	3280	320	269	173	107	84	3660
25	90	82	543	4170	597	2360	361	211	114	115	100	1970
26	77	93	769	5100	573	1330	312	162	128	110	112	1170
27	89	85	973	5470	494	1210	249	161	107	111	122	1020
28	93	81	743	5330	470	1090	253	141	105	126	1770	3160
29	87	81	530	2780	---	918	358	124	98	153	1850	5320
30	85	108	479	1240	---	764	339	124	108	113	764	6780
31	90	---	358	982	---	659	---	124	---	96	396	---
TOTAL	2802	2656	9364	60715	19956	32992	22266	14244	3538	3528	7268	244058
MEAN	90.4	88.5	302	1959	713	1064	742	459	118	114	234	8135
MAX	99	113	973	5470	1200	3280	2380	2040	237	234	1850	31500
MIN	77	76	78	318	470	374	249	124	63	81	81	121
CFSM	.10	.10	.33	2.12	.77	1.15	.80	.50	.13	.12	.25	8.79
IN.	.11	.11	.38	2.44	.80	1.33	.90	.57	.14	.14	.29	9.82

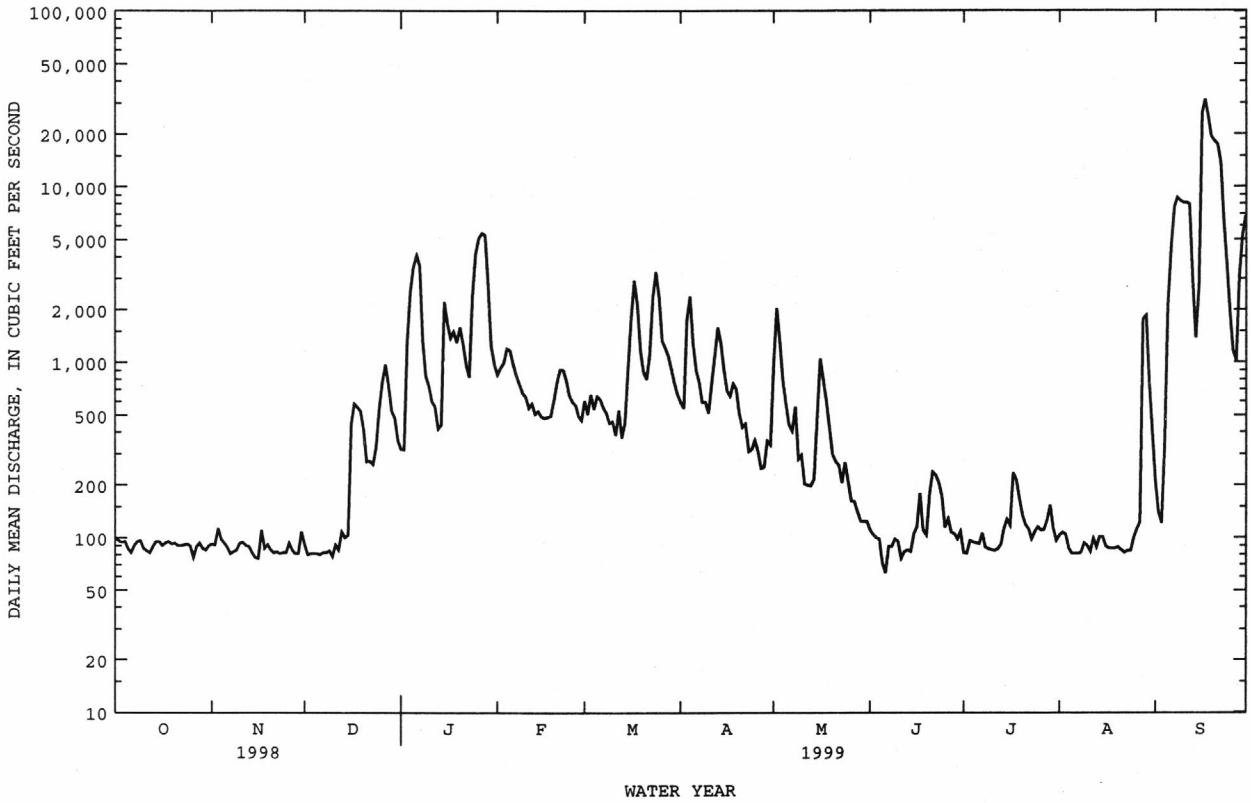
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 1999, BY WATER YEAR (WY)

MEAN	356	584	777	1622	1634	2143	1326	872	620	375	379	696
MAX	1418	1905	1720	3230	3920	4507	3447	2725	2238	1316	977	8135
(WY)	1996	1980	1984	1978	1998	1998	1987	1989	1982	1984	1989	1999
MIN	70.4	74.5	125	254	546	477	332	210	118	54.1	79.7	70.6
(WY)	1981	1981	1992	1981	1977	1981	1995	1995	1999	1986	1987	1993

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1977 - 1999	
ANNUAL TOTAL	420545		423387			
ANNUAL MEAN	1152		1160		966	
HIGHEST ANNUAL MEAN					1500	1984
LOWEST ANNUAL MEAN					262	1981
HIGHEST DAILY MEAN	13100	Mar 24	31500	Sep 17	31500	Sep 17 1999
LOWEST DAILY MEAN	76	Nov 16	63	Jun 6	6.6	Oct 3 1983
ANNUAL SEVEN-DAY MINIMUM	81	Dec 2	81	Dec 2	31	Oct 18 1993
INSTANTANEOUS PEAK FLOW			34100	Sep 17	34100	Sep 17 1999
INSTANTANEOUS PEAK STAGE			31.66	Sep 17	31.66	Sep 17 1999
INSTANTANEOUS LOW FLOW			52*	Jun 17	5.7*	Sep 23 1988
ANNUAL RUNOFF (CFSM)	1.25		1.25		1.04	
ANNUAL RUNOFF (INCHES)	16.91		17.03		14.18	
10 PERCENT EXCEEDS	4120		2260		2230	
50 PERCENT EXCEEDS	256		262		436	
90 PERCENT EXCEEDS	87		84		94	

e Estimated.
* See REMARKS.

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



02082770 SWIFT CREEK AT HILLIARDSTON, NC

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

DRAINAGE AREA.--166 mi^2.

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

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

GAGE.--Water-stage recorder. Datum of gage is 130.42 ft above sea level. Satellite telemetry at station.

REMARKS.--Records good, except those for periods of estimated discharges which are poor. Maximum discharge for current water year and period of record, on basis of slope-conveyance of peak flow; maximum gage height for current water year and period of record, 21.30 ft, from flood marks.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	11	33	74	146	96	117	244	25	39	8.2	11
2	38	12	31	67	159	100	156	218	24	29	8.2	4.4
3	38	23	30	483	185	105	249	162	24	22	8.6	2.0
4	46	39	29	758	172	140	362	131	21	20	7.6	25
5	50	52	27	611	160	125	212	111	20	19	e5.5	1880
6	60	e40	25	e614	144	114	167	99	17	15	e5.0	3330
7	55	e30	25	248	133	105	153	92	15	13	e4.5	3200
8	53	e25	25	169	123	88	135	87	15	12	e4.3	2040
9	58	e24	29	147	112	82	120	81	15	11	e4.0	920
10	74	e23	36	134	104	88	123	69	13	9.9	e3.7	1340
11	71	e19	69	120	98	95	252	64	14	9.8	e3.5	1520
12	67	e22	87	108	93	91	324	56	16	13	e3.3	580
13	55	e24	87	98	93	85	215	52	15	18	e3.1	332
14	45	e25	193	95	91	87	180	56	11	52	e2.9	413
15	38	e29	208	285	90	350	153	78	14	109	e4.2	1320
16	33	e30	233	281	85	327	166	132	24	87	e7.0	e10000
17	29	e32	175	201	82	424	165	127	110	85	e6.5	e22000
18	25	e38	137	193	89	287	172	96	135	54	e6.0	e10500
19	23	e38	115	212	122	185	145	79	91	36	e5.9	e1500
20	22	e32	88	263	149	151	126	68	64	34	e4.0	e1000
21	22	e32	73	218	151	166	117	59	48	27	e3.0	e390
22	23	e31	65	161	e123	497	108	53	42	21	e2.5	248
23	24	32	57	139	105	488	100	48	38	29	e2.3	195
24	17	34	e57	702	92	418	93	44	36	25	e2.1	171
25	18	36	e185	1070	e86	239	87	38	32	22	e2.0	163
26	18	36	e164	903	e86	211	83	36	27	16	733	145
27	12	42	160	961	86	200	80	35	24	14	905	152
28	12	47	125	447	87	178	82	34	25	12	587	474
29	12	39	109	232	---	155	110	32	24	11	147	712
30	7.4	36	95	190	---	137	196	29	24	9.4	57	822
31	10	---	84	163	---	124	---	27	---	8.9	25	---
TOTAL	1089.4	933	2856	10347	3246	5938	4748	2537	1003	883.0	2571.9	65389.4
MEAN	35.1	31.1	92.1	334	116	192	158	81.8	33.4	28.5	83.0	2180
MAX	74	52	233	1070	185	497	362	244	135	109	905	22000
MIN	7.4	11	25	67	82	82	80	27	11	8.9	2.0	2.0
CFSM	.21	.19	.55	2.01	.70	1.15	.95	.49	.20	.17	.50	13.1
IN.	.24	.21	.64	2.32	.73	1.33	1.06	.57	.22	.20	.58	14.65

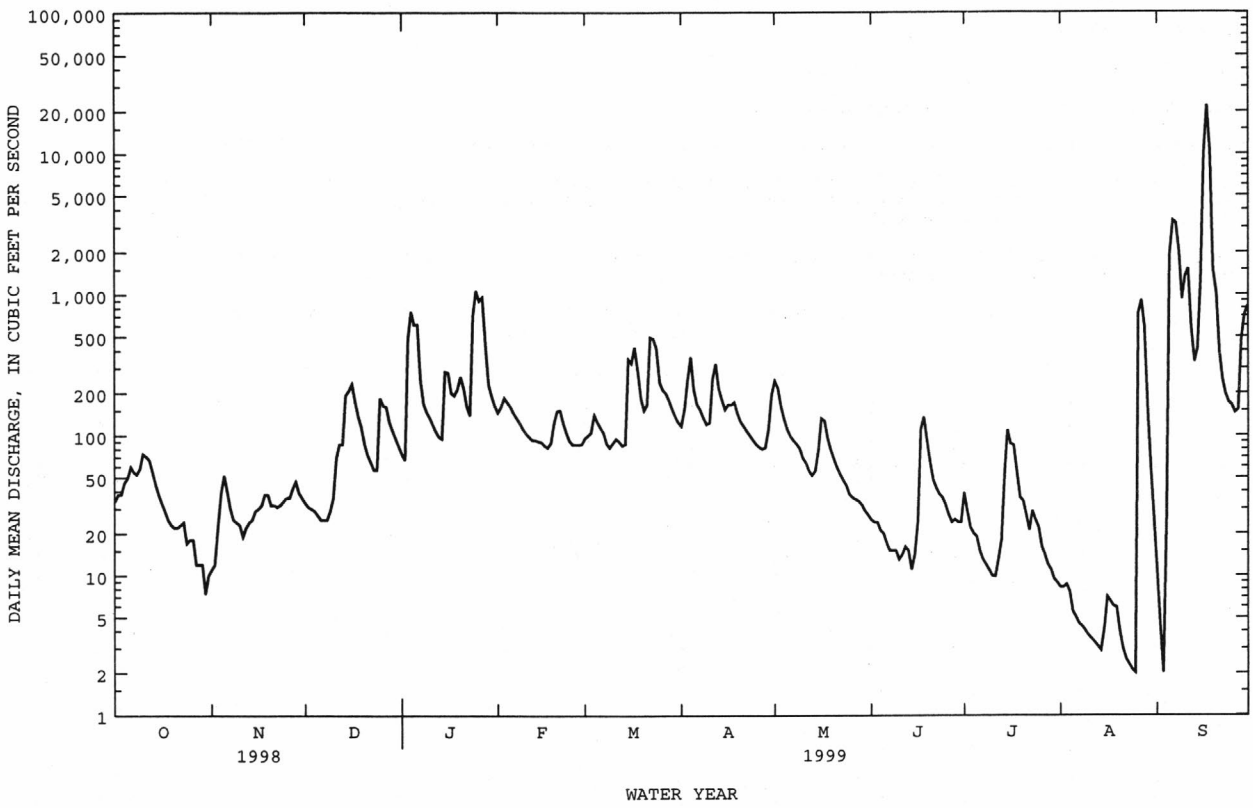
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 1999, BY WATER YEAR (WY)

MEAN	86.6	116	149	247	284	309	221	150	125	93.6	83.2	130
MAX	420	436	382	500	605	718	774	466	468	470	326	2180
(WY)	1972	1986	1973	1987	1998	1998	1987	1984	1979	1975	1986	1999
MIN	9.65	27.8	37.3	59.5	92.6	77.6	72.9	47.5	26.4	12.3	10.2	4.90
(WY)	1971	1982	1966	1981	1968	1988	1981	1995	1981	1981	1993	1968

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1963 - 1999	
ANNUAL TOTAL	71408.4		101541.7			
ANNUAL MEAN	196		278		166	
HIGHEST ANNUAL MEAN					290	1984
LOWEST ANNUAL MEAN					20.2	1963
HIGHEST DAILY MEAN	2740	Mar 21	22000	Sep 17	22000	Sep 17 1999
LOWEST DAILY MEAN	7.4	Oct 30	2.0	Aug 25	.60	Sep 25 1968
ANNUAL SEVEN-DAY MINIMUM	11	Oct 27	3.1	Aug 19	1.1	Sep 21 1968
INSTANTANEOUS PEAK FLOW			23000*	Sep 17	23000*	Sep 17 1999
INSTANTANEOUS PEAK STAGE			21.30*	Sep 17	21.30*	Sep 17 1999
INSTANTANEOUS LOW FLOW			NOT DETERMINED		.60	Sep 25 1968
ANNUAL RUNOFF (CFSM)	1.18		1.68		1.00	
ANNUAL RUNOFF (INCHES)	16.00		22.76		13.57	
10 PERCENT EXCEEDS	433		355		347	
50 PERCENT EXCEEDS	63		79		92	
90 PERCENT EXCEEDS	20		11		23	

e Estimated.
* See REMARKS.

02082770 SWIFT CREEK AT HILLIARDSTON, NC--Continued



02082950 LITTLE FISHING CREEK NEAR WHITE OAK, NC

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

DRAINAGE AREA.--177 mi^2.

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

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

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

REMARKS.--Records good except those for estimated daily discharges, which are poor. Maximum discharge for current water year and period of record, from rating curve extended above 6,900 ft^3/s on basis of slope-conveyance study of peak flow. Maximum gage height for current water year and period of record, from flood marks.

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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.4	3.1	12	39	113	102	104	222	20	13	8.1	3.9
2	3.0	3.4	11	33	130	110	273	134	19	14	6.9	3.8
3	2.6	6.6	11	441	184	94	280	97	18	13	6.1	3.6
4	3.3	14	10	810	156	194	186	81	17	11	5.4	29
5	5.6	16	10	874	148	167	151	71	16	8.9	4.8	1310
6	6.4	13	10	259	133	124	125	64	15	7.6	4.2	1550
7	4.8	9.7	10	126	117	106	110	60	14	6.5	4.0	1040
8	4.8	7.6	10	100	109	91	104	57	13	5.9	3.7	701
9	5.7	6.9	12	88	99	82	99	51	12	5.4	3.4	299
10	14	6.6	34	79	91	90	102	45	11	4.9	3.2	1290
11	11	6.2	32	72	87	98	141	41	10	4.5	3.0	1110
12	7.0	6.4	22	63	84	90	146	38	9.4	5.1	3.0	323
13	5.3	7.4	59	57	84	81	133	37	8.9	6.2	2.8	132
14	4.3	8.1	350	53	82	87	106	191	10	15	4.2	171
15	3.9	8.8	234	348	76	637	95	209	13	46	6.6	1050
16	3.5	9.7	107	439	74	781	188	140	16	43	6.3	e10000
17	3.1	12	117	271	74	389	202	92	41	26	5.4	e20000
18	2.8	13	87	187	84	225	127	74	47	20	4.3	e12000
19	2.8	13	54	316	148	171	101	64	32	15	3.6	e4000
20	2.6	12	42	243	159	139	89	55	23	12	3.1	e500
21	2.6	11	36	145	148	162	81	48	23	11	2.9	225
22	2.5	11	32	110	115	565	76	41	26	9.5	2.9	e200
23	2.5	10	28	93	95	546	71	37	26	8.7	2.8	e140
24	2.4	10	e60	690	86	292	65	34	22	8.3	2.7	119
25	2.5	9.9	172	1350	84	213	60	34	18	13	3.8	106
26	2.7	12	146	1090	84	197	57	31	15	12	21	97
27	2.8	15	87	393	83	174	58	30	15	9.9	17	99
28	2.7	17	68	229	83	148	62	29	13	8.9	24	363
29	2.7	15	63	180	---	130	82	26	12	9.5	9.7	600
30	2.9	13	56	148	---	116	201	24	12	12	6.5	937
31	3.1	---	47	126	---	105	---	22	---	10	4.7	---
TOTAL	129.3	307.4	2029	9452	3010	6506	3675	2179	547.3	395.8	190.1	58402.3
MEAN	4.17	10.2	65.5	305	108	210	122	70.3	18.2	12.8	6.13	1947
MAX	14	17	350	1350	184	781	280	222	47	46	24	20000
MIN	2.4	3.1	10	33	74	81	57	22	8.9	4.5	2.7	3.6
CFSM	.02	.06	.37	1.72	.61	1.19	.69	.40	.10	.07	.03	11.0
IN.	.03	.06	.43	1.99	.63	1.37	.77	.46	.12	.08	.04	12.27

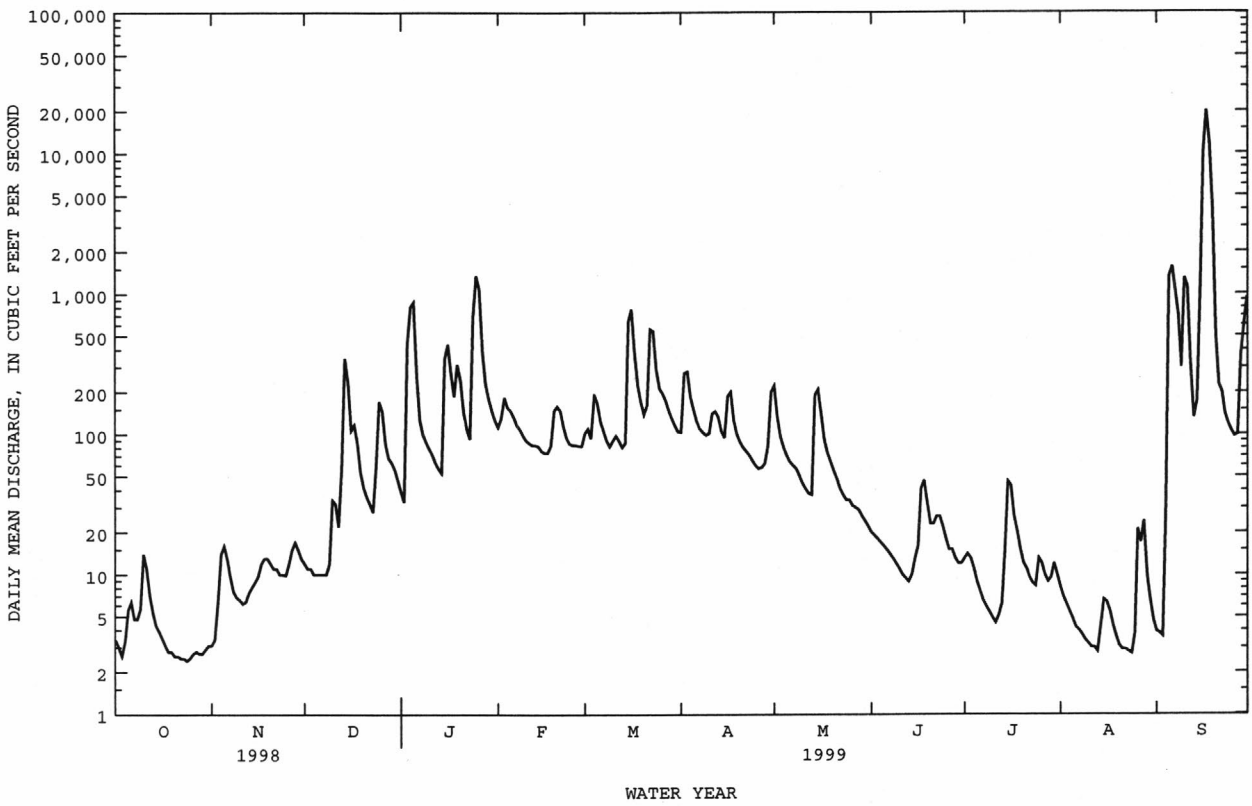
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 1999, BY WATER YEAR (WY)

MEAN	99.3	120	154	262	331	344	227	139	98.7	84.0	74.5	102
MAX	982	860	482	570	742	873	720	550	300	602	330	1947
(WY)	1973	1986	1973	1962	1984	1998	1987	1984	1965	1975	1967	1999
MIN	3.78	10.2	24.9	37.6	83.4	83.0	56.8	35.7	15.1	9.58	4.21	2.34
(WY)	1971	1999	1995	1981	1991	1981	1967	1995	1986	1981	1993	1980

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1960 - 1999	
ANNUAL TOTAL	74430.6		86823.2			
ANNUAL MEAN	204		238		169	
HIGHEST ANNUAL MEAN					327	1973
LOWEST ANNUAL MEAN					47.2	1981
HIGHEST DAILY MEAN	4350	Mar 10	20000	Sep 17	20000	Sep 17 1999
LOWEST DAILY MEAN	2.4	Oct 24	2.4	Oct 24	.78	Sep 4 1980
ANNUAL SEVEN-DAY MINIMUM	2.5	Oct 20	2.5	Oct 20	1.1	Sep 26 1968
INSTANTANEOUS PEAK FLOW			31000*	Sep 16	31000*	Sep 16 1999
INSTANTANEOUS PEAK STAGE			30.80*	Sep 16	30.80*	Sep 16 1999
INSTANTANEOUS LOW FLOW			2.3	Oct 4	.72	Sep 5 1980
ANNUAL RUNOFF (CFSM)	1.15		1.34		.95	
ANNUAL RUNOFF (INCHES)	15.64		18.25		12.95	
10 PERCENT EXCEEDS	390		272		356	
50 PERCENT EXCEEDS	45		41		78	
90 PERCENT EXCEEDS	6.3		3.8		15	

e Estimated.
* See REMARKS.

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



02083000 FISHING CREEK NEAR ENFIELD, NC

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

DRAINAGE AREA.--526 mi^2.

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

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

GAGE.--Water-stage recorder. Datum of gage is 74.26 ft above sea level. Prior to Oct. 28, 1932, nonrecording gage and Oct. 29, 1932, to Sept. 30, 1992, at same site at datum 76.26 ft. National Weather Service telephone telemetry at station. Satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are poor. 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 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	33	84	213	384	299	312	565	90	74	40	59
2	33	33	80	191	382	335	330	573	83	79	37	50
3	32	39	77	e600	473	325	685	405	78	80	34	49
4	33	46	76	1260	517	380	732	306	73	78	30	64
5	31	82	75	1430	456	456	594	253	70	74	28	1710
6	31	107	75	1350	422	386	462	221	68	68	26	3600
7	35	95	75	749	379	325	385	204	64	61	24	4790
8	39	77	76	278	348	285	340	192	61	55	e20	4200
9	42	67	78	215	324	255	317	183	58	50	e18	3120
10	44	61	80	217	300	248	302	169	57	46	e16	2270
11	66	60	153	226	282	269	315	157	54	44	e14	2890
12	84	53	168	236	269	276	433	145	50	44	e12	2630
13	69	56	162	246	267	258	451	138	47	44	e11	1040
14	61	57	418	234	262	252	387	138	45	53	e12	504
15	54	63	733	622	256	826	321	350	45	83	e16	e1700
16	50	66	618	1360	243	1710	334	457	47	187	e14	13200
17	47	72	476	966	239	1550	455	336	68	181	e13	25800
18	45	78	423	694	245	965	448	245	176	134	e12	29200
19	43	87	321	677	302	600	357	205	187	102	e11	25800
20	40	86	238	829	430	457	293	183	145	82	e10	17300
21	38	81	196	653	459	399	255	e160	116	74	e9.5	5670
22	37	78	175	493	403	868	235	145	104	69	e9.0	1940
23	37	76	162	401	335	1440	221	134	110	64	e8.5	819
24	37	73	180	902	289	1250	209	126	107	60	e8.0	450
25	36	72	351	2680	265	817	195	119	96	64	e7.5	369
26	35	72	517	2990	259	596	183	116	86	57	e480	316
27	34	80	451	2760	258	547	178	112	78	55	808	300
28	34	90	354	1760	259	483	178	108	75	52	479	737
29	33	91	300	783	---	417	197	104	73	48	241	1380
30	34	88	270	532	---	375	292	100	73	44	114	1690
31	33	---	238	439	---	341	---	95	---	41	79	---
TOTAL	1302	2119	7680	26986	9307	17990	10396	6744	2484	2247	2641.5	153647
MEAN	42.0	70.6	248	871	332	580	347	218	82.8	72.5	85.2	5122
MAX	84	107	733	2990	517	1710	732	573	187	187	808	29200
MIN	31	33	75	191	239	248	178	95	45	41	7.5	49
CFSM	.08	.13	.47	1.65	.63	1.10	.66	.41	.16	.14	.16	9.74
IN.	.09	.15	.54	1.91	.66	1.27	.74	.48	.18	.16	.19	10.87

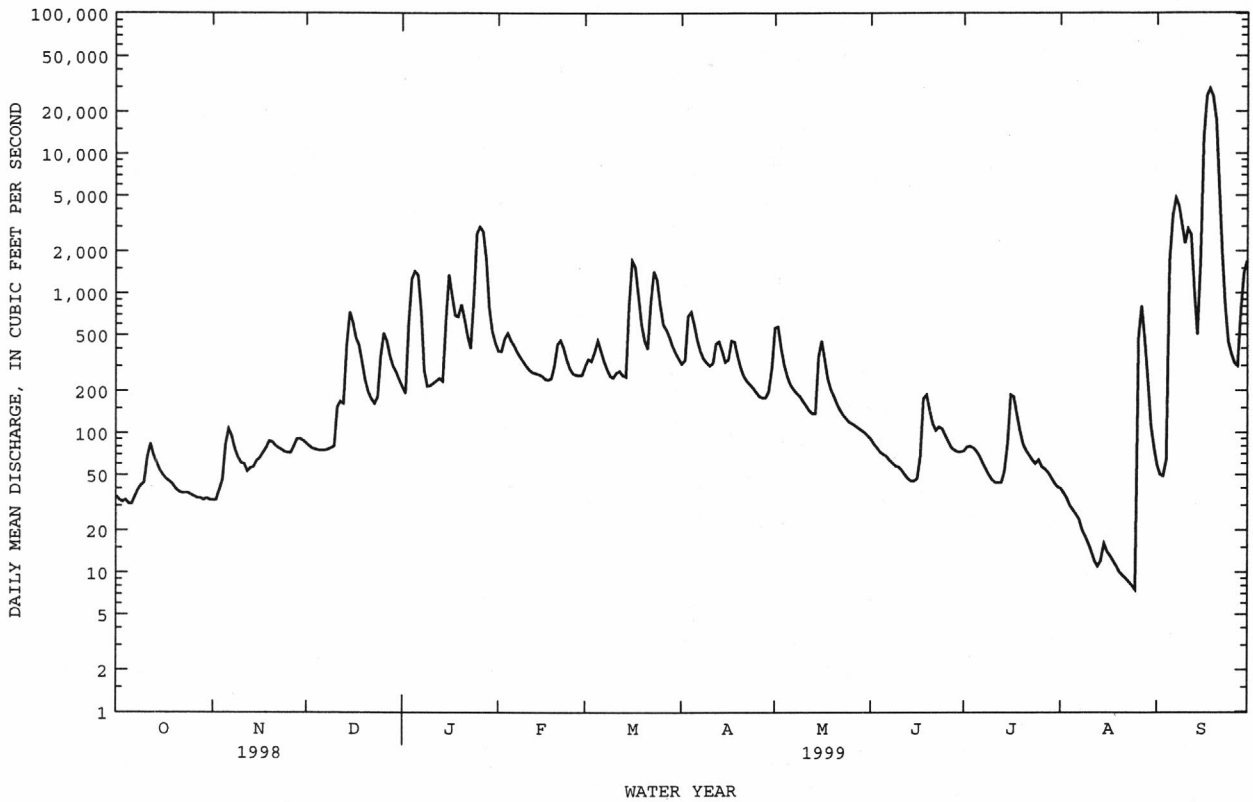
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1927 - 1999, BY WATER YEAR (WY)

MEAN	260	329	478	727	871	907	690	434	314	296	319	321
MAX	2035	1948	1391	2303	2145	2158	2049	2174	1255	1483	1828	5122
(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	128	70.6	42.8	26.8	14.2
(WY)	1934	1934	1934	1934	1934	1981	1967	1995	1986	1981	1993	1980

02083000 FISHING CREEK NEAR ENFIELD, NC--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1927 - 1999	
ANNUAL TOTAL	205831		243543.5			
ANNUAL MEAN	564		667		494	
HIGHEST ANNUAL MEAN					871	1984
LOWEST ANNUAL MEAN					148	1981
HIGHEST DAILY MEAN	6150	Mar 12	29200	Sep 18	29200	Sep 18 1999
LOWEST DAILY MEAN	31	Oct 5	7.5	Aug 25	6.9	Oct 5 1968
ANNUAL SEVEN-DAY MINIMUM	33	Oct 1	9.1	Aug 19	8.1	Sep 30 1968
INSTANTANEOUS PEAK FLOW			30100	Sep 18	30100	Sep 18 1999
INSTANTANEOUS PEAK STAGE			21.65	Sep 18	21.65	Sep 18 1999
INSTANTANEOUS LOW FLOW			NOT DETERMINED		NOT DETERMINED	
ANNUAL RUNOFF (CFSM)	1.07		1.27		.94	
ANNUAL RUNOFF (INCHES)	14.56		17.22		12.76	
10 PERCENT EXCEEDS	1500		827		1090	
50 PERCENT EXCEEDS	169		178		270	
90 PERCENT EXCEEDS	48		35		68	

e Estimated.



02083500 TAR RIVER AT TARBORO, NC

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

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

WATER-DISCHARGE RECORDS

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

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

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

REMARKS.--Records good except those for estimated daily discharges, which are fair. Some diurnal fluctuation at low flow caused by mills upstream from station. Maximum gage height for current water year and period of record, from floodmarks. Town of Tarboro diverted 4.7 ft^3/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 Aug. 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 ft^3/s.

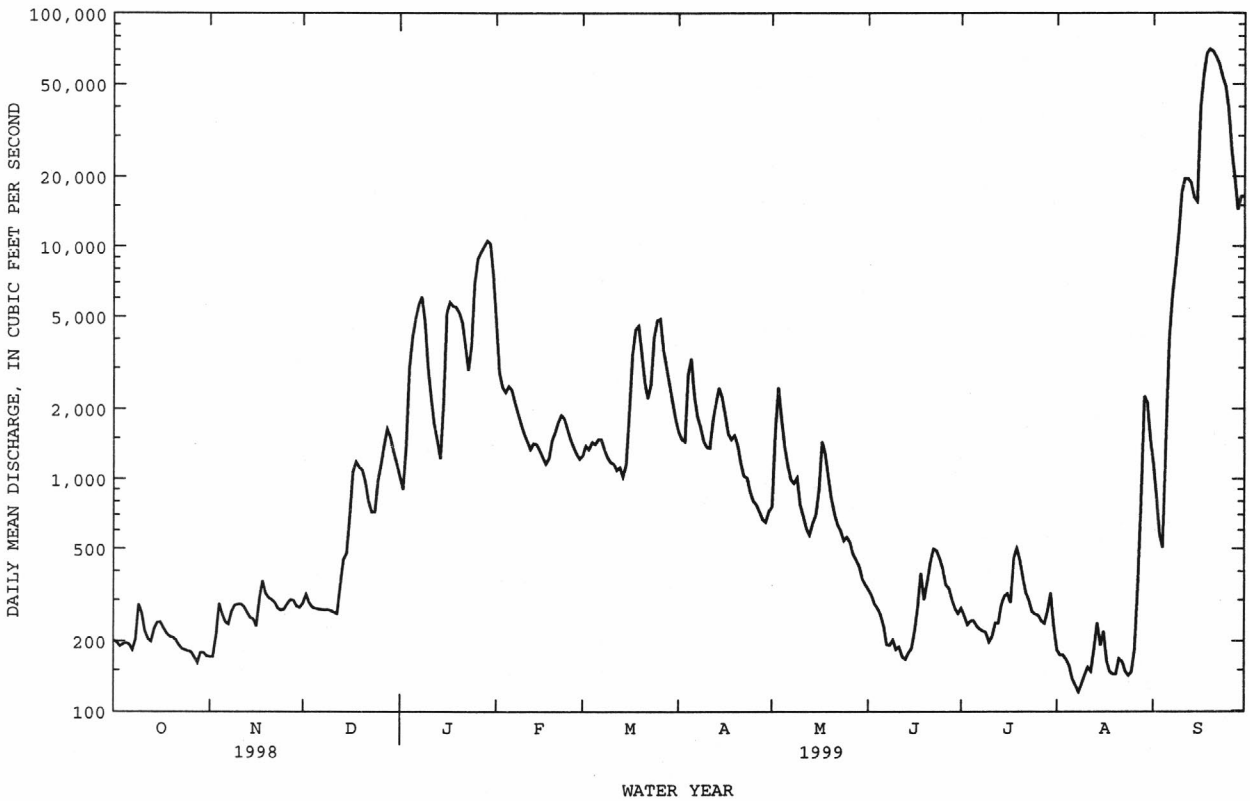
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	201	171	291	1020	4730	1260	1600	759	334	277	183	1160
2	197	171	318	898	2890	1390	1480	1580	317	258	174	840
3	190	212	293	1380	2480	1340	1450	2480	290	235	174	578
4	194	290	280	3000	2360	1440	2810	1830	277	244	167	505
5	196	261	276	4070	2510	1410	3310	1380	259	245	157	1420
6	193	241	274	4920	2420	1480	2290	1150	231	232	138	3960
7	183	236	273	5620	2140	1480	1860	992	193	225	129	6080
8	203	268	272	6090	1920	1340	1680	957	192	221	121	8120
9	288	284	273	4770	1730	1240	1460	1010	202	218	131	11200
10	264	288	270	3050	1570	1180	1370	772	184	198	143	17100
11	221	288	266	2260	1450	1160	1360	692	189	209	154	19600
12	204	281	262	1740	1340	1090	1780	612	171	239	148	19600
13	199	266	345	1460	1420	1120	2120	574	167	238	185	18800
14	225	252	447	1220	1410	1020	2470	645	178	285	240	16300
15	240	248	477	2160	1330	1150	2250	701	186	312	191	15600
16	241	231	689	5170	1240	1900	1880	896	221	320	220	40000
17	228	307	1070	5760	1160	3400	1560	1450	281	293	165	e54800
18	216	363	1180	5540	1230	4400	1480	1280	393	457	148	e67700
19	209	321	1120	5490	1470	4560	1540	1020	301	502	144	e70500
20	207	307	1090	5180	1590	3470	1400	826	359	447	144	e68900
21	202	301	967	4710	1760	2620	1170	708	436	377	168	65200
22	192	293	805	3720	1880	2230	1030	635	499	322	163	60800
23	185	276	718	2940	1820	2550	1010	599	492	299	148	53700
24	183	271	717	3750	1650	4080	879	542	456	268	142	48800
25	181	274	981	6930	1480	4810	804	562	412	261	147	38900
26	179	289	1160	8860	1370	4890	776	534	349	258	184	25900
27	170	301	1400	9470	1280	3610	724	476	337	244	340	19600
28	161	299	1640	10000	1220	3030	668	449	302	238	780	14400
29	178	282	1510	10600	---	2550	652	420	276	269	2270	16400
30	178	279	1300	10300	---	2140	725	371	263	322	2130	16400
31	172	---	1160	7540	---	1810	---	351	---	232	1480	---
TOTAL	6280	8151	22124	149618	50850	71150	45588	27253	8747	8745	11208	802863
MEAN	203	272	714	4826	1816	2295	1520	879	292	282	362	26760
MAX	288	363	1640	10600	4730	4890	3310	2480	499	502	2270	70500
MIN	161	171	262	898	1160	1020	652	351	167	198	121	505
CFSM	.09	.12	.33	2.21	.83	1.05	.70	.40	.13	.13	.17	12.3
IN.	.11	.14	.38	2.55	.87	1.21	.78	.46	.15	.15	.19	13.68
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1896 - 1999@, BY WATER YEAR (WY)												
MEAN	1035	1258	2007	3362	4312	4469	3205	1858	1327	1292	1397	1568
MAX	6591	5049	6195	10020	12920	11050	8553	8411	4873	6291	8260	26760
(WY)	1960	1948	1949	1936	1899	1989	1987	1958	1979	1975	1940	1999
MIN	56.7	115	191	253	497	1116	688	451	243	192	180	63.8
(WY)	1934	1934	1934	1934	1934	1981	1995	1995	1986	1986	1993	1968

02083500 TAR RIVER AT TARBORO, NC--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1896 - 1999@	
ANNUAL TOTAL	1029832		1212577			
ANNUAL MEAN	2821		3322		2257	
HIGHEST ANNUAL MEAN					4057	1960
LOWEST ANNUAL MEAN					594	1981
HIGHEST DAILY MEAN	23500	Mar 26	70500	Sep 19	70500	Sep 19 1999
LOWEST DAILY MEAN	161	Oct 28	121	Aug 8	36	Oct 17 1933
ANNUAL SEVEN-DAY MINIMUM	172	Oct 27	138	Aug 6	40	Sep 26 1932
INSTANTANEOUS PEAK FLOW			70600	Sep 19	70600	Sep 19 1999
INSTANTANEOUS PEAK STAGE			41.51*	Sep 19	41.51*	Sep 19 1999
INSTANTANEOUS LOW FLOW			117*	Aug 8	36*	Oct 17 1933
ANNUAL RUNOFF (CFSM)	1.29		1.52		1.03	
ANNUAL RUNOFF (INCHES)	17.55		20.66		14.05	
10 PERCENT EXCEEDS	9730		5300		5630	
50 PERCENT EXCEEDS	689		692		1210	
90 PERCENT EXCEEDS	211		184		281	

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



02083500 TAR RIVER AT TARBORO, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1944, 1947, 1954 to 1967, 1973 to 1997, September 1999 to October 1999.

PERIOD OF DAILY RECORD.--

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

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

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

REMARKS.--Station operated as part of NAWQA Program from 1993 to 1997. Station also operated as part of NASQAN network from October 1974 to September 1994. Daily records of specific conductance for water years 1954, 1959-64 are available in the files of the District Dffice in Raleigh, NC. Miscellaneous chemical data published for water years 1944, 1947, 1955-61. Samples for current year collected during flooding from Hurricane Floyd.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 300 microsiemens, Aug. 12, 1986; minimum daily, 34 microsiemens, Aug. 22, 1967.

WATER TEMPERATURE: Maximum, 33.0°C, July 19, 20, 1986; minimum daily, 0.0°C, several days in 1963 and 1966, Jan. 18, 19, 1977, Jan. 18, 1982.

WATER-QUALITY DATA, FOR PERIOD OCTOBER 1998 TO OCTOBER 1999

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN, DIS-SOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)
SEP												
21...	1115	65400	760	37	3.2	5.6	41	21.1	.051	.72	.030	.002
27...	1145	23200	767	11	1.0	5.9	55	19.3	<.002	.98	<.005	<.001
OCT												
05...	1130	13000	762	41	3.69	6.07	56.6	20.2	.009	.8	.032	.014

DATE	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	CLOS-TRIDIUM PERFRI-GENS, MF-MCP, (COL/ 100 ML) (90915)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
SEP											
21...	.75	.049	.098	K23	1600	<1	<1.6	<8.0	1.6	<10	410
27...	--	<.001	.139	K5	2300	E1	<1.6	<8.0	E.57	<10	730
OCT											
05...	.82	.026	.10	K20	100	<2	<1.6	<8	E.8	<10	970

DATE	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)
SEP											
21...	<100	26	<.1	<40	<1	E11	11	2.1	<.0030	<.0020	<.002
27...	<100	135	<.1	<40	<2	28	16	1.2	<.0030	<.0020	.008
OCT											
05...	<100	52	<.1	<40	<2	E12	14	.6	<.003	<.002	<.002

DATE	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)	METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (82673)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	CAR-BARYL WATER FLTRD 0.7 U GF, REC (82680)	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (82674)	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	DI-AZINON, DIS-SOLVED (UG/L) (39572)
SEP											
21...	.007	<.0010	<.0020	<.0020	E.0088	<.0030	.0086	<.0040	<.0020	<.0020	<.002
27...	.006	<.0010	<.0020	<.0020	E.0047	<.0030	E.0027	.0074	<.0020	<.0020	<.002
OCT											
05...	<.005	<.001	<.002	<.002	<.003	<.003	<.004	<.004	<.002	<.002	<.002

02083500 TAR RIVER AT TARBORO, NC--Continued

WATER-QUALITY DATA, FOR PERIOD OCTOBER 1998 TO OCTOBER 1999

DATE	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DIS-SOLVED (UG/L) (39341)	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA-THION, DIS-SOLVED (UG/L) (39532)	METO-LACHLOR WATER DISSOLV (UG/L) (39415)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630)
SEP											
21...	<.001	<.0170	<.0020	<.0040	<.0030	<.0030	<.004	<.0020	<.005	.023	<.004
27...	<.001	<.0170	<.0020	<.0040	<.0030	<.0030	<.004	<.0020	<.005	.027	<.004
OCT											
05...	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002	<.005	.0114	<.004

DATE	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PARA-THION, DIS-SOLVED (UG/L) (39542)	METHYL PARA-THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	PROP-CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)
SEP											
21...	<.0040	<.0030	<.004	<.0060	<.0040	<.0040	<.0020	<.0180	<.0070	<.0040	<.0130
27...	<.0040	<.0030	<.004	<.0060	<.0040	<.0040	<.0020	E.0066	<.0070	<.0040	<.0130
OCT											
05...	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.0058	<.007	<.004	<.013

DATE	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	ALPHA BHC DIS-SOLVED (UG/L) (34253)	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	P,P' DDE DISSOLV (UG/L) (34653)
SEP											
21...	<.0030	<.0100	<.0100	<.0070	<.0130	<.0020	<.0010	<.0020	<.0020	<.0050	<.0060
27...	<.0030	.0051	<.0100	<.0070	<.0130	<.0020	<.0010	<.0020	<.0020	<.0050	<.0060
OCT											
05...	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002	<.002	<.005	<.006

DATE	BENZENE TOTAL (UG/L) (34030)	DI-ISO-PROPYL-ETHER, WATER, UNFLTRD RECOVER (UG/L) (81577)	ETHYL-BENZENE TOTAL (UG/L) (34371)	ETHER TERT-BUTYL ETHYL UNFLTRD RECOVER (UG/L) (50004)	ETHER TERT-PENTYL METHYL UNFLTRD RECOVER (UG/L) (50005)	METHYL TERT-BUTYL ETHER WAT UNF REC (UG/L) (78032)	TOLUENE TOTAL (UG/L) (34010)	META/ PARA-XYLENE WATER UNFLTRD REC (UG/L) (85795)	O-XYLENE WATER WHOLE TOTAL (UG/L) (77135)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
SEP											
21...	--	--	--	--	--	--	--	--	--	14	2470
27...	<.035	<.100	<.030	<.054	<.110	<.170	<.050	<.060	<.038	22	1380
OCT											
05...	<.035	<.1	<.03	<.054	<.11	<.17	<.05	<.06	<.038	11	386

02083800 CONETOE CREEK NEAR BETHEL, NC

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

DRAINAGE AREA.--78.1 mi^2.

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

GAGE.--Water-stage recorder. Elevation of gage is 30 ft above sea level, from topographic map. Telephone telemetry at station. Satellite telemetry at station.

REMARKS.--Records good except those for period April to Sept., which are poor. Minimum discharge for period of record also occurred Aug. 29 and Sept. 3, 1980. Maximum gage height for current water year and period of record, from flood mark.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.5	4.5	15	104	128	188	61	15	4.7	13	16	2.0
2	6.4	4.7	14	93	132	134	72	14	4.8	5.4	12	1.7
3	6.4	8.2	12	376	136	119	65	14	4.6	8.3	9.8	1.8
4	11	14	12	529	126	157	59	13	3.8	4.8	8.5	12
5	21	13	11	235	125	127	55	11	3.5	2.4	7.4	254
6	12	11	11	166	115	110	50	11	3.2	6.9	2.6	190
7	9.4	10	11	142	108	100	48	10	3.8	3.3	1.4	489
8	19	10	10	127	102	88	46	9.0	3.9	5.7	2.1	247
9	63	9.6	9.7	131	95	83	44	7.0	3.2	6.1	3.7	167
10	26	9.2	10	144	91	91	52	6.0	4.1	2.3	4.1	262
11	17	8.7	11	127	86	91	82	4.4	2.2	4.7	3.7	223
12	13	8.2	10	114	85	84	121	4.0	2.7	7.2	3.4	163
13	10	8.2	11	105	93	77	90	4.4	4.6	10	22	142
14	8.8	8.6	25	96	88	73	73	28	5.2	35	18	335
15	7.4	9.9	37	403	83	399	62	57	7.9	76	21	819
16	6.5	10	61	524	79	266	57	69	9.4	42	12	e2500
17	6.0	15	81	243	77	167	83	67	79	30	6.4	e6000
18	5.7	17	67	232	109	133	79	55	96	24	4.7	e15000
19	5.8	13	e58	260	147	111	50	41	50	21	3.8	e9000
20	5.7	12	52	184	129	94	47	28	35	18	2.6	e6000
21	6.0	15	46	151	113	89	43	20	35	16	2.2	e6500
22	6.2	14	45	131	99	115	37	14	34	13	2.5	e7000
23	5.3	12	41	119	92	107	30	12	29	5.1	2.7	e3000
24	5.2	12	80	436	84	92	23	12	24	6.2	1.1	1320
25	5.2	12	232	787	80	82	17	12	20	14	1.5	834
26	5.0	21	176	760	78	83	15	11	17	27	1.9	538
27	4.8	25	149	369	74	98	14	9.9	15	21	1.9	372
28	4.9	17	156	224	95	96	14	8.8	15	16	1.8	543
29	e5.1	19	182	187	---	82	16	7.4	13	18	1.7	915
30	4.7	15	145	159	---	71	18	5.9	11	27	3.4	722
31	4.5	---	118	140	---	64	---	4.3	---	23	2.9	---
TOTAL	324.5	366.8	1898.7	7798	2849	3671	1523	585.1	544.6	512.4	188.8	63552.5
MEAN	10.5	12.2	61.2	252	102	118	50.8	18.9	18.2	16.5	6.09	2118
MAX	63	25	232	787	147	399	121	69	96	76	22	15000
MIN	4.5	4.5	9.7	93	74	64	14	4.0	2.2	2.3	1.1	1.7
CFSM	.13	.16	.78	3.22	1.30	1.52	.65	.24	.23	.21	.08	27.1
IN.	.15	.17	.90	3.71	1.36	1.75	.73	.28	.26	.24	.09	30.27

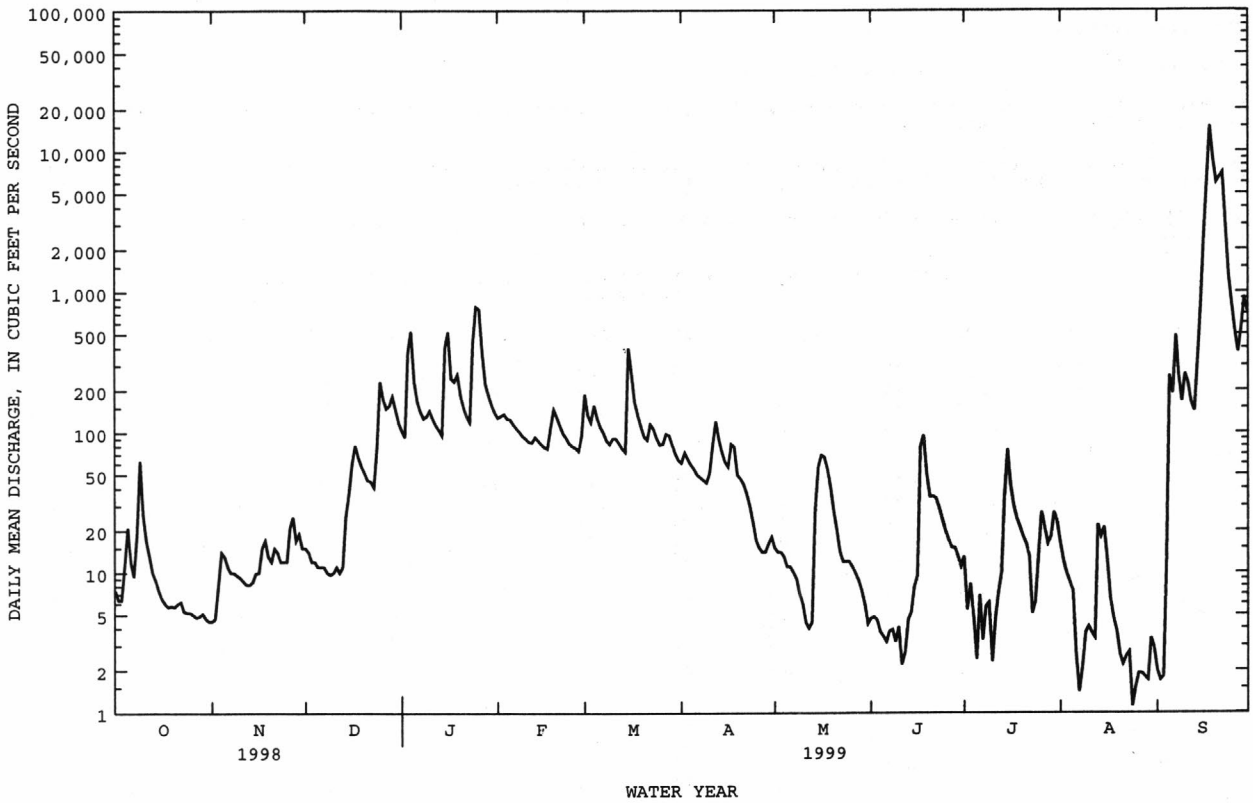
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 1999, BY WATER YEAR (WY)

MEAN	49.8	35.7	60.6	122	153	154	92.4	58.9	41.3	36.7	65.0	86.5
MAX	462	181	218	296	327	282	282	251	274	210	452	2118
(WY)	1972	1978	1958	1978	1960	1983	1959	1978	1979	1962	1967	1999
MIN	2.82	3.14	3.77	9.96	22.5	17.5	13.2	9.91	3.80	3.16	1.32	2.67
(WY)	1979	1987	1969	1981	1981	1981	1981	1981	1994	1993	1993	1980

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1957 - 1999	
ANNUAL TOTAL	27307.4		83814.4			
ANNUAL MEAN	74.8		230		80.8	
HIGHEST ANNUAL MEAN					230	1999
LOWEST ANNUAL MEAN					12.0	1981
HIGHEST DAILY MEAN	998	Feb 6	15000	Sep 18	15000	Sep 18 1999
LOWEST DAILY MEAN	2.6	Aug 25	1.1	Aug 24	.74	Aug 25 1993
ANNUAL SEVEN-DAY MINIMUM	3.1	Aug 3	1.8	Aug 23	.79	Aug 21 1993
INSTANTANEOUS PEAK FLOW			NOT DETERMINED		NOT DETERMINED	
INSTANTANEOUS PEAK STAGE			19.79	Sep 18	19.79	Sep 18 1999
INSTANTANEOUS LOW FLOW			.88	Aug 24	.40*	Aug 28 1980
ANNUAL RUNOFF (CFSM)	.96		2.94		1.03	
ANNUAL RUNOFF (INCHES)	13.01		39.92		14.06	
10 PERCENT EXCEEDS	188		227		180	
50 PERCENT EXCEEDS	20		23		32	
90 PERCENT EXCEEDS	4.8		4.2		5.1	

e Estimated.
* See REMARKS.

02083800 CONETOE CREEK NEAR BETHEL, NC--Continued



02084000 TAR RIVER AT GREENVILLE, NC.

LOCATION.--Lat 35°37'00", long 77°22''30", Pitt County, Hydrologic Unit 03020103, on right bank 200 ft downstream of State Highway 11,800 ft downstream from railroad bridge, and 21 mi upstream from Pamlico River at Washington.

DRAINAGE AREA.--2,620 mi^2.

WATER-DISCHARGE RECORDS

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 U.S. Geological Survey.

REVISED RECORDS.--WDR NC-99-1(m).

GAGE.--Water-stage recorder and acoustic velocity meter. Datum of gage is 2.36 ft below sea level. Satellite telemetry at station.

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

REVISIONS.--The minimum discharge for the water year 1997 has been revised to -487 ft^3/s, July 12, 1997.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	227	172	330	1540	9980	1930	1850	878	385	299	252	1260
2	217	176	361	1330	6860	2020	1690	961	359	269	84	961
3	235	144	367	1840	4520	1990	1640	1890	357	278	139	721
4	254	348	346	3860	3460	2050	1820	2180	236	272	143	528
5	257	342	337	4820	3250	2090	2910	1680	285	268	144	1310
6	221	331	326	5270	3290	1960	2900	1330	278	240	130	2890
7	247	303	318	5730	3040	1930	2150	1130	265	218	63	4780
8	302	287	339	6230	2750	1790	1810	1030	e240	152	143	6710
9	716	295	295	6490	2500	1650	1640	1010	e210	220	82	8640
10	699	313	320	5630	2260	1570	1470	930	125	240	90	11300
11	533	359	290	4000	2130	1490	1520	812	188	162	168	15200
12	379	243	320	2890	1940	1430	1990	769	248	197	90	17700
13	345	308	374	2360	1960	1310	2300	677	104	225	94	19100
14	320	283	439	2060	2040	1320	2560	674	175	358	240	19300
15	292	288	541	2500	1960	1620	2600	862	215	376	193	19800
16	288	271	692	4920	1830	2130	2240	937	202	303	157	e28000
17	297	341	1120	6430	1720	2700	1870	1270	274	380	202	e45900
18	296	380	1360	7160	1730	3840	1620	1530	369	362	199	e59500
19	322	435	1360	7330	2080	4520	1580	1280	405	500	146	e68000
20	232	407	1250	7160	2350	4410	1580	1030	397	489	138	e71800
21	278	382	1190	6600	2440	3460	1400	868	445	422	150	72300
22	247	349	e1050	e5900	2490	2630	1210	751	487	354	30	69400
23	237	378	e900	e4000	2470	2540	1110	708	544	290	154	65200
24	253	309	e900	e5000	2290	3170	1030	677	526	323	115	59600
25	268	320	e1150	e6940	2090	4190	918	577	494	204	142	52400
26	210	375	e1500	e9400	1920	4810	890	625	443	e134	82	44900
27	187	429	e1830	12100	1800	4660	792	576	376	164	62	38200
28	228	413	e2250	13000	1750	3710	766	514	384	155	319	33700
29	169	401	e2350	13200	---	3020	694	497	324	236	1040	29600
30	204	374	e2260	13100	---	2500	732	451	276	284	2160	26700
31	167	---	1770	12400	---	2140	---	399	---	270	1760	---
TOTAL	9127	9756	28235	191190	78900	80580	49282	29503	9616	8644	8911	895400
MEAN	294	325	911	6167	2818	2599	1643	952	321	279	287	29850
MAX	716	435	2350	13200	9980	4810	2910	2180	544	500	2160	72300
MIN	167	144	290	1330	1720	1310	694	399	104	134	30	528
CFSM	.11	.12	.35	2.35	1.08	.99	.63	.36	.12	.11	.11	11.4
IN.	.13	.14	.40	2.71	1.12	1.14	.70	.42	.14	.12	.13	12.71

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 1999, BY WATER YEAR (WY)

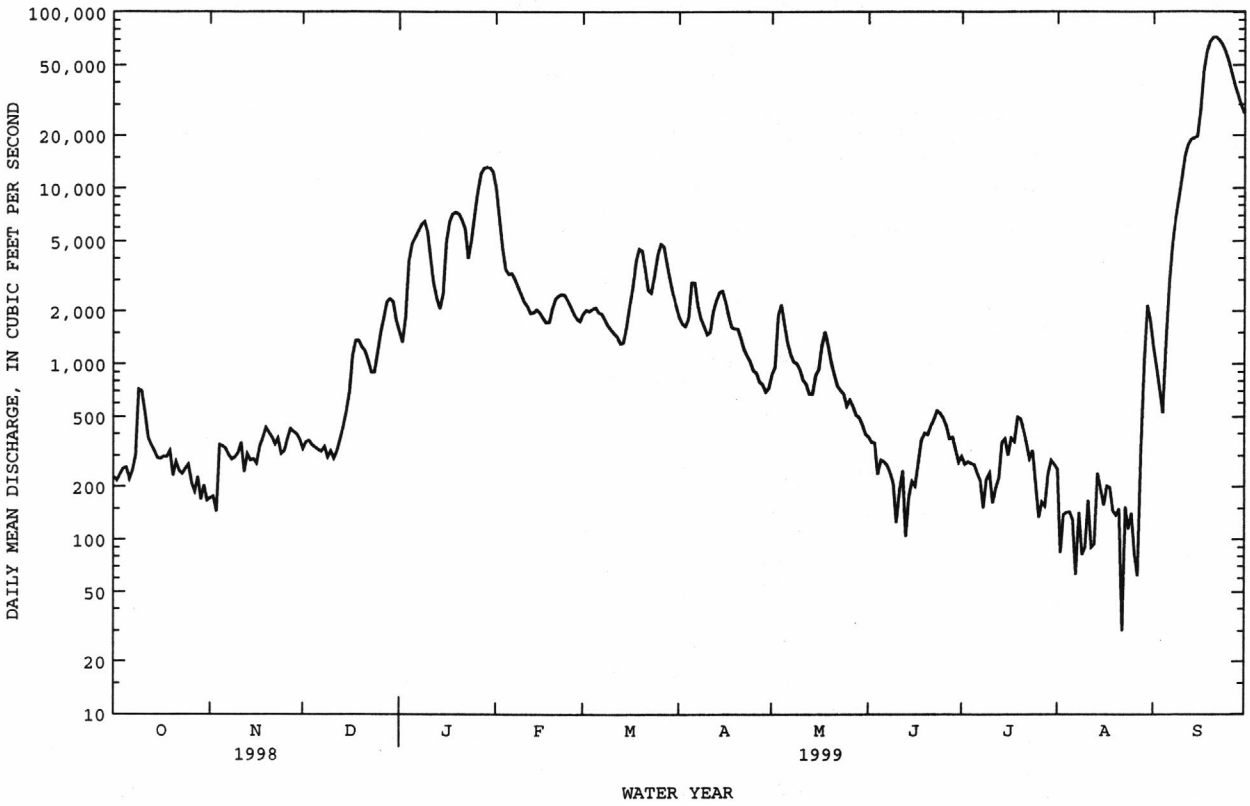
MEAN	348	542	1173	5995	8051	7312	2456	1943	818	515	457	10310
MAX	402	758	1434	6167	13280	12020	3269	3377	1451	810	554	29850
(WY)	1998	1998	1998	1999	1998	1998	1998	1997	1997	1997	1997	1999
MIN	294	325	911	5824	2818	2599	1643	952	321	279	287	484
(WY)	1999	1999	1999	1998	1999	1999	1999	1999	1999	1999	1999	1997

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1997 - 1999	
ANNUAL TOTAL	1186141		1399144			
ANNUAL MEAN	3250		3833		3586	
HIGHEST ANNUAL MEAN					3833	1999
LOWEST ANNUAL MEAN					3339	1998
HIGHEST DAILY MEAN	24000	Mar 27	72300	Sep 21	72300	Sep 21 1999
LOWEST DAILY MEAN	144	Nov 3	30	Aug 22	30	Aug 22 1999
ANNUAL SEVEN-DAY MINIMUM	180	Oct 28	104	Aug 7	104	Aug 7 1999
INSTANTANEOUS PEAK FLOW			73000	Sep 21	73000	Sep 21 1999
INSTANTANEOUS PEAK STAGE			29.72	Sep 21	29.72	Sep 21 1999
INSTANTANEOUS LOW FLOW			-851	Aug 22	-851	Aug 22 1999
ANNUAL RUNOFF (CFSM)	1.24		1.46		1.37	
ANNUAL RUNOFF (INCHES)	16.84		19.87		18.60	
10 PERCENT EXCEEDS	11500		6530		7410	
50 PERCENT EXCEEDS	800		766		858	
90 PERCENT EXCEEDS	274		188		267	

e Estimated.

Note.--Negative values indicate reverse flow.

02084000 TAR RIVER AT GREENVILLE, NC.--Continued



02084000 TAR RIVER AT GREENVILLE, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--September 1999.

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN, DIS-SOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)
SEP												
20...	1745	71800	--	--	--	--	--	--	--	--	--	--
21...	1430	--	72300	760	37	3.3	5.7	41	21.2	.035	.65	.032
29...	1230	--	29600	765	16	1.4	5.7	76	20.6	.101	.87	.059

DATE	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	CLOS-TRIDIUM PERFRI-GENS, MF-MCP, (COL/ 100 ML) (90915)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
SEP												
20...	--	--	--	--	K26	1600	--	--	--	--	--	--
21...	<.001	.68	.067	.106	K9	1900	<1	<1.6	<8.0	<1.0	<10	480
29...	.005	.93	.077	.139	K15	700	E2	<1.6	<8.0	74	<10	740

DATE	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)
SEP											
20...	--	--	--	--	--	--	--	--	--	--	--
21...	<100	2.7	<.1	<40	1	<20	12	1.3	<.0030	<.0020	.011
29...	<100	118	<.1	<40	<2	E19	16	.60	<.0030	<.0020	.009

DATE	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)	METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	DI-AZINON, DIS-SOLVED (UG/L) (39572)
SEP											
20...	--	--	--	--	--	--	--	--	--	--	--
21...	.006	<.0010	<.0020	<.0020	E.0127	<.0030	.0080	.0052	<.0020	<.0020	.006
29...	.009	<.0010	<.0020	.0072	E.0060	<.0030	E.0054	<.0040	<.0020	E.0023	E.003

DATE	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DIS-SOLVED (UG/L) (39341)	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA-THION, DIS-SOLVED (UG/L) (39532)	METO-LACHLOR WATER DISSOLV (UG/L) (39415)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630)
SEP											
20...	--	--	--	--	--	--	--	--	--	--	--
21...	<.001	<.0170	<.0020	<.0040	<.0030	<.0030	<.004	<.0020	<.005	.032	<.004
29...	<.001	<.0170	<.0020	<.0040	<.0030	<.0030	<.004	<.0020	<.005	.036	<.004

02084000 TAR RIVER AT GREENVILLE, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	MOLINATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROPAMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PARATHION, DISSOLVED (UG/L) (39542)	METHYL PARATHION WAT FLT 0.7 U GF, REC (UG/L) (82667)	PEBULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDIMETHALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PROMETON, WATER, DISS, REC (UG/L) (04037)	PROPCHLOR, WATER, DISS, REC (UG/L) (04024)	PROPANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PROPARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)
SEP											
20...	--	--	--	--	--	--	--	--	--	--	--
21...	<.0040	<.0030	<.004	<.0060	<.0040	<.0040	<.0020	E.0058	<.0070	<.0040	<.0130
29...	<.0040	<.0030	<.004	<.0060	<.0040	<.0040	<.0020	E.0064	<.0070	<.0040	<.0130

DATE	PRONAMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	SIMAZINE, WATER, DISS, REC (UG/L) (04035)	TEBUTHIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TERBACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TERBUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	THIOBENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TRIALLATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRIFLURALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	ALPHA BHC DISSOLVED (UG/L) (34253)	PERMETHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	P,P' DDE DISSOLV (UG/L) (34653)
SEP											
20...	--	--	--	--	--	--	--	--	--	--	--
21...	<.0030	.0060	<.0100	<.0070	<.0130	<.0020	<.0010	<.0020	<.0020	<.0050	<.0060
29...	<.0030	<.0050	<.0100	<.0070	<.0130	<.0020	<.0010	<.0020	<.0020	<.0050	<.0060

DATE	BENZENE TOTAL (UG/L) (34030)	DI-ISOPROPYLETHER, WATER, UNFLTRD RECOVER (UG/L) (81577)	ETHYLBENZENE TOTAL (UG/L) (34371)	ETHER TERT-BUTYL ETHYL UNFLTRD RECOVER (UG/L) (50004)	ETHER TERT-PENTYL METHYL UNFLTRD RECOVER (UG/L) (50005)	METHYL TERT-BUTYL ETHER WAT UNF REC (UG/L) (78032)	TOLUENE TOTAL (UG/L) (34010)	META/PARAXYLENE WATER UNFLTRD REC (UG/L) (85795)	OXYLENE WATER WHOLE TOTAL (UG/L) (77135)	SEDIMENT, SUSPENDED (MG/L) (80154)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) (80155)
SEP											
20...	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	6	1170
29...	<.035	<.100	<.030	<.054	<.110	E.058	<.050	<.060	<.038	12	959

02084160 CHICOD CREEK AT SECONDARY ROAD 1760 NEAR SIMPSON, NC

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

DRAINAGE AREA.--45 mi^2.

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is sea level. Satellite telemetry at station.

REMARKS.--Records poor. No flow occurs at times during most years. Maximum gage height for current year and period of record from flood mark.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.51	7.5	15	64	33	27	21	2.0	2.6	5.0	3.2	6.7
2	.76	7.7	16	40	44	32	21	2.3	2.4	4.0	4.1	6.7
3	1.0	9.4	16	53	85	31	20	2.8	2.2	3.2	3.9	7.2
4	1.9	11	17	99	103	37	17	2.6	2.2	2.6	3.3	73
5	11	9.8	17	52	169	30	17	2.1	2.0	2.3	3.1	1430
6	12	9.5	17	31	111	24	15	2.3	1.8	2.0	3.0	1330
7	13	9.6	18	22	76	20	14	2.7	1.7	1.7	2.9	999
8	14	9.5	19	18	51	19	13	1.8	1.5	1.6	2.6	337
9	19	9.9	21	20	34	19	11	1.1	1.3	1.5	2.5	126
10	16	9.9	19	48	23	22	13	.86	1.1	1.3	2.7	51
11	11	10	17	46	16	23	35	.92	.85	1.1	2.7	24
12	10	10	17	32	13	21	251	.80	.76	1.8	2.5	9.2
13	10	11	24	22	24	18	150	1.1	.75	3.1	2.5	1.8
14	9.6	12	23	16	28	21	52	1.9	.77	21	2.2	213
15	8.9	12	19	139	23	101	21	3.5	9.7	22	2.3	e1450
16	8.3	12	92	250	18	99	13	4.3	15	10	2.3	e2000
17	8.3	15	148	107	16	66	11	4.1	11	8.4	2.0	e3000
18	7.8	14	52	128	30	47	9.6	4.9	10	9.5	1.8	e4560
19	9.0	13	26	194	65	36	6.4	3.9	9.6	11	1.5	e4000
20	7.6	17	19	105	48	27	4.2	3.2	9.1	8.3	1.5	e1600
21	7.2	17	17	52	37	55	3.7	2.8	11	19	1.9	e2500
22	6.8	16	17	28	26	187	2.8	2.2	9.8	88	2.5	e2600
23	6.5	15	18	18	18	147	1.8	1.5	8.8	16	2.5	e1900
24	6.2	14	75	443	14	83	1.4	1.6	9.1	8.1	2.3	e1200
25	6.4	14	359	816	13	50	1.1	2.3	7.7	11	2.6	e800
26	6.7	22	298	341	13	51	.80	2.4	7.1	12	3.4	e560
27	6.7	19	348	203	13	135	.72	2.7	20	8.0	3.9	e350
28	6.8	16	276	145	14	143	.78	3.5	11	7.1	3.9	e2400
29	7.0	15	439	107	---	89	1.3	3.5	7.8	5.2	3.7	e1200
30	7.1	15	207	75	---	52	2.0	3.1	5.9	4.2	5.5	e900
31	7.3	---	113	51	---	31	---	2.8	---	3.6	7.0	---
TOTAL	254.37	382.8	2779	3765	1158	1743	731.60	77.58	184.53	303.6	91.8	35634.6
MEAN	8.21	12.8	89.6	121	41.4	56.2	24.4	2.50	6.15	9.79	2.96	1188
MAX	19	22	439	816	169	187	251	4.9	20	88	7.0	4560
MIN	.51	7.5	15	16	13	18	.72	.80	.75	1.1	1.5	1.8
CFSM	.18	.28	1.99	2.70	.92	1.25	.54	.06	.14	.22	.07	26.4
IN.	.21	.32	2.30	3.11	.96	1.44	.60	.06	.15	.25	.08	29.46

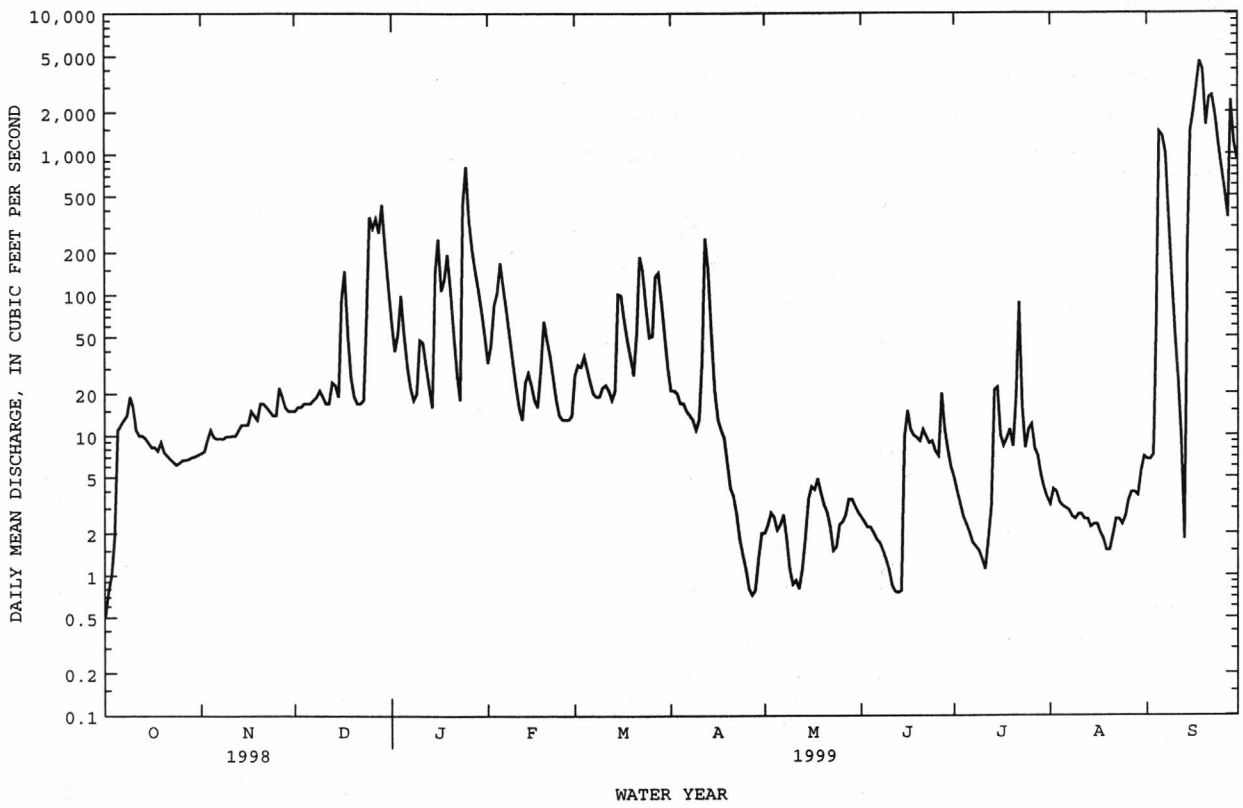
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 1999,@ BY WATER YEAR (WY)

MEAN	20.7	34.2	52.3	104	92.2	98.8	51.9	31.5	34.6	19.8	39.9	104
MAX	112	219	94.2	244	245	201	144	139	192	120	238	1188
(WY)	1997	1978	1978	1978	1998	1980	1978	1978	1995	1996	1992	1999
MIN	.27	1.23	4.57	15.2	19.7	18.0	4.49	.65	.001	.89	.000	.22
(WY)	1977	1982	1982	1986	1977	1981	1981	1985	1985	1998	1976	1995

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1976 - 1999@	
ANNUAL TOTAL	27608.01		47105.88			
ANNUAL MEAN	75.6		129		56.7	
HIGHEST ANNUAL MEAN					129	1999
LOWEST ANNUAL MEAN					22.1	1986
HIGHEST DAILY MEAN	2680	Aug 27	e4560	Sep 18	e4560	Sep 18 1999
LOWEST DAILY MEAN	.00	Jul 1	.51	Oct 1	.00	Jul 19 1976
ANNUAL SEVEN-DAY MINIMUM	.00	Jul 21	1.0	Jun 8	.00	Jul 19 1976
INSTANTANEOUS PEAK FLOW			NOT DETERMINED		NOT DETERMINED	
INSTANTANEOUS PEAK STAGE			21.46	Sep 18	21.46	Sep 18 1999
INSTANTANEOUS LOW FLOW			.38	Oct 1	.00*	Jul 19 1976
ANNUAL RUNOFF (CFSM)	1.68		2.87		1.26	
ANNUAL RUNOFF (INCHES)	22.82		38.94		17.12	
10 PERCENT EXCEEDS	173		158		126	
50 PERCENT EXCEEDS	10		13		13	
90 PERCENT EXCEEDS	.00		1.8		.44	

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

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



02084472 PAMLICO RIVER AT WASHINGTON, NC

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

DRAINAGE AREA.--3,080 mi^2.

PERIOD OF RECORD.--Water years 1962 to 1967, April to September 1999.

PERIOD OF DAILY RECORD.--

SALINITY (TOP AND BOTTOM): April to September 1999.

pH (TOP AND BOTTOM): April to September 1999.

WATER TEMPERATURE (TOP AND BOTTOM): April to September 1999.

DISSOLVED OXYGEN (TOP AND BOTTOM): April to September 1999.

DISSOLVED OXYGEN, PERCENT SATURATION (TOP AND BOTTOM): April to September 1999.

INSTRUMENTATION.--Water-quality monitor with satellite telemetry from April 1999 to September 1999.

REMARKS.--Station operated in cooperation with the North Carolina Department of Environment and Natural Resources. The monitor was removed on September 14, 1999 to prevent possible destruction of the equipment during Hurricane Floyd. It was reinstalled on September 28, 1999. 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. Dissolved oxygen, minimum extremes are reported only as <1.0 mg/L. Dissolved oxygen, percent saturation, minimum extremes are reported only as <10%. Salinity and water temperature for October 1961 to September 1967 are available in the files of the District Office, Raleigh, NC.

EXTREMES FOR CURRENT YEAR.--

CONSTITUENT	MAXIMUM RECORDED	MINIMUM RECORDED
SALINITY (TOP), ppt	11.3, September 5	.02, September 11, 12, 13, 28, 29, 30
SALINITY (BOTTOM), ppt	11.4, September 5	.02, September 11, 12, 13, 28, 29, 30
pH (TOP), standard units	9.1, July 19, 20	5.9, September 11, 12, 13, 14
pH (BOTTOM), standard units	8.8, July 2, 3, 4	5.3, September 11, 12, 13
WATER TEMPERATURE (TOP), °C	34.1, July 31	14.4, May 3
WATER TEMPERATURE (BOTTOM), °C	32.6, July 31	14.0, May 2
DISSOLVED OXYGEN (TOP), mg/L	13.8, May 30	1.8, August 15, September 29, 30
DISSOLVED OXYGEN (BOTTOM), mg/L	11.1, July 2	<1.0, July 29, 30, 31
DISSOLVED OXYGEN, PERCENT SATURATION (TOP),%	178, May 30	20, September 29, 30
DISSOLVED OXYGEN, PERCENT SATURATION (BOTTOM),%	146, July 2	< 10, July 30, 31

02084472 PAMLICO RIVER AT WASHINGTON, NC--Continued

SALINITY, TOP, (PARTS PER THOUSAND), PERIOD APRIL 1999 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	---	---	---	.06	.05	.05
2	---	---	---	---	---	---	---	---	---	.12	.05	.06
3	---	---	---	---	---	---	---	---	---	.16	.05	.06
4	---	---	---	---	---	---	---	---	---	.14	.05	.06
5	---	---	---	---	---	---	---	---	---	.05	.05	.05
6	---	---	---	---	---	---	---	---	---	.05	.05	.05
7	---	---	---	---	---	---	---	---	---	.06	.05	.05
8	---	---	---	---	---	---	---	---	---	.05	.05	.05
9	---	---	---	---	---	---	---	---	---	.10	.05	.06
10	---	---	---	---	---	---	---	---	---	1.8	.08	.66
11	---	---	---	---	---	---	---	---	---	1.3	.57	.85
12	---	---	---	---	---	---	---	---	---	1.1	.20	.56
13	---	---	---	---	---	---	---	---	---	1.1	.06	.40
14	---	---	---	---	---	---	---	---	---	1.2	.32	.64
15	---	---	---	---	---	---	.04	.04	.04	1.5	.06	.60
16	---	---	---	---	---	---	.04	.04	.04	1.6	.07	.34
17	---	---	---	---	---	---	.04	.04	.04	2.3	.06	.47
18	---	---	---	---	---	---	.04	.04	.04	---	---	---
19	---	---	---	---	---	---	.07	.04	.04	---	---	---
20	---	---	---	---	---	---	.11	.04	.05	---	---	---
21	---	---	---	---	---	---	.07	.05	.05	.89	.11	.48
22	---	---	---	---	---	---	.05	.05	.05	.72	.10	.35
23	---	---	---	---	---	---	.05	.05	.05	.40	.08	.21
24	---	---	---	---	---	---	.05	.05	.05	.28	.06	.14
25	---	---	---	---	---	---	.05	.05	.05	.56	.07	.23
26	---	---	---	---	---	---	.05	.05	.05	.53	.07	.22
27	---	---	---	---	---	---	.05	.05	.05	3.4	.20	1.2
28	---	---	---	---	---	---	.05	.05	.05	3.7	.90	1.8
29	---	---	---	---	---	---	.16	.05	.07	3.3	.77	1.7
30	---	---	---	---	---	---	.38	.05	.13	2.9	.85	1.7
31	---	---	---	---	---	---	---	---	---	2.6	1.1	1.8
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

SALINITY, TOP, (PARTS PER THOUSAND), PERIOD APRIL 1999 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	2.2	.96	1.5	.88	.19	.46	4.3	2.5	3.2	1.7	.34	1.1
2	1.9	.58	1.1	.87	.15	.45	7.0	2.7	4.4	7.5	1.1	3.7
3	1.7	.24	.71	.77	.11	.30	8.4	4.7	6.4	8.2	4.3	5.8
4	2.2	.62	1.3	.54	.10	.22	8.3	5.0	6.7	10.8	3.9	6.9
5	2.6	1.5	1.9	.60	.09	.29	7.3	4.3	5.8	11.3	3.2	7.1
6	2.0	.71	1.3	1.7	.26	.91	6.5	4.2	5.3	3.3	.58	1.3
7	3.2	.81	1.5	1.8	.53	1.2	6.2	3.9	5.0	.70	.16	.35
8	2.7	1.3	1.8	1.8	.52	1.1	5.0	2.9	3.9	.17	.07	.10
9	2.3	1.4	1.8	1.9	.87	1.4	6.3	3.4	4.8	.08	.03	.05
10	3.8	1.3	2.7	1.7	.74	1.1	6.5	4.9	5.7	.08	.03	.05
11	3.9	2.5	3.3	2.7	.94	1.8	6.2	4.5	5.3	.06	.02	.04
12	3.5	2.0	2.9	3.6	1.7	2.9	6.5	3.8	5.3	.04	.02	.03
13	4.3	2.3	3.4	5.0	1.4	2.8	6.1	4.2	5.2	.03	.02	.03
14	3.9	2.3	3.1	4.8	1.3	3.0	5.4	3.5	4.5	---	---	---
15	4.0	1.9	2.7	4.1	2.0	2.9	5.5	2.8	4.4	---	---	---
16	2.9	.79	1.8	3.7	1.2	2.4	5.6	3.2	4.4	---	---	---
17	3.0	.92	2.0	3.0	1.2	2.0	5.2	3.0	4.1	---	---	---
18	4.1	1.1	2.1	2.2	.61	1.2	4.8	2.1	3.3	---	---	---
19	4.7	1.6	3.4	1.1	.53	.71	5.2	2.8	3.9	---	---	---
20	4.6	1.4	2.7	1.7	.50	.96	4.8	3.0	4.0	---	---	---
21	3.0	.60	1.3	3.1	.75	1.8	5.2	2.9	4.1	---	---	---
22	3.7	.69	1.6	1.9	.55	1.2	6.2	4.3	5.3	---	---	---
23	4.0	1.1	2.2	3.8	.57	1.6	6.4	4.8	5.7	---	---	---
24	2.3	.97	1.6	2.7	.83	1.7	6.3	4.3	5.5	---	---	---
25	1.8	.64	1.2	2.3	.72	1.5	6.1	4.0	5.0	---	---	---
26	1.8	.54	1.2	2.7	.58	1.5	5.7	3.6	4.7	---	---	---
27	1.5	.48	.86	2.8	1.3	2.1	5.8	3.3	4.6	---	---	---
28	.53	.13	.31	2.9	1.2	2.0	5.6	3.7	4.6	---	---	---
29	.61	.13	.35	3.1	1.2	2.2	5.3	3.3	4.4	.02	.02	.02
30	.87	.13	.55	4.0	1.6	2.4	5.2	.43	3.3	.03	.02	.02
31	---	---	---	4.8	1.8	3.5	---	---	---	---	---	---
MONTH	4.7	.13	1.8	5.0	.09	1.6	---	---	---	---	---	---

02084472 PAMLICO RIVER AT WASHINGTON, NC--Continued

SALINITY, BOTTOM, (PARTS PER THOUSAND), PERIOD APRIL 1999 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	---	---	---	.06	.05	.05
2	---	---	---	---	---	---	---	---	---	.46	.05	.06
3	---	---	---	---	---	---	---	---	---	.58	.05	.09
4	---	---	---	---	---	---	---	---	---	.50	.05	.08
5	---	---	---	---	---	---	---	---	---	.05	.04	.05
6	---	---	---	---	---	---	---	---	---	.05	.04	.04
7	---	---	---	---	---	---	---	---	---	.10	.04	.05
8	---	---	---	---	---	---	---	---	---	.05	.04	.04
9	---	---	---	---	---	---	---	---	---	3.4	.05	.87
10	---	---	---	---	---	---	---	---	---	5.8	.87	4.2
11	---	---	---	---	---	---	---	---	---	5.3	.85	2.7
12	---	---	---	---	---	---	---	---	---	3.4	.37	1.1
13	---	---	---	---	---	---	---	---	---	1.8	.14	.91
14	---	---	---	---	---	---	---	---	---	1.3	.42	.70
15	---	---	---	---	---	---	.04	.04	.04	1.8	.05	.68
16	---	---	---	---	---	---	.04	.04	.04	2.3	.10	.73
17	---	---	---	---	---	---	.04	.04	.04	2.9	.14	1.3
18	---	---	---	---	---	---	.04	.04	.04	---	---	---
19	---	---	---	---	---	---	.59	.04	.08	---	---	---
20	---	---	---	---	---	---	.10	.04	.05	---	---	---
21	---	---	---	---	---	---	.06	.04	.05	3.8	.65	2.2
22	---	---	---	---	---	---	.04	.04	.04	3.3	.20	1.3
23	---	---	---	---	---	---	.04	.04	.04	2.9	.08	.74
24	---	---	---	---	---	---	.04	.04	.04	1.0	.05	.21
25	---	---	---	---	---	---	.04	.04	.04	1.6	.05	.54
26	---	---	---	---	---	---	.04	.04	.04	4.9	.05	2.0
27	---	---	---	---	---	---	.05	.04	.05	6.4	.58	4.4
28	---	---	---	---	---	---	.05	.05	.05	6.1	1.5	4.4
29	---	---	---	---	---	---	.20	.05	.07	6.4	1.6	5.1
30	---	---	---	---	---	---	.38	.05	.13	5.5	1.4	3.5
31	---	---	---	---	---	---	---	---	---	4.4	1.6	3.0
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

SALINITY, BOTTOM, (PARTS PER THOUSAND), PERIOD APRIL 1999 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	3.4	1.2	2.4	.89	.22	.48	8.0	3.5	6.1	7.1	.56	6.1
2	3.4	.62	2.0	.95	.17	.48	8.7	3.6	7.0	8.0	1.8	6.6
3	2.3	.30	1.3	.97	.12	.38	9.6	5.8	8.0	9.1	5.0	7.1
4	3.8	.76	2.5	1.2	.12	.40	8.8	5.9	7.8	10.8	4.5	7.9
5	4.8	1.8	3.1	4.4	.12	1.7	8.0	5.0	6.8	11.4	3.5	7.2
6	5.7	1.7	3.8	5.1	.53	3.0	8.1	4.7	6.7	3.6	.74	1.6
7	5.6	1.2	4.3	3.0	.71	1.7	8.4	5.5	7.5	.85	.15	.45
8	5.2	1.5	3.7	3.1	.63	1.7	8.2	4.0	6.8	---	---	---
9	5.2	1.6	3.6	3.4	1.1	2.2	7.8	3.8	6.8	.06	.03	.04
10	5.5	2.2	4.5	3.7	.94	2.0	7.3	5.5	6.5	.09	.03	.05
11	5.0	3.0	3.9	5.3	1.2	3.0	6.5	5.0	5.8	.05	.03	.04
12	4.8	2.7	3.8	6.2	2.5	4.4	6.7	4.5	5.7	.05	.03	.04
13	5.4	2.7	4.2	6.7	2.6	5.7	6.5	4.7	5.7	.04	.03	.03
14	5.0	2.6	3.7	5.4	2.1	4.0	5.8	3.9	5.1	---	---	---
15	4.0	2.3	3.2	5.4	2.5	4.3	5.9	3.3	4.8	---	---	---
16	5.1	2.0	3.3	4.6	1.7	3.5	6.0	3.5	4.9	---	---	---
17	4.4	1.5	3.2	3.7	1.7	2.6	7.2	4.0	5.5	---	---	---
18	5.5	1.6	4.3	3.5	.80	2.1	7.2	3.5	5.8	---	---	---
19	5.5	2.3	4.6	4.5	.61	3.0	7.7	3.4	5.9	---	---	---
20	5.4	1.9	3.5	5.1	.59	3.7	7.6	4.5	6.5	---	---	---
21	4.9	1.1	3.3	5.1	1.7	3.6	7.4	3.2	5.9	---	---	---
22	5.7	2.5	5.1	5.1	1.3	2.9	8.0	5.5	6.9	---	---	---
23	5.9	2.0	5.0	5.8	1.1	4.3	7.0	5.3	6.0	---	---	---
24	6.2	2.3	4.9	5.6	.93	3.0	6.4	4.8	5.6	---	---	---
25	5.2	1.1	2.9	3.7	.94	2.2	6.1	4.3	5.3	---	---	---
26	4.0	.75	2.1	3.8	.90	2.6	6.5	4.4	5.5	---	---	---
27	1.9	.64	1.3	5.2	1.8	3.6	6.2	4.1	5.2	---	---	---
28	1.6	.25	.64	5.6	1.7	4.1	6.3	4.2	5.5	---	---	---
29	1.6	.21	.74	5.8	1.9	4.3	6.1	4.0	5.2	.02	.02	.02
30	1.1	.16	.66	7.9	3.1	6.6	5.9	.98	4.3	.02	.02	.02
31	---	---	---	8.4	4.0	6.8	---	---	---	---	---	---
MONTH	6.2	.16	3.2	8.4	.12	3.0	---	---	---	---	---	---

02084472 PAMLICO RIVER AT WASHINGTON, NC--Continued

PH, TOP, WATER, WHOLE, FIELD, STANDARD UNITS, PERIOD APRIL 1999 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	---	---	---	7.0	6.8	6.9
2	---	---	---	---	---	---	---	---	---	6.9	6.7	6.8
3	---	---	---	---	---	---	---	---	---	6.9	6.7	6.8
4	---	---	---	---	---	---	---	---	---	7.0	6.8	6.9
5	---	---	---	---	---	---	---	---	---	7.0	6.9	6.9
6	---	---	---	---	---	---	---	---	---	7.0	6.9	6.9
7	---	---	---	---	---	---	---	---	---	7.1	6.9	7.0
8	---	---	---	---	---	---	---	---	---	7.2	7.0	7.0
9	---	---	---	---	---	---	---	---	---	7.3	6.9	7.0
10	---	---	---	---	---	---	---	---	---	7.3	6.9	7.0
11	---	---	---	---	---	---	---	---	---	7.5	6.9	7.1
12	---	---	---	---	---	---	---	---	---	7.3	6.9	7.1
13	---	---	---	---	---	---	---	---	---	7.2	6.9	7.1
14	---	---	---	---	---	---	---	---	---	7.1	7.0	7.1
15	---	---	---	---	---	---	6.8	6.7	6.7	7.3	6.9	7.1
16	---	---	---	---	---	---	6.9	6.7	6.8	7.2	6.9	7.0
17	---	---	---	---	---	---	6.8	6.8	6.8	7.2	6.8	6.9
18	---	---	---	---	---	---	6.8	6.7	6.8	7.1	6.8	6.9
19	---	---	---	---	---	---	6.9	6.7	6.8	---	---	---
20	---	---	---	---	---	---	6.9	6.7	6.8	---	---	---
21	---	---	---	---	---	---	6.9	6.8	6.9	6.9	6.8	6.8
22	---	---	---	---	---	---	6.9	6.8	6.9	7.0	6.8	6.9
23	---	---	---	---	---	---	7.0	6.9	6.9	7.1	6.8	7.0
24	---	---	---	---	---	---	7.1	6.9	7.0	7.2	6.9	7.0
25	---	---	---	---	---	---	7.1	6.9	7.0	7.4	6.9	7.1
26	---	---	---	---	---	---	7.1	6.8	6.9	7.1	6.9	7.0
27	---	---	---	---	---	---	7.1	6.9	7.0	7.0	6.5	6.9
28	---	---	---	---	---	---	7.1	7.0	7.1	7.8	6.8	7.0
29	---	---	---	---	---	---	7.2	7.1	7.2	8.5	6.9	7.4
30	---	---	---	---	---	---	7.3	6.9	7.2	8.6	7.0	7.5
31	---	---	---	---	---	---	---	---	---	8.6	7.0	7.6
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

PH, TOP, WATER, WHOLE, FIELD, STANDARD UNITS, PERIOD APRIL 1999 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	8.5	7.0	7.5	8.5	7.1	7.6	8.4	7.3	7.8	7.3	6.9	7.1
2	8.3	6.9	7.4	8.9	7.4	8.2	8.1	7.1	7.6	7.6	7.0	7.3
3	8.2	7.2	7.5	9.0	7.8	8.4	7.8	7.3	7.5	7.5	7.2	7.4
4	8.6	7.1	7.5	9.0	8.0	8.5	7.6	7.3	7.4	7.7	7.1	7.4
5	8.2	7.2	7.6	9.0	7.8	8.4	7.7	7.0	7.3	7.7	6.5	6.9
6	8.1	7.0	7.5	8.8	7.2	7.8	7.7	7.0	7.3	6.6	6.4	6.4
7	8.6	7.0	7.7	8.4	7.1	7.7	7.8	7.1	7.4	6.4	6.3	6.3
8	8.7	6.9	7.7	8.5	7.1	7.8	7.7	7.1	7.3	6.3	6.1	6.2
9	8.7	6.9	7.7	8.4	7.1	7.6	7.2	7.0	7.1	6.2	6.1	6.1
10	8.2	7.1	7.4	8.5	7.2	7.7	8.4	7.0	7.5	6.1	6.0	6.0
11	8.0	7.0	7.2	7.6	6.9	7.2	8.8	7.5	7.8	6.0	5.9	6.0
12	7.3	6.9	7.1	7.1	6.8	6.9	8.5	7.3	7.8	6.0	5.9	6.0
13	7.7	6.8	7.2	7.1	6.7	6.9	8.2	7.5	7.7	6.0	5.9	5.9
14	8.0	6.9	7.4	7.1	6.8	6.9	8.0	7.4	7.7	---	---	---
15	7.4	6.9	7.2	7.8	6.9	7.1	7.9	7.2	7.4	---	---	---
16	7.4	6.9	7.1	8.7	7.0	7.4	7.7	7.3	7.4	---	---	---
17	7.3	6.9	7.0	8.6	7.2	7.8	7.8	7.2	7.4	---	---	---
18	7.8	6.8	7.2	8.5	7.1	7.8	8.1	7.0	7.4	---	---	---
19	8.3	7.0	7.5	9.1	7.3	8.1	8.2	7.1	7.5	---	---	---
20	8.7	7.0	7.5	9.1	7.4	8.2	8.1	7.3	7.6	---	---	---
21	7.3	6.8	7.0	8.5	7.1	7.7	8.3	7.3	7.6	---	---	---
22	8.6	6.8	7.1	8.4	6.9	7.4	8.4	7.4	7.8	---	---	---
23	8.4	6.7	7.1	8.6	6.9	7.5	8.0	7.5	7.7	---	---	---
24	8.6	6.7	7.4	8.4	7.0	7.5	8.0	7.5	7.7	---	---	---
25	8.2	6.7	7.3	8.2	7.0	7.4	7.8	7.5	7.6	---	---	---
26	8.3	6.8	7.2	9.0	7.2	7.8	7.7	7.4	7.5	---	---	---
27	8.5	6.9	7.4	8.8	7.3	7.7	7.9	7.3	7.5	---	---	---
28	7.8	6.9	7.2	8.9	7.3	7.9	8.1	7.4	7.7	---	---	---
29	8.4	6.9	7.4	8.6	7.3	7.8	7.8	7.5	7.6	6.1	6.1	6.1
30	7.7	6.9	7.2	8.9	7.5	8.0	7.6	7.1	7.4	6.1	6.1	6.1
31	---	---	---	8.3	7.3	7.7	---	---	---	---	---	---
MONTH	8.7	6.7	7.3	9.1	6.7	7.7	---	---	---	---	---	---

02084472 PAMLICO RIVER AT WASHINGTON, NC--Continued

PH, BOTTOM, WATER, WHOLE, FIELD, STANDARD UNITS, PERIOD APRIL 1999 TO SEPTEMBER 1999

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

PH, BOTTOM, WATER, WHOLE, FIELD, STANDARD UNITS, PERIOD APRIL 1999 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	7.0	6.6	6.8	8.4	7.3	7.7	7.8	7.3	7.4	7.5	7.1	7.3
2	7.0	6.6	6.8	8.8	7.4	8.0	7.8	7.3	7.5	7.6	7.1	7.4
3	7.1	6.8	6.9	8.8	7.6	8.1	7.8	7.3	7.5	7.5	7.2	7.3
4	7.3	6.7	6.9	8.8	7.4	8.0	7.7	7.3	7.4	7.7	7.1	7.4
5	7.4	6.6	6.9	8.4	6.5	7.2	7.4	7.2	7.3	7.6	6.6	6.9
6	7.3	6.5	6.8	7.9	6.5	6.9	7.3	6.8	7.0	6.6	6.4	6.5
7	7.1	6.5	6.7	7.9	6.8	7.1	7.2	6.7	6.9	6.5	6.3	6.4
8	7.2	6.5	6.7	7.7	6.8	7.1	7.3	6.8	7.0	---	---	---
9	7.2	6.4	6.7	7.8	6.8	7.1	7.2	6.9	7.1	6.2	6.1	6.2
10	7.0	6.4	6.6	8.1	6.8	7.2	7.8	7.0	7.4	6.1	5.4	5.8
11	7.1	6.5	6.8	7.4	6.7	7.0	7.8	7.4	7.6	5.5	5.3	5.4
12	7.1	6.6	6.8	6.9	6.7	6.8	8.0	7.3	7.7	5.4	5.3	5.3
13	7.1	6.8	6.9	7.0	6.7	6.8	7.8	7.3	7.5	5.3	5.3	5.3
14	7.3	6.8	7.0	7.1	6.8	6.9	7.7	7.3	7.4	---	---	---
15	7.3	6.8	7.0	7.1	6.9	7.0	7.6	7.3	7.4	---	---	---
16	6.9	6.6	6.8	8.0	6.9	7.1	7.7	7.3	7.4	---	---	---
17	7.2	6.7	6.9	7.9	7.0	7.3	7.5	6.9	7.2	---	---	---
18	7.3	6.7	6.9	7.5	6.9	7.1	7.1	7.0	7.0	---	---	---
19	7.6	7.0	7.1	7.1	6.8	6.9	7.6	7.0	7.1	---	---	---
20	7.5	7.1	7.2	7.2	6.7	6.8	7.3	7.0	7.1	---	---	---
21	7.3	7.0	7.1	7.4	6.6	6.8	7.6	7.1	7.3	---	---	---
22	7.1	6.7	6.8	7.4	6.8	7.0	7.7	7.3	7.4	---	---	---
23	7.1	6.6	6.7	7.3	6.9	7.1	7.9	7.3	7.6	---	---	---
24	7.0	6.6	6.6	7.8	7.2	7.5	7.8	7.4	7.6	---	---	---
25	7.3	6.5	6.8	8.3	7.4	7.7	7.7	7.4	7.5	---	---	---
26	7.1	6.6	6.9	---	---	---	7.8	7.4	7.6	---	---	---
27	7.4	6.9	7.0	---	---	---	7.9	7.4	7.6	---	---	---
28	7.9	6.8	7.1	---	---	---	7.9	7.5	7.6	---	---	---
29	7.7	6.8	7.0	7.9	7.1	7.4	7.9	7.5	7.6	5.7	5.6	5.6
30	7.9	6.9	7.3	7.9	7.2	7.3	7.7	7.4	7.6	5.7	5.7	5.7
31	---	---	---	7.8	7.2	7.4	---	---	---	---	---	---
MONTH	7.9	6.4	6.9	---	---	---	---	---	---	---	---	---

02084472 PAMLICO RIVER AT WASHINGTON, NC--Continued

TEMPERATURE, TOP, WATER (DEG. C), PERIOD APRIL 1999 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	---	---	---	15.4	14.8	15.1
2	---	---	---	---	---	---	---	---	---	15.1	14.5	14.8
3	---	---	---	---	---	---	---	---	---	16.2	14.4	15.3
4	---	---	---	---	---	---	---	---	---	17.8	15.0	16.0
5	---	---	---	---	---	---	---	---	---	18.7	15.8	17.2
6	---	---	---	---	---	---	---	---	---	19.9	17.5	18.7
7	---	---	---	---	---	---	---	---	---	21.7	18.7	20.4
8	---	---	---	---	---	---	---	---	---	22.9	20.5	21.5
9	---	---	---	---	---	---	---	---	---	24.0	21.5	22.4
10	---	---	---	---	---	---	---	---	---	24.2	21.3	22.5
11	---	---	---	---	---	---	---	---	---	23.4	21.7	22.4
12	---	---	---	---	---	---	---	---	---	22.7	21.7	22.3
13	---	---	---	---	---	---	---	---	---	24.7	22.1	23.1
14	---	---	---	---	---	---	---	---	---	22.9	21.3	22.1
15	---	---	---	---	---	---	18.1	17.2	17.6	21.3	18.9	20.2
16	---	---	---	---	---	---	19.3	17.4	18.1	19.9	19.1	19.5
17	---	---	---	---	---	---	17.9	17.1	17.5	20.7	19.4	20.0
18	---	---	---	---	---	---	18.2	16.9	17.5	22.2	19.7	20.4
19	---	---	---	---	---	---	18.7	17.3	17.9	---	---	---
20	---	---	---	---	---	---	18.5	17.2	17.9	23.0	19.9	21.1
21	---	---	---	---	---	---	19.6	17.5	18.4	23.7	20.4	21.8
22	---	---	---	---	---	---	20.8	18.3	19.5	23.8	21.2	22.4
23	---	---	---	---	---	---	21.0	19.1	20.2	24.6	22.1	23.3
24	---	---	---	---	---	---	20.8	19.5	20.2	24.2	23.1	23.6
25	---	---	---	---	---	---	20.9	19.0	19.9	25.8	23.0	24.2
26	---	---	---	---	---	---	20.9	19.3	20.2	24.2	23.4	23.7
27	---	---	---	---	---	---	21.3	20.2	20.7	24.6	22.8	23.6
28	---	---	---	---	---	---	20.3	18.4	19.3	26.5	22.5	24.3
29	---	---	---	---	---	---	18.5	16.2	17.2	27.7	23.4	25.2
30	---	---	---	---	---	---	16.4	15.3	15.7	28.1	24.4	25.8
31	---	---	---	---	---	---	---	---	---	27.8	24.9	26.2
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

TEMPERATURE, TOP, WATER (DEG. C), PERIOD APRIL 1999 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	27.8	25.3	26.4	28.3	26.5	27.2	33.7	31.5	32.4	23.7	22.4	23.0
2	27.8	25.5	26.5	29.4	27.0	28.1	32.4	30.5	31.7	22.6	21.9	22.2
3	27.6	25.6	26.5	30.6	28.0	28.9	31.3	29.9	30.6	22.7	22.0	22.3
4	27.6	26.1	26.6	31.0	28.6	29.6	30.2	28.5	29.5	22.8	22.5	22.6
5	27.7	25.5	26.4	32.9	29.3	30.7	30.6	28.3	29.4	23.4	22.6	23.0
6	28.1	25.7	26.9	32.7	30.0	31.2	31.9	29.1	29.9	23.3	23.0	23.1
7	29.7	26.4	27.9	32.0	30.0	31.0	32.3	29.2	30.6	24.1	23.3	23.6
8	31.1	26.8	28.4	31.5	29.9	30.7	31.6	30.0	30.8	24.8	23.7	24.2
9	32.1	27.3	29.2	31.9	29.8	30.8	30.7	28.8	29.7	24.7	24.0	24.4
10	30.7	28.4	29.6	31.7	30.0	30.8	29.6	28.1	28.9	24.9	24.0	24.3
11	29.0	27.8	28.4	30.9	28.6	29.6	30.9	28.0	29.1	24.8	23.7	24.1
12	28.1	26.1	26.8	28.8	26.8	27.5	30.5	28.6	29.3	24.0	23.1	23.5
13	28.0	25.3	26.5	26.9	25.6	26.1	31.1	29.0	30.0	23.6	22.9	23.2
14	28.6	26.2	27.4	26.6	25.3	26.1	31.3	29.7	30.4	---	---	---
15	27.7	26.7	27.1	26.3	25.6	26.0	30.6	29.2	29.9	---	---	---
16	26.8	25.2	26.2	28.4	25.4	26.6	30.8	29.4	30.2	---	---	---
17	25.5	24.3	25.0	28.9	26.9	27.8	32.2	29.6	30.6	---	---	---
18	24.8	23.3	24.4	29.0	27.4	28.1	32.4	29.7	30.8	---	---	---
19	24.2	23.3	23.6	30.7	27.6	28.9	33.2	30.0	31.1	---	---	---
20	24.5	23.0	23.6	31.8	28.1	29.8	31.3	29.8	30.3	---	---	---
21	23.9	23.4	23.6	31.1	29.1	29.7	31.5	29.3	30.1	---	---	---
22	23.8	22.8	23.3	31.0	28.4	29.5	31.6	29.1	30.0	---	---	---
23	24.9	22.6	23.5	32.9	28.8	30.4	29.6	28.9	29.3	---	---	---
24	26.3	23.2	24.7	32.9	30.0	30.9	29.0	28.1	28.6	---	---	---
25	26.9	24.0	25.4	31.0	29.2	30.1	28.7	28.1	28.3	---	---	---
26	27.0	24.6	25.6	32.0	29.6	30.6	28.7	27.6	28.1	---	---	---
27	28.5	25.4	26.5	32.2	30.1	30.7	29.1	27.4	28.1	---	---	---
28	27.8	26.1	26.9	33.5	29.9	31.3	30.7	27.5	28.8	---	---	---
29	28.1	26.1	27.0	31.7	30.4	31.0	29.6	28.4	29.1	21.0	20.7	20.9
30	27.5	26.4	26.9	33.3	30.1	31.5	29.0	25.6	27.3	21.3	20.9	21.1
31	---	---	---	34.1	30.8	32.1	---	---	---	---	---	---
MONTH	32.1	22.6	26.2	34.1	25.3	29.5	---	---	---	---	---	---

02084472 PAMLICO RIVER AT WASHINGTON, NC--Continued

TEMPERATURE, BOTTOM, WATER (DEG. C), PERIOD APRIL 1999 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	---	---	---	15.4	14.6	15.1
2	---	---	---	---	---	---	---	---	---	15.1	14.0	14.8
3	---	---	---	---	---	---	---	---	---	15.8	14.4	14.9
4	---	---	---	---	---	---	---	---	---	16.1	14.8	15.3
5	---	---	---	---	---	---	---	---	---	17.6	15.7	16.7
6	---	---	---	---	---	---	---	---	---	19.6	17.5	18.3
7	---	---	---	---	---	---	---	---	---	21.5	18.6	20.0
8	---	---	---	---	---	---	---	---	---	22.1	20.2	21.2
9	---	---	---	---	---	---	---	---	---	21.8	18.4	20.8
10	---	---	---	---	---	---	---	---	---	21.9	17.3	18.7
11	---	---	---	---	---	---	---	---	---	22.5	18.5	20.8
12	---	---	---	---	---	---	---	---	---	22.5	20.2	21.9
13	---	---	---	---	---	---	---	---	---	23.3	21.5	22.3
14	---	---	---	---	---	---	---	---	---	22.8	21.3	22.1
15	---	---	---	---	---	---	17.9	17.1	17.4	21.3	19.2	20.2
16	---	---	---	---	---	---	18.9	17.3	18.0	19.7	18.7	19.3
17	---	---	---	---	---	---	17.8	17.1	17.5	20.4	19.2	19.7
18	---	---	---	---	---	---	18.0	16.6	17.4	20.9	19.5	20.0
19	---	---	---	---	---	---	18.4	17.1	17.7	---	---	---
20	---	---	---	---	---	---	18.4	17.2	17.8	21.7	20.0	20.4
21	---	---	---	---	---	---	19.3	17.3	18.2	21.6	20.5	20.8
22	---	---	---	---	---	---	20.4	18.2	19.2	22.8	21.2	21.7
23	---	---	---	---	---	---	20.8	19.0	20.0	24.1	21.8	22.7
24	---	---	---	---	---	---	20.5	19.5	20.1	23.9	23.0	23.4
25	---	---	---	---	---	---	20.2	18.8	19.4	23.9	23.1	23.4
26	---	---	---	---	---	---	20.6	19.3	20.0	23.9	23.2	23.5
27	---	---	---	---	---	---	21.2	20.1	20.6	24.1	22.8	23.3
28	---	---	---	---	---	---	20.2	18.4	19.2	24.4	23.1	23.5
29	---	---	---	---	---	---	18.5	16.2	17.2	25.9	23.4	24.1
30	---	---	---	---	---	---	16.4	15.3	15.6	26.0	24.2	25.1
31	---	---	---	---	---	---	---	---	---	26.3	25.2	25.7
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

TEMPERATURE, BOTTOM, WATER (DEG. C), PERIOD APRIL 1999 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	26.9	25.6	26.0	28.2	26.5	27.2	32.4	30.4	31.3	24.2	22.5	23.0
2	27.2	25.8	26.2	29.1	27.1	27.8	32.1	30.3	31.0	22.6	21.7	22.1
3	27.0	25.6	26.2	30.2	27.9	28.5	31.3	30.1	30.6	22.6	22.0	22.1
4	26.8	26.1	26.4	30.8	28.5	29.2	30.4	28.9	29.7	22.7	22.5	22.6
5	26.7	25.5	26.1	30.5	29.1	29.5	29.7	28.3	28.9	23.4	22.6	22.9
6	26.6	26.0	26.2	31.7	29.1	30.1	29.9	29.0	29.3	23.3	23.0	23.1
7	27.2	26.3	26.6	31.9	30.0	30.6	30.9	29.2	29.7	24.1	23.2	23.6
8	28.6	26.8	27.2	31.0	29.8	30.3	30.8	29.5	30.2	---	---	---
9	28.6	27.1	27.6	31.4	29.8	30.6	30.7	29.2	30.2	24.5	24.0	24.2
10	29.1	27.3	28.0	31.3	30.0	30.6	29.5	28.2	29.0	24.6	23.9	24.2
11	28.8	27.6	28.1	30.8	28.6	29.8	29.4	28.2	28.7	24.5	23.7	24.0
12	28.1	26.3	27.1	29.5	27.3	28.3	30.0	28.5	29.1	23.8	23.1	23.4
13	27.1	25.5	26.1	28.5	26.0	27.2	31.0	29.3	29.9	23.5	22.8	23.2
14	27.7	26.3	26.8	26.6	25.7	26.1	31.1	29.8	30.3	---	---	---
15	27.7	26.8	27.1	26.1	25.9	26.0	30.4	29.3	29.8	---	---	---
16	26.9	25.6	26.5	27.6	25.8	26.3	30.8	29.5	30.1	---	---	---
17	26.2	24.5	25.3	28.4	26.9	27.3	30.6	29.7	30.1	---	---	---
18	25.1	24.3	24.7	28.6	27.4	27.8	30.5	30.0	30.2	---	---	---
19	24.8	23.5	23.9	28.7	27.9	28.1	31.0	30.0	30.4	---	---	---
20	23.8	22.8	23.4	28.8	28.1	28.4	31.1	30.0	30.4	---	---	---
21	23.8	23.5	23.6	29.5	28.3	28.9	30.5	29.4	30.1	---	---	---
22	23.7	23.5	23.6	29.5	28.6	28.9	30.2	29.7	30.0	---	---	---
23	24.2	23.1	23.4	29.9	28.9	29.2	29.8	28.8	29.3	---	---	---
24	24.9	23.4	23.7	31.2	29.3	30.3	29.0	28.0	28.6	---	---	---
25	25.9	23.7	24.6	30.7	29.4	30.0	28.5	27.8	28.2	---	---	---
26	26.0	24.3	25.2	31.2	29.7	30.4	28.2	27.8	28.0	---	---	---
27	26.9	25.5	25.9	30.9	29.9	30.3	28.6	27.6	28.0	---	---	---
28	27.7	25.9	26.5	31.4	29.9	30.3	29.4	27.8	28.4	---	---	---
29	27.6	26.0	26.6	31.1	29.9	30.5	29.5	28.8	29.0	21.0	20.7	20.9
30	27.5	26.5	26.9	32.0	29.8	30.2	29.0	25.4	27.4	21.3	20.9	21.1
31	---	---	---	32.6	29.8	30.6	---	---	---	---	---	---
MONTH	29.1	22.8	25.9	32.6	25.7	29.0	---	---	---	---	---	---

02084472 PAMLICO RIVER AT WASHINGTON, NC--Continued

OXYGEN DISSOLVED (MG/L), TOP, PERIOD APRIL 1999 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	---	---	---	8.6	7.5	8.0
2	---	---	---	---	---	---	---	---	---	8.3	7.0	7.6
3	---	---	---	---	---	---	---	---	---	7.8	7.0	7.4
4	---	---	---	---	---	---	---	---	---	8.3	7.6	7.9
5	---	---	---	---	---	---	---	---	---	8.4	7.7	8.1
6	---	---	---	---	---	---	---	---	---	8.2	7.8	7.9
7	---	---	---	---	---	---	---	---	---	8.6	7.7	8.1
8	---	---	---	---	---	---	---	---	---	8.7	7.8	8.1
9	---	---	---	---	---	---	---	---	---	9.1	7.4	8.1
10	---	---	---	---	---	---	---	---	---	9.1	7.1	7.9
11	---	---	---	---	---	---	---	---	---	9.8	6.9	8.1
12	---	---	---	---	---	---	---	---	---	8.9	6.9	7.6
13	---	---	---	---	---	---	---	---	---	8.3	6.5	7.3
14	---	---	---	---	---	---	---	---	---	7.6	6.9	7.2
15	---	---	---	---	---	---	7.4	6.5	7.0	8.0	6.4	7.4
16	---	---	---	---	---	---	8.1	6.7	7.4	7.8	7.0	7.3
17	---	---	---	---	---	---	7.7	7.2	7.5	8.3	6.5	7.1
18	---	---	---	---	---	---	7.8	7.2	7.5	7.7	6.5	6.9
19	---	---	---	---	---	---	7.8	7.2	7.5	---	---	---
20	---	---	---	---	---	---	7.8	7.3	7.5	8.3	6.7	7.2
21	---	---	---	---	---	---	8.0	7.5	7.8	8.1	6.7	7.2
22	---	---	---	---	---	---	8.0	7.5	7.7	8.4	6.8	7.5
23	---	---	---	---	---	---	8.3	7.6	7.9	8.9	7.4	8.0
24	---	---	---	---	---	---	8.3	7.8	8.0	8.7	7.6	8.0
25	---	---	---	---	---	---	8.7	7.5	8.0	9.8	7.5	8.4
26	---	---	---	---	---	---	8.4	7.2	7.6	8.8	7.5	8.1
27	---	---	---	---	---	---	8.5	7.2	8.0	8.5	5.1	7.5
28	---	---	---	---	---	---	8.3	7.7	8.1	11.7	6.7	8.3
29	---	---	---	---	---	---	8.8	8.1	8.4	13.1	7.6	9.7
30	---	---	---	---	---	---	9.3	8.1	8.8	13.8	8.2	10.3
31	---	---	---	---	---	---	---	---	---	13.5	8.6	10.7
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

OXYGEN DISSOLVED (MG/L), TOP, PERIOD APRIL 1999 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	13.3	8.6	10.3	10.1	7.1	8.4	---	---	---	5.9	4.7	5.3
2	11.0	7.2	9.1	11.8	7.4	9.6	---	---	---	6.3	5.1	5.7
3	9.0	7.1	7.9	12.4	9.1	10.3	---	---	---	6.0	5.0	5.5
4	9.8	6.4	7.8	12.1	8.7	10.3	---	---	---	6.3	4.6	5.2
5	9.8	7.0	8.3	12.3	8.7	10.4	---	---	---	6.2	3.4	4.7
6	10.5	7.2	9.1	10.8	6.5	8.8	---	---	---	3.7	3.3	3.5
7	12.5	7.4	9.9	10.1	5.8	8.1	8.7	5.4	7.2	3.6	3.0	3.3
8	12.3	7.2	9.9	10.1	6.1	8.3	8.8	6.5	7.7	3.7	3.1	3.4
9	11.3	5.5	8.5	9.6	6.3	7.8	7.2	4.7	5.8	3.7	3.3	3.5
10	9.7	6.7	8.1	9.8	6.7	8.1	8.4	4.3	5.8	3.7	2.8	3.2
11	9.0	5.6	7.0	7.8	4.9	6.2	9.5	5.3	6.6	3.2	2.8	3.0
12	7.8	5.1	6.7	6.1	4.1	5.0	6.9	4.8	5.8	3.1	2.7	2.9
13	8.7	5.0	6.8	6.1	3.5	5.1	4.9	3.2	3.9	3.1	2.9	3.0
14	9.2	5.8	7.6	6.5	4.2	4.9	4.2	2.4	3.3	---	---	---
15	8.1	5.6	6.7	9.7	5.1	6.6	3.5	1.8	2.7	---	---	---
16	8.0	5.1	6.3	12.3	6.3	8.6	4.1	2.4	3.2	---	---	---
17	7.6	5.1	5.8	---	---	---	8.6	2.6	4.9	---	---	---
18	8.7	4.5	6.4	---	---	---	10.9	5.2	7.8	---	---	---
19	9.4	5.5	7.4	---	---	---	10.2	4.6	7.8	---	---	---
20	11.1	5.9	7.9	---	---	---	9.8	5.6	8.1	---	---	---
21	8.1	4.9	6.1	---	---	---	---	---	---	---	---	---
22	11.4	4.8	6.3	10.7	6.1	8.1	---	---	---	---	---	---
23	10.8	4.3	6.8	11.7	5.8	8.5	---	---	---	---	---	---
24	11.8	5.0	8.3	10.4	7.5	8.6	---	---	---	---	---	---
25	11.4	5.2	8.6	10.2	5.9	7.9	---	---	---	---	---	---
26	11.0	6.3	8.3	11.3	6.9	8.8	7.6	5.1	6.0	---	---	---
27	12.2	7.0	9.1	---	---	---	7.5	4.3	5.8	---	---	---
28	10.2	7.3	8.7	---	---	---	8.1	4.6	6.5	---	---	---
29	10.5	6.8	8.3	10.8	5.7	8.3	6.9	4.9	6.0	2.3	1.8	2.0
30	8.8	6.8	7.8	11.4	7.5	9.1	6.0	4.3	5.3	2.0	1.8	1.8
31	---	---	---	10.8	6.4	8.7	---	---	---	---	---	---
MONTH	13.3	4.3	7.9	---	---	---	---	---	---	---	---	---

02084472 PAMLICO RIVER AT WASHINGTON, NC--Continued

OXYGEN DISSOLVED (MG/L), BOTTOM, PERIOD APRIL 1999 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	---	---	---	8.2	7.1	7.7
2	---	---	---	---	---	---	---	---	---	7.9	6.5	7.1
3	---	---	---	---	---	---	---	---	---	7.7	6.5	6.9
4	---	---	---	---	---	---	---	---	---	7.7	7.0	7.3
5	---	---	---	---	---	---	---	---	---	7.7	7.2	7.4
6	---	---	---	---	---	---	---	---	---	7.6	7.0	7.2
7	---	---	---	---	---	---	---	---	---	7.8	7.1	7.4
8	---	---	---	---	---	---	---	---	---	7.9	7.2	7.5
9	---	---	---	---	---	---	---	---	---	7.6	4.4	6.6
10	---	---	---	---	---	---	---	---	---	7.1	4.7	5.5
11	---	---	---	---	---	---	---	---	---	8.3	5.1	6.6
12	---	---	---	---	---	---	---	---	---	8.0	5.9	7.3
13	---	---	---	---	---	---	---	---	---	7.7	6.3	7.0
14	---	---	---	---	---	---	---	---	---	7.6	6.9	7.1
15	---	---	---	---	---	---	7.1	6.5	6.8	7.7	6.3	7.2
16	---	---	---	---	---	---	7.7	6.6	7.2	7.7	6.9	7.3
17	---	---	---	---	---	---	7.4	6.9	7.2	8.4	6.3	7.1
18	---	---	---	---	---	---	7.4	6.9	7.2	7.9	6.3	6.8
19	---	---	---	---	---	---	7.3	6.3	7.1	---	---	---
20	---	---	---	---	---	---	7.4	6.9	7.2	6.9	4.8	5.8
21	---	---	---	---	---	---	7.7	7.2	7.4	6.5	4.9	5.9
22	---	---	---	---	---	---	7.6	7.2	7.3	7.1	5.2	6.3
23	---	---	---	---	---	---	7.9	7.4	7.6	8.0	4.8	6.9
24	---	---	---	---	---	---	8.0	7.5	7.7	7.8	6.5	7.2
25	---	---	---	---	---	---	8.0	7.3	7.5	7.5	6.1	6.9
26	---	---	---	---	---	---	8.0	6.9	7.3	7.4	2.8	5.7
27	---	---	---	---	---	---	8.1	6.8	7.6	6.3	2.1	4.0
28	---	---	---	---	---	---	8.0	7.5	7.8	7.8	4.3	5.6
29	---	---	---	---	---	---	8.6	7.8	8.2	9.8	3.6	5.6
30	---	---	---	---	---	---	8.9	7.8	8.5	9.4	2.8	6.7
31	---	---	---	---	---	---	---	---	---	8.4	3.7	6.8
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

OXYGEN DISSOLVED (MG/L), BOTTOM, PERIOD APRIL 1999 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	8.7	5.1	6.9	9.8	6.9	8.2	7.1	1.1	3.1	5.7	4.1	4.8
2	8.4	4.1	6.9	11.1	7.4	9.2	6.3	1.1	3.0	5.5	4.4	5.0
3	7.8	5.8	7.1	10.8	8.6	9.5	5.2	1.6	3.6	5.4	4.4	4.8
4	8.9	5.1	6.5	10.7	7.4	9.2	5.2	2.9	3.7	7.2	4.3	5.1
5	8.9	4.3	6.4	10.0	2.7	6.5	---	---	---	6.6	3.5	4.9
6	8.8	2.8	5.5	9.4	2.7	5.5	---	---	---	3.6	3.2	3.4
7	7.9	2.9	4.8	8.3	4.8	6.5	6.2	2.4	3.6	3.5	2.8	3.1
8	8.5	3.1	5.2	8.0	3.9	5.8	6.2	1.6	3.6	---	---	---
9	8.3	1.5	4.4	8.3	3.5	5.8	5.9	2.4	3.6	3.6	3.1	3.4
10	7.4	1.3	3.4	8.9	3.9	6.1	6.3	3.3	4.5	3.6	2.7	3.1
11	6.6	1.5	4.3	7.1	2.5	4.8	6.4	4.6	5.3	3.1	2.7	2.9
12	6.2	1.3	3.9	4.8	2.4	3.6	6.1	4.1	5.2	3.0	2.5	2.8
13	6.6	3.6	4.8	5.0	1.7	3.1	5.3	3.5	4.4	3.0	2.8	2.9
14	7.6	3.7	5.3	5.0	3.5	4.4	5.1	2.8	3.9	---	---	---
15	7.6	4.4	5.6	6.1	3.6	4.7	4.5	3.0	3.7	---	---	---
16	5.7	2.6	4.4	9.3	5.0	6.3	4.4	2.7	3.5	---	---	---
17	7.8	3.2	4.7	9.1	6.2	7.6	7.3	2.0	3.5	---	---	---
18	7.4	2.7	4.6	8.6	5.4	6.9	6.5	2.7	4.2	---	---	---
19	8.6	5.3	6.5	7.3	3.6	5.1	7.6	2.7	4.5	---	---	---
20	8.3	6.2	7.0	7.0	2.8	4.1	6.2	2.2	3.6	---	---	---
21	7.9	5.2	6.0	7.9	2.5	4.1	---	---	---	---	---	---
22	6.2	4.2	4.7	8.3	1.3	4.5	---	---	---	---	---	---
23	7.7	3.4	4.2	6.8	1.7	3.5	---	---	---	---	---	---
24	7.6	2.4	3.5	9.2	2.5	6.3	---	---	---	---	---	---
25	9.2	1.2	4.5	10.5	4.1	7.1	---	---	---	---	---	---
26	8.4	2.2	5.9	---	---	---	5.9	3.3	4.8	---	---	---
27	9.2	5.7	7.1	---	---	---	6.6	3.7	5.0	---	---	---
28	9.7	4.9	7.1	---	---	---	6.4	4.0	5.1	---	---	---
29	8.9	4.2	6.5	8.1	.8	3.6	6.3	3.2	4.9	2.5	1.9	2.2
30	8.6	6.0	7.1	7.4	.6	1.7	5.7	3.7	4.9	2.0	1.8	1.9
31	---	---	---	6.9	.7	2.5	---	---	---	---	---	---
MONTH	9.7	1.2	5.5	---	---	---	---	---	---	---	---	---

02084472 PAMLICO RIVER AT WASHINGTON, NC--Continued

OXYGEN DISSOLVED (% OF SATURATION), TOP, PERIOD APRIL 1999 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	---	---	---	87	76	81
2	---	---	---	---	---	---	---	---	---	83	71	76
3	---	---	---	---	---	---	---	---	---	78	70	76
4	---	---	---	---	---	---	---	---	---	86	77	81
5	---	---	---	---	---	---	---	---	---	91	82	85
6	---	---	---	---	---	---	---	---	---	91	83	87
7	---	---	---	---	---	---	---	---	---	98	85	90
8	---	---	---	---	---	---	---	---	---	101	88	92
9	---	---	---	---	---	---	---	---	---	108	86	95
10	---	---	---	---	---	---	---	---	---	109	82	93
11	---	---	---	---	---	---	---	---	---	115	80	94
12	---	---	---	---	---	---	---	---	---	105	80	89
13	---	---	---	---	---	---	---	---	---	100	76	87
14	---	---	---	---	---	---	---	---	---	90	80	83
15	---	---	---	---	---	---	78	69	73	89	73	83
16	---	---	---	---	---	---	88	70	79	87	78	81
17	---	---	---	---	---	---	81	76	79	95	72	79
18	---	---	---	---	---	---	82	75	79	90	73	78
19	---	---	---	---	---	---	84	76	80	---	---	---
20	---	---	---	---	---	---	83	76	80	---	---	---
21	---	---	---	---	---	---	88	80	83	94	74	82
22	---	---	---	---	---	---	91	81	85	99	77	86
23	---	---	---	---	---	---	93	83	88	106	85	94
24	---	---	---	---	---	---	93	86	89	103	88	94
25	---	---	---	---	---	---	99	83	89	119	88	100
26	---	---	---	---	---	---	95	79	85	104	89	95
27	---	---	---	---	---	---	96	79	89	103	62	89
28	---	---	---	---	---	---	92	85	89	145	80	100
29	---	---	---	---	---	---	91	86	89	168	91	120
30	---	---	---	---	---	---	94	82	90	178	99	127
31	---	---	---	---	---	---	---	---	---	173	105	134
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

OXYGEN DISSOLVED (% OF SATURATION), TOP, PERIOD APRIL 1999 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	169	107	129	132	90	108	---	---	---	70	56	63
2	139	89	114	157	95	126	---	---	---	74	59	67
3	114	87	99	168	119	137	---	---	---	72	60	66
4	125	80	98	165	116	138	---	---	---	78	55	63
5	124	88	105	175	117	142	---	---	---	77	42	58
6	133	90	115	150	91	122	---	---	---	44	39	41
7	162	92	127	140	79	111	124	74	100	42	35	39
8	168	91	129	137	82	113	122	90	107	43	36	41
9	156	71	113	132	84	106	100	66	80	44	39	42
10	131	89	109	134	88	109	117	59	80	45	33	38
11	119	73	92	105	65	81	134	72	90	38	33	35
12	99	64	86	77	52	63	97	65	80	37	31	34
13	114	63	87	78	43	63	67	44	54	36	34	35
14	120	75	98	80	52	61	57	32	45	---	---	---
15	105	73	86	121	63	83	47	25	37	---	---	---
16	100	65	79	160	78	109	56	33	44	---	---	---
17	92	63	71	---	---	---	121	35	67	---	---	---
18	109	56	79	---	---	---	153	70	107	---	---	---
19	114	66	90	---	---	---	144	63	108	---	---	---
20	136	71	95	---	---	---	135	78	110	---	---	---
21	98	59	74	---	---	---	---	---	---	---	---	---
22	134	58	75	143	79	106	---	---	---	---	---	---
23	131	50	81	164	79	115	---	---	---	---	---	---
24	148	60	102	145	101	118	---	---	---	---	---	---
25	144	63	106	140	80	107	---	---	---	---	---	---
26	139	76	103	157	93	120	101	69	80	---	---	---
27	157	86	115	---	---	---	101	57	77	---	---	---
28	131	92	111	---	---	---	111	61	87	---	---	---
29	136	87	107	150	78	114	94	67	81	26	20	23
30	113	88	100	161	102	127	81	58	68	22	20	20
31	---	---	---	151	90	123	---	---	---	---	---	---
MONTH	169	50	99	---	---	---	---	---	---	---	---	---

02084472 PAMLICO RIVER AT WASHINGTON, NC--Continued

OXYGEN DISSOLVED (% OF SATURATION), BOTTOM, PERIOD APRIL 1999 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	---	---	---	81	70	76
2	---	---	---	---	---	---	---	---	---	79	65	71
3	---	---	---	---	---	---	---	---	---	76	63	68
4	---	---	---	---	---	---	---	---	---	77	70	73
5	---	---	---	---	---	---	---	---	---	79	75	77
6	---	---	---	---	---	---	---	---	---	81	74	76
7	---	---	---	---	---	---	---	---	---	86	76	81
8	---	---	---	---	---	---	---	---	---	89	80	83
9	---	---	---	---	---	---	---	---	---	86	48	74
10	---	---	---	---	---	---	---	---	---	80	50	60
11	---	---	---	---	---	---	---	---	---	95	56	74
12	---	---	---	---	---	---	---	---	---	92	66	84
13	---	---	---	---	---	---	---	---	---	87	71	79
14	---	---	---	---	---	---	---	---	---	86	78	80
15	---	---	---	---	---	---	73	68	70	83	70	80
16	---	---	---	---	---	---	83	68	75	83	74	79
17	---	---	---	---	---	---	77	72	74	93	68	77
18	---	---	---	---	---	---	77	70	74	90	69	74
19	---	---	---	---	---	---	77	66	74	---	---	---
20	---	---	---	---	---	---	78	72	75	78	54	64
21	---	---	---	---	---	---	82	74	78	73	55	66
22	---	---	---	---	---	---	84	76	79	82	60	72
23	---	---	---	---	---	---	87	79	83	93	55	80
24	---	---	---	---	---	---	87	82	84	91	75	85
25	---	---	---	---	---	---	87	78	82	89	71	80
26	---	---	---	---	---	---	88	75	80	87	34	68
27	---	---	---	---	---	---	90	74	84	75	25	48
28	---	---	---	---	---	---	87	81	84	96	52	68
29	---	---	---	---	---	---	87	82	85	120	43	68
30	---	---	---	---	---	---	89	77	85	115	35	82
31	---	---	---	---	---	---	---	---	---	103	47	84
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

OXYGEN DISSOLVED (% OF SATURATION), BOTTOM, PERIOD APRIL 1999 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	109	64	85	127	88	105	100	15	44	68	50	58
2	106	51	86	146	95	120	89	16	42	67	53	61
3	98	73	88	144	112	125	72	22	50	65	53	57
4	111	64	81	142	101	122	72	40	51	88	51	63
5	111	53	80	135	37	87	---	---	---	82	42	60
6	110	35	69	130	37	74	---	---	---	42	38	40
7	100	37	60	116	65	89	87	33	50	42	34	37
8	113	40	67	108	54	79	85	22	50	---	---	---
9	110	21	58	113	48	78	82	34	50	43	37	40
10	98	17	45	121	54	82	87	47	61	43	32	37
11	88	19	57	96	33	64	88	62	72	37	32	34
12	82	17	51	62	32	47	84	55	71	35	30	33
13	85	45	61	64	21	40	75	49	61	35	33	34
14	99	48	69	62	44	55	72	38	54	---	---	---
15	99	59	73	76	46	59	63	41	51	---	---	---
16	71	33	56	119	63	79	62	38	49	---	---	---
17	95	41	58	119	78	97	100	28	49	---	---	---
18	93	34	57	110	70	88	89	38	59	---	---	---
19	104	66	80	93	47	66	105	37	63	---	---	---
20	101	74	84	91	38	53	87	31	50	---	---	---
21	95	63	72	106	34	55	---	---	---	---	---	---
22	74	51	57	111	19	60	---	---	---	---	---	---
23	94	42	51	91	24	48	---	---	---	---	---	---
24	93	30	43	126	35	87	---	---	---	---	---	---
25	113	16	55	145	58	98	---	---	---	---	---	---
26	105	26	73	---	---	---	79	44	65	---	---	---
27	116	71	89	---	---	---	89	50	67	---	---	---
28	124	62	90	---	---	---	87	54	69	---	---	---
29	115	55	83	111	11	49	85	44	66	28	21	24
30	111	76	91	104	7	23	77	50	63	23	20	21
31	---	---	---	98	9	35	---	---	---	---	---	---
MONTH	124	16	69	---	---	---	---	---	---	---	---	---



A country church surrounded by the floodwaters of the Black River near Tomahawk, N.C., September 1999.

0208453300 PAMLICO RIVER AT LIGHT 5

LOCATION.--Lat 35°28'48", long 76°50'30", Beaufort County, Hydrologic Unit 03020104, on U.S. Coast Guard Channel Light 5.

PERIOD OF RECORD.--Water years 1989 to 1992, May to September 1999.

PERIOD OF DAILY RECORD.--

SALINITY (TOP AND BOTTOM): May 1989 to September 1992, May to September 1999.

pH (TOP AND BOTTOM): May to September 1999.

WATER TEMPERATURE (TOP): May 1989 to September 1992, May to September 1999.

WATER TEMPERATURE (BOTTOM): May to September 1999.

DISSOLVED OXYGEN (TOP AND BOTTOM) : May 1989 to September 1992, May to September 1999.

DISSOLVED OXYGEN (MID): May 1989 to September 1992.

DISSOLVED OXYGEN, PERCENT SATURATION (TOP AND BOTTOM): May 1989 to September 1992, May to September 1999.

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 to September 1999. 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. 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. 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
SALINITY (TOP), ppt	13.6, December 6, 1991	0.1 March 18, 21, 1990
SALINITY (BOTTOM), ppt	16.9, November 5, 1991	<0.1 April 12, 1990
pH (TOP), standard units	9.0, July 16, August 28, 1999	6.6, September 14, 1999
pH (BOTTOM), standard units	8.7, August 21, 1999	6.3, May 26, 27, 1999
WATER TEMPERATURE (TOP), °C	33.1, July 31, 1999	0.0, December 3, 1989
WATER TEMPERATURE (BOTTOM), °C	30.5, July 24, 1999	20.6, May 26, 1999
DISSOLVED OXYGEN (TOP), mg/L	18.5, February 5, 1991	1.1 September 14, 1999
DISSOLVED OXYGEN (BOTTOM), mg/L	18.6, January 5, 1992	<1.0 mg/L, many days during the period

0208453300 PAMLICO RIVER AT LIGHT 5--Continued

EXTREMES FOR CURRENT YEAR.--

CONSTITUENT	MAXIMUM RECORDED	MINIMUM RECORDED
SALINITY (TOP), ppt	13.0, August 10, 11, 12, 28	1.0, September 14
SALINITY (BOTTOM), ppt	16.6, August 2, 3	5.3, September 10
pH (TOP), standard units	9.0, July 16, August 28	6.6, September 14
pH (BOTTOM), standard units	8.7, August 21	6.3, May 26, 27
WATER TEMPERATURE (TOP), C	33.1, July 31	22.0, May 28
WATER TEMPERATURE (BOTTOM), C	30.5, July 24	20.6, May 26
DISSOLVED OXYGEN (TOP), mg/L	12.7, July 16	1.1, September 14
DISSOLVED OXYGEN (BOTTOM), mg/L	9.4, June 20	<1.0 mg/L, many days during the period
DISSOLVED OXYGEN, PERCENT SATURATION (TOP),%	171, July 16	14, September 14
DISSOLVED OXYGEN, PERCENT SATURATION (BOTTOM),%	124, August 21	<10%, many days during the period

SALINITY (PARTS PER THOUSAND), TOP, PERIOD MAY 1999 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	8.4	7.5	8.0
28	---	---	---	---	---	---	---	---	---	8.4	6.9	7.6
29	---	---	---	---	---	---	---	---	---	8.5	7.4	8.1
30	---	---	---	---	---	---	---	---	---	8.9	8.2	8.7
31	---	---	---	---	---	---	---	---	---	9.1	8.6	8.9
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

0208453300 PAMLICO RIVER AT LIGHT 5--Continued

SALINITY (PARTS PER THOUSAND), TOP, PERIOD MAY 1999 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	9.0	5.0	8.8	9.3	7.7	8.4	9.7	9.0	9.3	---	---	---
2	9.2	7.0	8.9	9.3	8.2	8.7	10.9	9.4	9.9	---	---	---
3	9.2	8.6	9.0	9.2	8.3	8.6	12.2	9.8	10.9	---	---	---
4	---	---	---	8.9	8.2	8.5	12.2	10.8	11.6	---	---	---
5	---	---	---	8.5	6.0	8.0	11.7	10.7	11.2	---	---	---
6	---	---	---	9.0	5.3	8.1	12.4	10.7	11.5	---	---	---
7	---	---	---	8.8	6.6	8.2	12.2	11.5	11.7	---	---	---
8	---	---	---	8.9	6.4	8.5	12.6	11.8	12.1	---	---	---
9	---	---	---	9.4	6.0	8.9	12.9	12.1	12.5	---	---	---
10	9.9	8.3	9.2	9.9	6.1	8.9	13.0	12.4	12.7	---	---	---
11	10.1	8.7	9.8	10.1	8.4	9.7	13.0	12.2	12.5	9.0	1.9	4.7
12	9.8	9.4	9.6	10.2	9.9	10.1	13.0	12.2	12.6	10.9	2.1	7.4
13	9.8	7.9	9.5	10.1	9.7	10.0	12.7	12.2	12.5	9.0	1.4	5.5
14	9.9	7.0	9.5	10.2	9.5	9.8	12.4	12.0	12.2	---	---	---
15	9.8	8.7	9.5	9.8	9.6	9.7	12.3	11.7	12.1	---	---	---
16	9.5	9.1	9.3	10.0	9.5	9.7	12.2	11.5	11.9	---	---	---
17	9.6	9.3	9.5	9.7	9.3	9.6	12.1	11.6	11.7	---	---	---
18	9.9	9.4	9.6	9.7	9.2	9.4	12.5	11.4	12.0	---	---	---
19	10.2	9.7	10.0	9.4	9.0	9.2	12.8	12.2	12.4	---	---	---
20	10.0	9.3	9.7	9.5	8.6	8.9	12.7	12.2	12.4	---	---	---
21	9.8	9.3	9.5	9.5	6.8	8.5	12.5	11.8	12.2	---	---	---
22	9.9	9.1	9.5	9.7	9.0	9.2	13.0	12.2	12.5	---	---	---
23	9.9	9.1	9.6	9.3	8.4	8.9	13.0	12.4	12.6	---	---	---
24	9.8	9.2	9.6	9.7	8.7	9.1	12.9	12.3	12.6	---	---	---
25	9.8	8.8	9.2	9.8	8.9	9.2	12.8	12.4	12.6	---	---	---
26	9.7	8.3	8.8	9.6	8.9	9.2	12.9	12.5	12.6	---	---	---
27	9.0	8.2	8.4	9.5	8.8	9.1	12.8	12.4	12.6	---	---	---
28	8.4	8.1	8.2	9.5	8.5	8.9	13.0	12.2	12.6	---	---	---
29	8.4	7.6	7.9	9.7	8.7	9.2	---	---	---	---	---	---
30	8.5	7.8	8.0	9.5	8.8	9.2	---	---	---	---	---	---
31	---	---	---	9.7	8.8	9.2	---	---	---	---	---	---
MONTH	---	---	---	10.2	5.3	9.1	---	---	---	---	---	---

SALINITY (PARTS PER THOUSAND), BOTTOM, PERIOD MAY 1999 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	13.4	8.0	11.4
28	---	---	---	---	---	---	---	---	---	13.1	9.5	11.9
29	---	---	---	---	---	---	---	---	---	12.8	9.1	11.2
30	---	---	---	---	---	---	---	---	---	12.1	8.8	10.1
31	---	---	---	---	---	---	---	---	---	11.9	9.0	10.1
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

0208453300 PAMLICO RIVER AT LIGHT 5--Continued

SALINITY (PARTS PER THOUSAND), BOTTOM, PERIOD MAY 1999 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	11.3	9.0	9.9	10.2	7.9	9.3	16.0	13.9	15.1	---	---	---
2	11.2	9.2	10.0	9.7	8.6	9.1	16.6	15.9	16.2	---	---	---
3	10.3	9.2	9.5	9.8	8.1	9.1	16.6	12.2	15.4	---	---	---
4	10.3	9.0	9.5	9.9	8.6	9.1	15.1	13.0	13.7	---	---	---
5	10.4	9.4	9.6	11.1	8.6	10.0	16.2	12.5	14.2	---	---	---
6	10.5	8.8	9.6	11.1	9.2	10.5	15.1	12.3	13.6	---	---	---
7	10.7	9.4	10.1	11.1	8.9	10.4	15.5	13.3	14.5	---	---	---
8	10.5	9.3	9.8	12.0	8.6	10.9	14.2	12.4	13.5	---	---	---
9	10.3	8.8	9.7	12.0	9.4	11.5	13.5	12.2	12.7	---	---	---
10	10.3	9.4	9.9	11.8	9.7	10.4	14.5	12.6	13.4	---	---	---
11	10.0	9.5	9.8	10.3	9.8	10.0	13.6	12.5	12.9	12.7	10.2	11.8
12	10.0	9.4	9.5	10.2	9.9	10.1	13.1	12.4	12.7	12.5	9.3	11.2
13	9.8	9.4	9.6	10.4	9.8	10.0	12.7	12.3	12.6	12.4	9.8	11.5
14	10.0	9.5	9.7	10.3	9.5	9.8	12.7	12.2	12.4	---	---	---
15	10.0	9.4	9.8	9.9	9.6	9.8	12.4	12.0	12.3	---	---	---
16	9.9	9.1	9.4	9.9	9.5	9.7	12.4	11.9	12.2	---	---	---
17	10.0	9.3	9.6	9.7	9.4	9.6	12.5	12.0	12.3	---	---	---
18	10.2	9.5	9.7	10.0	9.3	9.6	13.2	11.7	12.4	---	---	---
19	10.3	9.9	10.1	10.2	9.4	9.8	13.3	12.2	12.8	---	---	---
20	10.1	9.5	9.8	11.8	9.2	10.3	14.1	12.3	13.2	---	---	---
21	9.8	9.4	9.6	12.0	9.8	11.2	13.9	12.1	12.9	---	---	---
22	9.9	9.1	9.6	12.9	9.5	10.9	13.7	12.4	13.2	---	---	---
23	9.9	9.4	9.7	13.7	10.5	12.7	13.5	12.4	12.9	---	---	---
24	10.2	9.5	9.8	12.6	9.3	11.2	12.9	12.3	12.6	---	---	---
25	9.9	9.0	9.5	14.0	9.7	11.8	12.8	12.2	12.5	---	---	---
26	9.8	8.9	9.5	14.1	9.2	12.0	12.8	12.2	12.6	---	---	---
27	10.0	8.9	9.6	13.4	11.9	13.1	12.8	12.6	12.6	---	---	---
28	9.9	8.3	9.5	13.4	12.9	13.3	13.0	12.6	12.8	---	---	---
29	10.1	7.8	9.0	13.7	10.4	13.0	---	---	---	---	---	---
30	10.1	8.2	9.5	14.7	13.0	14.1	---	---	---	---	---	---
31	---	---	---	15.2	14.2	14.7	---	---	---	---	---	---
MONTH	11.3	7.8	9.7	15.2	7.9	10.9	---	---	---	---	---	---

PH, WATER, WHOLE, FIELD, STANDARD UNITS, TOP, PERIOD MAY 1999 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	7.9	7.3	7.6
28	---	---	---	---	---	---	---	---	---	8.0	7.3	7.7
29	---	---	---	---	---	---	---	---	---	8.2	7.2	7.7
30	---	---	---	---	---	---	---	---	---	8.1	7.4	7.7
31	---	---	---	---	---	---	---	---	---	7.9	7.1	7.5
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

0208453300 PAMLICO RIVER AT LIGHT 5--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, TOP, PERIOD MAY 1999 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	7.8	7.4	7.6	8.3	7.4	7.9	8.8	8.4	8.6	---	---	---
2	7.9	7.3	7.6	8.3	7.6	7.9	8.4	8.2	8.3	---	---	---
3	7.8	7.2	7.5	8.6	7.6	8.1	8.4	7.9	8.2	---	---	---
4	---	---	---	8.8	8.0	8.4	8.1	7.8	7.9	---	---	---
5	---	---	---	8.8	8.2	8.5	8.6	7.6	8.0	---	---	---
6	---	---	---	8.9	8.2	8.5	8.5	7.7	8.2	---	---	---
7	---	---	---	8.7	7.9	8.4	8.5	8.2	8.3	---	---	---
8	---	---	---	8.8	7.8	8.4	8.4	8.1	8.2	---	---	---
9	---	---	---	8.8	8.3	8.5	8.1	7.8	8.0	---	---	---
10	8.4	7.6	8.1	8.5	8.0	8.2	8.5	7.9	8.1	---	---	---
11	8.0	7.5	7.7	8.2	7.8	8.0	8.5	7.9	8.2	7.4	6.7	7.0
12	7.8	7.4	7.6	7.9	7.6	7.8	8.5	7.9	8.2	7.4	6.8	7.0
13	8.0	7.3	7.6	7.8	7.4	7.6	8.4	8.1	8.2	6.9	6.7	6.8
14	7.8	7.2	7.4	8.3	7.4	7.7	8.3	8.0	8.2	---	---	---
15	8.1	7.1	7.5	8.2	7.7	7.9	8.6	7.9	8.2	---	---	---
16	7.4	7.2	7.3	9.0	7.9	8.3	8.4	7.9	8.1	---	---	---
17	7.4	7.2	7.3	8.6	8.0	8.4	8.5	7.8	8.2	---	---	---
18	7.5	7.2	7.3	8.5	7.9	8.3	8.3	7.9	8.1	---	---	---
19	7.4	7.3	7.4	8.8	7.7	8.4	8.4	7.7	8.1	---	---	---
20	8.0	7.3	7.6	8.8	8.0	8.5	8.5	8.1	8.2	---	---	---
21	8.1	7.4	7.8	8.7	8.2	8.5	8.6	7.9	8.3	---	---	---
22	8.2	7.5	7.8	8.4	7.7	8.2	8.8	8.2	8.4	---	---	---
23	8.3	7.7	8.0	8.6	8.2	8.3	8.6	7.9	8.3	---	---	---
24	8.2	7.6	8.0	8.6	7.9	8.3	8.5	8.0	8.3	---	---	---
25	8.2	7.7	8.0	8.4	7.5	8.2	8.5	8.2	8.4	---	---	---
26	8.2	7.5	7.9	8.5	8.0	8.3	9.0	8.1	8.6	---	---	---
27	8.6	7.6	8.2	8.8	7.8	8.3	8.9	8.5	8.7	---	---	---
28	8.5	8.2	8.3	8.8	7.8	8.5	9.0	8.5	8.7	---	---	---
29	8.5	8.0	8.3	8.7	7.9	8.4	---	---	---	---	---	---
30	8.3	7.7	8.1	8.7	8.1	8.5	---	---	---	---	---	---
31	---	---	---	8.7	8.3	8.5	---	---	---	---	---	---
MONTH	---	---	---	9.0	7.4	8.2	---	---	---	---	---	---

PH, WATER, WHOLE, FIELD, STANDARD UNITS, BOTTOM, MAY 1999 TO SEPTEMBER 1999

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

0208453300 PAMLICO RIVER AT LIGHT 5--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, BOTTOM, MAY 1999 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	7.3	6.6	6.9	8.0	6.9	7.3	7.6	7.5	7.5	---	---	---
2	7.4	6.6	7.0	7.9	7.1	7.5	7.6	7.6	7.6	---	---	---
3	7.5	6.8	7.2	8.0	7.2	7.4	8.3	7.5	7.7	---	---	---
4	7.7	6.8	7.2	8.3	6.9	7.5	8.3	7.6	8.1	---	---	---
5	7.8	6.8	7.3	7.9	6.8	6.9	8.5	7.4	7.9	---	---	---
6	7.6	6.8	7.3	7.8	6.6	6.9	8.3	7.1	7.7	---	---	---
7	7.4	6.8	7.1	7.5	6.6	6.8	7.6	7.1	7.3	---	---	---
8	7.8	6.9	7.2	7.8	6.6	6.8	8.3	7.2	7.6	---	---	---
9	7.6	7.0	7.2	7.3	6.8	6.9	8.2	7.4	7.9	---	---	---
10	7.6	7.0	7.2	7.8	6.8	7.3	8.3	7.4	7.8	---	---	---
11	8.0	7.5	7.7	7.9	7.3	7.7	8.2	7.3	7.8	7.2	7.0	7.1
12	7.8	7.4	7.6	7.8	7.6	7.6	8.1	7.7	7.9	7.2	7.0	7.0
13	7.6	7.2	7.4	7.6	7.3	7.5	8.2	7.8	7.9	7.1	7.0	7.0
14	7.4	7.2	7.3	8.2	7.3	7.6	8.0	7.6	7.8	---	---	---
15	7.4	7.0	7.2	8.2	7.7	7.9	8.2	7.7	7.9	---	---	---
16	7.5	7.0	7.3	8.4	7.9	8.1	8.1	7.8	7.9	---	---	---
17	7.4	7.2	7.3	8.4	7.9	8.2	7.9	7.6	7.8	---	---	---
18	7.6	7.2	7.4	8.3	7.4	8.0	8.2	7.6	7.9	---	---	---
19	7.5	7.3	7.4	8.2	7.4	7.8	8.2	7.7	7.9	---	---	---
20	8.1	7.2	7.5	8.4	7.3	7.7	8.4	7.6	7.8	---	---	---
21	8.2	7.4	7.8	7.8	7.3	7.4	8.7	7.6	8.0	---	---	---
22	8.0	7.6	7.8	8.1	6.8	7.1	8.4	7.6	7.9	---	---	---
23	8.3	7.4	7.8	7.1	6.8	6.9	8.4	7.8	8.0	---	---	---
24	8.0	7.4	7.7	8.2	6.8	7.0	8.4	8.0	8.2	---	---	---
25	7.8	7.0	7.4	7.6	6.8	7.1	8.4	8.0	8.2	---	---	---
26	7.6	6.9	7.2	7.9	6.9	7.2	8.5	7.9	8.2	---	---	---
27	7.4	7.0	7.1	7.0	6.9	7.0	8.4	8.2	8.3	---	---	---
28	8.1	6.9	7.1	7.1	7.0	7.1	8.4	8.2	8.3	---	---	---
29	8.0	6.9	7.3	7.4	7.0	7.3	---	---	---	---	---	---
30	7.6	6.8	7.0	7.5	7.4	7.5	---	---	---	---	---	---
31	---	---	---	7.5	7.5	7.5	---	---	---	---	---	---
MONTH	8.3	6.6	7.3	8.4	6.6	7.4	---	---	---	---	---	---

TEMPERATURE, WATER (DEG. C), TOP, PERIOD MAY 1999 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	23.6	22.4	23.0
28	---	---	---	---	---	---	---	---	---	25.1	22.0	23.5
29	---	---	---	---	---	---	---	---	---	25.5	23.0	24.1
30	---	---	---	---	---	---	---	---	---	26.3	23.6	24.6
31	---	---	---	---	---	---	---	---	---	26.7	24.0	25.1
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

0208453300 PAMLICO RIVER AT LIGHT 5--Continued

TEMPERATURE, WATER (DEG. C), TOP, PERIOD MAY 1999 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	26.2	24.4	25.2	27.6	26.6	27.1	32.6	30.6	31.4	---	---	---
2	25.9	24.6	25.2	28.3	26.8	27.4	31.3	30.1	30.7	---	---	---
3	26.0	24.5	25.2	29.8	27.2	28.0	30.5	29.1	29.4	---	---	---
4	---	---	---	29.9	27.7	28.7	29.2	27.7	28.2	---	---	---
5	---	---	---	31.7	28.4	29.8	30.5	26.6	28.4	---	---	---
6	---	---	---	31.6	29.6	30.5	30.8	27.7	29.0	---	---	---
7	---	---	---	30.7	29.1	30.0	30.7	28.7	29.4	---	---	---
8	---	---	---	30.3	28.9	29.6	30.6	28.8	29.4	---	---	---
9	---	---	---	30.3	28.9	29.6	29.1	28.0	28.6	---	---	---
10	29.6	27.3	28.2	30.5	28.8	29.4	28.6	27.6	27.9	---	---	---
11	27.5	26.7	27.1	29.7	27.8	28.7	28.9	27.3	27.9	25.7	24.4	25.0
12	26.9	25.5	26.1	27.9	26.7	27.3	29.1	27.2	28.1	25.5	24.2	25.0
13	27.5	25.2	25.9	26.7	25.9	26.3	29.6	28.2	28.7	25.3	23.8	24.7
14	27.5	25.4	26.2	26.6	25.6	26.0	29.7	28.7	29.1	---	---	---
15	26.8	25.8	26.3	26.3	25.7	26.0	30.6	28.1	29.1	---	---	---
16	26.3	25.4	25.8	28.7	25.6	26.6	31.0	28.6	29.4	---	---	---
17	25.4	24.6	25.0	28.2	26.2	27.0	31.3	28.8	29.6	---	---	---
18	24.6	24.0	24.3	28.2	26.8	27.5	32.4	29.1	30.5	---	---	---
19	24.0	23.1	23.5	29.3	27.3	28.3	32.2	29.5	30.4	---	---	---
20	24.0	22.8	23.4	30.8	27.8	29.1	30.7	29.6	30.3	---	---	---
21	24.0	23.3	23.7	30.0	29.0	29.5	31.2	29.1	29.9	---	---	---
22	23.8	23.3	23.5	31.8	28.8	29.9	30.7	28.7	29.6	---	---	---
23	24.0	22.9	23.4	32.8	30.0	31.2	29.5	28.2	28.7	---	---	---
24	24.8	23.1	23.9	32.6	30.1	31.0	28.6	28.0	28.3	---	---	---
25	25.2	23.8	24.5	31.1	28.8	30.1	28.4	27.9	28.1	---	---	---
26	26.1	24.2	25.1	31.0	29.3	30.2	28.8	27.8	28.0	---	---	---
27	27.4	24.9	25.9	31.4	29.5	30.2	28.9	27.6	28.0	---	---	---
28	27.3	26.3	26.7	32.9	29.4	30.7	29.4	27.7	28.4	---	---	---
29	27.9	26.5	27.1	31.0	29.8	30.4	---	---	---	---	---	---
30	27.4	27.0	27.2	32.2	29.4	30.6	---	---	---	---	---	---
31	---	---	---	33.1	30.5	31.3	---	---	---	---	---	---
MONTH	---	---	---	33.1	25.6	29.0	---	---	---	---	---	---

TEMPERATURE, WATER (DEG. C), BOTTOM, PERIOD MAY 1999 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	23.0	20.7	21.6
28	---	---	---	---	---	---	---	---	---	22.7	21.2	21.8
29	---	---	---	---	---	---	---	---	---	23.7	21.5	22.3
30	---	---	---	---	---	---	---	---	---	24.0	22.0	23.2
31	---	---	---	---	---	---	---	---	---	24.7	22.2	23.5
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

0208453300 PAMLICO RIVER AT LIGHT 5--Continued

TEMPERATURE, WATER (DEG. C), BOTTOM, PERIOD MAY 1999 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	24.7	22.8	23.8	27.4	25.7	26.5	29.4	28.8	29.0	---	---	---
2	25.3	22.9	24.2	27.9	26.7	27.1	29.2	28.9	29.0	---	---	---
3	25.5	24.2	24.8	28.2	26.9	27.3	29.6	29.1	29.2	---	---	---
4	25.7	24.2	25.0	28.7	27.0	27.6	29.6	28.1	28.6	---	---	---
5	25.5	24.3	24.9	28.6	26.8	27.1	28.8	26.8	28.2	---	---	---
6	25.6	24.6	25.1	29.1	26.9	27.4	28.5	27.7	28.2	---	---	---
7	26.7	24.5	25.3	29.4	27.1	27.9	28.8	28.3	28.4	---	---	---
8	27.5	25.2	26.1	29.6	27.6	28.1	30.2	28.4	28.8	---	---	---
9	27.5	25.6	26.3	29.2	27.8	28.0	29.2	28.0	28.7	---	---	---
10	27.7	25.8	26.7	30.0	27.9	29.0	28.3	27.6	28.0	---	---	---
11	27.5	26.6	27.0	29.7	27.8	28.7	28.0	27.3	27.7	24.1	23.7	23.8
12	26.9	25.4	26.1	27.8	26.7	27.3	28.5	27.1	27.8	24.7	23.8	24.0
13	26.0	24.5	25.4	26.7	25.8	26.3	28.8	28.2	28.4	24.5	23.8	24.0
14	26.1	25.5	25.7	26.4	25.6	25.9	29.3	28.3	28.8	---	---	---
15	26.1	25.5	25.8	26.2	25.9	26.0	29.3	28.1	28.7	---	---	---
16	25.9	25.4	25.7	26.5	25.5	25.9	29.3	28.5	28.8	---	---	---
17	25.4	24.6	25.0	27.3	26.2	26.7	29.2	28.8	29.0	---	---	---
18	24.6	24.0	24.3	27.9	26.9	27.1	29.4	28.7	29.1	---	---	---
19	24.0	23.0	23.4	28.1	27.0	27.4	29.9	29.1	29.4	---	---	---
20	23.9	22.8	23.2	28.5	26.8	27.4	29.9	29.0	29.3	---	---	---
21	24.0	23.2	23.6	28.6	27.0	27.3	30.5	29.0	29.4	---	---	---
22	23.7	23.3	23.5	28.9	26.9	27.7	30.0	28.4	28.8	---	---	---
23	24.0	22.9	23.3	28.9	26.9	27.2	29.0	28.2	28.7	---	---	---
24	24.8	23.5	23.8	30.5	27.4	28.4	28.5	27.9	28.2	---	---	---
25	24.7	23.9	24.3	29.7	27.5	28.3	28.1	27.7	28.0	---	---	---
26	25.2	23.9	24.6	29.5	27.7	28.5	28.0	27.8	27.8	---	---	---
27	25.3	24.6	24.8	28.9	28.2	28.3	28.1	27.5	27.8	---	---	---
28	27.1	24.8	25.3	28.6	28.2	28.2	28.3	27.7	27.9	---	---	---
29	27.4	25.1	26.0	30.0	28.3	28.5	---	---	---	---	---	---
30	27.1	25.2	25.9	29.0	28.6	28.8	---	---	---	---	---	---
31	---	---	---	29.0	28.8	28.9	---	---	---	---	---	---
MONTH	27.7	22.8	25.0	30.5	25.5	27.6	---	---	---	---	---	---

OXYGEN DISSOLVED (MG/L), TOP, PERIOD MAY 1999 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	8.9	7.2	8.1
28	---	---	---	---	---	---	---	---	---	9.1	7.4	8.4
29	---	---	---	---	---	---	---	---	---	9.3	6.6	8.4
30	---	---	---	---	---	---	---	---	---	8.9	7.6	8.2
31	---	---	---	---	---	---	---	---	---	9.0	6.2	7.8
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

0208453300 PAMLICO RIVER AT LIGHT 5--Continued

OXYGEN DISSOLVED (MG/L), TOP, PERIOD MAY 1999 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	8.5	7.1	8.0	7.9	5.2	6.7	8.0	5.6	6.6	---	---	---
2	8.2	7.0	7.6	8.1	6.3	7.1	6.7	5.0	5.9	---	---	---
3	7.6	6.1	6.9	8.9	5.8	7.5	6.3	4.7	5.6	---	---	---
4	---	---	---	9.1	6.9	8.0	6.0	4.8	5.2	---	---	---
5	---	---	---	9.7	7.3	8.5	8.5	4.3	5.9	---	---	---
6	---	---	---	10.5	7.2	8.8	10.4	4.4	7.4	---	---	---
7	---	---	---	9.2	7.0	8.3	9.7	7.5	8.4	---	---	---
8	---	---	---	8.5	6.3	7.3	8.4	6.4	7.2	---	---	---
9	---	---	---	8.3	5.3	6.9	6.4	5.2	5.7	---	---	---
10	8.9	6.3	7.7	7.5	5.5	6.4	8.0	5.0	6.1	---	---	---
11	8.0	6.0	7.1	6.4	4.7	5.6	7.4	5.1	6.2	7.0	1.7	5.6
12	7.6	6.0	6.9	6.5	5.6	6.0	7.2	4.8	6.0	7.0	1.2	4.3
13	8.4	6.5	7.3	6.2	4.8	5.6	6.5	5.6	6.0	6.6	1.4	4.0
14	7.7	5.9	6.8	8.7	4.8	6.6	6.3	5.3	5.8	---	---	---
15	7.8	5.2	6.9	8.1	6.3	7.1	7.3	5.1	6.1	---	---	---
16	6.1	5.3	5.8	12.7	6.8	8.8	8.5	5.1	6.3	---	---	---
17	6.2	5.1	5.6	9.5	7.5	8.5	---	---	---	---	---	---
18	6.7	5.0	5.8	8.2	6.3	7.4	---	---	---	---	---	---
19	6.9	5.6	6.3	8.6	5.8	7.5	---	---	---	---	---	---
20	8.7	6.2	7.3	9.1	6.3	7.8	---	---	---	---	---	---
21	8.4	6.5	7.5	---	---	---	---	---	---	---	---	---
22	8.7	7.0	7.8	---	---	---	---	---	---	---	---	---
23	9.3	7.5	8.2	11.5	7.8	9.0	---	---	---	---	---	---
24	8.6	5.9	8.1	9.9	6.5	7.9	---	---	---	---	---	---
25	8.2	7.1	7.7	8.0	4.2	6.7	---	---	---	---	---	---
26	8.8	6.6	7.6	8.7	6.0	7.3	---	---	---	---	---	---
27	9.3	6.3	8.1	11.0	6.9	8.2	7.4	5.3	6.1	---	---	---
28	8.2	7.1	7.6	11.3	6.8	9.0	8.1	5.0	6.3	---	---	---
29	7.6	6.7	7.1	8.2	6.0	7.2	---	---	---	---	---	---
30	7.6	5.9	6.6	8.4	5.8	7.1	---	---	---	---	---	---
31	---	---	---	7.6	5.7	6.7	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

OXYGEN DISSOLVED (MG/L), BOTTOM, PERIOD MAY 1999 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	--	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	6.8	.1	2.3
28	---	---	---	---	---	---	---	---	---	5.5	.3	1.9
29	---	---	---	---	---	---	---	---	---	6.8	.2	2.5
30	---	---	---	---	---	---	---	---	---	7.1	.3	4.0
31	---	---	---	---	---	---	---	---	---	6.5	.2	3.6
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

0208453300 PAMLICO RIVER AT LIGHT 5--Continued

OXYGEN DISSOLVED (MG/L), BOTTOM, PERIOD MAY 1999 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	6.4	.4	3.6	6.7	.9	3.3	1.1	.8	.9	---	---	---
2	6.3	.4	3.6	6.4	2.5	5.1	1.4	1.0	1.2	---	---	---
3	6.3	1.8	5.0	7.0	3.9	5.1	7.3	1.3	2.8	---	---	---
4	6.5	1.6	4.9	8.0	2.3	5.2	7.9	3.9	6.8	---	---	---
5	6.8	1.2	4.7	6.2	.8	1.9	---	---	---	---	---	---
6	6.2	1.1	5.2	5.7	.1	1.3	---	---	---	---	---	---
7	5.3	1.0	3.4	4.2	.1	1.0	3.4	.0	.8	---	---	---
8	5.8	1.6	3.9	5.4	.1	.9	7.4	.1	2.8	---	---	---
9	5.2	1.6	3.3	4.1	.1	.6	5.9	1.9	4.9	---	---	---
10	6.2	1.6	3.7	7.0	.3	4.0	6.6	.3	3.5	---	---	---
11	7.2	5.6	6.4	6.9	4.9	6.3	6.5	1.4	4.2	3.0	.8	1.5
12	7.0	6.0	6.4	7.2	5.8	6.5	6.2	4.6	5.4	3.1	.5	1.0
13	6.9	5.2	6.0	7.2	5.4	6.6	6.1	4.7	5.3	2.4	.1	.6
14	6.0	4.9	5.4	8.2	5.9	6.7	5.7	4.3	5.0	---	---	---
15	7.1	4.5	5.3	8.7	5.3	7.0	6.5	4.7	5.6	---	---	---
16	6.7	3.9	5.8	9.0	6.8	7.6	---	---	---	---	---	---
17	6.7	6.0	6.3	8.6	6.5	7.6	---	---	---	---	---	---
18	7.6	6.0	6.6	7.9	4.5	6.5	---	---	---	---	---	---
19	7.3	6.4	6.8	7.3	3.1	5.6	6.2	2.6	4.3	---	---	---
20	9.4	6.6	7.5	7.8	2.6	4.5	7.2	1.7	3.4	---	---	---
21	8.8	6.7	7.9	---	---	---	8.7	1.5	4.6	---	---	---
22	8.8	7.3	7.9	---	---	---	6.2	1.6	4.0	---	---	---
23	8.9	6.7	7.9	2.6	.0	.1	7.0	3.2	4.9	---	---	---
24	8.1	5.1	7.1	7.1	.0	1.3	7.3	5.1	6.4	---	---	---
25	7.2	4.0	5.9	4.8	.0	1.3	7.3	6.0	6.5	---	---	---
26	7.2	2.2	4.8	6.2	.1	2.1	6.6	4.8	5.7	---	---	---
27	6.0	3.0	3.9	1.1	.1	.2	6.1	5.0	5.6	---	---	---
28	6.6	1.8	3.3	.1	.1	.1	5.5	4.1	4.8	---	---	---
29	6.6	1.6	3.9	4.0	.1	.4	---	---	---	---	---	---
30	6.3	1.1	2.5	.7	.3	.4	---	---	---	---	---	---
31	---	---	---	.8	.5	.6	---	---	---	---	---	---
MONTH	9.4	.4	5.3	---	---	---	---	---	---	---	---	---

OXYGEN DISSOLVED (% OF SATURATION), TOP, PERIOD MAY 1999 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	112	89	100
28	---	---	---	---	---	---	---	---	---	116	91	105
29	---	---	---	---	---	---	---	---	---	121	82	107
30	---	---	---	---	---	---	---	---	---	117	95	105
31	---	---	---	---	---	---	---	---	---	118	79	101
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

0208453300 PAMLICO RIVER AT LIGHT 5--Continued

OXYGEN DISSOLVED (% OF SATURATION), TOP, PERIOD MAY 1999 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	111	91	103	106	70	89	116	80	96	---	---	---
2	108	89	99	108	84	96	97	72	85	---	---	---
3	98	78	90	124	79	102	89	67	79	---	---	---
4	---	---	---	127	94	109	83	66	72	---	---	---
5	---	---	---	138	99	118	122	58	82	---	---	---
6	---	---	---	149	99	123	150	61	104	---	---	---
7	---	---	---	128	97	115	138	105	119	---	---	---
8	---	---	---	116	78	100	122	90	102	---	---	---
9	---	---	---	115	72	95	90	74	81	---	---	---
10	121	83	103	102	75	87	114	70	86	---	---	---
11	105	79	93	87	64	75	104	71	87	88	22	70
12	97	77	89	86	73	78	104	66	83	89	16	54
13	108	82	94	80	62	71	92	80	84	79	17	50
14	98	74	87	113	61	84	90	74	81	---	---	---
15	100	68	89	106	82	92	106	71	86	---	---	---
16	80	68	74	171	89	116	122	71	89	---	---	---
17	79	65	71	126	97	112	---	---	---	---	---	---
18	84	63	73	111	83	99	---	---	---	---	---	---
19	86	71	79	118	77	101	---	---	---	---	---	---
20	110	77	92	127	84	107	---	---	---	---	---	---
21	106	83	94	---	---	---	---	---	---	---	---	---
22	109	88	98	---	---	---	---	---	---	---	---	---
23	117	93	104	164	109	127	---	---	---	---	---	---
24	110	74	103	141	93	111	---	---	---	---	---	---
25	107	89	99	113	58	93	---	---	---	---	---	---
26	114	85	99	123	84	102	---	---	---	---	---	---
27	125	82	105	155	97	115	102	72	83	---	---	---
28	108	93	100	159	94	127	114	69	87	---	---	---
29	102	87	95	117	84	102	---	---	---	---	---	---
30	101	79	88	123	81	102	---	---	---	---	---	---
31	---	---	---	111	82	96	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

OXYGEN DISSOLVED (% OF SATURATION), BOTTOM, MAY 1999 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	88	5	32
28	---	---	---	---	---	---	---	---	---	72	6	27
29	---	---	---	---	---	---	---	---	---	89	6	35
30	---	---	---	---	---	---	---	---	---	92	6	53
31	---	---	---	---	---	---	---	---	---	85	6	48
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

0208453300 PAMLICO RIVER AT LIGHT 5--Continued

OXYGEN DISSOLVED (% OF SATURATION), BOTTOM, MAY 1999 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	84	7	49	90	12	44	16	11	13	---	---	---
2	84	7	49	88	33	68	18	14	16	---	---	---
3	84	24	66	96	52	69	102	18	39	---	---	---
4	88	23	65	110	31	70	109	55	95	---	---	---
5	91	17	63	85	11	25	---	---	---	---	---	---
6	82	15	67	79	1	18	---	---	---	---	---	---
7	70	13	45	59	2	14	47	0	12	---	---	---
8	79	22	51	75	1	13	106	2	40	---	---	---
9	70	20	44	57	1	9	84	28	69	---	---	---
10	83	20	49	97	4	56	92	4	49	---	---	---
11	96	74	85	95	67	86	90	21	59	38	10	19
12	90	78	83	95	77	87	86	64	76	40	6	13
13	87	66	76	93	71	86	85	66	74	31	2	7
14	77	63	69	106	76	87	81	60	70	---	---	---
15	92	58	68	114	68	91	91	66	78	---	---	---
16	87	50	75	118	88	98	---	---	---	---	---	---
17	86	76	81	113	86	100	---	---	---	---	---	---
18	94	77	83	104	61	87	---	---	---	---	---	---
19	91	80	86	96	41	75	89	38	61	---	---	---
20	118	82	94	106	34	61	102	24	48	---	---	---
21	111	85	100	---	---	---	124	22	64	---	---	---
22	112	93	99	---	---	---	87	22	56	---	---	---
23	113	84	100	36	0	2	97	44	68	---	---	---
24	102	64	90	100	1	19	101	71	88	---	---	---
25	92	50	76	66	1	18	101	83	89	---	---	---
26	94	28	62	86	1	29	90	66	78	---	---	---
27	78	39	51	16	2	3	84	68	76	---	---	---
28	87	24	42	3	2	2	76	56	66	---	---	---
29	88	20	51	58	2	7	---	---	---	---	---	---
30	83	14	32	10	3	5	---	---	---	---	---	---
31	---	---	---	11	7	9	---	---	---	---	---	---
MONTH	118	7	68	---	---	---	---	---	---	---	---	---

0208455155 PAMLICO RIVER AT LIGHT 3

LOCATION.--Lat 35°21'24", long 76°38'48", Beaufort County, Hydrologic Unit 03020104, on U.S. Coast Guard Channel Light 3.

PERIOD OF RECORD.--Water years 1989 to 1992, May to September 1999.

PERIOD OF DAILY RECORD.--

SALINITY (TOP AND BOTTOM): May 1989 to September 1992, May to September 1999.

pH (TOP AND BOTTOM): May to September 1999.

WATER TEMPERATURE (TOP): May 1989 to September 1992, May to September 1999.

WATER TEMPERATURE (BOTTOM): May to September 1999.

DISSOLVED OXYGEN (TOP AND BOTTOM): May 1989 to September 1992, May to September 1999.

DISSOLVED OXYGEN (MID): May 1989 to September 1992.

DISSOLVED OXYGEN, PERCENT SATURATION (TOP AND BOTTOM): May 1989 to September 1992, May to September 1999.

DISSOLVED OXYGEN, PERCENT SATURATION (MID)>WA: 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 to September 1999. 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. 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. 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
SALINITY (TOP), ppt	16.2, September 4, 1989, September 1, November 10, 18, 1990	0.9, May 17, 1989
SALINITY (BOTTOM), ppt	20.4, November 5, 1990	1.7, May 14, 16, August 27, 1992
pH (TOP), standard units	9.2, August 1, 1999	7.0, June 15, 1999
pH (BOTTOM), standard units	9.0, August 28, 1999	7.2, June 16, 1999
WATER TEMPERATURE (TOP), °C	33.3, August 20, 1990, July 9, 1991	3.5, January 27, 1991, February 12, 13, 1992
WATER TEMPERATURE (BOTTOM), °C	32.6, August 1, 1999	22.6, June 20, 1999
DISSOLVED OXYGEN (TOP), mg/L	21.2, January 30, 1992	<1.0 mg/L, August 5-11, 23-25, 27-31, September 2-5, 1992
DISSOLVED OXYGEN (BOTTOM), mg/L	18.0, May 3, 1991	<1.0 mg/L, many days during the period

0208455155 PAMLICO RIVER AT LIGHT 3--Continued

EXTREMES FOR CURRENT YEAR.--

CONSTITUENT	MAXIMUM RECORDED	MINIMUM RECORDED
SALINITY (TOP), ppt	15.7, August 25	7.9, September 14
SALINITY (BOTTOM), ppt	16.7, August 22	9.7, September 14
pH (TOP), standard units	9.2, August 1	7.0, June 14, 15
pH (BOTTOM), standard units	9.0, August 28	7.2, June 16
WATER TEMPERATURE (TOP), C	33.1, July 28, August 1	22.6, May 28
WATER TEMPERATURE (BOTTOM), C	32.6, August 1	22.6, June 20
DISSOLVED OXYGEN (TOP), mg/L	13.1, August 21	4.2, July 7
DISSOLVED OXYGEN (BOTTOM), mg/L	9.7, August 21, September 11	3.3, August 22
DISSOLVED OXYGEN, PERCENT SATURATION (TOP),%	192, August 21	58, July 7
DISSOLVED OXYGEN, PERCENT SATURATION (BOTTOM),%	138, August 21	46, August 22

SALINITY (PARTS PER THOUSAND), TOP, PERIOD MAY 1999 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	10.9	10.2	10.5
29	---	---	---	---	---	---	---	---	---	10.6	10.1	10.4
30	---	---	---	---	---	---	---	---	---	10.8	10.5	10.6
31	---	---	---	---	---	---	---	---	---	10.9	10.6	10.7
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

0208455155 PAMLICO RIVER AT LIGHT 3--Continued

SALINITY (PARTS PER THOUSAND), TOP, PERIOD MAY 1999 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	10.9	10.4	10.7	---	---	---	12.5	11.8	12.2	---	---	---
2	11.2	10.6	10.8	12.8	12.0	12.3	12.6	11.9	12.2	---	---	---
3	11.5	10.6	11.1	12.5	11.9	12.2	13.0	12.1	12.7	---	---	---
4	11.8	10.8	11.3	12.2	11.5	11.9	14.1	12.9	13.4	---	---	---
5	---	---	---	12.0	11.2	11.7	13.5	13.1	13.2	---	---	---
6	---	---	---	12.2	11.3	11.5	14.5	13.1	13.8	---	---	---
7	---	---	---	12.4	11.4	12.0	14.3	13.9	14.0	---	---	---
8	---	---	---	---	---	---	14.2	13.9	14.1	---	---	---
9	---	---	---	---	---	---	14.9	14.1	14.3	---	---	---
10	---	---	---	---	---	---	15.2	14.4	14.8	13.6	12.2	12.7
11	---	---	---	---	---	---	15.1	14.5	14.8	13.3	11.2	12.4
12	---	---	---	---	---	---	15.3	14.7	15.1	12.2	8.6	10.6
13	---	---	---	13.4	12.0	12.8	15.2	14.5	14.9	11.4	9.7	10.5
14	---	---	---	13.6	12.1	12.9	14.8	14.6	14.7	---	---	---
15	---	---	---	13.3	12.6	12.8	14.9	14.5	14.7	---	---	---
16	---	---	---	13.3	11.9	12.7	14.8	14.3	14.6	---	---	---
17	---	---	---	12.8	12.0	12.3	14.8	14.3	14.5	---	---	---
18	---	---	---	12.4	11.9	12.1	15.5	14.2	14.9	---	---	---
19	---	---	---	12.0	11.7	11.9	15.6	15.0	15.3	---	---	---
20	---	---	---	12.1	11.8	11.9	15.6	15.2	15.4	---	---	---
21	---	---	---	12.8	12.0	12.4	15.4	14.5	14.9	---	---	---
22	---	---	---	12.9	11.9	12.3	15.3	14.9	15.1	---	---	---
23	---	---	---	---	---	---	15.4	15.1	15.2	---	---	---
24	---	---	---	---	---	---	15.6	15.1	15.4	---	---	---
25	---	---	---	---	---	---	15.7	14.7	15.3	---	---	---
26	---	---	---	---	---	---	15.4	14.7	15.0	---	---	---
27	---	---	---	---	---	---	15.1	14.6	14.9	---	---	---
28	---	---	---	---	---	---	15.1	14.5	14.8	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	12.5	11.8	12.2	---	---	---	---	---	---
31	---	---	---	12.3	11.8	12.1	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

SALINITY (PARTS PER THOUSAND), BOTTOM, PERIOD MAY 1999 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	11.4	10.3	10.7
29	---	---	---	---	---	---	---	---	---	12.3	10.3	10.7
30	---	---	---	---	---	---	---	---	---	10.9	10.5	10.7
31	---	---	---	---	---	---	---	---	---	11.6	10.7	10.8
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

0208455155 PAMLICO RIVER AT LIGHT 3--Continued

SALINITY (PARTS PER THOUSAND), BOTTOM, PERIOD MAY 1999 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	11.0	10.7	10.8	---	---	---	13.3	12.4	12.7	---	---	---
2	11.4	10.8	11.0	12.8	12.0	12.4	13.1	12.3	12.6	---	---	---
3	11.7	11.1	11.3	12.6	12.0	12.3	14.2	12.5	13.3	---	---	---
4	12.2	11.1	11.6	12.3	11.7	12.0	14.7	13.5	14.1	---	---	---
5	---	---	---	12.2	11.1	11.9	15.4	13.6	14.0	---	---	---
6	---	---	---	12.3	11.2	11.7	14.9	13.8	14.3	---	---	---
7	---	---	---	12.4	11.5	12.0	15.9	14.1	14.5	---	---	---
8	---	---	---	12.6	11.8	12.2	14.5	14.1	14.3	---	---	---
9	---	---	---	12.8	11.9	12.2	15.1	14.3	14.5	---	---	---
10	---	---	---	12.8	12.1	12.3	15.7	14.8	15.1	15.3	12.4	13.4
11	---	---	---	13.1	12.2	12.7	15.3	14.7	15.0	13.4	12.2	12.8
12	---	---	---	14.0	12.0	13.3	16.0	15.0	15.3	13.5	11.5	12.6
13	---	---	---	13.3	12.0	12.7	15.5	14.6	15.1	12.4	11.2	12.0
14	---	---	---	13.6	12.4	13.0	15.2	14.7	14.8	---	---	---
15	---	---	---	13.3	12.6	13.0	15.0	14.6	14.8	---	---	---
16	---	---	---	13.3	12.5	12.9	14.9	14.6	14.8	---	---	---
17	---	---	---	13.3	12.2	12.5	15.0	14.4	14.6	---	---	---
18	---	---	---	12.5	12.0	12.2	15.8	14.3	14.9	---	---	---
19	---	---	---	12.4	12.0	12.1	15.6	15.1	15.3	---	---	---
20	---	---	---	12.5	12.0	12.2	16.0	15.3	15.6	---	---	---
21	---	---	---	14.1	12.3	12.9	15.5	14.6	15.1	---	---	---
22	---	---	---	13.4	12.1	12.8	16.7	14.9	15.5	---	---	---
23	---	---	---	13.9	12.1	12.4	16.6	15.3	15.6	---	---	---
24	---	---	---	14.1	12.4	12.8	15.8	15.4	15.7	---	---	---
25	---	---	---	13.1	12.5	12.8	15.8	15.0	15.5	---	---	---
26	---	---	---	13.0	12.4	12.6	15.5	14.9	15.2	---	---	---
27	---	---	---	13.2	12.4	12.7	15.3	14.7	15.0	---	---	---
28	---	---	---	12.8	11.8	12.4	15.6	14.7	15.1	---	---	---
29	---	---	---	13.0	12.0	12.5	---	---	---	---	---	---
30	---	---	---	13.0	12.4	12.7	---	---	---	---	---	---
31	---	---	---	13.6	12.6	13.0	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

PH, WATER, WHOLE, FIELD, STANDARD UNITS, TOP, PERIOD MAY 1999 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	8.2	7.8	8.0
29	---	---	---	---	---	---	---	---	---	8.3	7.9	8.1
30	---	---	---	---	---	---	---	---	---	8.2	7.9	8.1
31	---	---	---	---	---	---	---	---	---	8.2	7.9	8.1
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

0208455155 PAMLICO RIVER AT LIGHT 3--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, TOP, PERIOD MAY 1999 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	8.2	7.9	8.1	8.2	7.8	8.0	9.2	8.8	9.0	---	---	---
2	8.1	7.9	8.0	8.1	7.8	8.0	9.1	8.9	9.0	---	---	---
3	8.2	7.7	7.9	8.2	7.8	8.0	8.9	8.7	8.8	---	---	---
4	8.1	7.6	7.9	8.4	7.9	8.1	8.7	8.6	8.6	---	---	---
5	8.1	7.7	7.9	8.5	8.0	8.2	8.9	8.5	8.6	---	---	---
6	8.1	7.8	7.9	8.5	8.1	8.3	8.6	8.0	8.3	---	---	---
7	8.1	7.7	7.9	8.4	7.9	8.2	8.4	8.1	8.2	---	---	---
8	8.1	7.6	7.8	8.4	7.9	8.2	8.2	8.1	8.2	---	---	---
9	8.2	7.6	7.8	8.5	8.1	8.3	8.2	7.9	8.1	---	---	---
10	7.9	7.5	7.7	8.4	8.1	8.2	8.4	8.0	8.2	8.4	7.6	8.1
11	7.8	7.4	7.6	8.2	8.0	8.1	8.6	8.2	8.4	8.4	7.9	8.2
12	7.5	7.2	7.4	8.1	7.9	8.0	8.6	8.2	8.4	8.5	8.1	8.3
13	7.6	7.2	7.3	8.0	7.8	7.9	8.6	8.2	8.4	8.5	8.2	8.3
14	7.5	7.0	7.3	8.3	7.7	8.0	8.5	8.2	8.4	---	---	---
15	8.1	7.0	7.6	8.2	8.0	8.1	8.7	8.1	8.3	---	---	---
16	7.9	7.7	7.8	8.5	7.9	8.1	8.4	8.1	8.3	---	---	---
17	8.0	7.7	7.8	8.3	7.9	8.1	8.6	8.0	8.3	---	---	---
18	8.0	7.7	7.8	8.3	7.8	8.1	8.2	7.8	8.1	---	---	---
19	7.9	7.7	7.8	8.4	8.0	8.2	8.6	8.1	8.3	---	---	---
20	8.1	7.6	7.9	8.5	8.2	8.3	8.4	8.3	8.3	---	---	---
21	8.2	7.9	8.1	8.4	8.2	8.3	8.8	8.2	8.5	---	---	---
22	8.1	7.9	8.0	8.5	8.2	8.3	8.5	8.3	8.5	---	---	---
23	8.2	7.8	8.0	8.5	8.3	8.4	8.4	8.2	8.3	---	---	---
24	8.1	7.8	8.0	8.5	8.3	8.4	8.4	8.2	8.3	---	---	---
25	8.1	7.8	8.0	8.4	7.8	8.1	8.6	8.2	8.3	---	---	---
26	8.2	7.9	8.1	8.4	8.1	8.3	8.7	8.2	8.5	---	---	---
27	8.2	7.8	8.0	8.4	8.2	8.3	8.8	8.5	8.6	---	---	---
28	8.1	7.8	8.0	8.6	8.2	8.4	8.8	8.4	8.7	---	---	---
29	8.1	7.7	7.9	9.0	8.2	8.7	---	---	---	---	---	---
30	8.1	7.8	8.0	9.1	8.8	8.9	---	---	---	---	---	---
31	---	---	---	9.1	8.8	8.9	---	---	---	---	---	---
MONTH	8.2	7.0	7.8	9.1	7.7	8.2	---	---	---	---	---	---

PH, WATER, WHOLE, FIELD, STANDARD UNITS, BOTTOM, PERIOD MAY 1999 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	8.3	7.8	8.1
29	---	---	---	---	---	---	---	---	---	8.4	7.9	8.2
30	---	---	---	---	---	---	---	---	---	8.4	8.0	8.2
31	---	---	---	---	---	---	---	---	---	8.4	8.1	8.3
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

0208455155 PAMLICO RIVER AT LIGHT 3--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, BOTTOM, PERIOD MAY 1999 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	8.4	8.1	8.2	8.3	7.6	7.9	8.8	8.4	8.6	---	---	---
2	8.3	8.0	8.2	8.1	7.9	8.0	8.7	8.6	8.6	---	---	---
3	8.3	7.8	8.0	8.1	7.7	7.9	8.6	8.4	8.5	---	---	---
4	8.2	7.8	8.0	8.3	7.8	8.0	8.4	8.2	8.3	---	---	---
5	8.2	7.8	8.1	8.3	7.9	8.0	8.5	7.9	8.3	---	---	---
6	8.1	7.9	8.0	8.3	7.8	8.1	8.3	8.0	8.2	---	---	---
7	8.0	7.8	7.9	8.2	7.8	8.0	8.3	7.8	8.2	---	---	---
8	7.9	7.8	7.9	8.4	7.7	8.1	8.3	8.2	8.3	---	---	---
9	7.9	7.3	7.8	8.4	8.0	8.3	8.2	8.0	8.1	---	---	---
10	8.0	7.6	7.8	8.3	8.0	8.1	8.4	8.0	8.2	8.2	7.4	7.8
11	7.9	7.5	7.8	8.0	7.7	7.9	8.6	8.2	8.3	8.2	7.7	8.1
12	7.8	7.6	7.7	8.0	7.6	7.9	8.5	8.1	8.3	8.2	7.9	8.0
13	7.9	7.5	7.7	7.9	7.5	7.7	8.4	8.0	8.2	8.1	7.6	7.8
14	8.0	7.4	7.7	8.2	7.4	8.0	8.4	8.1	8.3	---	---	---
15	7.8	7.4	7.6	8.2	7.7	8.0	8.5	8.1	8.3	---	---	---
16	7.7	7.2	7.6	8.3	7.9	8.0	8.3	8.1	8.2	---	---	---
17	7.7	7.4	7.6	8.3	7.7	8.1	8.6	7.9	8.1	---	---	---
18	7.8	7.4	7.6	8.3	7.8	8.1	8.3	7.9	8.1	---	---	---
19	7.8	7.5	7.7	8.3	8.0	8.2	8.4	8.1	8.2	---	---	---
20	8.0	7.5	7.7	8.4	8.1	8.2	8.4	8.2	8.3	---	---	---
21	8.1	7.8	8.0	8.3	7.9	8.1	8.6	8.3	8.4	---	---	---
22	8.0	7.9	8.0	8.4	8.0	8.2	8.6	7.7	8.4	---	---	---
23	8.1	7.8	8.0	8.4	7.9	8.3	8.4	7.8	8.4	---	---	---
24	8.1	7.7	8.0	8.4	8.0	8.2	8.4	8.2	8.3	---	---	---
25	8.1	7.8	8.0	8.3	7.7	8.0	8.5	8.1	8.2	---	---	---
26	8.1	7.7	7.9	8.3	8.1	8.2	9.0	8.3	8.7	---	---	---
27	8.2	7.7	8.0	8.3	8.1	8.2	9.0	8.8	8.9	---	---	---
28	8.1	7.7	7.9	8.5	8.1	8.3	9.0	8.6	8.9	---	---	---
29	8.0	7.5	7.8	8.8	8.1	8.5	---	---	---	---	---	---
30	8.0	7.5	7.8	8.7	8.5	8.7	---	---	---	---	---	---
31	---	---	---	8.7	8.5	8.6	---	---	---	---	---	---
MONTH	8.4	7.2	7.9	8.8	7.4	8.1	---	---	---	---	---	---

TEMPERATURE, WATER (DEG. C), TOP, PERIOD MAY 1999 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	24.7	22.6	23.6
29	---	---	---	---	---	---	---	---	---	25.4	23.3	24.1
30	---	---	---	---	---	---	---	---	---	26.1	23.4	24.5
31	---	---	---	---	---	---	---	---	---	26.1	24.1	24.9
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

0208455155 PAMLICO RIVER AT LIGHT 3--Continued

TEMPERATURE, WATER (DEG. C), TOP, PERIOD MAY 1999 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	25.7	24.2	24.9	27.6	26.2	26.6	33.1	30.2	31.4	---	---	---
2	25.6	24.5	24.9	27.8	26.1	26.9	32.0	30.7	31.3	---	---	---
3	25.8	23.9	24.8	29.0	26.7	27.6	30.7	29.4	30.0	---	---	---
4	25.8	24.5	25.2	29.6	27.3	28.1	29.5	27.7	28.5	---	---	---
5	26.3	24.5	25.3	31.2	27.5	28.9	29.7	27.6	28.1	---	---	---
6	27.2	24.8	25.7	30.6	28.5	29.6	29.4	27.4	28.0	---	---	---
7	28.4	25.5	26.5	30.3	28.5	29.2	29.7	27.9	28.4	---	---	---
8	29.0	25.8	26.8	29.7	28.1	28.9	29.4	28.2	28.8	---	---	---
9	30.0	25.7	26.9	30.1	28.6	29.3	28.7	27.7	28.3	---	---	---
10	28.1	26.5	27.0	30.0	28.7	29.2	28.3	27.2	27.7	25.7	24.3	25.1
11	27.0	26.3	26.6	29.4	28.0	28.6	28.5	27.1	27.8	25.7	24.4	25.1
12	26.4	25.2	25.7	28.0	26.9	27.4	29.0	27.5	28.0	25.3	23.5	24.6
13	27.0	25.0	25.6	26.9	26.0	26.6	29.0	27.9	28.4	26.0	23.8	24.8
14	27.2	25.0	25.9	26.9	26.0	26.5	29.4	28.3	28.8	---	---	---
15	26.7	25.6	26.1	26.4	25.8	26.1	29.4	28.1	28.6	---	---	---
16	25.9	25.1	25.6	28.4	25.5	26.3	30.2	28.4	28.8	---	---	---
17	25.1	24.4	24.8	27.4	25.8	26.5	30.3	28.4	28.9	---	---	---
18	24.6	23.3	24.1	28.1	26.4	27.2	31.7	28.2	29.5	---	---	---
19	23.5	22.7	23.0	28.8	27.0	27.9	31.6	29.2	30.1	---	---	---
20	23.4	22.7	23.1	29.9	27.9	28.7	30.0	29.2	29.5	---	---	---
21	24.1	23.1	23.6	29.7	29.0	29.3	31.2	28.5	29.3	---	---	---
22	23.7	23.2	23.5	30.5	28.4	29.4	30.5	28.9	29.3	---	---	---
23	23.9	22.8	23.3	32.3	29.8	30.5	29.0	28.2	28.6	---	---	---
24	24.5	23.2	23.8	31.7	30.0	30.6	28.7	27.9	28.2	---	---	---
25	24.8	23.6	24.2	31.0	28.5	29.6	28.3	27.8	28.0	---	---	---
26	25.9	24.2	25.0	30.7	29.2	29.9	28.4	27.7	27.9	---	---	---
27	27.4	25.0	26.0	30.5	29.6	30.0	28.8	27.6	27.9	---	---	---
28	26.7	25.8	26.1	33.1	29.6	30.4	29.2	27.5	28.1	---	---	---
29	27.1	25.7	26.3	30.9	29.8	30.4	---	---	---	---	---	---
30	27.0	26.3	26.6	33.0	29.8	30.6	---	---	---	---	---	---
31	---	---	---	32.6	30.8	31.2	---	---	---	---	---	---
MONTH	30.0	22.7	25.2	33.1	25.5	28.6	---	---	---	---	---	---

TEMPERATURE, WATER (DEG. C), BOTTOM, PERIOD MAY 1999 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	24.6	22.7	23.4
29	---	---	---	---	---	---	---	---	---	24.9	23.2	23.8
30	---	---	---	---	---	---	---	---	---	25.4	23.4	24.2
31	---	---	---	---	---	---	---	---	---	25.5	24.1	24.7
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

0208455155 PAMLICO RIVER AT LIGHT 3--Continued

TEMPERATURE, WATER (DEG. C), BOTTOM, PERIOD MAY 1999 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	25.7	24.2	24.9	27.5	26.2	26.6	32.6	30.2	31.0	---	---	---
2	25.5	24.5	24.9	27.6	26.1	26.8	31.9	30.6	31.3	---	---	---
3	25.8	23.9	24.8	28.7	26.8	27.4	30.7	29.4	29.9	---	---	---
4	25.8	24.5	25.1	29.3	27.3	28.0	29.4	27.7	28.5	---	---	---
5	26.0	24.5	25.1	29.3	27.4	28.2	28.6	27.5	27.8	---	---	---
6	26.2	24.9	25.3	30.4	28.4	29.4	28.3	27.4	27.8	---	---	---
7	27.3	25.2	26.1	30.2	28.5	29.2	28.9	27.9	28.3	---	---	---
8	27.6	25.8	26.4	29.7	28.1	28.8	29.4	28.3	28.7	---	---	---
9	27.2	25.6	26.2	30.0	28.6	29.2	28.7	27.8	28.3	---	---	---
10	27.8	26.5	26.9	30.1	28.7	29.2	28.1	27.2	27.6	25.7	24.0	24.8
11	27.0	26.3	26.6	29.3	27.9	28.6	28.5	27.1	27.7	25.6	24.4	25.2
12	26.4	25.2	25.7	27.9	26.9	27.3	28.3	27.5	27.9	25.4	24.4	24.9
13	26.2	25.0	25.4	26.9	26.0	26.5	28.7	27.9	28.3	25.4	24.8	25.0
14	26.9	25.0	25.7	26.7	26.0	26.4	29.4	28.4	28.7	---	---	---
15	26.2	25.6	25.9	26.4	26.0	26.2	29.1	28.2	28.6	---	---	---
16	25.9	25.1	25.6	28.3	25.5	26.1	29.1	28.4	28.7	---	---	---
17	25.1	24.4	24.8	27.2	25.8	26.4	29.5	28.4	28.7	---	---	---
18	24.6	23.4	24.1	28.0	26.4	27.1	30.2	28.2	28.9	---	---	---
19	23.5	22.7	23.0	28.7	27.0	27.8	30.8	29.1	29.6	---	---	---
20	23.4	22.6	23.0	29.5	27.9	28.3	30.0	29.3	29.5	---	---	---
21	24.1	23.2	23.6	29.3	28.3	28.9	29.8	28.6	29.0	---	---	---
22	23.8	23.3	23.5	30.2	28.7	29.3	29.7	28.7	29.1	---	---	---
23	23.8	22.9	23.3	30.6	29.3	30.0	29.0	28.2	28.7	---	---	---
24	24.3	23.2	23.7	31.3	29.2	30.2	28.7	27.9	28.2	---	---	---
25	24.7	23.7	24.2	30.2	28.5	29.4	28.3	27.8	28.0	---	---	---
26	25.3	24.4	24.8	30.5	29.2	29.7	28.2	27.7	27.9	---	---	---
27	27.0	25.0	25.8	30.2	29.5	29.8	28.4	27.6	27.8	---	---	---
28	26.6	25.8	26.1	31.4	29.6	30.1	28.6	27.6	27.9	---	---	---
29	27.0	25.6	26.2	30.7	29.8	30.2	---	---	---	---	---	---
30	26.9	26.3	26.6	31.2	29.8	30.2	---	---	---	---	---	---
31	---	---	---	31.2	30.4	30.7	---	---	---	---	---	---
MONTH	27.8	22.6	25.1	31.4	25.5	28.5	---	---	---	---	---	---

OXYGEN DISSOLVED (MG/L), TOP, PERIOD MAY 1999 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	8.9	7.5	8.4
29	---	---	---	---	---	---	---	---	---	9.2	7.8	8.7
30	---	---	---	---	---	---	---	---	---	9.2	8.0	8.7
31	---	---	---	---	---	---	---	---	---	9.3	8.0	8.6
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

0208455155 PAMLICO RIVER AT LIGHT 3--Continued

OXYGEN DISSOLVED (MG/L), TOP, PERIOD MAY 1999 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	8.9	7.9	8.4	7.8	6.8	7.2	10.1	7.1	8.3	---	---	---
2	8.7	7.6	8.2	7.5	6.5	7.0	8.8	7.7	8.2	---	---	---
3	8.3	7.4	7.9	7.7	6.2	6.9	7.8	6.6	7.1	---	---	---
4	8.2	6.7	7.6	7.6	6.2	6.8	7.3	6.3	6.9	---	---	---
5	8.3	6.9	7.5	---	---	---	---	---	---	---	---	---
6	7.5	6.6	7.0	---	---	---	---	---	---	---	---	---
7	7.5	6.2	6.7	---	---	---	8.1	6.0	7.0	---	---	---
8	6.8	5.9	6.4	---	---	---	6.9	5.9	6.3	---	---	---
9	7.8	5.9	6.8	7.4	5.6	6.7	6.1	5.4	5.8	---	---	---
10	7.7	6.4	6.9	7.0	5.8	6.4	7.2	5.4	6.4	8.9	6.2	7.9
11	7.5	6.5	7.0	6.1	5.3	5.7	7.9	6.1	6.9	9.7	7.2	8.3
12	7.1	6.4	6.7	6.1	5.3	5.7	7.3	5.3	6.3	9.9	7.8	8.8
13	7.7	6.2	6.9	6.4	5.4	5.8	7.7	5.3	6.4	9.6	7.8	8.5
14	7.8	6.0	7.0	8.0	5.7	6.9	6.6	5.5	5.9	---	---	---
15	7.6	6.1	7.0	7.8	6.9	7.4	8.8	5.1	6.0	---	---	---
16	7.2	6.3	6.8	9.4	7.0	7.9	7.1	4.8	5.6	---	---	---
17	7.9	6.6	7.1	8.5	7.2	7.8	8.3	4.6	5.7	---	---	---
18	8.5	6.8	7.4	8.3	6.7	7.7	8.4	5.1	6.7	---	---	---
19	8.5	7.4	7.9	---	---	---	12.8	6.3	8.2	---	---	---
20	8.9	7.2	8.1	---	---	---	7.9	6.9	7.4	---	---	---
21	8.7	7.9	8.2	---	---	---	13.1	6.2	8.5	---	---	---
22	8.4	6.8	7.8	---	---	---	8.5	6.3	7.9	---	---	---
23	8.6	7.5	8.1	8.8	7.7	8.2	7.2	6.1	6.7	---	---	---
24	8.4	7.1	8.0	8.5	7.1	7.8	7.0	6.4	6.7	---	---	---
25	8.2	7.0	7.6	7.8	5.6	6.7	8.1	6.0	6.6	---	---	---
26	8.2	6.9	7.5	7.6	6.5	7.1	7.3	6.2	6.6	---	---	---
27	8.0	6.5	7.2	---	---	---	8.1	5.8	6.6	---	---	---
28	7.7	6.5	7.2	---	---	---	7.8	5.8	6.9	---	---	---
29	8.0	6.5	7.3	8.8	7.2	8.1	---	---	---	---	---	---
30	8.0	6.7	7.4	8.8	7.3	8.0	---	---	---	---	---	---
31	---	---	---	9.1	7.0	8.1	---	---	---	---	---	---
MONTH	8.9	5.9	7.4	---	---	---	---	---	---	---	---	---

OXYGEN DISSOLVED (MG/L), BOTTOM, PERIOD MAY 1999 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	8.9	7.1	8.2
29	---	---	---	---	---	---	---	---	---	9.0	7.4	8.5
30	---	---	---	---	---	---	---	---	---	9.1	7.8	8.7
31	---	---	---	---	---	---	---	---	---	9.1	7.6	8.6
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

0208455155 PAMLICO RIVER AT LIGHT 3--Continued

OXYGEN DISSOLVED (MG/L), BOTTOM, PERIOD MAY 1999 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	8.9	7.9	8.5	7.8	5.8	6.8	8.2	6.4	7.2	---	---	---
2	8.5	7.5	8.1	7.6	6.6	7.0	7.6	6.2	6.9	---	---	---
3	8.2	7.2	7.7	7.9	6.4	7.1	6.5	5.2	5.8	---	---	---
4	7.9	6.8	7.5	8.2	5.8	7.3	6.6	5.0	5.8	---	---	---
5	7.9	6.8	7.5	7.9	6.6	7.1	7.4	4.6	6.1	---	---	---
6	7.5	6.9	7.2	7.9	6.2	7.0	7.2	4.7	6.5	---	---	---
7	7.2	6.1	6.7	---	---	---	7.4	3.5	6.4	---	---	---
8	6.7	5.9	6.3	---	---	---	6.9	6.1	6.4	---	---	---
9	7.6	5.7	6.6	6.4	4.6	5.5	6.4	5.6	6.0	---	---	---
10	7.6	5.7	6.8	5.7	4.4	5.1	7.8	5.6	6.6	8.9	5.4	7.2
11	7.3	6.1	6.9	5.3	3.4	4.2	7.8	5.9	6.9	9.7	7.2	8.3
12	7.2	6.6	6.9	5.4	3.8	4.4	7.4	4.8	6.2	8.8	7.1	8.0
13	7.4	6.2	6.9	5.2	3.9	4.4	7.1	4.8	6.0	8.2	6.0	7.0
14	7.5	6.2	6.9	7.7	3.9	6.4	6.9	5.2	6.3	---	---	---
15	7.7	6.2	6.6	7.7	5.4	6.9	8.4	5.4	6.2	---	---	---
16	7.3	5.5	6.7	9.0	6.8	7.6	7.2	5.9	6.4	---	---	---
17	7.9	6.5	7.2	8.4	5.9	7.4	8.7	4.6	6.2	---	---	---
18	8.3	7.0	7.7	8.2	5.6	7.6	7.9	5.6	6.4	---	---	---
19	8.5	7.6	8.1	8.3	7.1	7.7	9.2	5.8	6.8	---	---	---
20	9.2	7.8	8.3	---	---	---	7.7	6.2	7.0	---	---	---
21	9.1	7.9	8.7	---	---	---	9.7	6.0	7.1	---	---	---
22	9.1	8.2	8.5	---	---	---	8.5	3.3	7.3	---	---	---
23	8.9	8.1	8.4	9.0	6.2	8.1	7.3	3.6	6.6	---	---	---
24	8.8	5.1	7.0	8.8	6.6	7.6	7.0	6.3	6.6	---	---	---
25	6.9	5.1	6.2	7.7	5.8	6.7	8.1	6.1	6.6	---	---	---
26	7.1	5.0	6.0	8.1	6.7	7.2	7.5	5.9	6.5	---	---	---
27	6.6	4.9	5.9	7.9	6.4	7.0	7.5	5.8	6.5	---	---	---
28	6.6	4.7	5.8	8.7	6.8	7.7	7.4	5.0	6.3	---	---	---
29	7.7	5.0	6.1	8.3	6.4	7.5	---	---	---	---	---	---
30	7.6	5.3	6.5	8.5	6.5	7.6	---	---	---	---	---	---
31	---	---	---	8.2	6.7	7.5	---	---	---	---	---	---
MONTH	9.2	4.7	7.1	---	---	---	---	---	---	---	---	---

OXYGEN DISSOLVED (% OF SATURATION), TOP, PERIOD MAY 1999 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	116	95	107
29	---	---	---	---	---	---	---	---	---	120	99	111
30	---	---	---	---	---	---	---	---	---	122	102	113
31	---	---	---	---	---	---	---	---	---	124	103	112
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

0208455155 PAMLICO RIVER AT LIGHT 3--Continued

OXYGEN DISSOLVED (% OF SATURATION), TOP, PERIOD MAY 1999 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	116	101	110	109	89	96	148	102	122	---	---	---
2	113	99	106	105	87	96	129	112	119	---	---	---
3	108	95	102	109	85	96	113	93	101	---	---	---
4	109	86	99	108	86	95	102	88	96	---	---	---
5	110	90	98	---	---	---	---	---	---	---	---	---
6	99	86	91	---	---	---	---	---	---	---	---	---
7	98	81	88	---	---	---	116	83	98	---	---	---
8	91	77	83	---	---	---	99	84	89	---	---	---
9	110	76	90	103	75	94	86	77	81	---	---	---
10	106	85	94	93	82	88	102	76	89	118	80	103
11	102	87	94	83	74	78	112	84	97	128	92	108
12	93	82	88	84	73	78	104	75	90	127	99	113
13	102	80	90	86	73	78	110	76	91	125	99	110
14	103	78	91	106	77	93	95	77	84	---	---	---
15	102	79	93	104	92	98	126	72	84	---	---	---
16	94	83	90	127	92	105	101	67	79	---	---	---
17	102	86	92	114	95	104	119	63	80	---	---	---
18	108	86	94	113	89	104	122	70	96	---	---	---
19	106	94	99	---	---	---	186	90	119	---	---	---
20	111	90	101	---	---	---	115	100	106	---	---	---
21	110	98	103	---	---	---	192	88	122	---	---	---
22	102	85	98	---	---	---	122	90	113	---	---	---
23	108	91	101	127	108	117	101	86	94	---	---	---
24	105	90	101	123	101	111	98	91	94	---	---	---
25	104	90	97	109	79	95	113	83	91	---	---	---
26	102	88	95	108	90	100	102	86	92	---	---	---
27	106	84	94	---	---	---	115	81	93	---	---	---
28	100	85	92	---	---	---	112	81	98	---	---	---
29	102	85	94	128	103	116	---	---	---	---	---	---
30	104	87	95	130	104	116	---	---	---	---	---	---
31	---	---	---	133	102	118	---	---	---	---	---	---
MONTH	116	76	95	---	---	---	---	---	---	---	---	---

OXYGEN DISSOLVED (% OF SATURATION), BOTTOM, PERIOD MAY 1999 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	115	91	104
29	---	---	---	---	---	---	---	---	---	117	95	108
30	---	---	---	---	---	---	---	---	---	118	101	112
31	---	---	---	---	---	---	---	---	---	118	99	111
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

0208455155 PAMLICO RIVER AT LIGHT 3--Continued

OXYGEN DISSOLVED (% OF SATURATION), BOTTOM, PERIOD MAY 1999 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	116	102	110	108	76	91	120	91	104	---	---	---
2	111	98	106	105	90	96	112	90	100	---	---	---
3	108	92	100	110	88	98	94	74	83	---	---	---
4	105	88	98	116	80	100	91	70	82	---	---	---
5	105	88	98	110	90	98	104	62	84	---	---	---
6	98	89	94	111	85	98	101	65	91	---	---	---
7	94	80	88	---	---	---	106	49	91	---	---	---
8	91	78	83	---	---	---	99	87	91	---	---	---
9	103	75	87	89	63	76	91	78	85	---	---	---
10	104	76	92	80	61	70	109	78	93	118	70	94
11	97	81	92	73	48	58	110	83	98	128	93	108
12	94	85	90	73	50	59	104	68	88	114	92	104
13	98	80	90	69	52	59	101	68	85	107	78	91
14	99	80	89	103	51	85	100	74	89	---	---	---
15	101	80	87	102	71	92	120	76	87	---	---	---
16	95	72	88	120	89	101	102	83	91	---	---	---
17	102	85	93	112	80	99	123	64	87	---	---	---
18	106	90	98	113	75	102	115	79	91	---	---	---
19	107	95	102	115	96	105	136	82	98	---	---	---
20	117	97	104	---	---	---	112	90	101	---	---	---
21	117	101	110	---	---	---	138	84	101	---	---	---
22	111	105	108	---	---	---	123	46	104	---	---	---
23	111	103	107	127	87	114	103	52	93	---	---	---
24	108	66	90	127	92	108	98	87	93	---	---	---
25	90	66	80	110	80	95	112	84	91	---	---	---
26	92	65	78	116	94	102	104	83	91	---	---	---
27	89	64	78	112	90	100	106	81	91	---	---	---
28	89	61	77	125	96	109	104	71	89	---	---	---
29	102	65	81	120	92	107	---	---	---	---	---	---
30	100	69	86	124	94	109	---	---	---	---	---	---
31	---	---	---	120	96	109	---	---	---	---	---	---
MONTH	117	61	93	---	---	---	---	---	---	---	---	---

02084557 VAN SWAMP NEAR HOKE, NC

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

DRAINAGE AREA.--23 mi^2.

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

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

REMARKS.--Records poor. No flow occurs periodically. Minimum discharge for current water year also occurred Aug. 24, 25.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e.15	e.46	e1.8	69	44	25	25	7.2	4.3	3.4	.18	1.5
2	e.14	e.48	e1.6	63	45	26	23	7.2	3.9	2.8	.15	1.3
3	e.13	e1.2	1.4	62	51	25	22	7.3	3.3	2.3	.11	1.1
4	e1.9	e1.1	1.3	67	53	24	21	7.2	2.5	1.9	.10	43
5	e2.5	e.92	1.3	64	61	23	20	7.0	1.9	1.6	.07	162
6	e2.3	e.80	1.2	59	61	22	19	6.5	1.6	1.3	.04	140
7	e2.0	e.73	1.1	55	57	22	18	6.2	1.3	1.2	.19	151
8	e1.6	.69	1.0	50	52	21	17	6.0	1.1	1.3	.22	141
9	e1.2	.67	1.1	48	47	20	16	5.7	.95	1.2	.98	121
10	e3.1	.75	1.2	50	44	20	16	5.4	.79	1.1	2.2	111
11	e2.9	.74	1.2	50	41	19	16	5.1	.64	1.3	1.0	98
12	e2.4	.74	1.1	48	38	19	18	4.8	.59	1.5	.63	83
13	e1.9	.74	1.5	45	37	18	18	4.8	.66	1.4	.40	68
14	e1.3	.70	3.0	43	36	18	17	4.9	1.3	2.0	.28	61
15	e1.1	.71	3.3	45	35	20	16	5.8	2.2	2.0	.26	107
16	e.98	e.73	4.9	52	33	23	15	6.8	9.2	1.5	.21	353
17	e.90	e2.8	9.6	52	32	23	14	6.5	17	1.2	.16	365
18	e.83	e2.7	9.6	53	31	22	13	6.1	20	.99	.12	367
19	e.79	e2.6	8.6	57	33	21	12	5.7	17	.71	.11	373
20	e.75	e2.4	7.9	55	33	19	12	5.2	14	.40	.08	362
21	e.71	e2.2	7.2	51	32	19	11	4.8	13	.65	.14	349
22	e.67	e1.9	6.6	47	30	20	10	4.4	12	2.2	.13	335
23	e.65	e1.7	5.9	44	29	21	9.8	4.3	10	1.7	.07	311
24	e.62	e1.5	11	47	28	21	9.1	8.8	8.5	1.2	.03	283
25	e.58	e1.4	24	68	26	20	8.6	10	7.0	1.3	.05	257
26	e.57	e1.3	32	71	25	21	8.3	9.3	6.1	1.0	.07	229
27	e.56	e2.3	38	68	25	28	8.0	8.3	5.5	.71	.31	211
28	e.53	e2.2	39	64	24	34	7.8	7.2	4.8	.40	.33	217
29	e.51	e2.1	76	58	---	33	7.5	6.2	4.2	.71	.21	200
30	e.49	e2.0	81	53	---	29	7.4	5.4	3.7	.38	.54	183
31	e.47	---	75	48	---	27	---	4.7	---	.21	1.4	---
TOTAL	35.23	41.26	459.4	1706	1083	703	435.5	194.8	179.03	41.56	10.77	5684.9
MEAN	1.14	1.38	14.8	55.0	38.7	22.7	14.5	6.28	5.97	1.34	.35	189
MAX	3.1	2.8	81	71	61	34	25	10	20	3.4	2.2	373
MIN	.13	.46	1.0	43	24	18	7.4	4.3	.59	.21	.03	1.1
CFSM	.05	.06	.64	2.39	1.68	.99	.63	.27	.26	.06	.02	8.24
IN.	.06	.07	.74	2.76	1.75	1.14	.70	.32	.29	.07	.02	9.19

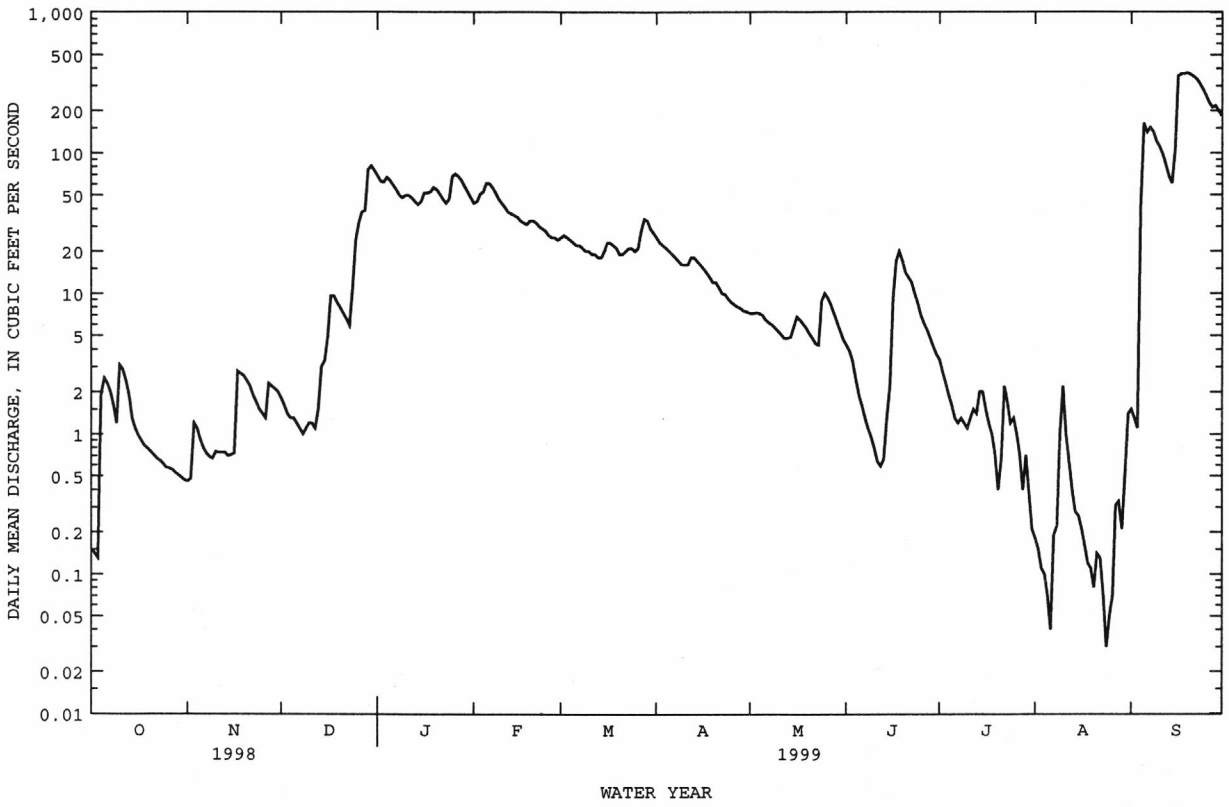
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 1999, BY WATER YEAR (WY)

MEAN	12.6	14.2	16.6	45.1	49.1	59.3	41.6	25.6	8.98	5.81	11.3	19.9
MAX	115	121	56.6	124	122	142	101	122	29.8	55.2	64.8	189
(WY)	1997	1978	1990	1978	1998	1983	1983	1978	1995	1989	1986	1999
MIN	.018	.052	.033	.72	10.2	8.78	4.68	.58	.29	.011	.000	.034
(WY)	1979	1979	1989	1989	1989	1992	1985	1985	1985	1997	1997	1995

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1977 - 1999	
ANNUAL TOTAL	9696.11		10574.45			
ANNUAL MEAN	26.6		29.0		26.0	
HIGHEST ANNUAL MEAN					51.7	1978
LOWEST ANNUAL MEAN					7.76	1981
HIGHEST DAILY MEAN	195	Feb 5	373	Sep 19	385	Nov 7 1977
LOWEST DAILY MEAN	.00	Jul 24	.03	Aug 24	.00	Aug 21 1983
ANNUAL SEVEN-DAY MINIMUM	.00	Aug 1	.08	Aug 20	.00	Sep 12 1985
INSTANTANEOUS PEAK FLOW			383	Sep 16	409	Nov 6 1977
INSTANTANEOUS PEAK STAGE			7.43	Sep 16	7.43	Sep 16 1999
INSTANTANEOUS LOW FLOW			.02*	Aug 7	.00*	Oct 1 1978
ANNUAL RUNOFF (CFSM)	1.15		1.26		1.13	
ANNUAL RUNOFF (INCHES)	15.68		17.10		15.37	
10 PERCENT EXCEEDS	85		62		73	
50 PERCENT EXCEEDS	4.9		6.5		7.6	
90 PERCENT EXCEEDS	.08		.50		.12	

e Estimated.
* See REMARKS.

02084557 VAN SWAMP NEAR HOKE, NC--Continued



02084909 SEVENMILE CREEK NEAR EFLAND, NC

LOCATION.--Lat 36°03'56", long 79°08'39", 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 mi^2.

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 sea level, from topographic map. Satellite telemetry at station.

REMARKS.--Records poor. Maximum discharge for period of record from rating curve extended above 5,500 ft^3/s, on the basis of computation of peak flow through culvert; maximum gage height 15.47 ft, from floodmark. No flow occurs periodically most years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.12	.03	e.05	4.6	3.8	2.8	62	12	.79	.36	.12	.21
2	.10	.02	e.04	6.4	11	2.7	24	6.1	.73	.34	.11	.18
3	.07	e.08	e.05	133	7.6	2.8	9.0	4.4	.61	.28	.10	.13
4	.06	e.07	e.06	13	5.3	3.8	6.3	3.5	.54	.26	.07	.34
5	.05	e.06	e.09	6.9	4.5	3.6	5.1	2.9	.61	.22	.05	110
6	.05	e.05	e.07	5.2	3.9	3.2	4.4	2.8	.44	.18	.04	185
7	.04	e.05	e.08	4.0	3.7	3.0	4.1	2.6	.34	.20	.04	14
8	.13	e.05	e.20	3.3	3.6	2.7	3.8	2.8	.33	.18	.03	5.5
9	.18	e.04	10	3.0	3.0	2.8	3.8	2.3	.31	.16	.03	3.2
10	.09	e.04	2.6	2.6	2.9	3.0	3.9	2.0	.23	.17	.02	2.7
11	.07	e.07	e2.5	2.3	2.9	2.9	7.5	1.8	.18	.14	.03	1.9
12	.06	.06	e2.0	2.3	3.0	2.7	7.3	1.7	.16	.25	.03	1.7
13	.05	.07	26	2.2	3.8	2.6	5.9	1.7	.15	.49	.03	1.1
14	.04	.08	9.7	2.0	3.2	4.7	5.0	3.8	.13	1.3	.21	.85
15	.04	.10	3.1	5.8	2.9	23	5.9	5.5	.31	1.4	.35	15
16	.04	e.09	9.3	5.4	2.7	7.5	5.0	2.6	.85	.76	.17	419
17	.06	e.15	5.3	3.9	2.6	4.5	4.6	2.0	1.7	.48	.15	37
18	.07	e.09	2.5	5.5	6.9	3.5	4.2	1.7	.95	.37	.10	15
19	.08	.09	1.5	5.4	6.7	3.0	4.0	1.6	.66	.26	.09	6.7
20	.07	.07	1.3	4.1	8.4	2.8	3.9	1.6	.50	.22	.10	4.7
21	.06	e.08	.87	3.5	6.0	26	3.8	1.4	.81	.18	.10	11
22	.07	e.07	1.0	3.0	4.6	15	3.7	1.6	.59	.23	.08	36
23	.05	e.06	5.1	14	3.8	6.2	3.5	1.6	.46	.15	.08	8.1
24	.05	e.06	e18	215	3.6	4.6	3.3	1.6	.39	7.8	.07	4.3
25	.05	e.05	18	38	3.1	6.0	3.0	1.6	.40	3.7	.21	3.0
26	.05	e.06	8.8	11	2.9	5.8	3.1	1.4	.63	.87	1.7	2.4
27	.05	e.07	6.6	7.8	2.6	4.3	3.2	1.3	.58	.36	4.7	36
28	.04	e.05	5.5	5.7	2.8	3.6	5.6	1.1	.58	.24	1.0	117
29	.04	e.04	5.0	4.7	---	2.9	15	.99	.52	.26	.42	79
30	.04	e.03	5.2	4.0	---	2.5	91	.95	.41	.18	.30	57
31	.03	---	4.9	3.6	---	2.2	---	.84	---	.15	.24	---
TOTAL	2.00	1.93	155.41	531.2	121.8	166.7	314.9	79.78	15.89	22.14	10.77	1178.01
MEAN	.065	.064	5.01	17.1	4.35	5.38	10.5	2.57	.53	.71	.35	39.3
MAX	.18	.15	26	215	11	26	91	12	1.7	7.8	4.7	419
MIN	.03	.02	.04	2.0	2.6	2.2	3.0	.84	.13	.14	.02	.13
CFSM	.00	.00	.36	1.22	.31	.38	.74	.18	.04	.05	.02	2.78
IN.	.01	.01	.41	1.40	.32	.44	.83	.21	.04	.06	.03	3.11

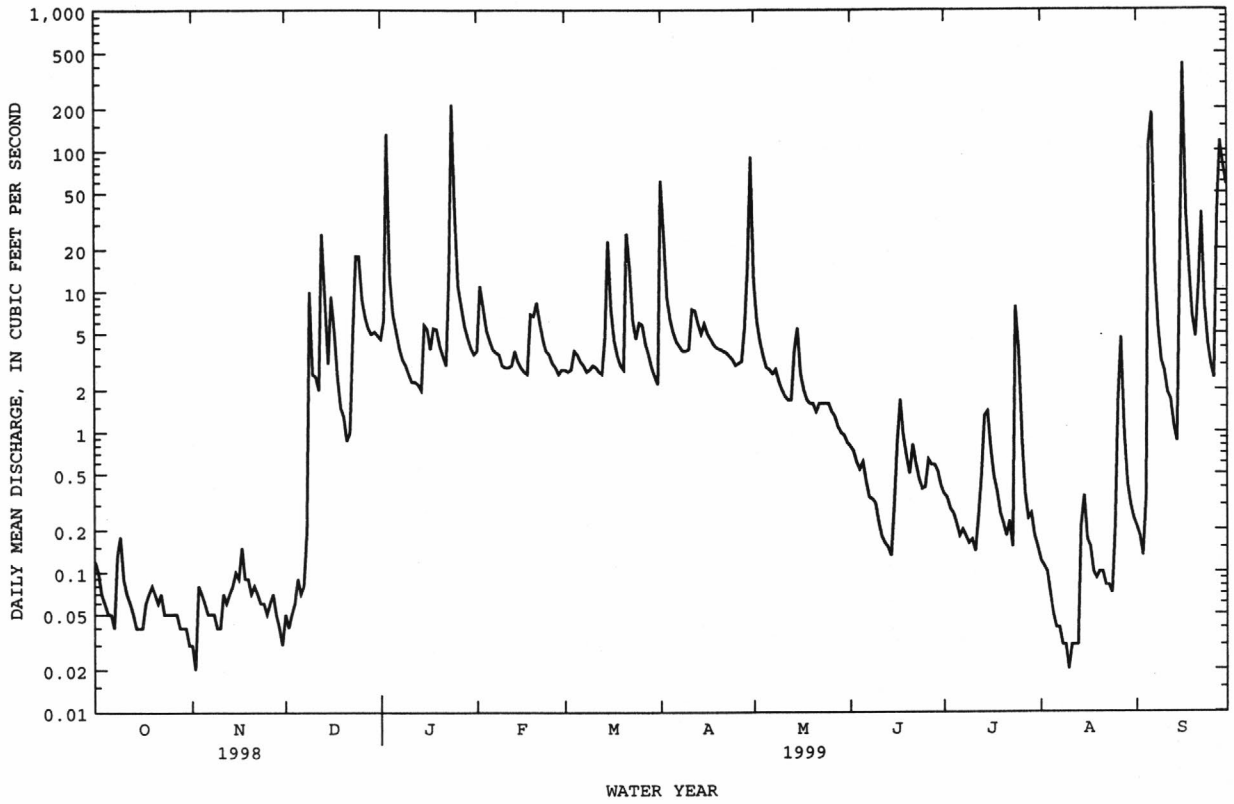
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1999, BY WATER YEAR (WY)

MEAN	6.73	8.68	9.32	26.2	24.6	32.2	18.3	10.4	7.89	3.54	3.20	10.8
MAX	24.9	28.9	17.6	58.2	62.9	76.6	36.3	36.3	30.6	14.4	8.27	54.4
(WY)	1996	1996	1991	1991	1998	1998	1993	1989	1995	1989	1989	1996
MIN	.065	.064	2.90	7.63	4.35	4.39	.99	1.26	.53	.21	.33	.027
(WY)	1999	1999	1992	1989	1999	1988	1995	1995	1999	1988	1998	1990

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1988 - 1999	
ANNUAL TOTAL	6598.13		2600.53			
ANNUAL MEAN	18.1		7.12		13.4	
HIGHEST ANNUAL MEAN					20.7	1996
LOWEST ANNUAL MEAN					5.92	1988
HIGHEST DAILY MEAN	683	Mar 19	419	Sep 16	1080	Sep 6 1996
LOWEST DAILY MEAN	.02	Nov 2	.02	Nov 2	.00	Aug 3 1988
ANNUAL SEVEN-DAY MINIMUM	.04	Oct 27	.03	Aug 7	.00	Aug 13 1988
INSTANTANEOUS PEAK FLOW			961	Sep 16	3440*	Sep 6 1996
INSTANTANEOUS PEAK STAGE			10.35	Sep 16	15.47*	Sep 6 1996
INSTANTANEOUS LOW FLOW			NOT DETERMINED		.00*	Aug 6 1987
ANNUAL RUNOFF (CFSM)	1.28		.51		.95	
ANNUAL RUNOFF (INCHES)	17.41		6.86		12.94	
10 PERCENT EXCEEDS	29		8.6		24	
50 PERCENT EXCEEDS	2.0		1.7		4.8	
90 PERCENT EXCEEDS	.05		.05		.23	

e Estimated.
* See REMARKS.

02084909 SEVENMILE CREEK NEAR EFLAND, NC--Continued



02085000 ENO RIVER AT HILLSBOROUGH, NC

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

DRAINAGE AREA.--66.0 mi^2.

WATER-DISCHARGE RECORDS

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

REVISED RECORD.--WDR NC-96-1: 1945(M).

GAGE.--Water-stage recorder. Datum of gage is 487.44 ft above sea level. Telephone telemetry at station. Satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Diversions upstream from station of 1.3 ft^3/s by Orange-Alamance Water System, Inc. and 2.4 ft^3/s by town of Hillsborough for municipal supply, part of which is returned downstream of station as treated effluent. Maximum gage height for period of record, 21.13 ft, from high-water mark in gage shelter. Minimum discharge for current water year also occurred Nov. 29, 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.7	1.9	1.1	13	35	27	217	130	3.4	2.3	2.1	.93
2	2.0	1.5	.98	12	84	24	159	68	3.8	6.9	2.1	.82
3	1.6	4.8	1.2	721	77	25	85	45	3.6	9.3	1.6	.73
4	2.2	3.5	1.5	129	55	28	64	33	3.5	6.2	2.1	4.0
5	2.8	3.0	2.0	70	44	25	51	28	3.3	4.0	2.2	466
6	2.4	2.3	1.4	45	37	24	40	26	2.4	2.3	2.1	926
7	2.5	2.3	1.5	35	34	23	36	23	2.2	1.4	2.1	124
8	11	1.8	2.9	27	32	20	33	22	2.0	1.4	3.9	53
9	8.3	1.4	15	25	28	20	31	19	2.0	1.5	3.3	29
10	5.9	1.4	11	21	26	22	29	15	1.7	1.5	2.8	18
11	4.8	2.0	5.6	18	24	21	60	13	1.7	1.8	2.8	12
12	4.2	1.7	4.1	16	25	20	59	12	1.6	3.9	2.8	8.8
13	3.1	2.0	111	14	27	19	38	12	1.8	8.2	2.4	5.4
14	2.8	2.6	79	14	25	30	31	26	1.6	16	7.4	3.7
15	2.5	3.0	25	40	23	158	29	48	13	12	7.1	49
16	3.0	2.7	e65	50	22	92	31	26	44	8.7	2.8	2450
17	2.4	3.6	39	36	21	61	26	18	42	7.1	2.2	355
18	3.1	2.0	21	50	48	44	24	15	25	5.7	1.3	122
19	2.8	1.8	15	50	57	35	21	13	12	4.7	1.7	61
20	2.6	1.8	13	36	75	31	21	11	7.3	4.3	1.7	40
21	2.3	2.1	10	29	60	117	19	9.9	6.1	3.8	1.5	33
22	2.1	1.8	9.7	24	42	123	19	9.7	7.1	3.5	1.7	279
23	1.9	1.3	e11	48	33	72	18	11	5.4	3.3	1.4	87
24	2.3	1.1	e55	1420	30	54	17	9.0	3.6	40	1.1	50
25	2.4	1.4	98	450	27	57	17	8.0	3.2	56	2.8	34
26	2.6	1.9	40	130	26	55	17	6.6	4.4	9.4	7.3	25
27	e2.4	2.2	29	80	25	45	18	6.7	5.7	5.4	25	54
28	2.4	1.2	25	61	27	37	26	6.0	5.0	4.0	7.3	569
29	2.4	.91	24	50	---	34	51	5.3	3.7	4.5	2.9	698
30	2.1	.79	22	41	---	29	463	4.9	2.7	3.4	1.8	296
31	2.4	---	15	35	---	27	---	4.8	---	2.5	1.1	---
TOTAL	98.0	61.80	754.98	3790	1069	1399	1750	684.9	224.8	245.0	110.4	6854.38
MEAN	3.16	2.06	24.4	122	38.2	45.1	58.3	22.1	7.49	7.90	3.56	228
MAX	11	4.8	111	1420	84	158	463	130	44	56	25	2450
MIN	1.6	.79	.98	12	21	19	17	4.8	1.6	1.4	1.1	.73
CFSM	.05	.03	.37	1.85	.58	.68	.88	.33	.11	.12	.05	3.46
IN.	.06	.03	.43	2.14	.60	.79	.99	.39	.13	.14	.06	3.86

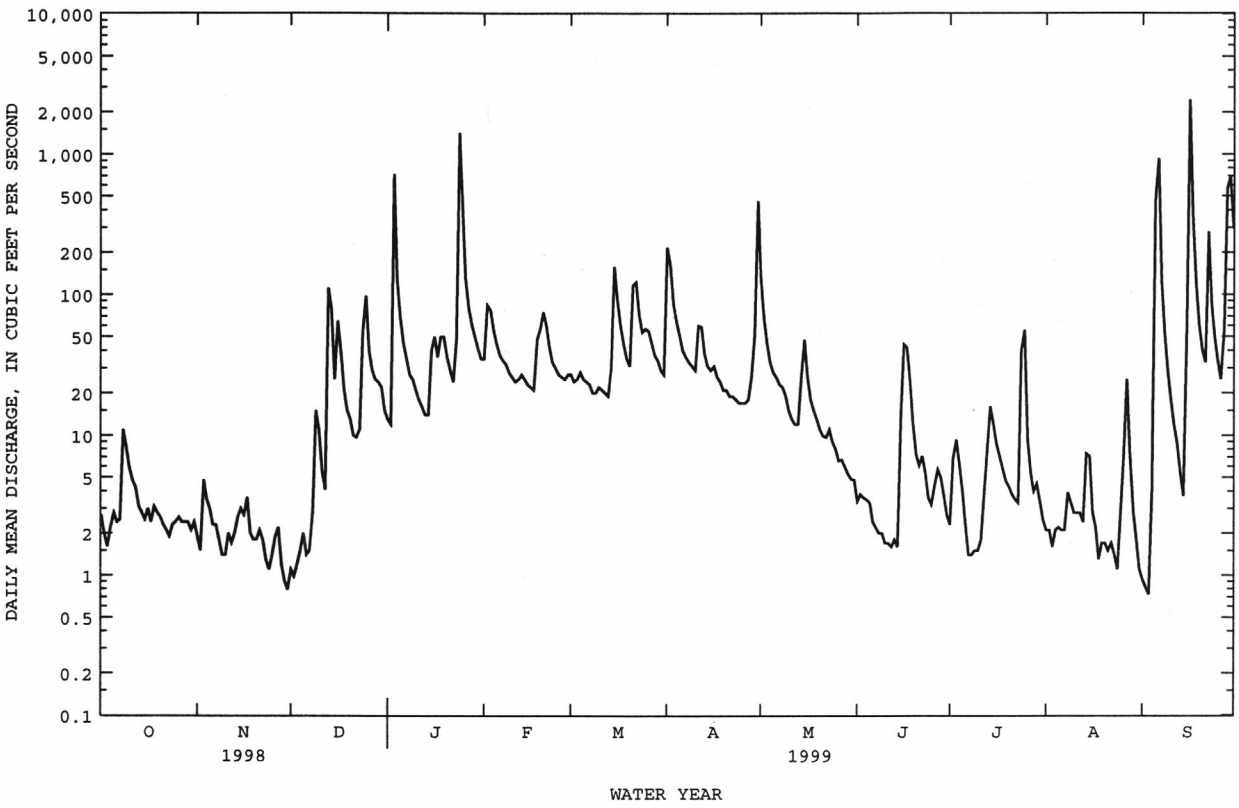
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1999,@ BY WATER YEAR (WY)

MEAN	28.8	44.3	55.5	92.8	113	120	93.4	51.3	38.0	37.5	32.8	38.1
MAX	181	213	166	326	311	354	264	165	210	359	256	342
(WY)	1930	1986	1946	1936	1998	1998	1936	1931	1995	1938	1939	1945
MIN	.63	.82	3.64	5.16	21.7	29.9	14.8	9.67	1.75	1.28	.85	.28
(WY)	1987	1942	1942	1942	1931	1988	1995	1986	1986	1986	1987	1954

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1928 - 1999@	
ANNUAL TOTAL	34308.38		17042.26			
ANNUAL MEAN	94.0		46.7		61.8	
HIGHEST ANNUAL MEAN					108	1960
LOWEST ANNUAL MEAN					26.3	1988
HIGHEST DAILY MEAN	3870	Mar 19	2450	Sep 16	4600	Sep 6 1996
LOWEST DAILY MEAN	.79	Nov 30	.73	Sep 3	.02	Jul 10 1986
ANNUAL SEVEN-DAY MINIMUM	1.1	Nov 28	1.1	Nov 28	.10	Oct 6 1954
INSTANTANEOUS PEAK FLOW			4190	Sep 16	10800	Sep 6 1996
INSTANTANEOUS PEAK STAGE			16.06	Sep 16	21.13*	Sep 6 1996
INSTANTANEOUS LOW FLOW			.49*	Nov 24	.01	Jul 10 1986
ANNUAL RUNOFF (CFSM)	1.42		.71		.94	
ANNUAL RUNOFF (INCHES)	19.34		9.61		12.73	
10 PERCENT EXCEEDS	139		64		116	
50 PERCENT EXCEEDS	19		13		26	
90 PERCENT EXCEEDS	1.9		1.7		4.2	

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

02085000 ENO RIVER AT HILLSBOROUGH, NC--Continued



02085000 ENO RIVER AT HILLSBOROUGH, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1990 to current year.

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	COLOR (PLAT-INUM-COBALT UNITS) (00080)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)
OCT										
27...	1315	2.7	101	6.7	11.5	25	765	8.8	81	31
DEC										
10...	1315	21	109	6.9	10.5	30	761	8.4	76	34
FEB										
19...	1030	52	86	6.4	9.0	60	750	11.3	99	22
APR										
08...	1015	32	95	7.2	17.7	50	754	8.3	88	25
JUN										
21...	1250	5.6	92	6.7	19.3	60	759	6.6	72	29
AUG										
25...	1145	4.6	101	6.9	23.5	37	751	5.4	65	30

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE IT-FLD (MG/L AS HCO3) (99440)	ANC WATER UNFLTRD IT FIELD MG/L AS CACO3 (00419)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
OCT										
27...	7.4	3.0	6.0	29	.5	1.3	22	18	--	6.7
DEC										
10...	8.2	3.3	6.3	27	.5	2.2	43	35	--	6.9
FEB										
19...	5.2	2.2	4.3	29	.4	1.1	--	--	--	5.4
APR										
08...	5.9	2.5	4.9	29	.4	1.3	31	25	--	4.7
JUN										
21...	6.8	2.9	6.2	30	.5	2.0	33	27	27	7.2
AUG										
25...	7.0	3.1	6.6	31	.5	1.6	35	29	--	6.2

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)
OCT										
27...	5.0	.23	9.8	67	.002	.050	.003	.38	.38	.43
DEC										
10...	5.8	.19	11	73	.002	.050	.005	.28	.29	.34
FEB										
19...	5.9	<.10	12	59	.002	.253	.003	.25	.25	.50
APR										
08...	5.1	<.10	10	65	.002	.167	.026	.33	.36	.52
JUN										
21...	5.8	<.10	11	--	.005	.263	.054	.49	.54	.81
AUG										
25...	5.8	.15	9.2	55	.003	.146	.034	.39	.42	.57

02085000 ENO RIVER AT HILLSBOROUGH, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105)	ARSENIC TOTAL (UG/L AS AS) (01002)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) (01037)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)
OCT										
27...	.133	.003	50	<1	<1	<1	<1	<1	390	<1
DEC										
10...	<.050	.003	--	--	--	--	--	--	--	--
FEB										
19...	<.050	.002	--	--	--	--	--	--	--	--
APR										
08...	<.050	.006	130	<1	<1	<1	<1	<1	890	<1
JUN										
21...	E.031	.004	--	--	--	--	--	--	--	--
AUG										
25...	<.050	.001	--	--	--	--	--	--	--	--

DATE	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO) (01062)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
OCT										
27...	50	<.10	<1	<1	<1	<1	<10	3.7	3	.02
DEC										
10...	--	--	--	--	--	--	--	4.2	4	.23
FEB										
19...	--	--	--	--	--	--	--	3.4	16	2.2
APR										
08...	90	<.10	<1	<1	<1	<1	<40	6.3	8	.66
JUN										
21...	--	--	--	--	--	--	--	6.9	8	.11
AUG										
25...	--	--	--	--	--	--	--	4.9	6	.08

02085070 ENO RIVER NEAR DURHAM, NC

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

DRAINAGE AREA.--141 mi^2

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

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

GAGE.--Water-stage recorder. Datum of gage is 270 ft above sea level, from topographic map. Prior to Nov. 19, 1966, at site 275 ft upstream, at datum 272.35 ft. Nov. 20, 1966, to Sept. 30, 1967, water-stage recorder at present site, at datum 270.94 ft. U.S. Army Corps of Engineers satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are fair. 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. Minimum discharge for current water year also occurred on Aug. 5.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.5	14	6.7	33	76	67	736	372	14	12	6.9	5.1
2	7.6	19	6.3	33	224	63	699	158	13	14	5.0	3.9
3	7.7	40	6.4	1510	201	60	267	105	11	11	4.0	3.5
4	9.2	10	6.1	413	133	66	170	83	11	16	2.9	23
5	8.8	12	6.4	153	104	66	130	71	10	15	2.8	1390
6	7.2	6.9	6.5	95	89	61	106	65	9.4	11	3.0	2250
7	8.7	5.9	7.6	73	80	58	93	60	8.5	7.9	3.2	450
8	15	5.3	7.4	63	77	55	86	57	7.4	6.5	3.6	130
9	16	5.3	28	56	69	54	80	53	7.5	4.8	3.9	80
10	14	5.8	40	51	64	56	73	48	7.1	3.6	4.5	58
11	9.6	11	23	46	60	56	172	43	8.1	3.8	5.9	42
12	8.7	11	15	42	59	53	156	40	7.5	5.6	5.1	35
13	7.4	6.5	163	40	63	51	102	39	6.6	13	4.7	28
14	7.1	6.6	202	37	60	103	82	43	6.0	36	20	24
15	5.9	9.4	66	61	56	341	82	75	91	36	20	142
16	5.4	9.6	84	97	54	224	79	67	157	25	20	5360
17	5.7	11	88	75	53	137	71	48	165	17	9.9	953
18	7.4	7.7	53	147	96	105	63	42	68	14	6.6	341
19	11	6.4	38	108	143	87	58	38	44	11	5.1	141
20	10	5.9	33	82	154	75	57	36	31	9.1	4.7	91
21	11	5.1	27	67	140	519	55	33	25	8.0	4.4	194
22	10	5.3	24	59	103	521	53	33	22	8.2	4.2	795
23	10	5.4	26	125	84	210	51	32	21	7.8	4.2	234
24	9.0	5.3	e84	2180	74	142	48	31	19	7.6	3.6	109
25	7.4	5.3	179	1100	70	136	46	26	21	70	24	79
26	6.5	7.5	90	364	66	133	45	24	16	42	77	62
27	5.7	6.8	59	181	63	115	46	23	20	18	40	312
28	5.2	6.8	49	129	66	98	59	22	17	11	40	1950
29	4.7	6.1	46	105	---	88	120	20	18	7.9	20	1770
30	5.1	6.6	44	88	---	81	949	17	14	7.3	11	1120
31	8.6	---	39	77	---	72	---	15	---	7.2	6.9	---
TOTAL	264.1	269.5	1553.4	7690	2581	3953	4834	1819	876.1	467.3	377.1	18175.5
MEAN	8.52	8.98	50.1	248	92.2	128	161	58.7	29.2	15.1	12.2	606
MAX	16	40	202	2180	224	521	949	372	165	70	77	5360
MIN	4.7	5.1	6.1	33	53	51	45	15	6.0	3.6	2.8	3.5
CFSM	.06	.06	.36	1.76	.65	.90	1.14	.42	.21	.11	.09	4.30
IN.	.07	.07	.41	2.03	.68	1.04	1.28	.48	.23	.12	.10	4.80

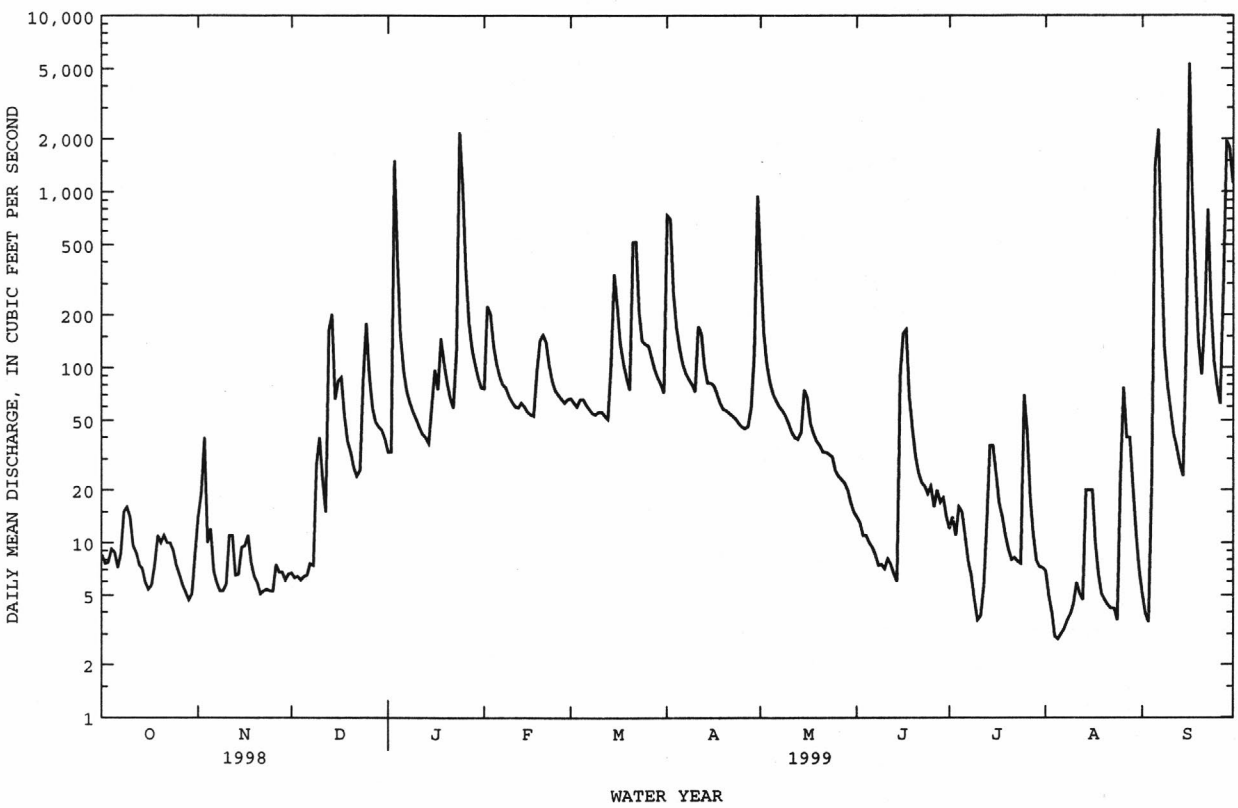
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 1999, BY WATER YEAR (WY)

MEAN	57.4	76.6	109	211	252	284	182	124	88.5	68.3	51.7	72.9
MAX	456	462	406	517	638	767	424	429	411	452	282	606
(WY)	1972	1986	1973	1998	1998	1998	1983	1978	1982	1975	1985	1999
MIN	4.77	8.98	19.4	21.4	64.7	67.4	34.9	26.1	6.86	6.35	3.34	.84
(WY)	1964	1999	1995	1981	1968	1988	1995	1986	1986	1977	1977	1968

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1963 - 1999	
ANNUAL TOTAL	72177.5		42860.0			
ANNUAL MEAN	198		117		131	
HIGHEST ANNUAL MEAN					244	1973
LOWEST ANNUAL MEAN					60.4	1977
HIGHEST DAILY MEAN	8300	Mar 19	5360	Sep 16	9900	Sep 6 1996
LOWEST DAILY MEAN	3.8	Aug 7	2.8	Aug 5	.08	Aug 14 1977
ANNUAL SEVEN-DAY MINIMUM	4.4	Aug 27	3.3	Aug 3	.20	Aug 8 1977
INSTANTANEOUS PEAK FLOW			7620	Sep 16	14700	Sep 6 1996
INSTANTANEOUS PEAK STAGE			17.18	Sep 16	23.58*	Sep 6 1996
INSTANTANEOUS LOW FLOW			2.3*	Aug 4	.06*	Aug 14 1977
ANNUAL RUNOFF (CFSM)	1.40		.83		.93	
ANNUAL RUNOFF (INCHES)	19.04		11.31		12.62	
10 PERCENT EXCEEDS	356		164		265	
50 PERCENT EXCEEDS	41		39		52	
90 PERCENT EXCEEDS	5.9		5.7		6.8	

e Estimated.
* See REMARKS.

02085070 ENO RIVER NEAR DURHAM, NC--Continued



02085079 ENO RIVER NEAR WEAVER, NC

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

DRAINAGE AREA.--148 mi^2.

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1982 to September 1985.

WATER TEMPERATURE: October 1982 to September 1985.

INSTRUMENTATION.--Water-quality monitor from October 1982 to September 1985.

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

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 293 microsiemens, July 11, 1984, minimum, 32 microsiemens, Aug. 18, 1984.

WATER TEMPERATURE: Maximum recorded, 30.5°C, Aug. 23, 1983; minimum recorded, 0.0°C, on several days during winter months.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	COLOR (PLAT-INUM-COBALT UNITS) (00080)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)
NOV										
02...	1430	22	700	7.1	13.7	35	757	6.6	64	54
DEC										
14...	1330	168	--	7.2	9.0	65	757	10.2	--	41
FEB										
23...	1300	82	123	6.2	--	55	768	--	--	27
APR										
09...	1030	79	112	7.2	17.9	30	751	9.1	97	29
JUN										
21...	1515	23	208	7.0	20.0	50	759	6.9	76	29
AUG										
26...	1430	32	153	6.7	23.8	190	754	5.9	71	25

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE IT-FLD (MG/L AS HCO3) (99440)	ANC WATER UNFLTRD IT FIELD MG/L AS CACO3 (00419)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)
NOV										
02...	13	5.1	114	80	7	6.9	74	61	220	19
DEC										
14...	10	3.7	120	83	8	8.8	55	45	240	23
FEB										
23...	6.5	2.7	12	48	1	1.6	--	--	20	8.2
APR										
09...	6.9	2.8	9.6	41	.8	1.5	32	26	12	6.8
JUN										
21...	6.8	2.9	26	63	2	2.9	41	34	40	9.3
AUG										
26...	5.9	2.6	18	58	2	3.1	26	21	29	6.3

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)
NOV										
02...	.22	2.3	426	<.001	<.005	<.002	--	.54	--	E.034
DEC										
14...	.25	6.9	484	.005	.642	.017	.46	.47	1.1	.050
FEB										
23...	<.10	9.7	88	.001	.267	.004	.28	.28	.55	E.031
APR										
09...	<.10	6.1	74	.002	.121	.009	.35	.36	.48	E.039
JUN										
21...	.13	11	--	.005	.233	.034	.44	.47	.70	E.048
AUG										
26...	<.10	4.6	93	.014	.484	.150	.89	1.0	1.5	.150

02085079 ENO RIVER NEAR WEAVER, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105)	ARSENIC TOTAL (UG/L AS AS) (01002)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) (01037)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)
NOV										
02...	.005	70	<1	<1	<1	<1	2	230	<1	84
DEC										
14...	.009	--	--	--	--	--	--	--	--	--
FEB										
23...	.004	--	--	--	--	--	--	--	--	--
APR										
09...	.004	170	<1	<1	<1	<1	<1	580	<1	62
JUN										
21...	.019	--	--	--	--	--	--	--	--	--
AUG										
26...	.009	--	--	--	--	--	--	--	--	--

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO) (01062)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
NOV									
02...	<.10	<1	2	<1	<1	<10	6.3	4	.24
DEC									
14...	--	--	--	--	--	--	7.4	22	10
FEB									
23...	--	--	--	--	--	--	4.5	5	1.0
APR									
09...	<.10	<1	<1	<1	<1	<40	6.8	13	2.8
JUN									
21...	--	--	--	--	--	--	5.6	14	.89
AUG									
26...	--	--	--	--	--	--	12	104	9.0

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

LOCATION.--Lat 36°08'30", long 78°55'10", Durham County, Hydrologic Unit 03020201, on left bank, 80 feet downstream from brindge on Secondary Road 1461, and 1.8 mi northwest of Orange Factory.

DRAINAGE AREA.--78.2 mi^2.

WATER-DISCHARGE RECORDS

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 sea level, from topographic map. Satellite telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Maximum discharge for period of record from extension of rating curve above 2,300 ft^3/s, based on contracted-opening measurement of peak flow; maximum gage height, 13.26 ft, from high-water mark in gage shelter. Minimum discharge for period of record, no flow, also occurred Aug. 19-29, 1988. Minimum discharge for the current water year also occurred Aug. 19-21. Maximum gage height for current water year, 8.02 ft, from flood marks.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	.35	1.7	15	31	34	323	152	5.8	10	1.0	.57
2	e1.0	e.40	1.7	13	e120	32	257	70	4.5	9.0	.89	.50
3	e.89	e.70	1.8	992	102	29	111	43	5.0	9.9	.69	.40
4	e1.3	1.1	3.3	239	64	32	78	33	4.8	e10	.61	.51
5	e.80	.97	2.3	85	49	36	60	27	4.4	e8.9	.50	377
6	.88	e.90	1.8	49	41	e25	46	24	4.1	e6.5	.43	940
7	.87	e.80	1.6	34	35	e23	40	22	4.0	e6.5	.36	174
8	1.2	e.70	1.6	28	31	e21	36	20	3.8	e21	.29	52
9	1.5	e.90	3.5	25	27	e20	33	18	3.5	e16	.26	25
10	1.7	1.2	5.2	21	25	24	30	16	3.3	7.4	.21	14
11	1.9	1.3	5.4	19	23	25	60	15	3.1	4.4	.19	8.8
12	1.7	1.3	3.7	17	23	23	85	14	2.8	3.3	.18	6.0
13	1.4	1.2	82	15	26	22	45	14	2.6	3.3	.16	4.3
14	1.2	1.3	113	14	24	26	33	15	2.6	6.5	.20	3.8
15	1.1	1.6	27	35	22	258	30	21	104	21	.34	27
16	.99	1.4	42	68	21	125	39	19	81	11	.26	e3300
17	.85	1.5	56	36	20	73	35	16	80	6.6	.20	306
18	.78	1.6	21	46	54	53	27	15	43	4.6	.14	94
19	.74	1.6	13	66	90	41	24	14	23	3.5	.13	55
20	.68	1.5	9.5	38	144	34	22	13	16	3.1	.14	35
21	.59	1.6	7.9	29	93	199	21	12	14	2.6	.16	26
22	.55	1.7	6.8	24	60	234	20	11	13	2.4	.15	250
23	.51	1.8	6.2	39	45	101	19	11	13	2.1	.15	72
24	.45	1.7	33	1400	38	70	18	11	12	1.9	.15	38
25	.43	1.7	138	574	35	67	17	9.6	11	1.7	.19	26
26	.41	2.0	49	146	32	62	17	8.6	10	1.4	.36	20
27	.43	1.9	29	92	30	51	17	8.2	9.6	1.3	.87	83
28	.47	1.8	26	66	31	43	19	7.3	10	1.2	.82	1200
29	.47	1.7	26	51	---	37	34	6.5	13	1.2	.55	1020
30	.43	1.7	23	40	---	33	587	6.8	11	1.1	.45	373
31	.38	---	20	33	---	30	---	6.4	---	1.0	.45	---
TOTAL	27.70	39.92	762.0	4349	1336	1883	2183	679.4	517.9	190.4	11.48	8531.88
MEAN	.89	1.33	24.6	140	47.7	60.7	72.8	21.9	17.3	6.14	.37	284
MAX	1.9	2.0	138	1400	144	258	587	152	104	21	1.0	3300
MIN	.38	.35	1.6	13	20	20	17	6.4	2.6	1.0	.13	.40
CFSM	.01	.02	.31	1.79	.61	.78	.93	.28	.22	.08	.00	3.64
IN.	.01	.02	.36	2.07	.64	.90	1.04	.32	.25	.09	.01	4.06

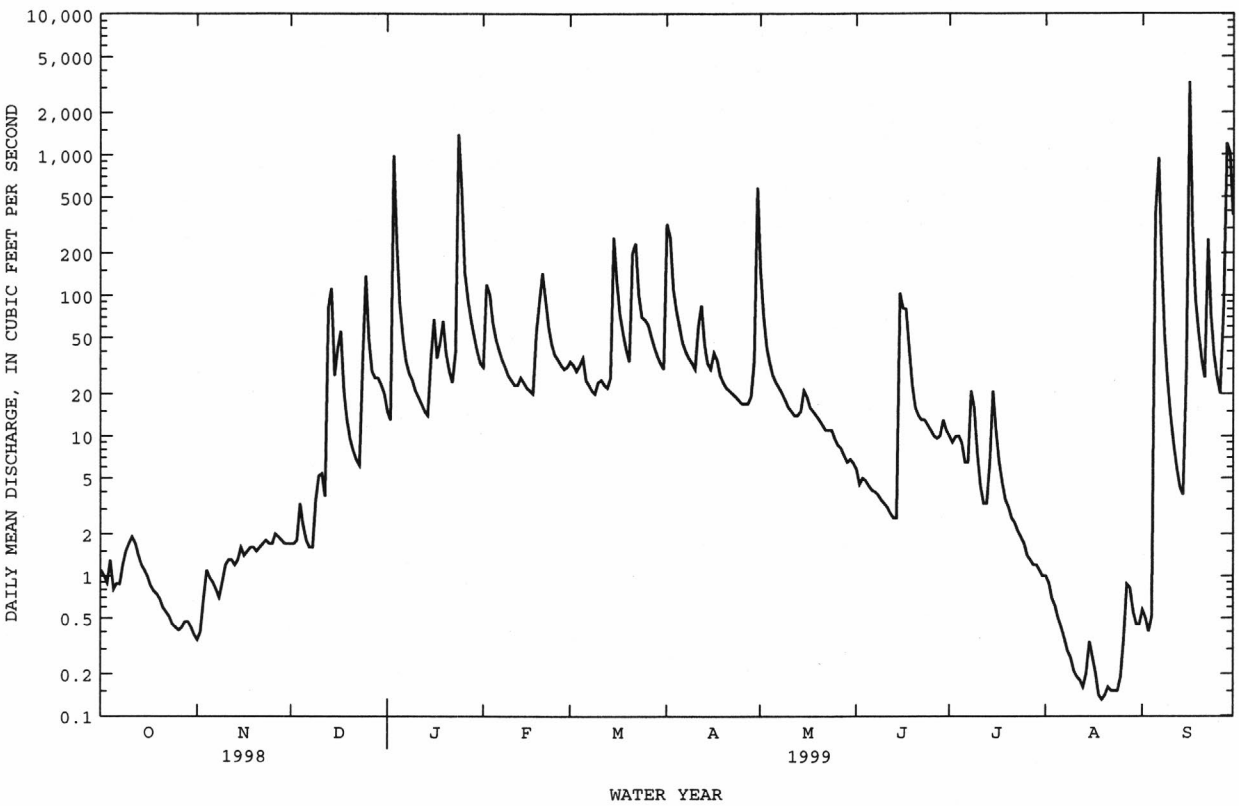
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1999, BY WATER YEAR (WY)

MEAN	32.3	41.9	60.8	145	138	190	108	58.1	40.0	29.8	22.7	58.8
MAX	97.7	120	162	257	379	456	236	165	194	104	114	329
(WY)	1996	1996	1997	1998	1998	1993	1993	1990	1995	1989	1989	1996
MIN	.14	1.33	8.10	29.0	47.7	30.9	17.1	12.2	5.53	1.59	.37	1.27
(WY)	1994	1999	1995	1989	1999	1988	1995	1995	1994	1988	1999	1990

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1987 - 1999	
ANNUAL TOTAL	40058.45		20511.68			
ANNUAL MEAN	110		56.2		76.8	
HIGHEST ANNUAL MEAN					115	1998
LOWEST ANNUAL MEAN					30.8	1988
HIGHEST DAILY MEAN	5320	Mar 19	3300	Sep 16	6500	Sep 6 1996
LOWEST DAILY MEAN	.35	Nov 1	.13	Aug 19	.00*	Aug 19 1988
ANNUAL SEVEN-DAY MINIMUM	.42	Oct 27	.15	Aug 18	.00*	Aug 19 1988
INSTANTANEOUS PEAK FLOW			4330	Sep 16	11600*	Sep 6 1996
INSTANTANEOUS PEAK STAGE			8.02*	Sep 16	13.26*	Sep 6 1996
INSTANTANEOUS LOW FLOW			.13*	Aug 18	.00*	Aug 18 1988
ANNUAL RUNOFF (CFSM)	1.40		.72		.98	
ANNUAL RUNOFF (INCHES)	19.06		9.76		13.34	
10 PERCENT EXCEEDS	188		84		157	
50 PERCENT EXCEEDS	15		14		25	
90 PERCENT EXCEEDS	1.1		.51		1.8	

e Estimated.
* See REMARKS.

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



0208521324 LITTLE RIVER AT SECONDARY ROAD 1461 NEAR ORANGE FACTORY,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.

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 1998 TO SEPTEMBER 1999

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	COLOR (PLAT-INUM-COBALT UNITS) (00080)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)
MAR										
15...	1515	259	72	6.9	6.2	100	752	11.8	96	20
SEP										
06...	0930	1170	45	6.4	--	100	--	--	--	14

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE IT-FLD (MG/L AS HCO3) (99440)	ANC WATER UNFLTRD IT FIELD MG/L AS CACO3 (00419)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)
MAR										
15...	4.8	2.0	4.3	29	.4	1.4	18	15	5.4	5.1
SEP										
06...	3.2	1.3	1.9	20	.2	2.3	--	--	4.8	2.4

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)
MAR										
15...	<.10	9.5	48	.004	.323	.041	.62	.66	.98	.068
SEP										
06...	<.10	6.9	59	.007	.161	.005	1.3	1.3	1.5	.235

DATE	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105)	ARSENIC TOTAL (UG/L AS AS) (01002)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) (01037)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)
MAR										
15...	.008	610	<1	<1	<1	<1	2	1200	<1	98
SEP										
06...	.039	1500	<1	<1	2	2	5	2300	3	270

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO) (01062)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
MAR									
15...	<.10	<1	<1	<1	<1	<40	11	90	63
SEP									
06...	<.10	<1	2	<1	<1	E30	19	171	539



USGS field crew making an acoustic doppler current profiler streamflow measurement in floodwaters of the Tar River below the reservoir near Rocky Mount, N.C., September 1999.

0208524090 MOUNTAIN CREEK AT SECONDARY ROAD 1617 NEAR BAHAMA, NC

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

DRAINAGE AREA.--8.0 mi^2.

WATER-DISCHARGE RECORDS

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

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

REMARKS.--No estimated daily discharges. Records good. Maximum gage height for period of record from floodmarks. Maximum gage height for period of record occurred Sept. 6, 1996, discharge not determined.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.05	.02	.09	1.1	4.4	3.4	60	14	.17	.19	.02	.00
2	.04	.03	.09	1.1	23	2.9	29	7.6	.16	.16	.01	.00
3	.03	.10	.10	137	13	2.9	13	4.3	.15	.12	.00	.00
4	.06	.04	.10	18	8.9	3.2	9.3	3.3	.14	.10	.00	.15
5	.06	.03	.13	8.6	6.3	2.6	6.8	2.7	.11	.09	.00	74
6	.06	.02	.12	5.0	5.3	2.5	4.9	2.6	.10	.09	.00	103
7	.05	.02	.13	4.0	4.5	2.2	4.3	2.4	.10	.08	.00	13
8	.13	.02	.14	3.3	3.7	2.0	3.5	2.0	.09	.09	.00	4.4
9	.09	.02	2.9	2.8	3.3	1.9	3.2	1.5	.08	.08	.00	2.0
10	.05	.03	.56	2.3	5.3	2.3	2.9	1.4	.07	.08	.00	1.2
11	.04	.06	.34	1.9	3.7	2.1	16	1.2	.06	.08	.00	.65
12	.03	.05	.25	1.6	3.5	1.9	11	.99	.05	.09	.00	.40
13	.04	.05	21	1.4	3.9	1.7	5.9	.91	.04	.20	.00	.30
14	.03	.05	12	1.2	3.0	7.1	4.3	1.2	.05	1.4	.00	.34
15	.02	.09	3.0	5.8	2.6	22	3.8	1.7	.25	.65	.00	16
16	.02	.05	10	4.6	2.5	9.9	6.6	1.2	1.1	.28	.00	382
17	.02	.08	6.3	3.0	2.3	6.0	4.2	1.1	1.8	.24	.00	29
18	.02	.07	2.4	6.6	11	4.4	3.1	1.1	.37	.19	.00	11
19	.02	.07	1.3	5.8	12	3.3	2.7	.97	.20	.15	.00	6.1
20	.02	.07	.91	3.6	20	2.8	2.4	.92	.17	.11	.00	4.5
21	.01	.07	.69	2.9	10	52	3.1	.67	.21	.10	.00	4.5
22	.01	.07	.70	2.6	6.7	24	2.4	.51	.21	.10	.00	8.6
23	.02	.07	.68	12	4.7	11	2.1	.48	.17	.09	.00	4.0
24	.02	.07	15	156	4.1	8.0	1.8	.50	.12	.08	.00	2.8
25	.03	.08	14	41	3.7	8.9	1.6	.33	.13	.07	.00	1.9
26	.02	.11	6.1	15	3.4	7.3	1.5	.34	.18	.06	.16	1.8
27	.02	.14	3.3	10	3.1	5.2	1.9	.36	.15	.04	.14	37
28	.02	.08	2.5	8.3	3.3	4.2	2.3	.30	.90	.04	.06	362
29	.02	.08	2.3	6.0	---	3.4	8.2	.22	1.2	.04	.03	120
30	.01	.08	1.9	7.2	---	2.9	63	.20	.28	.04	.02	68
31	.02	---	1.3	4.2	---	2.6	---	.20	---	.03	.01	---
TOTAL	1.08	1.82	110.33	483.9	181.2	216.6	284.8	57.20	8.81	5.16	0.45	1258.64
MEAN	.035	.061	3.56	15.6	6.47	6.99	9.49	1.85	.29	.17	.015	42.0
MAX	.13	.14	21	156	23	52	63	14	1.8	1.4	.16	382
MIN	.01	.02	.09	1.1	2.3	1.7	1.5	.20	.04	.03	.00	.00
CFSM	.00	.01	.45	1.96	.81	.88	1.19	.23	.04	.02	.00	5.27
IN.	.01	.01	.52	2.26	.85	1.01	1.33	.27	.04	.02	.00	5.88

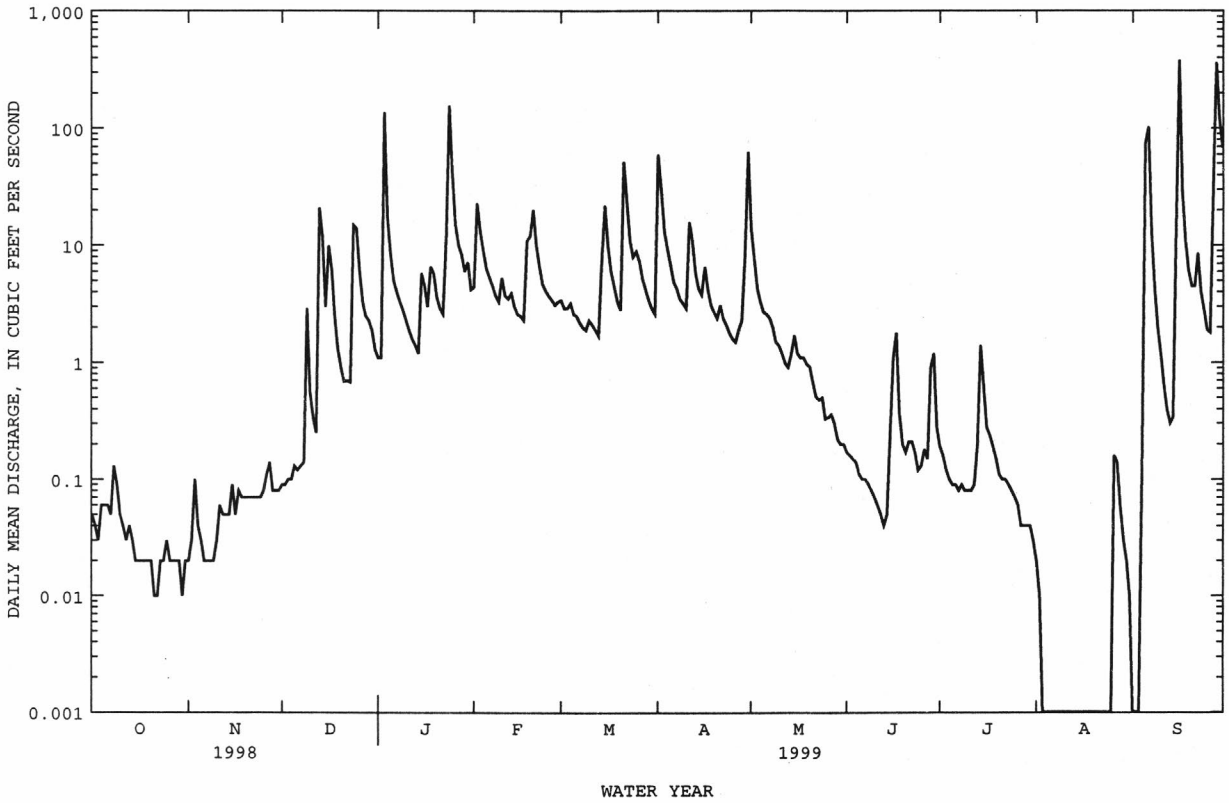
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 1999, BY WATER YEAR (WY)

MEAN	2.19	3.55	5.05	14.9	15.6	18.0	9.12	4.27	8.06	1.97	1.06	23.6
MAX	6.22	9.41	12.9	27.3	36.2	49.9	13.8	9.34	29.7	7.40	4.33	74.0
(WY)	1997	1996	1997	1998	1998	1998	1997	1996	1995	1995	1996	1996
MIN	.035	.061	.50	5.61	6.47	6.99	1.50	1.76	.29	.17	.015	.18
(WY)	1999	1999	1995	1995	1999	1999	1995	1995	1999	1999	1999	1995

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1995 - 1999	
ANNUAL TOTAL	4030.42		2609.99			
ANNUAL MEAN	11.0		7.15		8.87	
HIGHEST ANNUAL MEAN					13.1	1996
LOWEST ANNUAL MEAN					5.74	1995
HIGHEST DAILY MEAN	522	Mar 19	382	Sep 16	1000	Sep 6 1996
LOWEST DAILY MEAN	.01	Oct 21	.00	Aug 3	.00	Aug 3 1999
ANNUAL SEVEN-DAY MINIMUM	.02	Oct 16	.00	Aug 3	.00	Aug 3 1999
INSTANTANEOUS PEAK FLOW			978	Sep 16	NOT DETERMINED*	
INSTANTANEOUS PEAK STAGE			9.03	Sep 16	12.56	Sep 6 1996
INSTANTANEOUS LOW FLOW			.00	Aug 3	.00	Aug 3 1999
ANNUAL RUNOFF (AC-FT)	7990		5180		6430	
ANNUAL RUNOFF (CFSM)	1.39		.90		1.11	
ANNUAL RUNOFF (INCHES)	18.82		12.19		15.13	
10 PERCENT EXCEEDS	16		11		14	
50 PERCENT EXCEEDS	.91		.91		2.4	
90 PERCENT EXCEEDS	.04		.02		.09	

* See REMARKS.

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



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 1998 TO SEPTEMBER 1999

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)
OCT												
26...	1100	.02	127	7.1	13.0	764	9.2	87	<.010	<.050	.024	.15
DEC												
10...	1340	.45	123	7.1	10.6	768	10.2	91	<.010	<.050	.027	.58
JAN												
15...	1000	9.5	82	6.3	7.8	758	11.6	98	.011	.485	.038	.33
FEB												
24...	1325	4.1	77	5.9	5.7	763	14.1	112	<.010	.336	<.020	--
MAR												
30...	1320	3.2	83	6.9	15.7	770	9.7	96	.013	.256	<.020	--
APR												
28...	1100	2.7	101	7.1	15.0	760	9.0	90	<.010	.254	.030	.42
MAY												
19...	1015	.94	93	6.8	17.8	754	8.8	94	<.010	.204	.038	.27
JUN												
14...	1200	.04	96	7.3	22.5	757	7.7	90	<.010	.247	<.020	--
JUL												
14...	1215	1.8	110	7.1	19.8	761	8.1	89	<.010	.193	.029	.52
SEP												
05...	1040	55	76	6.8	21.9	747	7.3	85	<.010	.414	.040	.87

DATE	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105)	ARSENIC TOTAL (UG/L AS AS) (01002)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)
OCT												
26...	.15	.18	.18	--	--	.011	<.050	.013	--	--	--	--
DEC												
10...	.24	.60	.27	--	--	.079	<.050	.011	--	--	--	--
JAN												
15...	.23	.37	.27	.85	.76	.042	<.050	.018	180	<1	<1	<1
FEB												
24...	--	.24	.20	.57	.54	<.050	<.050	<.010	--	--	--	--
MAR												
30...	--	.31	.32	.57	.57	E.030	<.050	<.010	--	--	--	--
APR												
28...	.30	.45	.33	.71	.58	E.032	<.050	<.010	50	<1	<1	<1
MAY												
19...	.27	.31	.30	.51	.51	<.050	<.050	.022	--	--	--	--
JUN												
14...	--	.31	.26	.56	.51	<.050	<.050	<.010	--	--	--	--
JUL												
14...	.30	.55	.33	.74	.53	E.041	<.050	.011	160	<1	<1	<1
SEP												
05...	.41	.91	.45	1.3	.86	.311	.130	.104	1200	1	<1	<1

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) (01037)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO) (01062)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	PER-THANE TOTAL (UG/L) (39034)
OCT 26...	--	--	--	--	--	--	--	--	--	--	--	--
DEC 10...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 15...	<1	1	680	<1	100	<.10	<1	<1	<1	<1	<10	--
FEB 24...	--	--	--	--	--	--	--	--	--	--	--	--
MAR 30...	--	--	--	--	--	--	--	--	--	--	--	--
APR 28...	<1	<1	1200	<1	95	<.10	<1	<1	<1	<1	--	<.100
MAY 19...	--	--	--	--	--	--	--	--	--	--	--	--
JUN 14...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 14...	<1	2	790	1	200	1.9	<1	<1	<1	<1	<40	--
SEP 05...	3	3	3700	5	1800	<.10	<1	<1	<1	<1	<40	--

DATE	ENDO-SULFAN I TOTAL (UG/L) (39388)	ALDRIN, TOTAL (UG/L) (39330)	CHLOR-DANE, TECH-NICAL TOTAL (UG/L) (39350)	P,P'-DDD UNFILT RECOVER (UG/L) (39360)	P,P'-DDE, TOTAL (UG/L) (39365)	P,P'-DDT UNFILT RECOVER (UG/L) (39370)	DI-ELDRIN TOTAL (UG/L) (39380)	ENDRIN WATER UNFLTRD REC (UG/L) (39390)	HEPTA-CHLOR, TOTAL (UG/L) (39410)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L) (39420)	LINDANE TOTAL (UG/L) (39340)	TOX-APHENE, TOTAL (UG/L) (39400)
OCT 26...	--	--	--	--	--	--	--	--	--	--	--	--
DEC 10...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 15...	--	--	--	--	--	--	--	--	--	--	--	--
FEB 24...	--	--	--	--	--	--	--	--	--	--	--	--
MAR 30...	--	--	--	--	--	--	--	--	--	--	--	--
APR 28...	<.010	<.010	<.100	<.010	<.010	<.010	<.010	<.010	<.010	<.010	<.010	<1.00
MAY 19...	--	--	--	--	--	--	--	--	--	--	--	--
JUN 14...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 14...	--	--	--	--	--	--	--	--	--	--	--	--
SEP 05...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	DI-AZINON, TOTAL (UG/L) (39570)	ETHION, TOTAL (UG/L) (39398)	MALA-THION, TOTAL (UG/L) (39530)	METHYL PARA-THION, TOTAL (UG/L) (39600)	PARA-THION, TOTAL (UG/L) (39540)	TOTAL TRI-THION (UG/L) (39786)	PCB, TOTAL (UG/L) (39516)	PCNS UNFILT RECOVER (UG/L) (39250)	METH-OXY-CHLOR, TOTAL (UG/L) (39480)	MIREX, TOTAL (UG/L) (39755)	DISUL-FOTON UNFILT RECOVER (UG/L) (39011)	PHORATE TOTAL (UG/L) (39023)
OCT 26...	--	--	--	--	--	--	--	--	--	--	--	--
DEC 10...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 15...	--	--	--	--	--	--	--	--	--	--	--	--
FEB 24...	--	--	--	--	--	--	--	--	--	--	--	--
MAR 30...	--	--	--	--	--	--	--	--	--	--	--	--
APR 28...	<.010	<.010	<.010	<.010	<.010	<.010	<.100	<.100	<.010	<.010	<.010	<.010
MAY 19...	--	--	--	--	--	--	--	--	--	--	--	--
JUN 14...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 14...	--	--	--	--	--	--	--	--	--	--	--	--
SEP 05...	--	--	--	--	--	--	--	--	--	--	--	--

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	CHLOR-PYRIFOS TOTAL RECOVER (UG/L) (38932)	DEF TOTAL (UG/L) (39040)	FONOFOS (DY-FONATE) WATER WHOLE TOT.REC (UG/L) (82614)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	P,P' DDE DISSOLV (UG/L) (34653)	DI-AZINON, DIS-SOLVED (UG/L) (39572)
OCT												
26...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
10...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
15...	--	--	--	--	--	--	--	--	--	--	--	--
FEB												
24...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
30...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
28...	<.010	<.010	<.010	<.002	.013	<.0020	<.0020	<.0040	<.0040	<.0020	<.0060	<.002
MAY												
19...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
14...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
14...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
05...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FONOFOS WATER DISS REC (UG/L) (04095)	ALPHA BHC DIS-SOLVED (UG/L) (34253)	LINDANE DIS-SOLVED (UG/L) (39341)	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA-THION, DIS-SOLVED (UG/L) (39532)	METO-LACHLOR WATER DISSOLV (UG/L) (39415)
OCT												
26...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
10...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
15...	--	--	--	--	--	--	--	--	--	--	--	--
FEB												
24...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
30...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
28...	<.001	<.0030	<.0170	<.0020	<.0040	<.0030	<.0030	<.0020	<.004	<.0020	<.005	.007
MAY												
19...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
14...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
14...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
05...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PARA-THION, DIS-SOLVED (UG/L) (39542)	METHYL PARA-THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	PROP-CHLOR, WATER, DISS, REC (UG/L) (04024)
OCT												
26...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
10...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
15...	--	--	--	--	--	--	--	--	--	--	--	--
FEB												
24...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
30...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
28...	<.004	<.0040	<.0030	<.004	<.0060	<.0040	<.0040	<.0050	<.0020	<.0030	E.0024	<.0070
MAY												
19...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
14...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
14...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
05...	--	--	--	--	--	--	--	--	--	--	--	--

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)
OCT 26...	--	--	--	--	--	--	--	--	--	--	--
DEC 10...	--	--	--	--	--	--	--	--	--	--	--
JAN 15...	--	--	--	--	--	--	--	--	--	--	--
FEB 24...	--	--	--	--	--	--	--	--	--	--	--
MAR 30...	--	--	--	--	--	--	--	--	--	--	--
APR 28...	<.0040	<.0130	E.0038	<.0020	<.0100	<.0130	<.0010	<.0020	E.0075	<.0010	<.0030
MAY 19...	--	--	--	--	--	--	--	--	--	--	--
JUN 14...	--	--	--	--	--	--	--	--	--	--	--
JUL 14...	--	--	--	--	--	--	--	--	--	--	--
SEP 05...	--	--	--	--	--	--	--	--	--	--	--

DATE	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)	2,4,5-T DIS-SOLVED (UG/L) (39742)	2,4-D, DIS-SOLVED (UG/L) (39732)	2,4-DB WATER, FLTRD, GF 0.7U REC (UG/L) (38746)	ACIFL-UORFEN WATER, FLTRD, GF 0.7U REC (UG/L) (49315)	ALDI-CARB, WATER, FLTRD, GF 0.7U REC (UG/L) (49312)	ALDI-CARB SULFONE WAT,FLT GF 0.7U REC (UG/L) (49313)	ALDICA-RB SUL-FOXIDE, WAT,FLT GF 0.7U REC (UG/L) (49314)	BENTA-ZON, WATER, FLTRD, GF 0.7U REC (UG/L) (38711)
OCT 26...	--	--	--	--	--	--	--	--	--	--	--
DEC 10...	--	--	--	--	--	--	--	--	--	--	--
JAN 15...	--	--	--	--	--	--	--	--	--	--	--
FEB 24...	--	--	--	--	--	--	--	--	--	--	--
MAR 30...	--	--	--	--	--	--	--	--	--	--	--
APR 28...	<.0030	<.0070	<.0020	<.0350	<.150	<.240	<.0350	<.550	<.100	<.0210	<.0140
MAY 19...	--	--	--	--	--	--	--	--	--	--	--
JUN 14...	--	--	--	--	--	--	--	--	--	--	--
JUL 14...	--	--	--	--	--	--	--	--	--	--	--
SEP 05...	--	--	--	--	--	--	--	--	--	--	--

DATE	BRO-MACIL, WATER, DISS, REC (UG/L) (04029)	BRO-MOXYNIL WATER, FLTRD, GF 0.7U REC (UG/L) (49311)	CAR-BARYL, WATER, FLTRD, GF 0.7U REC (UG/L) (49310)	CARBO-FURAN, WATER, FLTRD, GF 0.7U REC (UG/L) (49309)	3HYDRXY CARBO-FURAN WAT,FLT GF 0.7U REC (UG/L) (49308)	CHLOR-AMBEN, WATER, FLTRD, GF 0.7U REC (UG/L) (49307)	CHLORO-THALO-NIL, WAT,FLT GF 0.7U REC (UG/L) (49306)	CLOPYR-ALID, WATER, FLTRD, GF 0.7U REC (UG/L) (49305)	DACTHAL MONO-ACID, WAT,FLT GF 0.7U REC (UG/L) (49304)	DICAMBA WATER, FLTRD, GF 0.7U REC (UG/L) (38442)	DICHLO-BENIL, WATER, FLTRD, GF 0.7U REC (UG/L) (49303)
OCT 26...	--	--	--	--	--	--	--	--	--	--	--
DEC 10...	--	--	--	--	--	--	--	--	--	--	--
JAN 15...	--	--	--	--	--	--	--	--	--	--	--
FEB 24...	--	--	--	--	--	--	--	--	--	--	--
MAR 30...	--	--	--	--	--	--	--	--	--	--	--
APR 28...	<.0350	<.0350	<.0080	<.120	<.0140	<.420	<.480	<.230	<.0170	<.0350	<1.20
MAY 19...	--	--	--	--	--	--	--	--	--	--	--
JUN 14...	--	--	--	--	--	--	--	--	--	--	--
JUL 14...	--	--	--	--	--	--	--	--	--	--	--
SEP 05...	--	--	--	--	--	--	--	--	--	--	--

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	DICHLOR PROP, WATER, FLTRD, GF 0.7U REC (UG/L) (49302)	DINOSEB WATER, FLTRD, GF 0.7U REC (UG/L) (49301)	DIURON, WATER, FLTRD, GF 0.7U REC (UG/L) (49300)	DNOC WAT,FLT GF 0.7U REC (UG/L) (49299)	FEN-URON, WATER, FLTRD, GF 0.7U REC (UG/L) (49297)	FLUO-METURON WATER, FLTRD, GF 0.7U REC (UG/L) (38811)	LINURON WATER, FLTRD, GF 0.7U REC (UG/L) (38478)	MCPA, WATER, FLTRD, GF 0.7U REC (UG/L) (38482)	MCPB, WATER, FLTRD, GF 0.7U REC (UG/L) (38487)	METHIO-CARB, WATER, FLTRD, GF 0.7U REC (UG/L) (38501)	METH-OMYL, WATER, FLTRD, GF 0.7U REC (UG/L) (49296)
OCT 26...	--	--	--	--	--	--	--	--	--	--	--
DEC 10...	--	--	--	--	--	--	--	--	--	--	--
JAN 15...	--	--	--	--	--	--	--	--	--	--	--
FEB 24...	--	--	--	--	--	--	--	--	--	--	--
MAR 30...	--	--	--	--	--	--	--	--	--	--	--
APR 28...	<.0320	<.0350	<.0200	<.420	<.0130	<.0350	<.0180	<.170	<.140	<.0260	<.0170
MAY 19...	--	--	--	--	--	--	--	--	--	--	--
JUN 14...	--	--	--	--	--	--	--	--	--	--	--
JUL 14...	--	--	--	--	--	--	--	--	--	--	--
SEP 05...	--	--	--	--	--	--	--	--	--	--	--

DATE	NEB-URON, WATER, FLTRD, GF 0.7U REC (UG/L) (49294)	NORFLUR AZON, WATER, FLTRD, GF 0.7U REC (UG/L) (49293)	ORY-ZALIN, WATER, FLTRD, GF 0.7U REC (UG/L) (49292)	OXAMYL, WATER, FLTRD, GF 0.7U REC (UG/L) (38866)	PIC-LORAM, WATER, FLTRD, GF 0.7U REC (UG/L) (49291)	PRO-PHAM, WATER, FLTRD, GF 0.7U REC (UG/L) (49236)	PRO-POXUR, WATER, FLTRD, GF 0.7U REC (UG/L) (38538)	SILVEX, DIS-SOLVED (UG/L) (39762)	TRI-CLOPYR, WATER, FLTRD, GF 0.7U REC (UG/L) (49235)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
OCT 26...	--	--	--	--	--	--	--	--	--	2	.00
DEC 10...	--	--	--	--	--	--	--	--	--	5	.01
JAN 15...	--	--	--	--	--	--	--	--	--	12	.31
FEB 24...	--	--	--	--	--	--	--	--	--	4	.04
MAR 30...	--	--	--	--	--	--	--	--	--	7	.06
APR 28...	<.0150	<.0240	<.310	<.0180	<.0500	<.0350	<.0350	<.0210	<.250	5	.04
MAY 19...	--	--	--	--	--	--	--	--	--	5	.01
JUN 14...	--	--	--	--	--	--	--	--	--	2	.00
JUL 14...	--	--	--	--	--	--	--	--	--	14	.07
SEP 05...	--	--	--	--	--	--	--	--	--	193	29

0208524845 LITTLE RIVER RESERVOIR AT DAM NEAR BAHAMA, NC

LOCATION.--Lat 36°06'53", long 78°52'10", Durham County, Hydrologic Unit 03020201, at dam 7.5 mi below State Highway 501, and 4.0 mi south of Bahama.

DRAINAGE AREA.--97.7 mi^2.

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

REMARKS.--Station operated to define water quality as part of a six-county regional surface-water quality assessment. Samples for nutrient and chlorophyll *a* and *b* analyses were collected through a sampling zone equal to double the secchi disk depth using the depth-integration sampling technique.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	TIME	SAMPLING DEPTH (FEET) (00003)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	COLOR (PLATINUM-COBALT UNITS) (00080)	BAROMETRIC PRESSURE (MM OF HG) (00025)	TRANSPARENCY (SECCHI DISK) (M) (00078)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)
NOV										
02...	1245	1.00	71	6.6	18.5	25	757	1.05	3.5	38
APR										
23...	1230	1.00	79	6.8	17.2	50	759	.95	9.1	95
JUN										
22...	1300	1.00	72	6.8	23.3	50	756	.90	5.7	66
AUG										
26...	1215	1.00	79	6.8	28.0	25	753	.85	4.5	58

DATE	HARDNESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	BICARBONATE IT-FLD (MG/L AS HCO3) (99440)	ANC WATER UNFLTRD IT FIELD MG/L AS CACO3 (00419)	SULFATE DISSOLVED (MG/L AS SO4) (00945)
NOV										
02...	22	5.4	2.1	3.4	23	.3	1.7	31	25	2.8
APR										
23...	21	4.9	2.1	4.1	28	.4	1.6	31	25	5.5
JUN										
22...	23	5.4	2.2	4.3	27	.4	1.7	26	21	4.6
AUG										
26...	25	6.1	2.4	4.4	26	.4	1.8	30	25	3.0

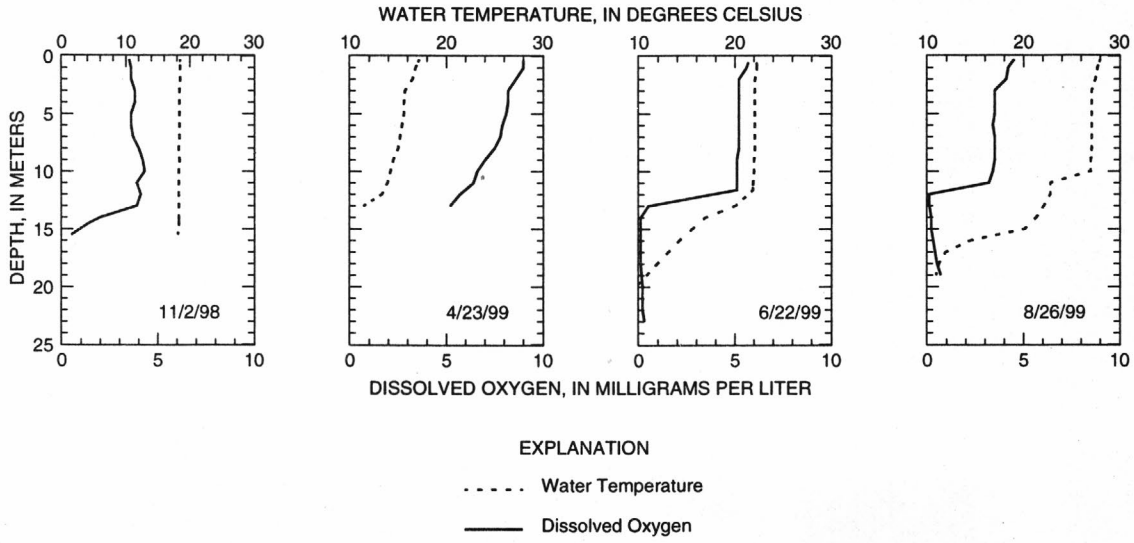
DATE	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, TOTAL (MG/L AS N) (00600)
NOV										
02...	3.7	<.10	8.7	50	.006	.134	.175	.29	.47	.60
APR										
23...	5.0	<.10	7.0	57	.003	.073	.009	.64	.65	.72
JUN										
22...	4.8	<.10	6.8	64	.001	.086	.102	.53	.63	.71
AUG										
26...	5.0	<.10	7.3	50	.001	.011	.119	.43	.55	.56

DATE	PHOSPHORUS TOTAL (MG/L AS P) (00665)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)	CHLOR-A PHYTOPLANKTON CHROMO FLUOROM (UG/L) (70953)	CHLOR-B PHYTOPLANKTON CHROMO FLUOROM (UG/L) (70954)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL) (01105)	ARSENIC TOTAL (UG/L AS AS) (01002)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	COBALT, TOTAL RECOVERABLE (UG/L AS CO) (01037)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)
NOV										
02...	<.050	.002	2.30	E.310	50	<1	<1	<1	<1	<1
APR										
23...	E.038	.003	4.50	.140	130	<1	<1	<1	<1	1
JUN										
22...	E.040	.005	11.2	E.320	--	--	--	--	--	--
AUG										
26...	<.050	<.001	7.40	E.340	--	--	--	--	--	--

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO) (01062)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
NOV										
02...	180	<1	430	<.10	<1	<1	<1	<1	<10	5.0
APR										
23...	400	<1	60	<.10	<1	<1	<1	<1	<40	6.9
JUN										
22...	--	--	--	--	--	--	--	--	--	7.0
AUG										
26...	--	--	--	--	--	--	--	--	--	6.8



0208524950 LITTLE RIVER TRIBUTARY AT FAIRNTOSH, NC

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

DRAINAGE AREA.--0.86 mi^2.

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

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)
DEC												
10...	1015	.28	194	6.3	9.1	768	8.3	71	<.010	.151	.071	.29
JAN												
15...	0900	3.0	88	6.3	7.9	758	11.2	95	.011	.291	.048	.58
FEB												
26...	1215	.41	139	7.1	6.7	766	12.4	101	<.010	.053	.039	.22
MAR												
30...	1125	.39	130	6.7	13.0	770	10.3	97	<.010	<.050	<.020	--
APR												
27...	1145	.20	124	7.2	17.2	758	--	--	<.010	.071	.041	.23
MAY												
19...	0905	.11	169	6.8	17.6	756	8.1	86	<.010	.081	.075	.16
JUN												
14...	0915	.02	222	7.1	20.7	757	5.9	66	<.010	.168	.074	.51
JUL												
14...	1015	2.1	111	6.7	20.3	761	7.7	86	<.010	.233	.028	1.2
AUG												
17...	1040	.04	227	7.1	23.8	760	7.0	83	<.010	.111	.033	.71
SEP												
05...	1130	E265	49	6.6	22.3	747	7.4	87	<.010	.109	.020	.75

DATE	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105)	ARSENIC TOTAL (UG/L AS AS) (01002)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)
DEC												
10...	.31	.36	.38	.51	.53	.045	.013	.014	--	--	--	--
JAN												
15...	.46	.62	.50	.92	.80	.263	.203	.180	630	1	<1	1
FEB												
26...	.12	.26	.16	.31	.21	<.050	<.050	<.010	--	--	--	--
MAR												
30...	--	.20	.22	--	--	<.050	<.050	<.010	--	--	--	--
APR												
27...	.19	.28	.23	.35	.30	<.050	<.050	<.010	100	<1	<1	<1
MAY												
19...	.15	.23	.22	.31	.31	<.050	<.050	.012	--	--	--	--
JUN												
14...	.41	.58	.48	.75	.65	E.034	<.050	<.010	--	--	--	--
JUL												
14...	.98	1.2	1.0	1.4	1.2	.255	.209	.157	440	4	<1	<1
AUG												
17...	.49	.75	.53	.86	.64	E.030	E.036	.027	--	--	--	--
SEP												
05...	.57	.77	.59	.88	.70	.239	.169	.147	1300	2	<1	<1

0208524950 LITTLE RIVER TRIBUTARY AT FAIRNTOSH, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) (01037)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO) (01062)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	PER-THANE TOTAL (UG/L) (39034)
DEC 10...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 15...	<1	4	740	1	110	<.10	<1	4	<1	<1	<10	--
FEB 26...	--	--	--	--	--	--	--	--	--	--	--	--
MAR 30...	--	--	--	--	--	--	--	--	--	--	--	--
APR 27...	<1	1	810	<1	330	<.10	<1	<1	<1	<1	--	<.100
MAY 19...	--	--	--	--	--	--	--	--	--	--	--	--
JUN 14...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 14...	<1	7	870	<1	120	.52	<1	<1	<1	<1	E30	--
AUG 17...	--	--	--	--	--	--	--	--	--	--	--	--
SEP 05...	<1	5	1500	3	130	<.10	<1	<1	<1	<1	<40	--

DATE	ENDO-SULFAN I TOTAL (UG/L) (39388)	ALDRIN, TOTAL (UG/L) (39330)	CHLOR-DANE, TECH-NICAL TOTAL (UG/L) (39350)	P,P'-DDD UNFILT RECOVER (UG/L) (39360)	P,P'-DDE, TOTAL (UG/L) (39365)	P,P'-DDT UNFILT RECOVER (UG/L) (39370)	DI-ELDRIN TOTAL (UG/L) (39380)	ENDRIN WATER UNFLTRD REC (UG/L) (39390)	HEPTA-CHLOR, TOTAL (UG/L) (39410)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L) (39420)	LINDANE TOTAL (UG/L) (39340)	TOX-APHENE, TOTAL (UG/L) (39400)
DEC 10...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 15...	--	--	--	--	--	--	--	--	--	--	--	--
FEB 26...	--	--	--	--	--	--	--	--	--	--	--	--
MAR 30...	--	--	--	--	--	--	--	--	--	--	--	--
APR 27...	<.010	<.010	<.100	<.010	<.010	<.010	<.010	<.010	<.010	<.010	<.010	<1.00
MAY 19...	--	--	--	--	--	--	--	--	--	--	--	--
JUN 14...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 14...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 17...	--	--	--	--	--	--	--	--	--	--	--	--
SEP 05...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	DI-AZINON, TOTAL (UG/L) (39570)	ETHION, TOTAL (UG/L) (39398)	MALA-THION, TOTAL (UG/L) (39530)	METHYL PARA-THION, TOTAL (UG/L) (39600)	PARA-THION, TOTAL (UG/L) (39540)	TOTAL TRI-THION (UG/L) (39786)	PCB, TOTAL (UG/L) (39516)	PCNS UNFILT RECOVER (UG/L) (39250)	METH-OXY-CHLOR, TOTAL (UG/L) (39480)	MIREX, TOTAL (UG/L) (39755)	DISUL-FOTON UNFILT RECOVER (UG/L) (39011)	PHORATE TOTAL (UG/L) (39023)
DEC 10...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 15...	--	--	--	--	--	--	--	--	--	--	--	--
FEB 26...	--	--	--	--	--	--	--	--	--	--	--	--
MAR 30...	--	--	--	--	--	--	--	--	--	--	--	--
APR 27...	<.010	<.010	<.010	<.010	<.010	<.010	<.100	<.100	<.010	<.010	<.010	<.010
MAY 19...	--	--	--	--	--	--	--	--	--	--	--	--
JUN 14...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 14...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 17...	--	--	--	--	--	--	--	--	--	--	--	--
SEP 05...	--	--	--	--	--	--	--	--	--	--	--	--

0208524950 LITTLE RIVER TRIBUTARY AT FAIRNTOSH, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	CHLOR-PYRIFOS TOTAL RECOVER (UG/L) (38932)	DEF TOTAL (UG/L) (39040)	FONOFOS (DY-FONATE) WATER WHOLE TOT.REC (UG/L) (82614)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	P,P' DDE DISSOLV (UG/L) (34653)	DI-AZINON, DIS-SOLVED (UG/L) (39572)
DEC 10...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 15...	--	--	--	--	--	--	--	--	--	--	--	--
FEB 26...	--	--	--	--	--	--	--	--	--	--	--	--
MAR 30...	--	--	--	--	--	--	--	--	--	--	--	--
APR 27...	<.010	<.010	<.010	<.002	E.004	<.0020	<.0020	<.0040	<.0040	<.0020	<.0060	<.002
MAY 19...	--	--	--	--	--	--	--	--	--	--	--	--
JUN 14...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 14...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 17...	--	--	--	--	--	--	--	--	--	--	--	--
SEP 05...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FONOFOS WATER DISS REC (UG/L) (04095)	ALPHA BHC DIS-SOLVED (UG/L) (34253)	LINDANE DIS-SOLVED (UG/L) (39341)	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA-THION, DIS-SOLVED (UG/L) (39532)	METO-LACHLOR WATER DISSOLV (UG/L) (39415)
DEC 10...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 15...	--	--	--	--	--	--	--	--	--	--	--	--
FEB 26...	--	--	--	--	--	--	--	--	--	--	--	--
MAR 30...	--	--	--	--	--	--	--	--	--	--	--	--
APR 27...	<.001	<.0030	<.0170	<.0020	<.0040	<.0030	<.0030	<.0020	<.004	<.0020	<.005	.005
MAY 19...	--	--	--	--	--	--	--	--	--	--	--	--
JUN 14...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 14...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 17...	--	--	--	--	--	--	--	--	--	--	--	--
SEP 05...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PARA-THION, DIS-SOLVED (UG/L) (39542)	METHYL PARA-THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	PROP-CHLOR, WATER, DISS, REC (UG/L) (04024)
DEC 10...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 15...	--	--	--	--	--	--	--	--	--	--	--	--
FEB 26...	--	--	--	--	--	--	--	--	--	--	--	--
MAR 30...	--	--	--	--	--	--	--	--	--	--	--	--
APR 27...	<.004	<.0040	<.0030	<.004	<.0060	<.0040	.0134	<.0050	<.0020	<.0030	<.0180	<.0070
MAY 19...	--	--	--	--	--	--	--	--	--	--	--	--
JUN 14...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 14...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 17...	--	--	--	--	--	--	--	--	--	--	--	--
SEP 05...	--	--	--	--	--	--	--	--	--	--	--	--

0208524950 LITTLE RIVER TRIBUTARY AT FAIRNTOSH, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)
DEC 10...	--	--	--	--	--	--	--	--	--	--	--
JAN 15...	--	--	--	--	--	--	--	--	--	--	--
FEB 26...	--	--	--	--	--	--	--	--	--	--	--
MAR 30...	--	--	--	--	--	--	--	--	--	--	--
APR 27...	<.0040	<.0130	.426	<.0020	E.0055	<.0130	<.0010	<.0020	E.0009	<.0010	E.0040
MAY 19...	--	--	--	--	--	--	--	--	--	--	--
JUN 14...	--	--	--	--	--	--	--	--	--	--	--
JUL 14...	--	--	--	--	--	--	--	--	--	--	--
AUG 17...	--	--	--	--	--	--	--	--	--	--	--
SEP 05...	--	--	--	--	--	--	--	--	--	--	--

DATE	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)	2,4,5-T DIS-SOLVED (UG/L) (39742)	2,4-D, DIS-SOLVED (UG/L) (39732)	2,4-DB WATER, FLTRD, GF 0.7U REC (UG/L) (38746)	ACIFL-UORFEN WATER, FLTRD, GF 0.7U REC (UG/L) (49315)	ALDI-CARB, WATER, FLTRD, GF 0.7U REC (UG/L) (49312)	ALDI-CARB SULFONE WAT,FLT GF 0.7U REC (UG/L) (49313)	ALDICA-RB SUL-FOXIDE, WAT,FLT GF 0.7U REC (UG/L) (49314)	BENTA-ZON, WATER, FLTRD, GF 0.7U REC (UG/L) (38711)
DEC 10...	--	--	--	--	--	--	--	--	--	--	--
JAN 15...	--	--	--	--	--	--	--	--	--	--	--
FEB 26...	--	--	--	--	--	--	--	--	--	--	--
MAR 30...	--	--	--	--	--	--	--	--	--	--	--
APR 27...	<.0030	<.0070	<.0020	<.0350	<.150	<.240	<.240	<.550	<.100	<.0210	<.0140
MAY 19...	--	--	--	--	--	--	--	--	--	--	--
JUN 14...	--	--	--	--	--	--	--	--	--	--	--
JUL 14...	--	--	--	--	--	--	--	--	--	--	--
AUG 17...	--	--	--	--	--	--	--	--	--	--	--
SEP 05...	--	--	--	--	--	--	--	--	--	--	--

DATE	BRO-MACIL, WATER, DISS, REC (UG/L) (04029)	BRO-MOXYNIL WATER, FLTRD, GF 0.7U REC (UG/L) (49311)	CAR-BARYL, WATER, FLTRD, GF 0.7U REC (UG/L) (49310)	CARBO-FURAN, WATER, FLTRD, GF 0.7U REC (UG/L) (49309)	3HYDRXY CARBO-FURAN WAT,FLT GF 0.7U REC (UG/L) (49308)	CHLOR-AMBEN, WATER, FLTRD, GF 0.7U REC (UG/L) (49307)	CHLORO-THALO-NIL, WAT,FLT GF 0.7U REC (UG/L) (49306)	CLOPYR-ALID, WATER, FLTRD, GF 0.7U REC (UG/L) (49305)	DACTHAL MONO-ACID, WAT,FLT GF 0.7U REC (UG/L) (49304)	DICAMBA WATER, FLTRD, GF 0.7U REC (UG/L) (38442)	DICHLO-BENIL, WATER, FLTRD, GF 0.7U REC (UG/L) (49303)
DEC 10...	--	--	--	--	--	--	--	--	--	--	--
JAN 15...	--	--	--	--	--	--	--	--	--	--	--
FEB 26...	--	--	--	--	--	--	--	--	--	--	--
MAR 30...	--	--	--	--	--	--	--	--	--	--	--
APR 27...	<1.96	<.0350	<.0080	<.120	<.0140	<.420	<.480	<.230	<.0170	<.0350	<1.20
MAY 19...	--	--	--	--	--	--	--	--	--	--	--
JUN 14...	--	--	--	--	--	--	--	--	--	--	--
JUL 14...	--	--	--	--	--	--	--	--	--	--	--
AUG 17...	--	--	--	--	--	--	--	--	--	--	--
SEP 05...	--	--	--	--	--	--	--	--	--	--	--

0208524950 LITTLE RIVER TRIBUTARY AT FAIRNTOSH, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	DICHLORPROP, WATER, FLTRD, GF 0.7U REC (UG/L) (49302)	DINOSEB WATER, FLTRD, GF 0.7U REC (UG/L) (49301)	DIURON, WATER, FLTRD, GF 0.7U REC (UG/L) (49300)	DNOC WAT,FLT GF 0.7U REC (UG/L) (49299)	FENURON, WATER, FLTRD, GF 0.7U REC (UG/L) (49297)	FLUOMETURON WATER, FLTRD, GF 0.7U REC (UG/L) (38811)	LINURON WATER, FLTRD, GF 0.7U REC (UG/L) (38478)	MCPA, WATER, FLTRD, GF 0.7U REC (UG/L) (38482)	MCPB, WATER, FLTRD, GF 0.7U REC (UG/L) (38487)	METHIOCARB, WATER, FLTRD, GF 0.7U REC (UG/L) (38501)	METHOMYL, WATER, FLTRD, GF 0.7U REC (UG/L) (49296)
DEC											
10...	--	--	--	--	--	--	--	--	--	--	--
JAN											
15...	--	--	--	--	--	--	--	--	--	--	--
FEB											
26...	--	--	--	--	--	--	--	--	--	--	--
MAR											
30...	--	--	--	--	--	--	--	--	--	--	--
APR											
27...	<.0320	<.0350	.0600	<.420	<.0130	<.0350	<.0180	<.170	<.140	<.0260	<.0170
MAY											
19...	--	--	--	--	--	--	--	--	--	--	--
JUN											
14...	--	--	--	--	--	--	--	--	--	--	--
JUL											
14...	--	--	--	--	--	--	--	--	--	--	--
AUG											
17...	--	--	--	--	--	--	--	--	--	--	--
SEP											
05...	--	--	--	--	--	--	--	--	--	--	--

DATE	NEBURON, WATER, FLTRD, GF 0.7U REC (UG/L) (49294)	NORFLURAZON, WATER, FLTRD, GF 0.7U REC (UG/L) (49293)	ORYZALIN, WATER, FLTRD, GF 0.7U REC (UG/L) (49292)	OXAMYL, WATER, FLTRD, GF 0.7U REC (UG/L) (38866)	PICLORAM, WATER, FLTRD, GF 0.7U REC (UG/L) (49291)	PROPHAM, WATER, FLTRD, GF 0.7U REC (UG/L) (49236)	PROPOXUR, WATER, FLTRD, GF 0.7U REC (UG/L) (38538)	SILVEX, DISSOLVED (UG/L) (39762)	TRICLOPYR, WATER, FLTRD, GF 0.7U REC (UG/L) (49235)	SEDIMENT, SUSPENDED (MG/L) (80154)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) (80155)
DEC											
10...	--	--	--	--	--	--	--	--	--	9	.01
JAN											
15...	--	--	--	--	--	--	--	--	--	35	.29
FEB											
26...	--	--	--	--	--	--	--	--	--	1	.00
MAR											
30...	--	--	--	--	--	--	--	--	--	7	.01
APR											
27...	<.0150	<.0240	<.310	<.0180	<.0500	<.0350	<.0350	<.0210	<.250	9	.00
MAY											
19...	--	--	--	--	--	--	--	--	--	7	.00
JUN											
14...	--	--	--	--	--	--	--	--	--	9	.00
JUL											
14...	--	--	--	--	--	--	--	--	--	43	.24
AUG											
17...	--	--	--	--	--	--	--	--	--	7	.00
SEP											
05...	--	--	--	--	--	--	--	--	--	219	E157

0208524975 LITTLE RIVER BELOW LITTLE RIVER TRIBUTARY AT FAIRNTOSH, NC

LOCATION.--Lat 36°06'46", long 78°51'35", Durham County, Hydrologic Unit 03020201, 125 ft downstream of the mouth of Little River tributary and 0.5 mi downstream of Little River Dam.

DRAINAGE AREA.--98.9 mi^2.

WATER-DISCHARGE RECORDS

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

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

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow regulated by releases from the Little River Reservoir. Maximum discharge for period of record from extension of rating curve based on contracted-opening measurement of peak flow. Maximum gage height for period of record from floodmarks. Instantaneous low flow for the water year not determined due to periods of lost record.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.2	3.5	1.1	e1.0	24	22	334	304	5.9	2.4	2.1	3.4
2	3.1	3.1	e1.2	e1.0	110	17	511	110	5.5	2.7	2.2	3.3
3	2.9	6.7	e1.2	e30	109	23	184	45	5.5	2.5	1.9	3.8
4	3.5	3.3	e1.2	e10	93	22	98	26	3.6	2.5	1.8	14
5	3.0	3.2	e1.3	e9.0	43	12	73	21	3.4	2.5	2.0	71
6	3.0	3.4	e1.3	e8.0	45	18	43	18	3.4	2.5	1.8	26
7	3.2	e4.0	e1.4	e7.5	31	16	39	9.7	3.4	2.4	1.6	3.8
8	7.3	e4.1	e1.4	e7.0	25	9.5	19	11	3.5	2.5	1.6	2.9
9	3.0	4.0	e2.0	e7.0	13	9.1	23	7.0	3.4	2.5	2.4	3.0
10	2.6	4.0	e1.0	e7.0	8.8	9.0	27	7.3	2.7	2.7	2.1	2.9
11	2.6	4.2	e1.0	6.8	8.5	9.3	35	7.2	3.0	2.6	1.4	2.4
12	2.5	3.3	1.2	7.2	12	10	81	7.3	2.7	2.8	1.4	2.3
13	2.5	.67	19	7.2	13	9.0	56	7.3	2.7	3.4	1.5	2.3
14	2.6	.62	2.4	7.8	12	20	33	7.5	2.7	5.0	4.3	14
15	2.5	e.70	e1.3	10	9.4	176	30	7.4	11	2.5	1.9	190
16	2.3	e.70	5.1	7.5	9.8	185	31	7.2	11	2.4	2.0	4580
17	2.4	1.2	e1.4	7.2	11	97	29	7.3	4.4	2.3	1.6	1330
18	2.4	.67	e1.3	14	27	52	26	7.2	3.0	2.5	1.6	137
19	2.7	.59	e1.3	8.2	71	32	17	7.3	2.6	2.5	1.4	47
20	2.9	.54	1.4	7.5	132	29	12	7.3	2.5	2.4	1.5	16
21	2.6	.50	1.3	7.3	130	211	7.3	7.2	2.6	2.5	3.3	5.1
22	2.6	e.41	1.5	7.4	72	398	7.7	7.3	2.6	2.7	3.5	194
23	e2.7	e.79	e1.5	16	63	163	8.1	7.4	2.6	2.8	3.1	111
24	2.8	.83	e6.0	549	14	83	7.4	7.4	2.4	3.1	2.0	31
25	2.6	.90	e2.8	1490	17	68	7.3	7.3	3.7	2.2	7.0	18
26	2.7	1.1	e2.0	246	22	53	7.6	7.3	2.8	2.7	7.2	1.1
27	2.8	1.0	e1.8	124	16	50	7.5	7.1	2.6	2.5	3.2	52
28	2.7	.99	e1.5	80	20	40	8.6	7.0	2.5	2.5	1.1	3030
29	3.5	1.2	e1.4	50	---	27	15	7.0	2.4	2.7	.96	3120
30	3.7	1.1	e1.2	38	---	22	548	7.0	2.4	2.3	1.2	757
31	3.8	---	e1.0	21	---	14	---	7.1	---	2.3	2.2	---
TOTAL	92.7	61.31	70.5	2799.6	1161.5	1905.9	2325.5	711.1	112.5	81.9	72.86	13774.3
MEAN	2.99	2.04	2.27	90.3	41.5	61.5	77.5	22.9	3.75	2.64	2.35	459
MAX	7.3	6.7	19	1490	132	398	548	304	11	5.0	7.2	4580
MIN	2.3	.41	1.0	1.0	8.5	9.0	7.3	7.0	2.4	2.2	.96	1.1
CFSM	.03	.02	.02	.91	.42	.62	.78	.23	.04	.03	.02	4.64
IN.	.03	.02	.03	1.05	.44	.72	.87	.27	.04	.03	.03	5.18

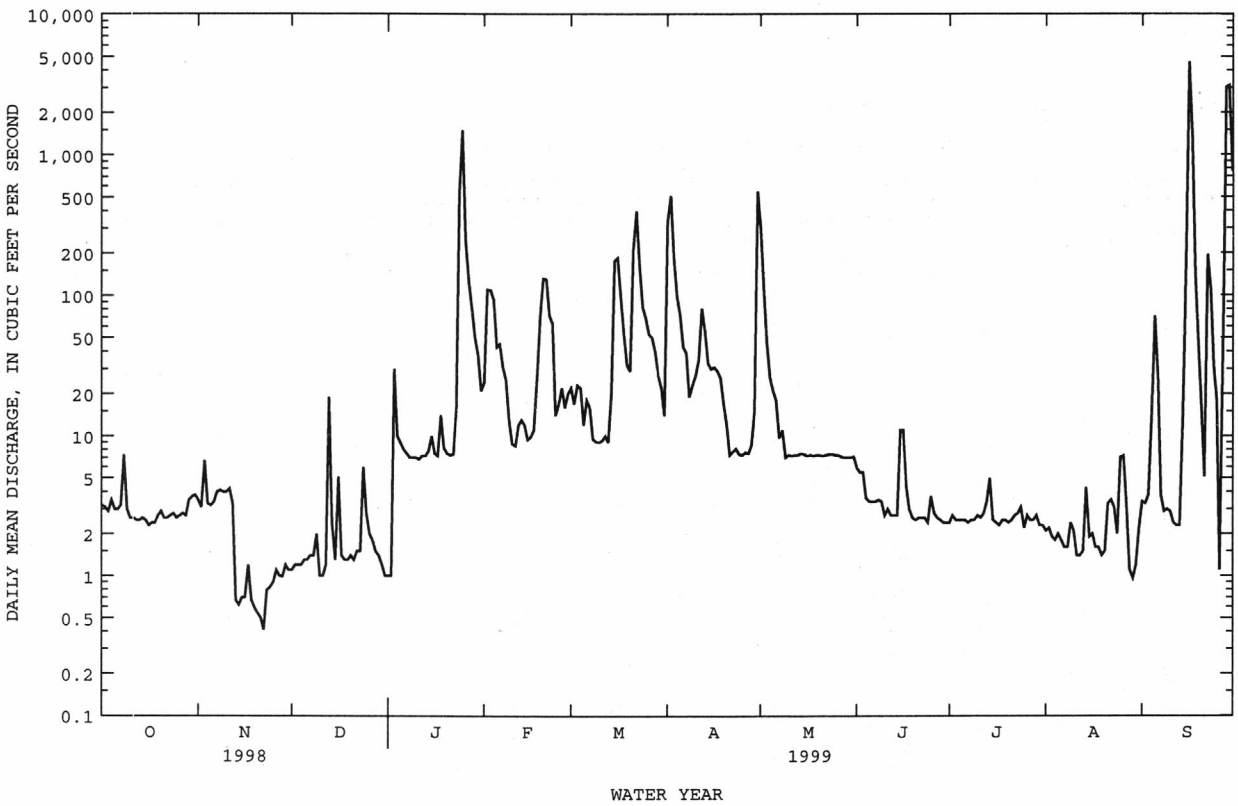
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 1999, BY WATER YEAR (WY)

MEAN	13.7	48.9	81.5	157	218	261	132	42.9	13.1	4.01	9.93	251
MAX	36.0	149	161	333	509	705	221	88.4	23.8	4.88	29.4	538
(WY)	1997	1996	1996	1998	1998	1998	1997	1996	1997	1996	1996	1996
MIN	2.02	2.04	2.27	77.6	41.5	61.5	77.5	22.9	3.75	2.64	2.35	3.07
(WY)	1998	1999	1999	1996	1999	1999	1999	1999	1999	1999	1999	1997

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1996 - 1999	
ANNUAL TOTAL	52279.91		23169.67			
ANNUAL MEAN	143		63.5		95.6	
HIGHEST ANNUAL MEAN					144	1998
LOWEST ANNUAL MEAN					63.5	1999
HIGHEST DAILY MEAN	8620	Mar 19	4580	Sep 16	10300	Sep 6 1996
LOWEST DAILY MEAN	.41	Nov 22	.41	Nov 22	.41	Nov 22 1998
ANNUAL SEVEN-DAY MINIMUM	.62	Nov 18	.62	Nov 18	.62	Nov 18 1998
INSTANTANEOUS PEAK FLOW			7970	Sep 16	16600*	Sep 6 1996
INSTANTANEOUS PEAK STAGE			13.89	Sep 16	17.27*	Sep 6 1996
INSTANTANEOUS LOW FLOW			NOT DETERMINED*		1.3	Oct 16 1997
ANNUAL RUNOFF (CFSM)	1.45		.64		.97	
ANNUAL RUNOFF (INCHES)	19.66		8.71		13.12	
10 PERCENT EXCEEDS	168		71		148	
50 PERCENT EXCEEDS	4.0		4.3		10	
90 PERCENT EXCEEDS	1.4		1.3		2.4	

e Estimated.
* See REMARKS.

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



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

WATER-QUALITY RECORDS

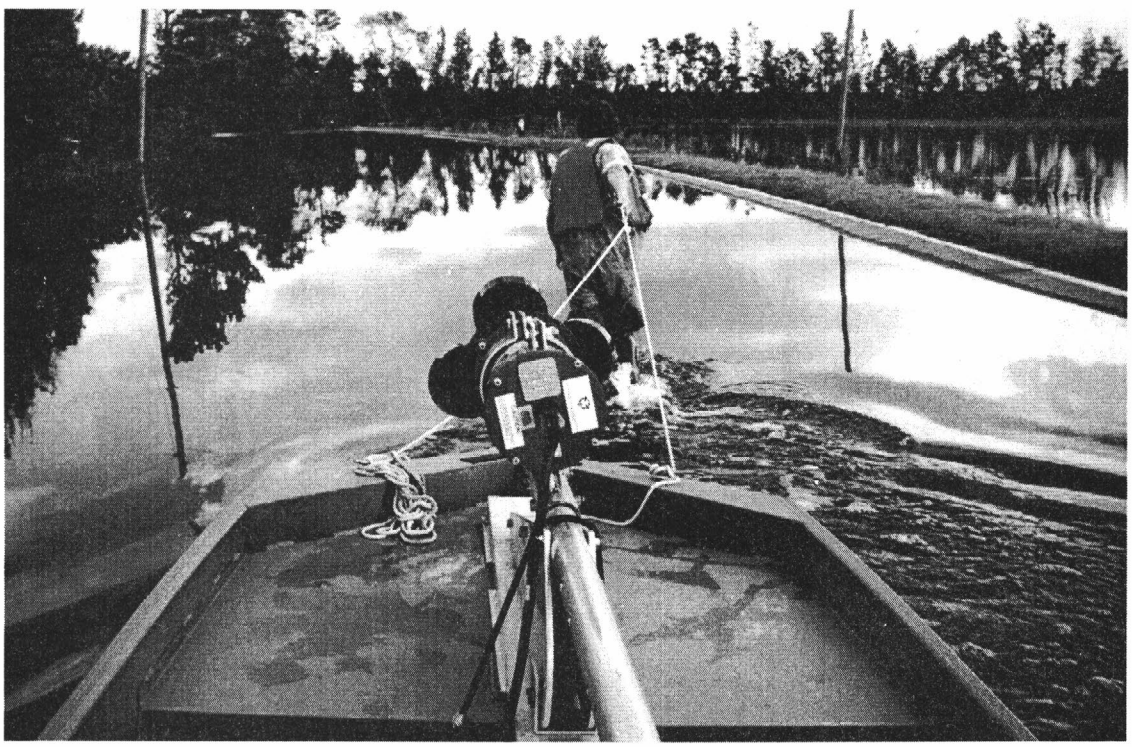
PERIOD OF RECORD.--June 1995 to current year.

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)
OCT											
26...	0930	2.7	77	7.0	15.0	766	7.4	73	.011	.247	.052
DEC											
10...	1130	.97	136	6.5	11.1	768	7.3	66	<.010	.191	.048
JAN											
20...	1210	7.5	66	7.1	7.3	762	11.7	97	<.010	.318	.053
FEB											
26...	1100	25	63	6.9	7.6	766	11.7	97	<.010	.344	.051
MAR											
31...	0930	13	73	6.6	11.5	770	10.3	94	.010	.261	<.020
APR											
28...	0915	8.8	72	7.1	16.1	760	7.6	77	<.010	.226	.044
MAY											
19...	0945	7.4	69	6.3	18.8	756	7.5	81	<.010	.156	.081
JUN											
14...	1000	2.7	76	6.8	24.2	757	6.6	80	<.010	.108	.036
JUL											
14...	0945	8.4	100	6.7	20.6	761	7.3	82	<.010	.170	.055
AUG											
17...	1140	1.5	92	6.8	27.8	760	5.0	64	.012	.232	.072
SEP											
16...	1845	5200	61	6.6	23.1	755	8.3	98	.013	.086	.036

DATE	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
OCT											
26...	.24	.26	.30	.32	.54	.56	.014	.012	.011	7	.05
DEC											
10...	.29	.32	.34	.37	.53	.56	.069	.037	.028	22	.06
JAN											
20...	.43	.24	.48	.30	.80	.61	E.040	<.050	.012	13	.26
FEB											
26...	.48	.33	.54	.38	.88	.73	E.045	<.050	.011	3	.20
MAR											
31...	--	--	.54	.33	.80	.59	E.036	<.050	<.010	13	.48
APR											
28...	.43	.31	.47	.35	.70	.58	.057	<.050	.012	10	.24
MAY											
19...	.29	.28	.37	.36	.53	.51	<.050	<.050	.012	9	.18
JUN											
14...	.45	.42	.49	.46	.59	.57	<.050	E.033	<.010	9	.07
JUL											
14...	.71	.46	.77	.52	.94	.69	.100	.069	.052	23	.52
AUG											
17...	.71	.52	.78	.59	1.0	.82	.079	.061	.037	7	.03
SEP											
16...	.92	.56	.95	.59	1.0	.68	E.037	E.034	<.010	7	98



USGS field crew making their way through floodwaters of the Northeast Cape Fear River to make an acoustic doppler current profiler measurement at Chinquapin, N.C., September 1999.

02085500 FLAT RIVER AT BAHAMA, NC

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

DRAINAGE AREA.--149 mi^2.

WATER-DISCHARGE RECORDS

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

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

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

REMARKS.--Records good except those for estimated daily discharges, which are 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 ft^3/s, on basis of slope-conveyance measurement of peak flow; maximum gage height, 17.26 ft, from high-water mark inside gage shelter.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.3	5.7	3.7	43	73	61	309	412	17	15	1.8	4.3
2	3.8	6.1	3.0	37	224	61	511	195	16	14	1.6	3.4
3	3.3	5.1	4.1	2320	232	53	209	125	15	18	1.3	2.6
4	3.7	5.4	4.3	516	143	55	145	93	14	16	1.3	3.0
5	3.5	5.6	4.6	197	109	65	121	77	13	14	4.9	840
6	3.1	5.1	4.8	116	89	55	99	68	12	11	4.3	2310
7	2.7	5.7	5.0	87	80	50	85	64	12	11	3.4	396
8	3.9	6.6	5.0	73	74	46	77	57	11	34	2.6	129
9	5.6	9.0	15	64	67	44	71	52	11	25	2.4	70
10	22	6.7	44	57	61	45	66	46	10	15	2.4	55
11	12	6.5	23	49	56	47	133	42	9.9	12	2.5	36
12	7.8	6.4	14	44	55	45	198	40	9.1	9.7	2.2	29
13	5.4	6.2	187	41	59	42	107	38	8.9	11	1.9	22
14	4.6	7.0	300	39	56	47	80	41	8.5	22	1.7	19
15	4.2	10	80	70	50	586	73	60	207	54	2.0	48
16	3.7	9.3	91	163	48	297	146	58	87	35	2.2	7350
17	4.4	6.9	146	87	47	163	108	44	138	22	3.3	846
18	4.5	3.9	63	89	82	117	76	40	71	17	3.5	244
19	4.4	2.0	41	129	173	91	64	38	39	12	2.9	143
20	4.0	1.7	32	84	173	74	58	36	27	6.9	2.5	99
21	3.5	1.9	27	67	137	374	54	32	23	5.1	2.2	77
22	3.1	2.4	23	58	92	617	50	30	22	4.3	2.0	129
23	2.7	3.5	21	59	73	234	46	31	22	3.8	1.8	105
24	2.5	3.5	47	3110	64	156	43	27	20	3.3	1.9	65
25	2.6	3.3	318	1330	60	128	40	26	18	2.9	1.9	52
26	2.5	4.6	118	339	58	108	38	23	17	2.6	4.1	44
27	2.4	4.4	76	205	55	92	40	23	16	2.3	30	108
28	2.4	4.7	67	154	54	80	45	22	17	2.1	46	3220
29	2.6	6.2	72	121	---	72	67	21	e16	2.2	18	3150
30	3.9	5.6	67	97	---	66	1710	20	e15	2.2	9.4	654
31	4.2	---	57	81	---	60	---	19	---	2.0	6.0	---
TOTAL	143.3	161.0	1963.5	9926	2544	4031	4869	1900	922.4	407.4	174.0	20253.3
MEAN	4.62	5.37	63.3	320	90.9	130	162	61.3	30.7	13.1	5.61	675
MAX	22	10	318	3110	232	617	1710	412	207	54	46	7350
MIN	2.4	1.7	3.0	37	47	42	38	19	8.5	2.0	1.3	2.6
CFSM	.03	.04	.43	2.15	.61	.87	1.09	.41	.21	.09	.04	4.53
IN.	.04	.04	.49	2.48	.64	1.01	1.22	.47	.23	.10	.04	5.06

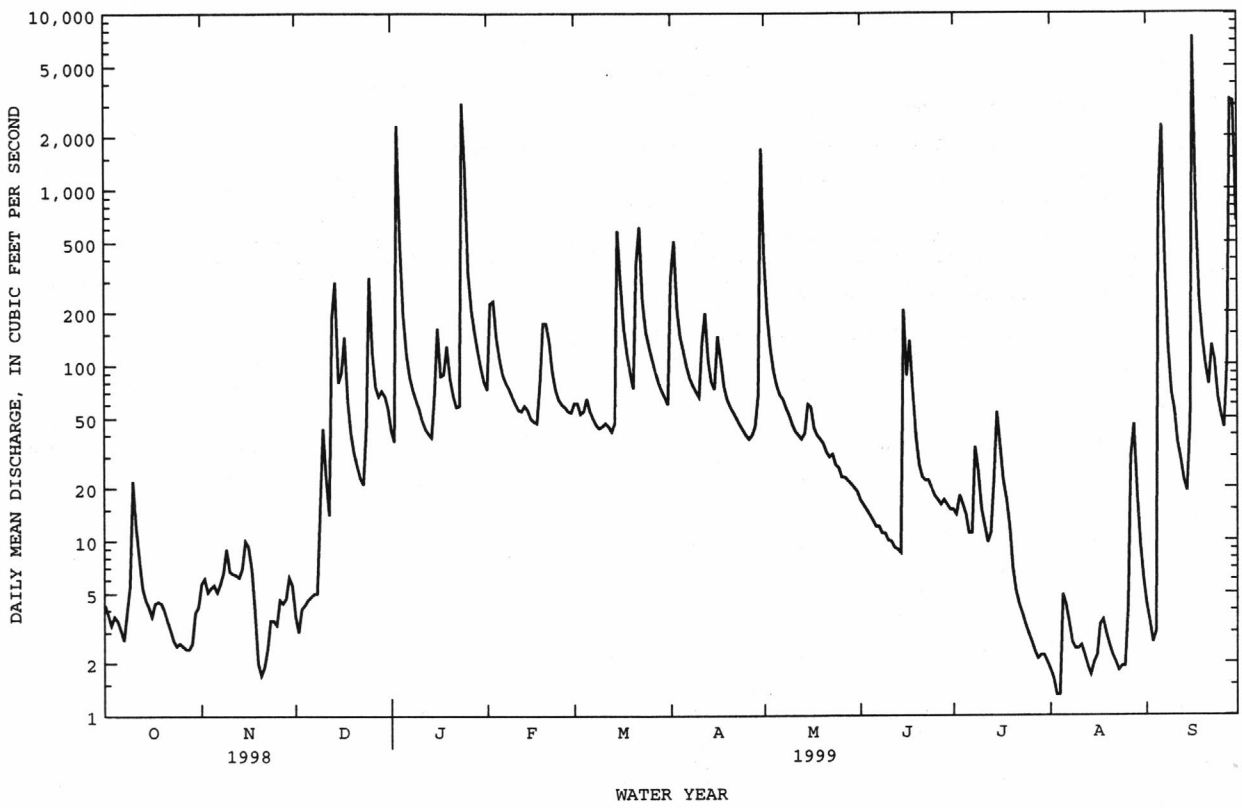
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 1999, BY WATER YEAR (WY)

MEAN	64.5	95.5	132	227	275	288	221	114	78.7	85.8	75.1	88.1
MAX	561	489	421	761	758	948	612	573	551	798	431	984
(WY)	1972	1986	1973	1936	1998	1998	1936	1978	1938	1975	1939	1996
MIN	1.24	.71	1.81	4.29	44.4	72.4	31.1	22.2	7.85	4.59	2.93	.71
(WY)	1942	1934	1934	1934	1931	1967	1942	1927	1986	1991	1977	1968

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1925 - 1999	
ANNUAL TOTAL	88673.1		47294.9			
ANNUAL MEAN	243		130		145	
HIGHEST ANNUAL MEAN					285	1973
LOWEST ANNUAL MEAN					53.5	1981
HIGHEST DAILY MEAN	11700	Mar 19	7350	Sep 16	21800	Sep 6 1996
LOWEST DAILY MEAN	1.7	Nov 20	1.3	Aug 3	.27	Sep 24 1968
ANNUAL SEVEN-DAY MINIMUM	2.5	Oct 23	1.8	Jul 29	.28	Sep 24 1968
INSTANTANEOUS PEAK FLOW			10200	Sep 16	33800*	Sep 6 1996
INSTANTANEOUS PEAK STAGE			9.68	Sep 16	17.26*	Sep 6 1996
INSTANTANEOUS LOW FLOW			.80	Nov 19	.23	Sep 26 1968
ANNUAL RUNOFF (CFSM)	1.63		.87		.97	
ANNUAL RUNOFF (INCHES)	22.14		11.81		13.20	
10 PERCENT EXCEEDS	418		167		282	
50 PERCENT EXCEEDS	41		38		49	
90 PERCENT EXCEEDS	3.7		2.7		7.0	

e Estimated.
* See REMARKS.

02085500 FLAT RIVER AT BAHAMA, NC--Continued



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 1998 TO SEPTEMBER 1999

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	COLOR (PLAT-INUM-COBALT UNITS) (00080)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
OCT											
26...	1200	3.1	90	7.0	13.0	--	764	7.6	72	--	--
DEC											
10...	1415	40	106	6.9	11.5	--	768	8.6	79	--	--
JAN											
20...	1500	79	65	7.0	7.8	--	762	12.1	102	--	--
FEB											
24...	1445	64	69	7.1	4.3	--	763	17.0	130	--	--
MAR											
31...	1145	60	70	6.8	12.4	--	770	11.0	102	--	--
APR											
28...	1245	45	77	7.3	16.4	--	760	8.0	82	--	--
MAY											
19...	1130	37	71	6.7	19.0	--	754	8.1	89	--	--
JUN											
14...	1245	8.3	86	7.1	25.1	--	757	7.6	92	--	--
JUL											
14...	1135	19	81	6.8	20.8	--	761	7.0	79	--	--
AUG											
17...	1010	3.3	89	6.9	26.0	--	760	5.0	62	--	--
SEP											
06...	1130	2670	44	6.5	21.1	120	749	8.2	94	13	3.0

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)
OCT										
26...	--	--	--	--	--	--	--	--	--	--
DEC										
10...	--	--	--	--	--	--	--	--	--	--
JAN										
20...	--	--	--	--	--	--	--	--	--	-
FEB										
24...	--	--	--	--	--	--	--	--	--	--
MAR										
31...	--	--	--	--	--	--	--	--	--	--
APR										
28...	--	--	--	--	--	--	--	--	--	--
MAY										
19...	--	--	--	--	--	--	--	--	--	--
JUN										
14...	--	--	--	--	--	--	--	--	--	--
JUL										
14...	--	--	--	--	--	--	--	--	--	--
AUG										
17...	--	--	--	--	--	--	--	--	--	--
SEP										
06...	1.4	2.1	21	.2	2.6	4.9	2.8	<.10	6.8	58

02085500 FLAT RIVER AT BAHAMA, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)
OCT										
26...	.010	.050	.044	.16	.18	.20	.22	.25	.27	.018
DEC										
10...	<.010	<.050	.028	.18	.17	.20	.20	--	--	.028
JAN										
20...	<.010	.307	.036	.92	.23	.96	.27	1.3	.58	E.030
FEB										
24...	<.010	.214	<.020	--	--	.28	.21	.49	.42	<.050
MAR										
31...	<.010	<.050	<.020	--	--	.20	.21	--	--	E.030
APR										
28...	<.010	.153	.033	.26	.19	.29	.23	.45	.38	E.038
MAY										
19...	<.010	.292	.033	.17	.20	.20	.23	.50	.52	<.050
JUN										
14...	<.010	<.050	.022	.32	.25	.34	.27	--	--	<.050
JUL										
14...	<.010	.211	.043	.41	.22	.45	.26	.66	.47	.061
AUG										
17...	<.010	<.050	.033	.44	.32	.47	.35	--	--	<.050
SEP										
06...	.007	.067	.022	.96	--	.98	--	1.0	--	.145

DATE	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105)	ARSENIC TOTAL (UG/L AS AS) (01002)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) (01037)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)
OCT										
26...	.014	.014	--	--	--	--	--	--	--	--
DEC										
10...	<.050	.010	--	--	--	--	--	--	--	--
JAN										
20...	<.050	.013	--	--	--	--	--	--	--	--
FEB										
24...	<.050	<.010	--	--	--	--	--	--	--	--
MAR										
31...	<.050	<.010	--	--	--	--	--	--	--	--
APR										
28...	<.050	.013	--	--	--	--	--	--	--	--
MAY										
19...	E.033	.032	--	--	--	--	--	--	--	--
JUN										
14...	<.050	.011	--	--	--	--	--	--	--	--
JUL										
14...	<.050	.018	--	--	--	--	--	--	--	--
AUG										
17...	<.050	<.010	--	--	--	--	--	--	--	--
SEP										
06...	--	.043	1200	<1	<1	1	1	5	1900	3

02085500 FLAT RIVER AT BAHAMA, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO) (01062)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI) (01067)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SILVER, TOTAL RECOVERABLE (UG/L AS AG) (01077)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	SEDIMENT, SUSPENDED (MG/L) (80154)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) (80155)
OCT										
26...	--	--	--	--	--	--	--	--	4	.03
DEC										
10...	--	--	--	--	--	--	--	--	8	.86
JAN										
20...	--	--	--	--	--	--	--	--	9	1.9
FEB										
24...	--	--	--	--	--	--	--	--	4	.69
MAR										
31...	--	--	--	--	--	--	--	--	7	1.2
APR										
28...	--	--	--	--	--	--	--	--	7	.83
MAY										
19...	--	--	--	--	--	--	--	--	6	.60
JUN										
14...	--	--	--	--	--	--	--	--	5	.11
JUL										
14...	--	--	--	--	--	--	--	--	20	1.0
AUG										
17...	--	--	--	--	--	--	--	--	7	.06
SEP										
06...	200	<.10	<1	2	<1	<1	<40	18	143	1030

02086490 LAKE MICHIE AT DAM NEAR BAHAMA, NC

LOCATION.--Lat 36°09'02", long 78°49'49", Durham County, Hydrologic Unit 03020201, at dam 3.0 mi southeast of Bahama.

DRAINAGE AREA.--167 mi^2.

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

REMARKS.--Station operated to define water quality as part of a six-county regional surface-water quality assessment. Samples for nutrient and chlorophyll *a* and *b* analyses were collected through a sampling zone equal to double the secchi disk depth using the depth-integration sampling technique.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	TIME	SAMPLING DEPTH (FEET) (00003)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	COLOR (PLATINUM-COBALT UNITS) (00080)	BAROMETRIC PRESSURE (MM OF HG) (00025)	TRANSPARENCY (SECCHI DISK) (M) (00078)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)
NOV										
02...	1015	1.00	74	7.0	16.9	25	757	.65	6.6	69
APR										
23...	1015	1.00	74	6.7	19.4	50	759	.85	8.9	97
JUN										
22...	1000	1.00	69	7.0	27.2	40	756	1.00	6.5	82
AUG										
31...	1300	1.00	75	7.1	26.0	50	759	.65	7.1	87

DATE	HARDNESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	BICARBONATE IT-FLD (MG/L AS HCO3) (99440)	ANC WATER UNFLTRD IT FIELD MG/L AS CACO3 (00419)	SULFATE DISSOLVED (MG/L AS SO4) (00945)
NOV										
02...	22	5.1	2.2	4.3	28	.4	2.1	31	25	2.9
APR										
23...	19	4.3	1.9	4.3	31	.4	1.5	18	15	5.5
JUN										
22...	21	4.8	2.1	4.7	31	.4	1.7	26	21	3.7
AUG										
31...	23	5.3	2.4	4.9	30	.4	1.9	27	22	2.6

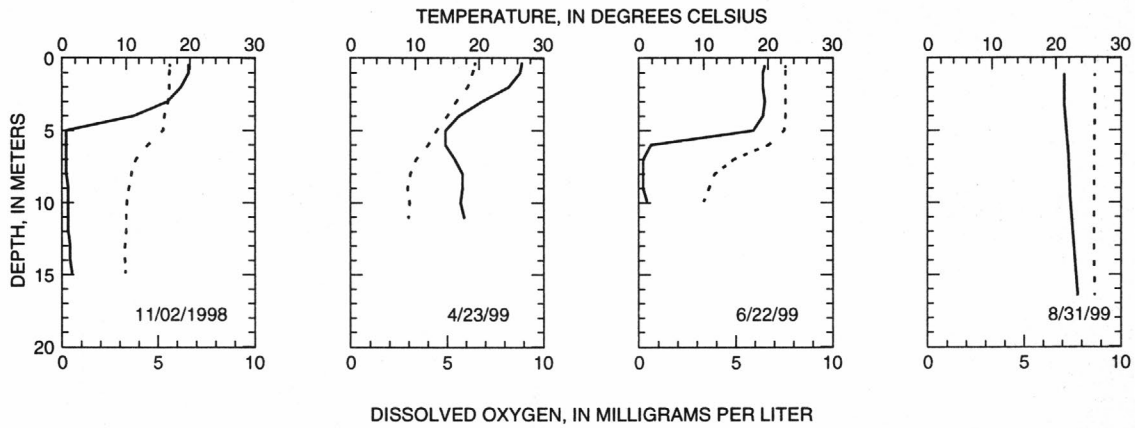
DATE	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, TOTAL (MG/L AS N) (00600)
NOV										
02...	4.9	<.10	9.5	52	<.001	.006	.100	.47	.57	.58
APR										
23...	5.5	<.10	7.4	55	.003	.268	.011	.47	.48	.75
JUN										
22...	4.7	<.10	8.9	60	.003	.015	.012	.49	.50	.52
AUG										
31...	5.2	<.10	9.4	56	.001	<.005	.003	.59	.59	--

DATE	PHOSPHORUS TOTAL (MG/L AS P) (00665)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)	CHLOR-A PHYTOPLANKTON CHROMO FLUOROM (UG/L) (70953)	CHLOR-B PHYTOPLANKTON CHROMO FLUOROM (UG/L) (70954)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL) (01105)	ARSENIC TOTAL (UG/L AS AS) (01002)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	COBALT, TOTAL RECOVERABLE (UG/L AS CO) (01037)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)
NOV										
02...	<.050	.001	13.0	E.350	110	<1	<1	<1	<1	1
APR										
23...	E.031	.003	3.20	.140	70	<1	<1	<1	<1	3
JUN										
22...	<.050	.001	6.80	E.230	--	--	--	--	--	--
AUG										
31...	<.050	<.001	5.10	<.100	--	--	--	--	--	--

02086490 LAKE MICHIE AT DAM NEAR BAHAMA, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO) (01062)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
NOV										
02...	250	<1	140	<.10	<1	<1	<1	<1	<10	6.9
APR										
23...	390	<1	26	<.10	<1	<1	<1	<1	<40	7.8
JUN										
22...	--	--	--	--	--	--	--	--	--	6.7
AUG										
31...	--	--	--	--	--	--	--	--	--	8.8





Vehicles inundated by flood waters of the Tar River near Tarboro, N.C. at U.S. highway 64, September 1999.

0208650112 FLAT RIVER TRIBUTARY NEAR WILLARDVILLE, NC

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

DRAINAGE AREA.--1.14 mi^2.

WATER-DISCHARGE RECORDS

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.12	e.14	.34	.30	14	1.1	.09	.08	.00	.00
2	.00	.00	.12	e.14	2.6	.25	4.8	.63	.07	.05	.00	.00
3	.00	.24	.15	e30	1.2	.29	2.3	.46	.07	.03	.00	.00
4	.00	.08	.16	1.6	.76	.36	1.6	.38	.07	.02	.00	.12
5	.00	.03	.14	.70	.53	.31	1.2	.34	.05	.02	.00	18
6	.00	.02	.16	.50	.43	.34	1.0	.33	.04	.01	.00	14
7	.00	.02	.19	.36	.38	.33	.92	.28	.04	.01	.00	1.3
8	.14	.02	.19	.31	.34	.31	.79	.25	.02	.04	.00	.49
9	.04	.03	.45	.28	.31	.34	.82	.22	.01	.01	.00	.30
10	.01	.03	.05	.22	.29	.36	.71	.20	.00	.00	.00	.22
11	.01	.11	.03	.18	.25	.32	1.6	.19	.00	.00	.00	.16
12	.01	.10	.03	.16	.29	.30	1.3	.18	.00	.05	.00	.13
13	.02	.04	2.3	.16	.27	.30	.95	.18	.00	.14	.00	.12
14	.02	.13	1.2	.16	.22	3.0	.80	.23	.00	.16	.00	.13
15	.01	.21	.42	.45	.22	4.7	.81	.22	.28	.08	.00	4.9
16	.00	.17	e1.2	.41	.24	1.6	.77	.18	.45	.03	.00	45
17	.00	.21	e.80	.29	.24	1.0	.66	.17	.36	.02	.00	3.2
18	.00	.13	e.40	1.7	.91	.75	.51	.17	.13	.02	.00	.76
19	.00	.12	e.30	.92	.84	.57	.40	.16	.09	.02	.00	.48
20	.01	.12	e.20	.56	1.5	.48	.40	.15	.10	.00	.00	.37
21	.00	.12	e.15	.41	.78	20	.33	.13	.12	.00	.00	.37
22	.00	.09	e.15	.32	.52	5.1	.31	.13	.11	.00	.00	.56
23	.00	.12	e.16	2.4	.45	2.2	.27	.14	.08	.00	.00	.31
24	.00	.12	e2.0	28	.42	1.5	.25	.13	.05	.00	.00	.25
25	.00	.12	e1.4	3.0	.38	1.4	.21	.12	.15	.00	.00	.21
26	.00	.22	e.90	1.1	.35	1.1	.22	.14	.14	.00	.05	.20
27	.00	.18	e.70	.72	.34	.83	.25	.13	.11	.00	.06	3.7
28	.00	.14	e.55	.53	.36	.70	.31	.11	.11	.00	.00	85
29	.00	.12	e.52	.40	---	.59	.73	.11	.08	.00	.00	16
30	.00	.12	e.40	.34	---	.57	5.3	.11	.07	.00	.00	9.5
31	.00	---	e.20	.30	---	.55	---	.11	---	.00	.00	---
TOTAL	0.27	3.16	15.74	76.76	15.76	50.75	44.52	7.38	2.89	0.79	0.11	205.78
MEAN	.009	.11	.51	2.48	.56	1.64	1.48	.24	.096	.025	.004	6.86
MAX	.14	.24	2.3	30	2.6	20	14	1.1	.45	.16	.06	85
MIN	.00	.00	.03	.14	.22	.25	.21	.11	.00	.00	.00	.00
CFSM	.01	.09	.45	2.17	.49	1.44	1.30	.21	.08	.02	.00	6.02
IN.	.01	.10	.51	2.50	.51	1.66	1.45	.24	.09	.03	.00	6.71

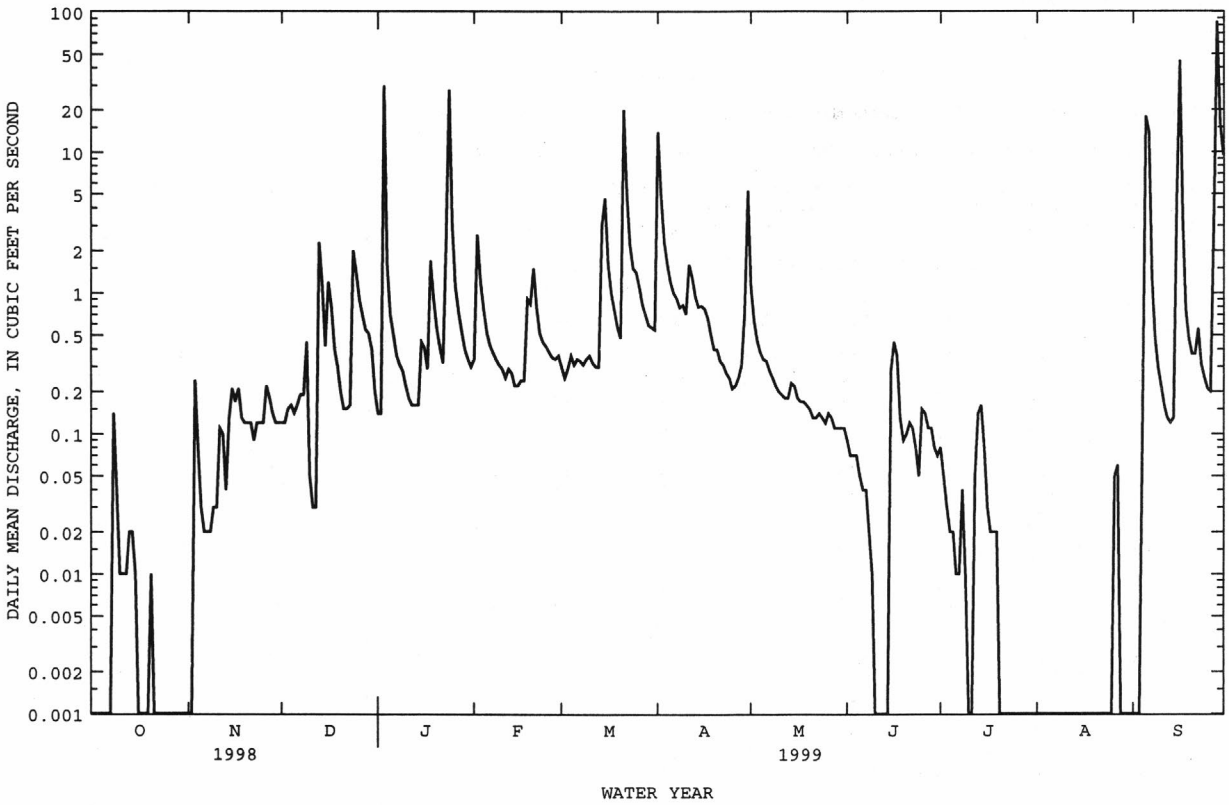
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1999^, BY WATER YEAR (WY)

MEAN	.37	.47	.90	2.21	2.61	2.70	1.45	.79	.66	.28	.099	1.97
MAX	1.46	1.27	3.26	3.17	5.41	8.30	2.46	2.20	4.07	1.26	.50	8.60
(WY)	1990	1996	1990	1998	1998	1998	1997	1989	1995	1989	1989	1996
MIN	.009	.079	.014	.47	.56	.45	.064	.20	.052	.003	.001	.000
(WY)	1999	1995	1989	1989	1999	1988	1995	1995	1988	1988	1988	1990

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1987 - 1999^	
ANNUAL TOTAL	582.31		423.91			
ANNUAL MEAN	1.60		1.16		1.27	
HIGHEST ANNUAL MEAN					1.58	1996
LOWEST ANNUAL MEAN					.87	1995
HIGHEST DAILY MEAN	121	Mar 19	85	Sep 28	225	Sep 6 1996
LOWEST DAILY MEAN	.00	Jul 12	.00	Oct 1	.00	Jun 22 1988
ANNUAL SEVEN-DAY MINIMUM	.00	Aug 24	.00	Oct 1	.00	Jul 2 1988
INSTANTANEOUS PEAK FLOW			395	Sep 28	1410*	Sep 6 1996
INSTANTANEOUS PEAK STAGE			6.58	Sep 28	7.77*	Sep 6 1996
INSTANTANEOUS LOW FLOW			.00	Oct 1	.00	Jun 15 1988
ANNUAL RUNOFF (AC-FT)	1160		841		920	
ANNUAL RUNOFF (CFSM)	1.40		1.02		1.11	
ANNUAL RUNOFF (INCHES)	19.00		13.83		15.14	
10 PERCENT EXCEEDS	2.0		1.2		2.1	
50 PERCENT EXCEEDS	.14		.17		.23	
90 PERCENT EXCEEDS	.00		.00		.00	

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

0208650112 FLAT RIVER TRIBUTARY NEAR WILLARDVILLE, NC--Continued



0208650112 FLAT RIVER TRIBUTARY NEAR WILLARDVILLE, NC--Continued

WATER-QUALITY RECORDS

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

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

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)
DEC												
10...	0950	.06	102	5.7	8.0	768	8.7	73	<.010	<.050	.030	.14
JAN												
15...	0800	.53	66	6.3	7.5	758	11.1	93	<.010	.119	.023	.10
FEB												
24...	1225	.41	60	6.6	4.1	769	12.5	94	<.010	.072	<.020	--
MAR												
30...	1035	.58	57	6.4	11.1	770	11.0	99	<.010	<.050	<.020	--
APR												
27...	1045	.29	73	7.0	15.1	760	--	--	<.010	.117	.046	.09
MAY												
19...	0840	.16	72	6.7	16.3	756	8.7	89	<.010	.106	.031	--
JUL												
14...	0900	.24	84	6.9	19.1	761	8.0	86	<.010	.228	<.020	--
SEP												
05...	0945	6.2	40	6.7	21.5	747	7.6	87	<.010	<.050	<.020	--
05...	1215	34	30	6.3	21.4	749	7.9	91	<.010	<.050	<.020	--

DATE	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105)	ARSENIC TOTAL (UG/L AS AS) (01002)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)
DEC												
10...	.17	.17	.20	--	--	.013	.010	<.010	--	--	--	--
JAN												
15...	.06	.12	.10	.24	.21	<.050	<.050	<.010	250	<1	<1	<1
FEB												
24...	--	E.09	E.10	--	--	<.050	<.050	<.010	--	--	--	--
MAR												
30...	--	.11	E.10	--	--	<.050	E.030	<.010	--	--	--	--
APR												
27...	.08	.13	.13	.25	.24	<.050	<.050	.012	90	<1	<1	<1
MAY												
19...	.09	E.07	.12	--	.22	<.050	<.050	<.010	--	--	--	--
JUL												
14...	--	.25	.15	.48	.38	E.038	<.050	.010	130	<1	<1	<1
SEP												
05...	--	.82	.40	--	--	.126	<.050	<.010	1800	<1	<1	2
05...	--	.86	.44	--	--	.134	E.036	<.010	2100	<1	<1	2

DATE	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) (01037)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO) (01062)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	PER-THANE TOTAL (UG/L) (39034)
DEC												
10...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
15...	<1	<1	260	<1	16	<.10	<1	<1	<1	<1	<10	--
FEB												
24...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
30...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
27...	<1	<1	240	<1	20	<.10	<1	<1	<1	<1	--	<.100
MAY												
19...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
14...	<1	1	610	<1	36	<.20	<1	<1	<1	<1	<40	--
SEP												
05...	1	4	2300	3	110	<.10	<1	1	<1	<1	<40	--
05...	2	5	2900	3	170	<.10	<1	2	<1	<1	<40	--

0208650112 FLAT RIVER TRIBUTARY NEAR WILLARDVILLE, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	ENDO-SULFAN I TOTAL (UG/L) (39388)	ALDRIN, TOTAL (UG/L) (39330)	CHLOR-DANE, TECH-NICAL TOTAL (UG/L) (39350)	P,P'-DDD UNFILT RECOVER (UG/L) (39360)	P,P'-DDE, TOTAL (UG/L) (39365)	P,P'-DDT UNFILT RECOVER (UG/L) (39370)	DI-ELDRIN TOTAL (UG/L) (39380)	ENDRIN WATER UNFLTRD REC (UG/L) (39390)	HEPTA-CHLOR, TOTAL (UG/L) (39410)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L) (39420)	LINDANE TOTAL (UG/L) (39340)	TOX-APHENE, TOTAL (UG/L) (39400)
DEC 10...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 15...	--	--	--	--	--	--	--	--	--	--	--	--
FEB 24...	--	--	--	--	--	--	--	--	--	--	--	--
MAR 30...	--	--	--	--	--	--	--	--	--	--	--	--
APR 27...	<.010	<.010	<.100	<.010	<.010	<.010	<.010	<.010	<.010	<.010	<.010	<1.00
MAY 19...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 14...	--	--	--	--	--	--	--	--	--	--	--	--
SEP 05...	--	--	--	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	DI-AZINON, TOTAL (UG/L) (39570)	ETHION, TOTAL (UG/L) (39398)	MALA-THION, TOTAL (UG/L) (39530)	METHYL PARA-THION, TOTAL (UG/L) (39600)	PARA-THION, TOTAL (UG/L) (39540)	TOTAL TRI-THION (UG/L) (39786)	PCB, TOTAL (UG/L) (39516)	PCNS UNFILT RECOVER (UG/L) (39250)	METH-OXY-CHLOR, TOTAL (UG/L) (39480)	MIREX, TOTAL (UG/L) (39755)	DISUL-FOTON UNFILT RECOVER (UG/L) (39011)	PHORATE TOTAL (UG/L) (39023)
DEC 10...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 15...	--	--	--	--	--	--	--	--	--	--	--	--
FEB 24...	--	--	--	--	--	--	--	--	--	--	--	--
MAR 30...	--	--	--	--	--	--	--	--	--	--	--	--
APR 27...	<.010	<.010	<.010	<.010	<.010	<.010	<.100	<.100	<.010	<.010	<.010	<.010
MAY 19...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 14...	--	--	--	--	--	--	--	--	--	--	--	--
SEP 05...	--	--	--	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	CHLOR-PYRIFOS TOTAL RECOVER (UG/L) (38932)	DEF TOTAL (UG/L) (39040)	FONOFOS (DY-FONATE) WATER WHOLE TOT.REC (UG/L) (82614)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	P,P' DDE DISSOLV (UG/L) (34653)	DI-AZINON, DIS-SOLVED (UG/L) (39572)
DEC 10...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 15...	--	--	--	--	--	--	--	--	--	--	--	--
FEB 24...	--	--	--	--	--	--	--	--	--	--	--	--
MAR 30...	--	--	--	--	--	--	--	--	--	--	--	--
APR 27...	<.010	<.010	<.010	<.002	E.004	<.0020	<.0020	<.0040	<.0040	<.0020	<.0060	<.002
MAY 19...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 14...	--	--	--	--	--	--	--	--	--	--	--	--
SEP 05...	--	--	--	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--	--	--	--

0208650112 FLAT RIVER TRIBUTARY NEAR WILLARDVILLE, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FONOFOS WATER DISS REC (UG/L) (04095)	ALPHA BHC DIS-SOLVED (UG/L) (34253)	LINDANE DIS-SOLVED (UG/L) (39341)	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA-THION, DIS-SOLVED (UG/L) (39532)	METO-LACHLOR WATER DISSOLV (UG/L) (39415)
DEC 10...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 15...	--	--	--	--	--	--	--	--	--	--	--	--
FEB 24...	--	--	--	--	--	--	--	--	--	--	--	--
MAR 30...	--	--	--	--	--	--	--	--	--	--	--	--
APR 27...	<.001	<.0030	<.0170	<.0020	<.0040	<.0030	<.0030	<.0020	<.004	<.0020	<.005	.004
MAY 19...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 14...	--	--	--	--	--	--	--	--	--	--	--	--
SEP 05...	--	--	--	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PARA-THION, DIS-SOLVED (UG/L) (39542)	METHYL PARA-THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	PROP-CHLOR, WATER, DISS, REC (UG/L) (04024)
DEC 10...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 15...	--	--	--	--	--	--	--	--	--	--	--	--
FEB 24...	--	--	--	--	--	--	--	--	--	--	--	--
MAR 30...	--	--	--	--	--	--	--	--	--	--	--	--
APR 27...	<.004	<.0040	<.0030	<.004	<.0060	<.0040	<.0040	<.0050	<.0020	<.0030	<.0180	<.0070
MAY 19...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 14...	--	--	--	--	--	--	--	--	--	--	--	--
SEP 05...	--	--	--	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)
DEC 10...	--	--	--	--	--	--	--	--	--	--	--
JAN 15...	--	--	--	--	--	--	--	--	--	--	--
FEB 24...	--	--	--	--	--	--	--	--	--	--	--
MAR 30...	--	--	--	--	--	--	--	--	--	--	--
APR 27...	<.0040	<.0130	<.0050	<.0020	<.0100	<.0130	<.0010	<.0020	E.0055	<.0010	<.0030
MAY 19...	--	--	--	--	--	--	--	--	--	--	--
JUL 14...	--	--	--	--	--	--	--	--	--	--	--
SEP 05...	--	--	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--	--	--

0208650112 FLAT RIVER TRIBUTARY NEAR WILLARDVILLE, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	CARBOFURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	TERBACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	ACETOCHLOR, WATER FLTRD REC (UG/L) (49260)	2,4,5-T DISSOLVED (UG/L) (39742)	2,4-D, DISSOLVED (UG/L) (39732)	2,4-DB WATER, FLTRD, GF 0.7U REC (UG/L) (38746)	ACIFLUORFEN WATER, FLTRD, GF 0.7U REC (UG/L) (49315)	ALDICARB, WATER, FLTRD, GF 0.7U REC (UG/L) (49312)	ALDICARB SULFONE WAT,FLT GF 0.7U REC (UG/L) (49313)	ALDICARB SULFOXIDE, WAT,FLT GF 0.7U REC (UG/L) (49314)	BENTAZON, WATER, FLTRD, GF 0.7U REC (UG/L) (38711)
DEC 10...	--	--	--	--	--	--	--	--	--	--	--
JAN 15...	--	--	--	--	--	--	--	--	--	--	--
FEB 24...	--	--	--	--	--	--	--	--	--	--	--
MAR 30...	--	--	--	--	--	--	--	--	--	--	--
APR 27...	<.0030	<.0070	<.0020	<.0350	<.150	<.240	<.0350	<.550	<.100	<.0210	<.0140
MAY 19...	--	--	--	--	--	--	--	--	--	--	--
JUL 14...	--	--	--	--	--	--	--	--	--	--	--
SEP 05...	--	--	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--	--	--

DATE	BROMACIL, WATER, DISS, REC (UG/L) (04029)	BROMOXYNIL WATER, FLTRD, GF 0.7U REC (UG/L) (49311)	CARBARYL, WATER, FLTRD, GF 0.7U REC (UG/L) (49310)	CARBOFURAN, WATER, FLTRD, GF 0.7U REC (UG/L) (49309)	3HYDRXY CARBOFURAN WAT,FLT GF 0.7U REC (UG/L) (49308)	CHLORAMBEN, WATER, FLTRD, GF 0.7U REC (UG/L) (49307)	CHLOROTHALONIL, WAT,FLT GF 0.7U REC (UG/L) (49306)	CLOPYRALID, WATER, FLTRD, GF 0.7U REC (UG/L) (49305)	DACTHAL MONOACID, WAT,FLT GF 0.7U REC (UG/L) (49304)	DICAMBA WATER, FLTRD, GF 0.7U REC (UG/L) (38442)	DICHLOBENIL, WATER, FLTRD, GF 0.7U REC (UG/L) (49303)
DEC 10...	--	--	--	--	--	--	--	--	--	--	--
JAN 15...	--	--	--	--	--	--	--	--	--	--	--
FEB 24...	--	--	--	--	--	--	--	--	--	--	--
MAR 30...	--	--	--	--	--	--	--	--	--	--	--
APR 27...	<.0350	<.0350	<.0080	<.120	<.0140	<.420	<.480	<.230	<.0170	<.0350	<1.20
MAY 19...	--	--	--	--	--	--	--	--	--	--	--
JUL 14...	--	--	--	--	--	--	--	--	--	--	--
SEP 05...	--	--	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--	--	--

DATE	DICHLORPROP, WATER, FLTRD, GF 0.7U REC (UG/L) (49302)	DINOSEB WATER, FLTRD, GF 0.7U REC (UG/L) (49301)	DIURON, WATER, FLTRD, GF 0.7U REC (UG/L) (49300)	DNOC WAT,FLT GF 0.7U REC (UG/L) (49299)	FENURON, WATER, FLTRD, GF 0.7U REC (UG/L) (49297)	FLUOMETURON WATER, FLTRD, GF 0.7U REC (UG/L) (38811)	LINURON WATER, FLTRD, GF 0.7U REC (UG/L) (38478)	MCPA, WATER, FLTRD, GF 0.7U REC (UG/L) (38482)	MCPB, WATER, FLTRD, GF 0.7U REC (UG/L) (38487)	METHIOCARB, WATER, FLTRD, GF 0.7U REC (UG/L) (38501)	METHOMYL, WATER, FLTRD, GF 0.7U REC (UG/L) (49296)
DEC 10...	--	--	--	--	--	--	--	--	--	--	--
JAN 15...	--	--	--	--	--	--	--	--	--	--	--
FEB 24...	--	--	--	--	--	--	--	--	--	--	--
MAR 30...	--	--	--	--	--	--	--	--	--	--	--
APR 27...	<.0320	<.0350	<.0200	<.420	<.0130	<.0350	<.0180	<.170	<.140	<.0260	<.0170
MAY 19...	--	--	--	--	--	--	--	--	--	--	--
JUL 14...	--	--	--	--	--	--	--	--	--	--	--
SEP 05...	--	--	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--	--	--

0208650112 FLAT RIVER TRIBUTARY NEAR WILLARDVILLE, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	NEBURON, WATER, FLTRD, GF 0.7U REC (UG/L) (49294)	NORFLURAZON, WATER, FLTRD, GF 0.7U REC (UG/L) (49293)	ORYZALIN, WATER, FLTRD, GF 0.7U REC (UG/L) (49292)	OXAMYL, WATER, FLTRD, GF 0.7U REC (UG/L) (38866)	PICLORAM, WATER, FLTRD, GF 0.7U REC (UG/L) (49291)	PROPHAM, WATER, FLTRD, GF 0.7U REC (UG/L) (49236)	PROPOXUR, WATER, FLTRD, GF 0.7U REC (UG/L) (38538)	SILVEX, DISSOLVED (UG/L) (39762)	TRICLOPYR, WATER, FLTRD, GF 0.7U REC (UG/L) (49235)	SEDIMENT, SUSPENDED (MG/L) (80154)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) (80155)
DEC											
10...	--	--	--	--	--	--	--	--	--	4	.00
JAN											
15...	--	--	--	--	--	--	--	--	--	6	.01
FEB											
24...	--	--	--	--	--	--	--	--	--	26	.03
MAR											
30...	--	--	--	--	--	--	--	--	--	4	.01
APR											
27...	<.0150	<.0240	<.310	<.0180	<.0500	<.0350	<.0350	<.0210	<.250	3	.00
MAY											
19...	--	--	--	--	--	--	--	--	--	3	.00
JUL											
14...	--	--	--	--	--	--	--	--	--	13	.01
SEP											
05...	--	--	--	--	--	--	--	--	--	171	2.9
05...	--	--	--	--	--	--	--	--	--	267	25



An island home surrounded by floodwaters of the Tar River in Rocky Mount, N.C., September 1999.

02087182 FALLS LAKE ABOVE DAM NEAR FALLS, NC

LOCATION.--Lat 35°56'27", long 78°34'57", Wake County, Hydrologic Unit 03020201, on intake tower 50 ft upstream from Falls dam, and 0.3 mi northwest of Falls and 235 mi upstream from mouth.

DRAINAGE AREA.--771 mi^2.

GAGE-HEIGHT RECORDS

PERIOD OF RECORD.--February 1979 to current year.

GAGE.--Water-stage recorder. Datum of gage is set to sea level. 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 conditions. 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 ft^3 at elevation of 250.1 ft.

EXTREMES FOR PERIOD OF RECORD.--Maximum, 264.25 ft, Sept. 30, 1999; minimum, 242.78 ft, Nov. 26, 1993.

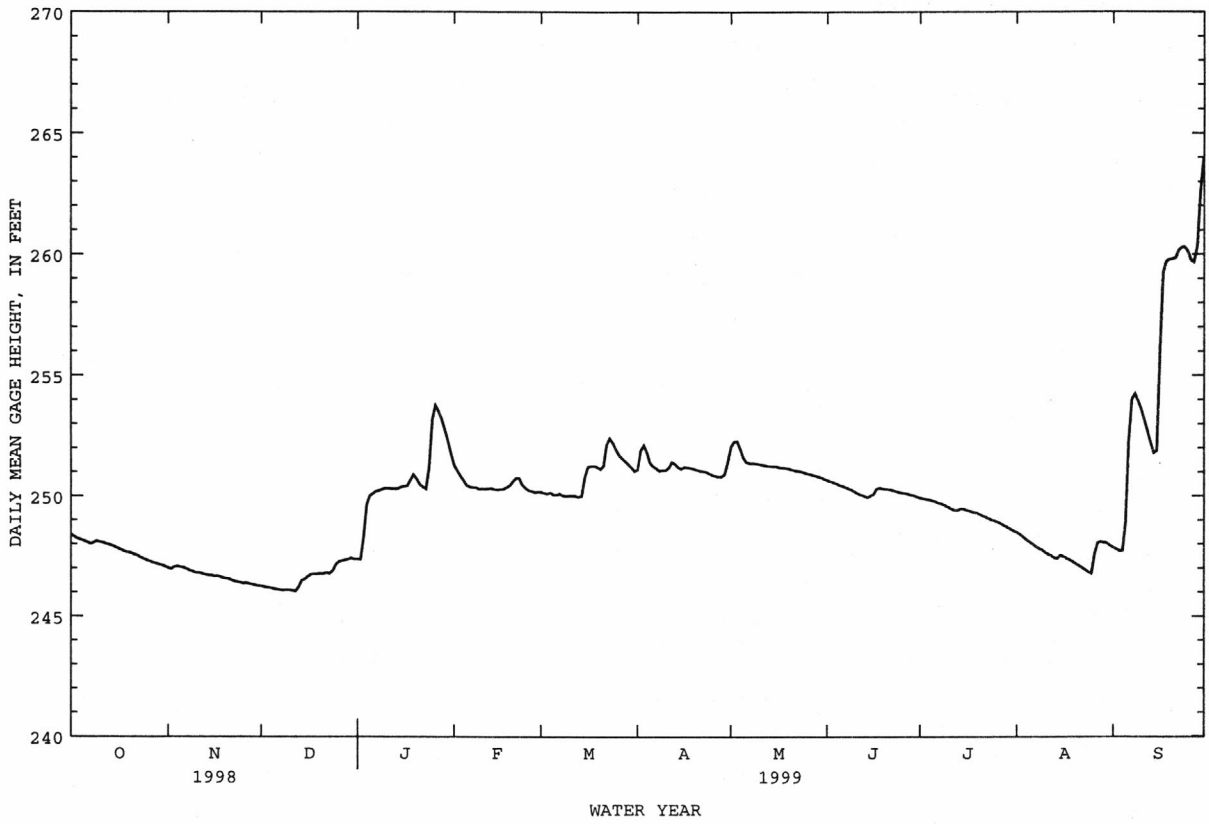
EXTREMES FOR CURRENT YEAR.--Maximum, 264.25 ft, Sept. 30; minimum, 246.03 ft, Dec. 12-13.

COOPERATION.--Extremes for period of record provided by U.S. Army Corps of Engineers.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	248.39	247.02	246.26	247.38	251.29	250.18	251.11	252.06	250.67	249.92	248.49	247.87
2	248.31	246.97	246.22	247.36	251.07	250.13	251.89	252.27	250.62	249.90	248.40	247.80
3	248.23	247.06	246.20	248.29	250.86	250.09	252.12	252.29	250.57	249.87	248.30	247.72
4	248.19	247.09	246.18	249.65	250.67	250.15	251.82	251.97	250.53	249.84	248.19	247.73
5	248.14	247.05	246.15	250.01	250.45	250.05	251.39	251.61	250.46	249.81	248.10	248.93
6	248.08	247.03	246.12	250.11	250.39	250.05	251.24	251.42	250.42	249.76	248.01	252.29
7	248.01	246.97	246.10	250.20	250.36	250.10	251.16	251.38	250.36	249.71	247.91	254.02
8	248.05	246.91	246.08	250.23	250.36	250.02	251.06	251.37	250.31	249.68	247.83	254.24
9	248.13	246.87	246.10	250.29	250.29	250.00	251.08	251.36	250.26	249.61	247.76	253.95
10	248.10	246.82	246.09	250.32	250.31	250.02	251.08	251.34	250.18	249.55	247.67	253.61
11	248.07	246.81	246.07	250.32	250.30	250.02	251.18	251.31	250.11	249.47	247.59	253.17
12	248.03	246.78	246.04	250.31	250.31	250.01	251.43	251.28	250.05	249.42	247.52	252.72
13	247.98	246.74	246.22	250.31	250.32	249.96	251.35	251.26	250.00	249.41	247.43	252.24
14	247.94	246.71	246.49	250.31	250.28	250.01	251.21	251.24	249.95	249.47	247.40	251.80
15	247.88	246.71	246.55	250.39	250.27	250.78	251.14	251.24	250.01	249.46	247.54	251.89
16	247.82	246.67	246.66	250.40	250.28	251.21	251.21	251.22	250.08	249.42	247.48	256.02
17	247.77	246.68	246.75	250.43	250.29	251.25	251.20	251.19	250.30	249.37	247.40	259.25
18	247.71	246.63	246.76	250.66	250.36	251.26	251.18	251.18	250.34	249.33	247.35	259.71
19	247.67	246.59	246.76	250.89	250.44	251.21	251.14	251.16	250.31	249.30	247.27	259.80
20	247.64	246.57	246.78	250.72	250.61	251.13	251.11	251.13	250.29	249.25	247.18	259.82
21	247.58	246.54	246.77	250.48	250.75	251.26	251.06	251.09	250.28	249.19	247.11	259.86
22	247.55	246.47	246.81	250.38	250.75	252.15	251.04	251.05	250.25	249.13	247.02	260.18
23	247.46	246.44	246.78	250.30	250.47	252.41	251.02	251.04	250.21	249.07	246.93	260.30
24	247.40	246.42	246.90	251.22	250.34	252.22	250.95	251.01	250.17	249.00	246.84	260.31
25	247.35	246.37	247.16	253.17	250.24	251.95	250.88	250.96	250.14	248.96	246.79	260.13
26	247.30	246.39	247.27	253.78	250.20	251.71	250.84	250.92	250.12	248.91	247.60	259.77
27	247.24	246.36	247.31	253.53	250.16	251.57	250.81	250.90	250.09	248.84	248.06	259.68
28	247.20	246.32	247.34	253.18	250.17	251.45	250.81	250.86	250.05	248.76	248.10	260.34
29	247.17	246.30	247.36	252.75	---	251.32	250.91	250.82	250.02	248.70	248.07	262.55
30	247.13	246.27	247.42	252.29	---	251.19	251.40	250.78	249.97	248.62	248.06	263.98
31	247.08	---	247.37	251.77	---	251.04	---	250.72	---	248.55	247.94	---
MEAN	247.76	246.69	246.62	250.69	250.45	250.84	251.19	251.27	250.24	249.33	247.66	255.72
MAX	248.39	247.09	247.42	253.78	251.29	252.41	252.12	252.29	250.67	249.92	248.49	263.98
MIN	247.08	246.27	246.04	247.36	250.16	249.96	250.81	250.72	249.95	248.55	246.79	247.72

02087182 FALLS LAKE ABOVE DAM NEAR FALLS, NC--Continued



02087182 FALLS LAKE ABOVE DAM NEAR FALLS, NC--Continued

PRECIPITATION RECORDS

PERIOD OF RECORD.--October 1998 to September 1999.

INSTRUMENTATION.--Tipping bucket raingage and data collection platform records rainfall at fifteen-minute intervals.

REMARKS.--Gage is operated in cooperation with the U.S. Army Corps of Engineers.

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	.00	.00	.00	.37	.00	.68	.00	.00	.07	.00	.00
2	.00	.08	.00	.36	.10	.00	.00	.00	.00	.00	.00	.00
3	.00	.86	.00	1.39	.00	.18	.00	.00	.00	.00	.00	.01
4	.84	.15	.00	.00	.01	.00	.00	.00	.00	.00	.00	.81
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.50
6	.00	.00	.00	.00	.00	.00	.00	.01	.00	.00	.00	1.13
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.22	.00
8	1.27	.00	.02	.01	.00	.00	.00	.00	.00	.00	.14	.00
9	.00	.00	.08	.01	.00	.14	.01	.00	.00	.00	.08	.22
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.11	.00	.00
11	.00	.01	.00	.00	.00	.00	1.16	.00	.00	.17	.00	.00
12	.00	.01	.12	.00	.17	.00	.00	.00	.00	.17	.00	.00
13	.00	.00	.72	.00	.00	.00	.00	.00	.03	.27	.00	.00
14	.00	.15	.00	.00	.00	1.11	.00	.45	.00	.73	.64	.08
15	.00	.05	.07	.65	.00	.01	.03	.00	.47	.00	.04	3.06
16	.00	.22	.40	.00	.00	.00	.00	.00	.39	.00	.00	1.43
17	.00	.02	.00	.03	.00	.00	.00	.00	.00	.00	.16	.00
18	.00	.00	.00	.45	.55	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.01	.00	.20	.00	.00	.00	.00	.00	.00	.00
20	.08	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.00
21	.00	.00	.00	.00	.00	1.14	.00	.00	.00	.00	.20	.94
22	.00	.00	.00	.00	.00	.00	.00	.10	.00	.00	.00	.11
23	.00	.00	.04	.44	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	1.08	.00	.00	.00	.00	.00	.77	.00	.00
25	.00	.00	.00	.00	.00	.24	.00	.00	.09	.00	.29	.00
26	.00	.29	.01	.00	.00	.04	.00	.04	.00	.00	1.09	.00
27	---	.00	.01	.00	.00	.00	.02	.00	.00	.00	.14	1.50
28	.00	.00	.01	.00	.15	.00	.38	.00	.00	.09	.00	1.10
29	.00	.00	.00	.00	---	.00	---	.00	.00	.00	.00	.27
30	.00	.00	.00	.00	---	.00	---	.00	.00	.00	.00	.33
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	---	1.84	1.49	4.42	1.55	2.86	---	0.60	0.98	2.38	3.01	13.49



Floodwaters of the Neuse River surround this gas station along N.C. 117 in Goldsboro north of the main river channel, September 1999.

02087183 NEUSE RIVER NEAR FALLS, NC

LOCATION.--Lat 35°56'25", long 78°34'56", Wake County, Hydrologic Unit 03020201, on right bank 300 ft downstream of Falls Lake Dam, and 0.3 mi northwest of Falls.

DRAINAGE AREA.--771 mi^2.

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

REVISED RECORDS.--WDR NC-91-1: Drainage area. WRD NC 96-1: 1991-95 (M).

GAGE.--Water-stage recorder. Datum of gage is 194.69 ft above sea level. Prior to Oct. 1, 1990, water-stage recorder at site 0.4 mi downstream at 182.62 ft. U.S. Army Corps of Engineers satellite telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Flow regulated by Falls Lake (station 02087182). 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 84.6 ft^3/s, 1.2 mi upstream from station for municipal water supply, most of which was returned downstream as treated effluent. Prior to regulation, maximum discharge: 13,600 ft^3/s, July 17, 1975; gage height: 25.21 ft; minimum discharge: 4.6 ft^3/s, Sept. 24, 1980; gage height: 2.13 ft, at site then in use. Maximum gage-height and discharge for period of record 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.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	179	125	71	66	2950	288	497	182	125	144	181	182
2	181	116	69	67	2370	287	597	182	130	145	223	183
3	176	109	68	68	2290	288	1990	1120	149	145	255	183
4	177	110	66	69	2060	290	3140	2470	152	146	255	184
5	171	111	67	69	1190	214	2440	2020	153	145	236	187
6	168	111	66	70	554	177	924	886	155	149	224	192
7	172	108	66	72	513	177	923	160	159	153	223	196
8	171	108	66	72	511	173	548	160	163	154	225	1500
9	135	109	68	74	314	172	175	160	166	162	223	3310
10	114	110	67	74	165	172	176	160	167	177	226	3350
11	124	110	67	124	164	172	177	160	166	177	225	3340
12	154	110	68	171	166	172	523	160	167	125	e160	3280
13	171	109	67	170	166	173	1000	160	175	125	225	3290
14	173	107	67	169	165	174	937	160	142	185	227	2310
15	175	108	67	170	165	175	467	164	100	185	229	558
16	175	108	67	169	165	597	356	163	111	185	226	427
17	180	108	66	169	165	1090	357	162	113	185	227	215
18	172	107	66	170	166	678	358	159	95	184	228	213
19	171	107	67	770	166	673	359	158	109	186	227	211
20	172	106	68	1920	165	675	363	153	138	186	226	210
21	170	104	67	1520	166	677	363	151	152	187	228	209
22	173	104	67	685	1130	688	366	154	144	187	227	209
23	173	82	67	687	1660	1460	367	155	151	187	211	205
24	173	63	67	690	804	2470	368	152	136	188	199	1070
25	173	61	67	567	582	2450	290	149	132	188	199	2730
26	172	60	66	1980	424	2050	178	133	134	188	201	3750
27	169	65	66	3230	302	1140	180	97	131	189	203	4010
28	172	67	66	3230	287	996	179	97	134	202	203	1810
29	153	70	66	3250	---	989	178	101	141	208	204	213
30	128	71	66	3210	---	990	177	128	145	191	205	575
31	126	---	66	3270	---	797	---	130	---	182	190	---
TOTAL	5093	2944	2075	27022	19925	21524	18953	10546	4235	5340	6741	38302
MEAN	164	98.1	66.9	872	712	694	632	340	141	172	217	1277
MAX	181	125	71	3270	2950	2470	3140	2470	175	208	255	4010
MIN	114	60	66	66	164	172	175	97	95	125	160	182
†	-196	-107	+149	+712	-262	+140	+169	-230	-142	-243	-94	+4178

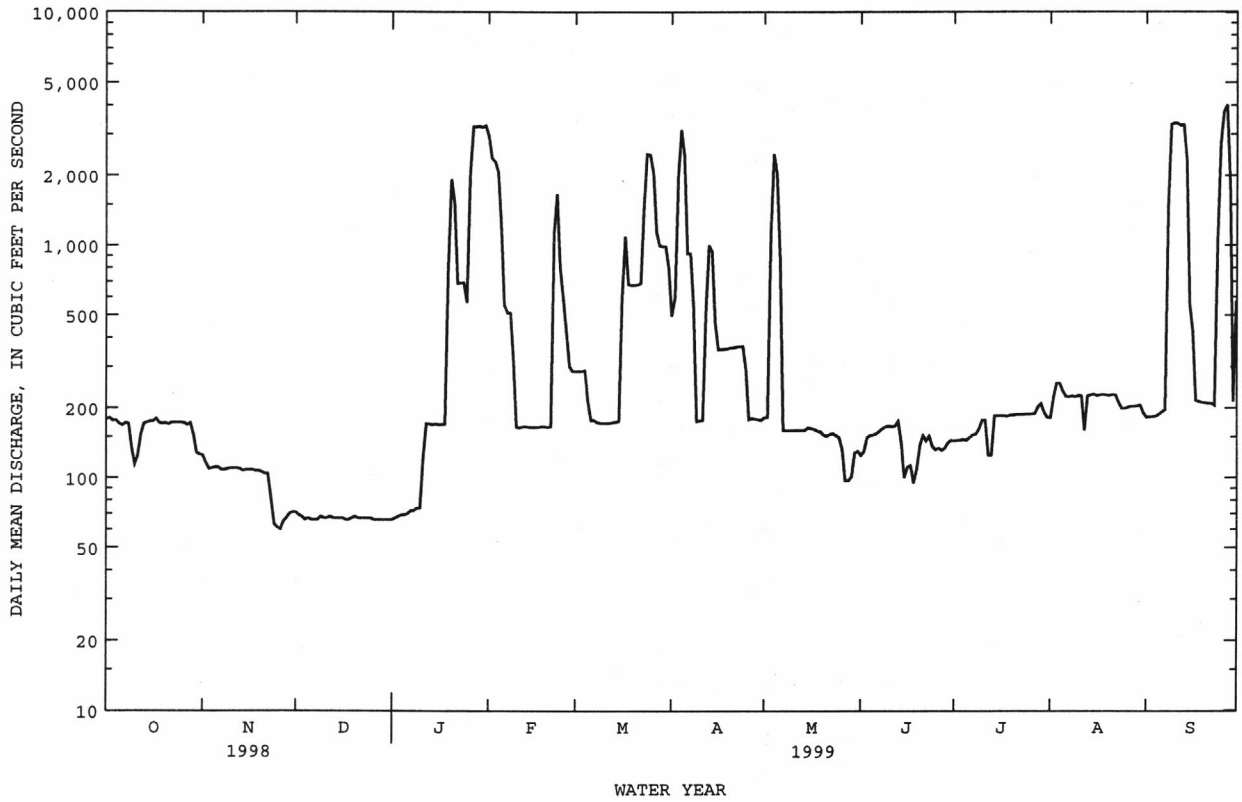
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1999,* BY WATER YEAR (WY)

MEAN	294	335	524	916	1297	1772	1163	553	305	319	265	461
MAX	970	1535	1818	2014	3462	3992	2586	1821	735	1501	1099	3953
(WY)	1997	1996	1986	1984	1998	1989	1984	1989	1984	1995	1989	1996
MIN	72.6	65.2	63.3	102	287	233	118	110	126	61.7	61.0	67.8
(WY)	1984	1984	1992	1994	1991	1988	1995	1995	1987	1983	1983	1985

02087183 NEUSE RIVER NEAR FALLS, NC--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1983 - 1999*	
ANNUAL TOTAL	363109		162700			
ANNUAL MEAN	995		446	‡783	680	(UNADJUSTED)
HIGHEST ANNUAL MEAN					1161	1984
LOWEST ANNUAL MEAN					205	1988
HIGHEST DAILY MEAN	6860	Mar 29	4010	Sep 27	7420	Sep 16 1996
LOWEST DAILY MEAN	60	Nov 26	60	Nov 26	55	Jan 10 1995
ANNUAL SEVEN-DAY MINIMUM	65	Nov 24	65	Nov 24	56	Jan 10 1995
INSTANTANEOUS PEAK FLOW			4190	Sep 26	7650*	Sep 16 1996
INSTANTANEOUS PEAK STAGE			4.20	Sep 26	8.05*	Sep 16 1996
INSTANTANEOUS LOW FLOW			NOT DETERMINED		NOT DETERMINED	
10 PERCENT EXCEEDS	3890		1120		2350	
50 PERCENT EXCEEDS	170		173		179	
90 PERCENT EXCEEDS	71		68		84	

e Estimated.
* Regulated period only (1983-1999). 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.



0208726005 CRABTREE CREEK AT EBENEZER CHURCH ROAD NEAR RALEIGH, NC

LOCATION.--Lat 35°50'43", long 78°43'29", Wake County, Hydrologic Unit 03020201, on downstream side of bridge on Secondary Road 1649, 0.1 mi upstream from Sycamore Creek, and 6.6 mi northwest of Raleigh.

DRAINAGE AREA.--76 mi^2.

PERIOD OF RECORD.--December 1987 to September 1992, May 1997 to current year. Published as Crabtree Creek at Secondary Road 1649 near Raleigh, December 1987 to September 1992.

GAGE.--Water-stage recorder. Datum of gage is 240 ft above sea level, from topographic map. Satellite telemetry at station.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by flood-control dams upstream. Minimum discharge for current water year and period of record due to regulation.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.7	8.2	13	33	56	61	83	171	10	9.5	6.4	16
2	17	8.9	13	30	103	54	192	108	9.8	14	6.8	13
3	13	59	11	957	112	52	149	72	9.8	9.6	6.5	11
4	13	92	11	619	98	52	109	50	8.6	8.3	6.9	27
5	15	63	10	329	78	43	93	35	7.6	7.5	6.9	1430
6	11	42	11	183	64	39	72	29	7.4	9.8	7.8	2010
7	9.6	30	11	118	54	33	59	24	9.1	10	7.3	1430
8	170	24	11	87	47	27	48	21	10	8.1	7.6	1060
9	251	21	11	70	39	24	42	17	9.5	7.7	9.7	628
10	143	18	11	64	34	25	35	15	9.0	8.0	8.4	391
11	98	18	10	69	29	23	55	13	8.6	9.0	8.0	263
12	72	18	9.2	64	28	21	57	13	8.0	13	8.0	154
13	50	15	69	49	31	19	49	13	8.3	20	8.0	94
14	36	15	81	40	24	98	43	41	8.9	110	33	65
15	28	30	52	80	22	728	38	25	9.0	55	52	350
16	23	30	110	82	20	397	36	18	11	35	26	3250
17	19	51	94	67	19	237	30	17	15	26	20	1460
18	12	40	65	153	51	148	25	16	11	21	19	1280
19	12	30	48	237	68	103	22	15	9.1	17	16	1060
20	11	25	38	175	128	84	20	13	8.8	14	14	695
21	10	22	32	120	130	209	18	13	9.7	12	41	460
22	9.5	19	28	86	103	504	17	13	9.6	10	21	640
23	9.0	17	33	101	83	286	16	14	9.3	9.4	16	282
24	8.0	15	264	1130	71	175	14	14	9.3	8.2	13	151
25	8.0	14	350	913	63	123	13	13	9.6	10	51	96
26	8.5	20	187	539	58	114	21	12	8.8	8.9	163	66
27	7.8	19	109	309	54	91	22	13	8.7	7.6	109	765
28	7.7	16	77	182	55	72	19	10	9.3	7.1	65	1340
29	7.9	14	58	119	---	60	40	9.0	8.9	7.1	43	1440
30	8.3	14	51	87	---	49	215	8.3	8.5	7.3	31	1370
31	7.8	---	40	66	---	42	---	8.3	---	6.5	22	---
TOTAL	1104.8	808.1	1918.2	7158	1722	3993	1652	853.6	280.2	506.6	853.3	22297
MEAN	35.6	26.9	61.9	231	61.5	129	55.1	27.5	9.34	16.3	27.5	743
MAX	251	92	350	1130	130	728	215	171	15	110	163	3250
MIN	7.7	8.2	9.2	30	19	19	13	8.3	7.4	6.5	6.4	11
CFSM	.47	.35	.81	3.04	.81	1.69	.72	.36	.12	.22	.36	9.78
IN.	.54	.40	.94	3.50	.84	1.95	.81	.42	.14	.25	.42	10.91

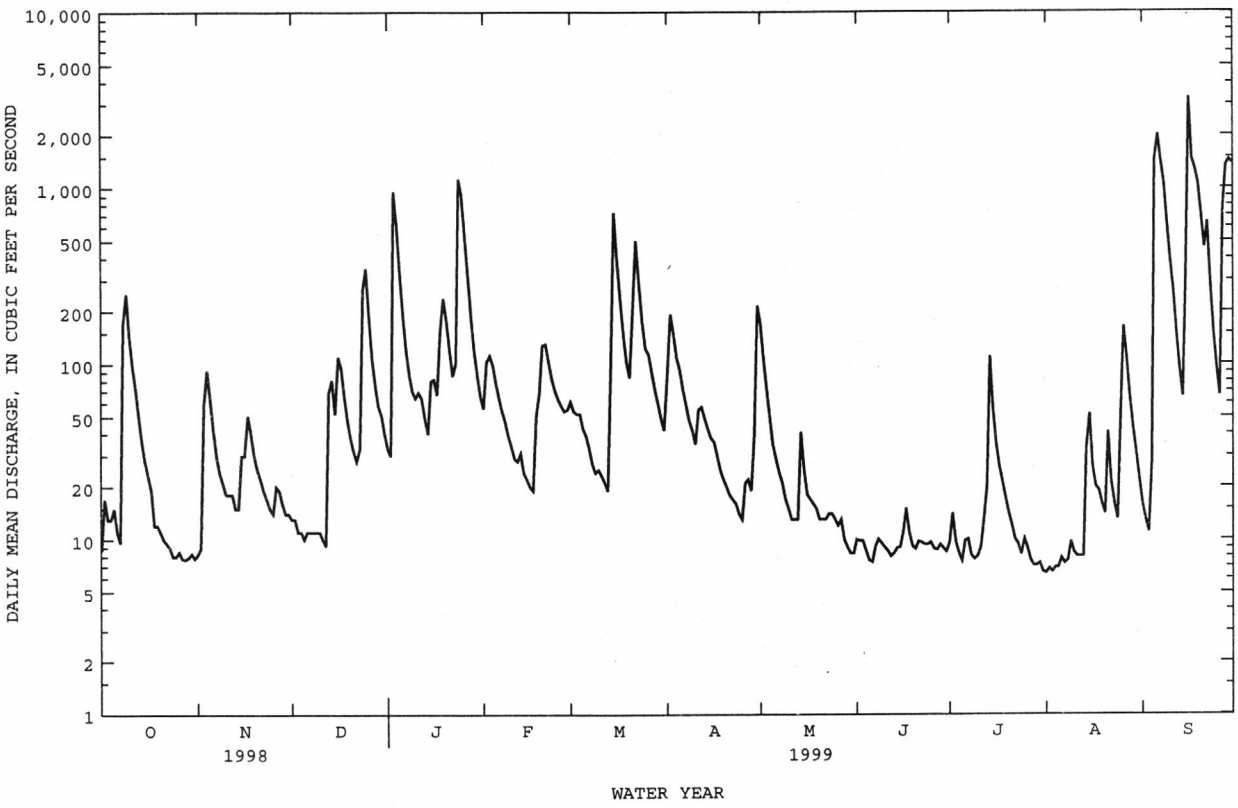
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1999,@ BY WATER YEAR (WY)

MEAN	50.6	58.0	51.9	145	134	176	76.5	60.4	44.2	49.5	42.8	109
MAX	90.6	104	143	370	364	393	143	144	104	113	108	743
(WY)	1991	1990	1990	1998	1998	1998	1989	1989	1992	1997	1989	1999
MIN	13.6	23.8	14.4	43.1	16.2	25.0	32.5	15.7	9.34	9.15	6.74	5.35
(WY)	1992	1992	1991	1989	1991	1988	1992	1992	1999	1988	1990	1990

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1988 - 1999@	
ANNUAL TOTAL	45975.2		43146.8			
ANNUAL MEAN	126		118		90.8	
HIGHEST ANNUAL MEAN					129	1998
LOWEST ANNUAL MEAN					46.6	1992
HIGHEST DAILY MEAN	2410	Mar 19	3250	Sep 16	3250	Sep 16 1999
LOWEST DAILY MEAN	6.7	Sep 29	6.4	Aug 1	2.1	Dec 18 1990
ANNUAL SEVEN-DAY MINIMUM	8.0	Oct 25	6.8	Jul 30	2.6	Dec 12 1990
INSTANTANEOUS PEAK FLOW			4720	Sep 16	4720	Sep 16 1999
INSTANTANEOUS PEAK STAGE			19.78	Sep 16	19.78	Sep 16 1999
INSTANTANEOUS LOW FLOW			3.3*	Aug 1	1.5*	Oct 12 1997
ANNUAL RUNOFF (CFSM)	1.66		1.56		1.20	
ANNUAL RUNOFF (INCHES)	22.50		21.12		16.24	
10 PERCENT EXCEEDS	278		224		178	
50 PERCENT EXCEEDS	39		27		30	
90 PERCENT EXCEEDS	11		8.4		7.8	

.@ See PERIOD OF RECORD
* See REMARKS.

0208726005 CRABTREE CREEK AT EBENEZER CHURCH ROAD NEAR RALEIGH, NC--Continued



02087275 CRABTREE CREEK AT HIGHWAY 70 AT RALEIGH, NC

LOCATION.--Lat 35°50'15", long 78°40'26", 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 mi^2.

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 sea level. Satellite telemetry at station.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 29, 1973, reached a stage of about 27.69 ft, discharge, about 11,700 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

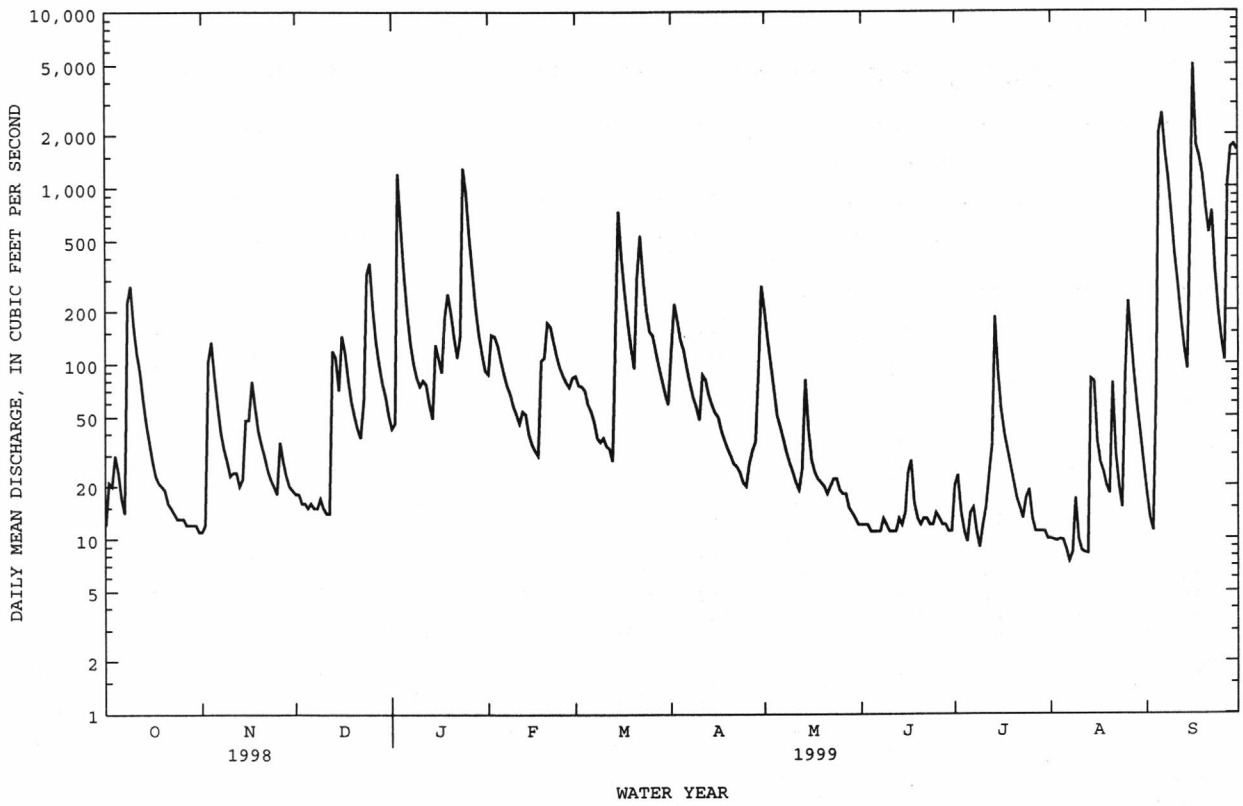
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	11	18	43	88	86	118	201	12	20	10	18
2	21	12	18	46	147	76	220	138	12	23	9.8	13
3	20	104	16	1210	144	75	176	99	12	14	9.7	11
4	30	134	16	615	128	71	137	72	11	11	9.9	74
5	24	85	15	324	106	59	120	51	11	9.6	9.8	2030
6	17	58	16	190	89	54	95	44	11	14	8.7	2630
7	14	41	15	130	76	47	78	37	11	15	7.4	1600
8	225	33	15	101	68	38	65	31	13	11	8.3	1110
9	279	28	17	84	58	36	57	27	12	8.9	17	687
10	166	23	15	75	52	38	48	24	11	12	9.9	420
11	117	24	14	81	46	34	87	21	11	15	8.5	287
12	90	24	14	77	54	33	82	19	11	23	8.3	185
13	63	20	119	59	52	28	67	25	13	34	8.2	125
14	46	22	110	49	40	150	59	82	12	185	82	93
15	36	48	71	129	35	740	53	42	14	89	79	591
16	28	48	145	108	32	405	50	28	24	54	36	5030
17	23	80	117	90	30	258	42	24	28	40	27	1730
18	21	57	83	185	105	173	37	22	16	32	24	1480
19	20	42	62	251	109	125	33	21	13	26	20	1180
20	19	35	51	193	172	95	30	20	12	21	18	763
21	16	30	43	141	164	310	27	18	13	17	78	548
22	15	25	38	109	134	538	26	20	13	15	30	730
23	14	22	63	144	111	309	24	22	12	13	20	333
24	13	20	323	1300	96	201	21	22	12	17	15	199
25	13	18	376	939	86	154	20	19	14	19	84	138
26	13	36	205	529	79	146	27	18	13	13	226	104
27	12	28	132	325	74	118	32	18	12	11	137	1040
28	12	23	99	206	84	97	36	15	12	11	84	1680
29	12	20	78	148	---	81	88	14	11	11	54	1740
30	12	19	65	115	---	68	278	13	11	11	38	1610
31	11	---	51	92	---	59	---	12	---	10	26	---
TOTAL	1414	1170	2420	8088	2459	4702	2233	1219	393	805.5	1203.5	28179
MEAN	45.6	39.0	78.1	261	87.8	152	74.4	39.3	13.1	26.0	38.8	939
MAX	279	134	376	1300	172	740	278	201	28	185	226	5030
MIN	11	11	14	43	30	28	20	12	11	8.9	7.4	11
CFSM	.47	.40	.80	2.67	.90	1.55	.76	.40	.13	.27	.40	9.62
IN.	.54	.45	.92	3.08	.94	1.79	.85	.46	.15	.31	.46	10.74

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 1999, BY WATER YEAR (WY)

MEAN	44.9	59.9	79.3	341	250	291	85.0	56.2	41.6	81.5	47.9	337
MAX	45.6	80.8	80.5	422	412	429	95.6	73.1	59.6	166	81.2	939
(WY)	1999	1998	1998	1998	1998	1998	1998	1998	1997	1997	1998	1999
MIN	44.1	39.0	78.1	261	87.8	152	74.4	39.3	13.1	26.0	23.7	23.3
(WY)	1998	1999	1999	1999	1999	1999	1999	1999	1999	1999	1997	1997

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1997 - 1999	
ANNUAL TOTAL	55277		54286.0			
ANNUAL MEAN	151		149		152	
HIGHEST ANNUAL MEAN					155	1998
LOWEST ANNUAL MEAN					149	1999
HIGHEST DAILY MEAN	3010	Mar 19	5030	Sep 16	5030	Sep 16 1999
LOWEST DAILY MEAN	11	Sep 29	7.4	Aug 7	7.4	Aug 7 1999
ANNUAL SEVEN-DAY MINIMUM	12	Oct 27	9.1	Aug 2	8.2	Oct 8 1997
INSTANTANEOUS PEAK FLOW			7080	Sep 16	7080	Sep 16 1999
INSTANTANEOUS PEAK STAGE			21.50	Sep 16	21.50	Sep 16 1999
INSTANTANEOUS LOW FLOW			3.8	Aug 9	3.8	Aug 9 1999
ANNUAL RUNOFF (CFSM)	1.55		1.52		1.56	
ANNUAL RUNOFF (INCHES)	21.07		20.69		21.14	
10 PERCENT EXCEEDS	328		266		251	
50 PERCENT EXCEEDS	61		38		48	
90 PERCENT EXCEEDS	16		12		13	

02087275 CRABTREE CREEK AT HIGHWAY 70 AT RALEIGH, NC--Continued



0208731190 CRABTREE CREEK AT ANDERSON DRIVE AT RALEIGH, NC

LOCATION.--Lat 35°49'16", long 78°37'34", Wake County, Hydrologic Unit 03020201, on the downstream side of Anderson Drive bridge and 2.3 mi north of Raleigh.

DRAINAGE AREA.--111 mi^2.

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 sea level. Satellite telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of September 1996 reached a stage of 23.1 ft from flood marks.

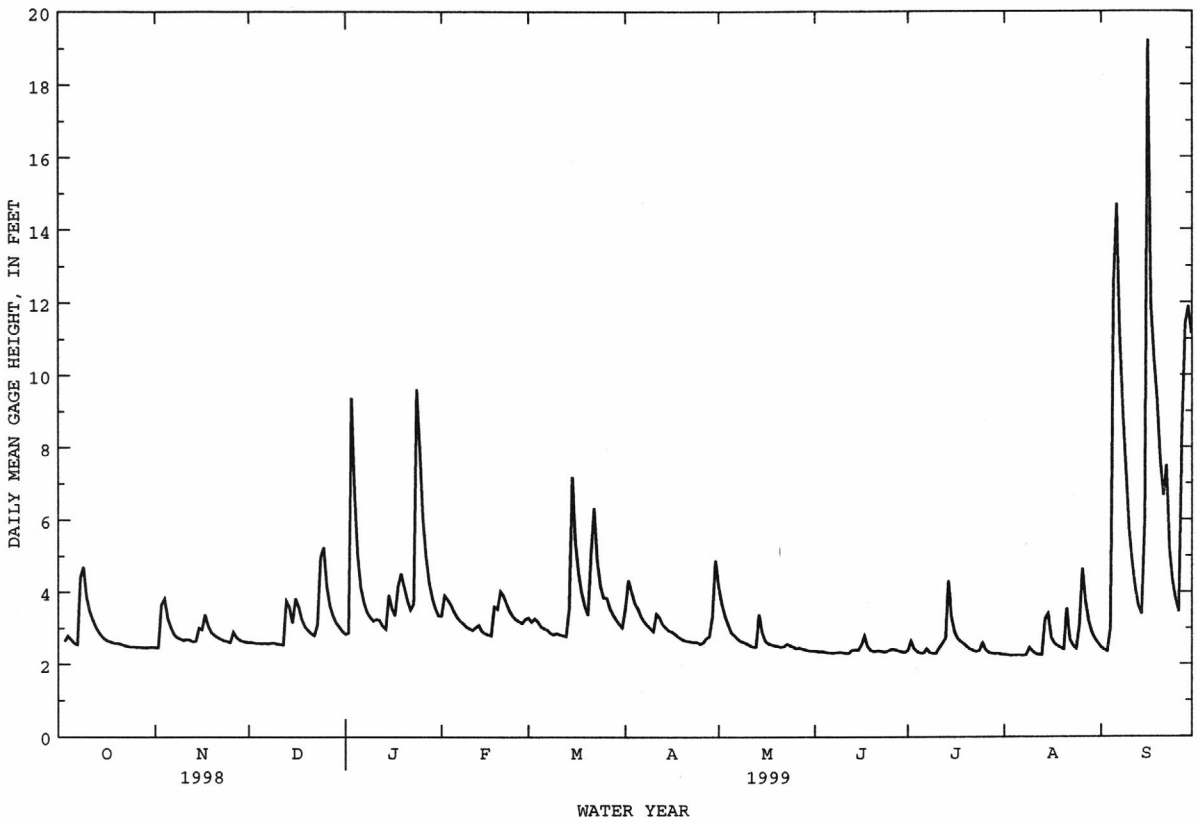
EXTREMES FOR PERIOD OF RECORD.--Maximum, 21.04 ft, Sep. 16, 1999; minimum not determined.

EXTREMES FOR CURRENT YEAR.--Maximum, 21.04 ft, Sep. 16; minimum, 2.21 ft, Aug. 3, 4.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	2.47	2.61	2.84	3.34	3.30	3.56	4.16	2.37	2.39	2.27	2.47
2	---	2.47	2.61	2.87	3.91	3.18	4.34	3.68	2.36	2.64	2.26	2.40
3	2.65	3.65	2.59	9.38	3.80	3.27	4.00	3.35	2.36	2.43	2.24	2.36
4	2.79	3.82	2.59	6.80	3.66	3.19	3.70	3.11	2.35	2.35	2.25	3.00
5	2.69	3.28	2.58	5.04	3.46	3.05	3.55	2.89	2.33	2.31	2.25	12.50
6	2.59	3.03	2.59	4.14	3.31	3.00	3.33	2.81	2.32	2.31	2.25	14.70
7	2.55	2.84	2.58	3.71	3.21	2.96	3.19	2.72	2.32	2.43	2.24	10.98
8	4.41	2.75	2.59	3.45	3.14	2.87	3.09	2.65	2.33	2.33	2.26	8.94
9	4.70	2.71	2.60	3.31	3.05	2.83	3.01	2.62	2.34	2.30	2.46	7.32
10	3.86	2.67	2.57	3.21	3.00	2.87	2.92	2.58	2.33	2.30	2.36	5.72
11	3.47	2.69	2.56	3.25	2.95	2.83	3.40	2.53	2.31	2.45	2.29	4.82
12	3.24	2.68	2.54	3.23	3.03	2.81	3.31	2.49	2.31	2.58	2.27	4.11
13	3.02	2.63	3.76	3.07	3.09	2.78	3.11	2.49	2.40	2.71	2.26	3.61
14	2.88	2.64	3.59	2.98	2.92	3.54	3.02	3.39	2.40	4.32	3.25	3.38
15	2.77	3.01	3.15	3.92	2.86	7.20	2.94	2.87	2.40	3.32	3.40	5.95
16	2.69	2.96	3.83	3.55	2.83	5.42	2.91	2.65	2.54	2.90	2.73	19.23
17	2.65	3.38	3.58	3.35	2.80	4.55	2.84	2.58	2.79	2.71	2.57	11.97
18	2.62	3.06	3.24	4.16	3.60	3.99	2.77	2.55	2.50	2.63	2.51	10.43
19	2.59	2.88	3.04	4.52	3.54	3.61	2.71	2.52	2.39	2.56	2.46	9.33
20	2.59	2.81	2.94	4.15	4.03	3.37	2.67	2.51	2.36	2.48	2.42	7.69
21	2.56	2.75	2.86	3.77	3.91	5.07	2.65	2.48	2.37	2.42	3.55	6.66
22	2.53	2.70	2.80	3.51	3.68	6.34	2.63	2.50	2.37	2.38	2.68	7.50
23	2.51	2.66	3.10	3.68	3.48	4.90	2.62	2.57	2.35	2.35	2.51	5.18
24	2.49	2.64	4.98	9.62	3.34	4.19	2.62	2.52	2.35	2.38	2.43	4.29
25	2.49	2.61	5.24	8.05	3.25	3.86	2.57	2.49	2.39	2.59	3.07	3.79
26	2.48	2.90	4.16	6.09	3.19	3.84	2.60	2.44	2.42	2.39	4.65	3.45
27	2.48	2.75	3.62	5.01	3.15	3.56	2.72	2.46	2.40	2.32	3.73	8.52
28	2.47	2.68	3.35	4.27	3.26	3.39	2.77	2.43	2.37	2.30	3.19	11.40
29	2.47	2.64	3.16	3.84	---	3.25	3.33	2.41	2.35	2.29	2.88	11.89
30	2.47	2.62	3.04	3.55	---	3.13	4.89	2.38	2.33	2.29	2.70	11.14
31	2.48	---	2.92	3.35	---	3.03	---	2.37	---	2.28	2.58	---
MEAN	---	2.85	3.14	4.38	3.31	3.72	3.13	2.72	2.38	2.53	2.68	7.49
MAX	---	3.82	5.24	9.62	4.03	7.20	4.89	4.16	2.79	4.32	4.65	19.23
MIN	---	2.47	2.54	2.84	2.80	2.78	2.57	2.37	2.31	2.28	2.24	2.36

0208731190 CRABTREE CREEK AT ANDERSON DRIVE AT RALEIGH, NC--Continued



02087322 CRABTREE CREEK AT OLD WAKE FOREST ROAD AT RALEIGH, NC

LOCATION.--Lat 35°48'57", long 78°37'33", Wake County, Hydrologic Unit 030200201, on right bank on upstream side of bridge at Old Wake Forest Rd (SR 2030) and 2.8 mi northeast of Raleigh.

DRAINAGE AREA.--119 mi^2.

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 sea level, from topographic map. Satellite telemetry at site.

EXTREMES FOR PERIOD OF RECORD.-- Maximum, 19.93 ft, Sept. 16, 1999; minimum, 1.25 ft, Aug. 2-5, 1999.

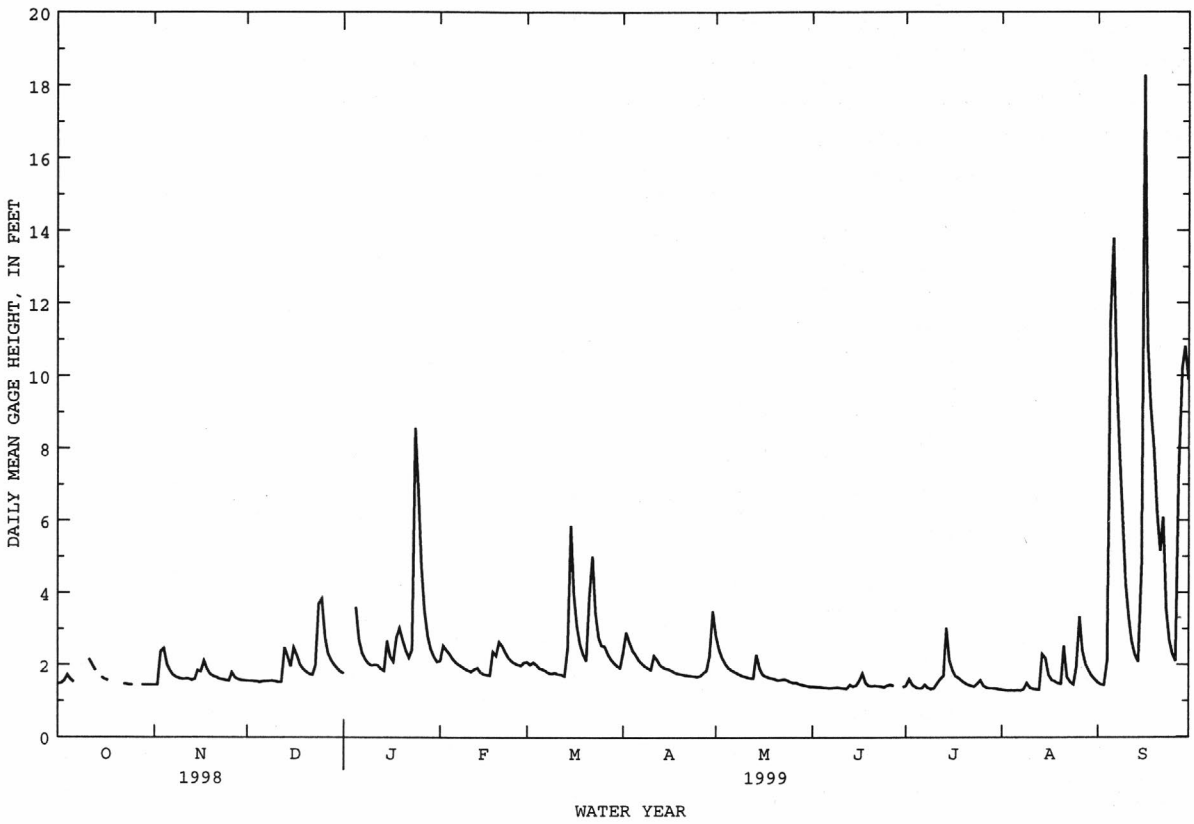
EXTREME OUTSIDE PERIOD OF RECORD.--Flood of Sept. 1996 reached a stage of 21.6 ft from floodmarks.

EXTREMES FOR CURRENT YEAR.--Maximum, 19.93 ft, Sept. 16; minimum, 1.25 ft, Aug. 2-5.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.48	1.44	1.56	1.76	2.11	2.08	2.35	2.80	1.40	1.42	1.31	1.51
2	1.49	1.45	1.56	---	2.53	2.00	2.91	2.43	1.39	1.61	1.30	1.46
3	1.56	2.37	1.55	---	2.42	2.07	2.63	2.20	1.39	1.44	1.28	1.43
4	1.72	2.46	1.54	---	2.31	2.00	2.41	2.04	1.38	1.38	1.30	2.11
5	1.60	2.02	1.53	3.60	2.17	1.90	2.29	1.92	1.37	1.35	1.29	11.54
6	1.53	1.85	1.54	2.70	2.07	1.88	2.14	1.86	1.36	1.35	1.30	13.78
7	---	1.72	1.54	2.33	2.00	1.83	2.05	1.81	1.36	1.44	1.29	9.85
8	3.33	1.66	1.55	2.15	1.95	1.77	1.97	1.76	1.37	1.36	1.32	7.69
9	---	1.63	1.56	2.04	1.89	1.76	1.92	1.72	1.38	1.33	1.50	5.98
10	---	1.60	1.54	1.98	1.85	1.78	1.87	1.69	1.36	1.35	1.37	4.20
11	2.17	1.62	1.53	2.00	1.81	1.74	2.26	1.66	1.35	1.48	1.33	3.27
12	2.01	1.62	1.52	1.99	1.88	1.73	2.15	1.64	1.34	1.61	1.32	2.65
13	1.85	1.58	2.49	1.89	1.91	1.69	2.00	1.63	1.45	1.70	1.31	2.27
14	---	1.60	2.25	1.83	1.79	2.48	1.94	2.29	1.40	3.03	2.30	2.09
15	1.66	1.85	1.95	2.67	1.74	5.87	1.90	1.90	1.43	2.11	2.19	4.75
16	1.61	1.81	2.48	2.23	1.72	3.98	1.88	1.73	1.56	1.83	1.72	18.27
17	1.57	2.11	2.24	2.09	1.71	3.09	1.83	1.68	1.76	1.69	1.58	10.84
18	---	1.87	2.01	2.75	2.37	2.59	1.78	1.65	1.50	1.63	1.54	9.16
19	---	1.75	1.88	3.02	2.26	2.30	1.76	1.63	1.42	1.55	1.49	8.03
20	---	1.69	1.81	2.70	2.64	2.12	1.74	1.60	1.41	1.49	1.47	6.26
21	---	1.66	1.75	2.40	2.53	3.91	1.72	1.57	1.42	1.45	2.52	5.16
22	1.47	1.62	1.72	2.20	2.35	5.02	1.71	1.59	1.41	1.42	1.66	6.09
23	1.47	1.59	1.99	2.43	2.20	3.47	1.70	1.60	1.40	1.39	1.52	3.54
24	1.45	1.58	3.70	8.57	2.11	2.78	1.69	1.57	1.38	1.47	1.46	2.68
25	1.45	1.56	3.83	6.88	2.05	2.54	1.67	1.52	1.43	1.57	1.94	2.31
26	---	1.79	2.76	4.71	2.01	2.52	1.70	1.50	1.45	1.41	3.34	2.10
27	---	1.65	2.32	3.51	1.98	2.30	1.78	1.50	1.42	1.36	2.40	7.27
28	1.44	1.61	2.13	2.79	2.07	2.16	1.84	1.46	---	1.35	2.02	10.21
29	1.44	1.58	2.00	2.43	---	2.06	2.27	1.44	---	1.35	1.83	10.81
30	1.44	1.57	1.90	2.23	---	1.98	3.50	1.42	1.38	1.34	1.70	9.90
31	1.45	---	1.81	2.09	---	1.92	---	1.40	---	1.32	1.59	---
MEAN	---	1.73	1.99	---	2.09	2.49	2.05	1.75	---	1.53	1.66	6.24
MAX	---	2.46	3.83	---	2.64	5.87	3.50	2.80	---	3.03	3.34	18.27
MIN	---	1.44	1.52	---	1.71	1.69	1.67	1.40	---	1.32	1.28	1.43

02087322 CRABTREE CREEK AT OLD WAKE FOREST ROAD AT RALEIGH, NC--Continued



02087324 CRABTREE CREEK AT US 1 AT RALEIGH, NC

LOCATION.--Lat 35°48'40", long 78°36'43", Wake County, Hydrologic Unit 03020201, on downstream side of bridge on U.S. Highway 1, 2.7 mi northeast of Raleigh, and 7.2 mi upstream from mouth.

DRAINAGE AREA.--121 mi^2.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 183.27 ft above sea level. Satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges and those below 30 ft^3/s, which are poor. 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.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	20	22	37	94	103	147	205	20	19	e12	28
2	21	20	21	42	164	91	234	144	20	32	e11	23
3	28	151	21	1240	143	105	196	103	20	19	e11	19
4	56	155	20	647	126	94	156	78	20	18	e10	151
5	29	87	19	321	105	79	135	60	19	17	e10	2280
6	23	63	20	190	91	76	109	53	19	17	e9.8	3030
7	21	46	20	132	83	70	94	48	19	21	e9.0	1800
8	323	39	20	100	76	62	84	43	19	17	e9.7	1300
9	284	35	21	82	67	62	78	39	19	17	e31	940
10	154	32	19	73	63	64	71	36	18	18	e14	582
11	103	34	18	77	59	64	128	32	18	24	e12	387
12	81	33	18	77	68	62	109	30	17	32	e9.9	229
13	61	29	149	64	71	59	86	29	25	40	e9.2	136
14	47	32	107	56	56	170	77	121	21	241	e175	91
15	38	58	62	195	52	698	71	56	22	92	113	702
16	33	51	141	117	51	372	68	38	39	48	39	6060
17	31	91	103	93	51	260	62	33	52	35	28	2290
18	30	57	69	200	146	191	59	30	26	31	30	1710
19	28	41	52	240	127	142	56	28	20	27	30	1440
20	26	35	44	192	190	112	55	27	20	24	30	1040
21	24	32	37	144	175	391	53	26	20	22	104	807
22	21	28	33	109	145	536	52	29	20	21	32	1040
23	20	25	76	142	120	309	51	31	19	20	26	478
24	19	24	340	1270	106	222	48	29	18	26	29	270
25	18	22	362	905	97	187	47	27	20	30	122	167
26	e18	47	183	489	91	185	46	25	20	20	370	112
27	e18	29	111	303	87	142	52	26	18	e18	207	1340
28	19	25	82	199	102	116	60	23	18	e17	104	2060
29	20	23	64	145	---	100	116	22	17	e16	68	2360
30	19	22	53	111	---	87	307	21	17	e14	50	1990
31	20	---	44	88	---	79	---	20	---	e13	37	---
TOTAL	1653	1386	2351	8080	2806	5290	2907	1512	640	1006	1752.6	34862
MEAN	53.3	46.2	75.8	261	100	171	96.9	48.8	21.3	32.5	56.5	1162
MAX	323	155	362	1270	190	698	307	205	52	241	370	6060
MIN	18	20	18	37	51	59	46	20	17	13	9.0	19
CFSM	.44	.38	.63	2.15	.83	1.41	.80	.40	.18	.27	.47	9.60
IN.	.51	.43	.72	2.48	.86	1.63	.89	.46	.20	.31	.54	10.72

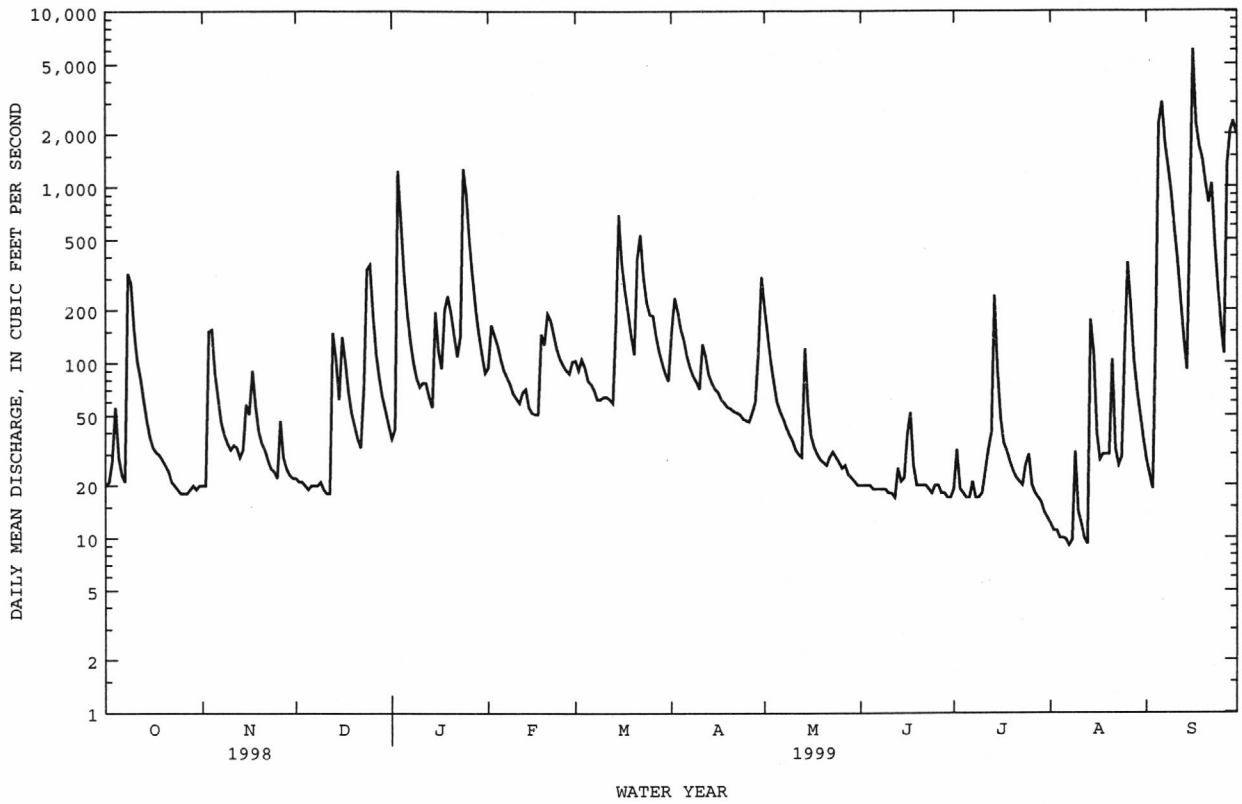
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1999, BY WATER YEAR (WY)

MEAN	120	106	103	265	198	248	132	81.7	112	86.4	73.8	251
MAX	370	255	176	495	483	494	355	122	257	198	163	1162
(WY)	1996	1993	1997	1998	1998	1998	1993	1996	1990	1997	1992	1999
MIN	30.8	23.2	45.2	173	59.5	140	57.4	45.6	21.3	30.7	31.7	14.2
(WY)	1992	1992	1995	1994	1991	1992	1995	1995	1999	1993	1993	1990

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1990 - 1999	
ANNUAL TOTAL	63930		64245.6			
ANNUAL MEAN	175		176		149	
HIGHEST ANNUAL MEAN					242	1996
LOWEST ANNUAL MEAN					97.7	1991
HIGHEST DAILY MEAN	3210	Mar 19	6060	Sep 16	7730	Sep 6 1996
LOWEST DAILY MEAN	16	Sep 29	9.0	Aug 7	1.9	Oct 8 1994
ANNUAL SEVEN-DAY MINIMUM	19	Sep 25	10	Aug 2	2.3	Oct 2 1994
INSTANTANEOUS PEAK FLOW			8050	Sep 16	12700	Sep 6 1996
INSTANTANEOUS PEAK STAGE			16.88	Sep 16	18.23*	Sep 6 1996
INSTANTANEOUS LOW FLOW			NOT DETERMINED		1.9*	Oct 7 1994
ANNUAL RUNOFF (CFSM)	1.45		1.45		1.23	
ANNUAL RUNOFF (INCHES)	19.65		19.75		16.76	
10 PERCENT EXCEEDS	366		305		294	
50 PERCENT EXCEEDS	69		52		69	
90 PERCENT EXCEEDS	22		19		18	

e Estimated.
* See REMARKS.

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



02087324 CRABTREE CREEK AT U.S. 1 AT RALEIGH, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1993, September 1999.

REMARKS.--Samples from current year collected during flooding from Hurricane Floyd.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN, DIS-SOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)
SEP 16...	1800	6010	756	74	6.6	6.1	47	20.5	.129	.75	.153	.005

DATE	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105)	ARSENIC TOTAL (UG/L AS AS) (01002)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) (01037)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)
SEP 16...	.90	.028	.162	2100	<3	<0	3	E2	6	2600	5	150

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)	METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)
SEP 16...	<.10	E2	<3	<1	40	10	2.6	<.0030	<.0020	<.002	.010	<.0010

DATE	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)
SEP 16...	<.0020	<.0300	E.0408	<.0030	<.0090	<.0040	<.0020	<.0020	.048	<.001	<.0170

DATE	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DIS-SOLVED (UG/L) (39341)	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA-THION, DIS-SOLVED (UG/L) (39532)	METO-LACHLOR WATER DISSOLV (UG/L) (39415)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)
SEP 16...	<.0020	<.0040	<.0030	<.0030	<.004	<.0020	<.005	.036	<.004	<.0040	<.0030

DATE	PARA-THION, DIS-SOLVED (UG/L) (39542)	METHYL PARA-THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	PROP-CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)
SEP 16...	<.004	<.0060	<.0040	<.0040	<.0020	.0183	<.0070	<.0040	<.0130	<.0030	.0121

02087324 CRABTREE CREEK AT U.S. 1 AT RALEIGH, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	ALPHA BHC DIS-SOLVED (UG/L) (34253)	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	P,P' DDE DISSOLV (UG/L) (34653)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
SEP											
16...	<.0100	<.0070	<.0130	<.0020	<.0010	<.0020	<.0020	<.0050	<.0060	246	3990

0208732534 PIGEON HOUSE CREEK AT CAMERON VILLAGE AT RALEIGH, NC

LOCATION.--Lat 35°47'14", long 78°39'17", 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 mi^2.

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 sea level from topographic map. Satellite telemetry at station.

REMARKS.--No estimated daily discharges. Records fair except for discharges above 20 ft^3/s, which are poor. Minimum discharge for current water year also occurred several days in July and Aug.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.18	.08	.11	.13	1.2	.36	1.2	.08	.07	.38	.03	.18
2	.09	.09	.10	1.2	.99	.35	.13	.08	.07	.08	.03	.10
3	.10	2.6	.12	7.8	.24	.93	.12	.07	.06	.05	.03	.10
4	1.6	.45	.10	.26	.38	.14	.37	.08	.06	.06	.03	3.3
5	.14	.12	.10	.23	.20	.12	.12	.08	.06	.05	.03	15
6	.13	.10	.11	.24	.22	.11	.11	.08	.08	.05	.03	4.2
7	.12	.10	.12	.21	.25	.09	.12	.08	.10	.05	.03	.43
8	7.8	.11	.15	.35	.25	.09	.12	.08	.11	.06	.03	.29
9	.21	.12	.25	.35	.23	.23	.13	.07	.14	.05	.85	2.1
10	.10	.15	.14	.31	.24	.09	.14	.07	.19	.05	.03	.35
11	.08	.70	.15	.30	.23	.07	.22	.07	.22	.34	.04	.21
12	.08	.91	.21	.30	.49	.07	.32	.08	.22	.47	.03	.18
13	.08	.98	2.8	.32	.27	.07	.11	1.4	.25	.56	.03	.19
14	.07	1.3	.21	.34	.28	2.9	.11	.71	.06	2.7	3.0	.26
15	.08	.70	.25	3.9	.31	.23	.18	.16	.20	.12	.37	13
16	.06	.87	1.0	.60	.29	.09	.11	.07	1.7	.07	.09	15
17	.06	.74	.09	.65	.65	.09	.11	.08	.45	.13	.15	.99
18	.05	.09	.08	2.4	2.0	.09	.10	.07	.11	.10	.07	.64
19	.05	.11	.11	.67	1.2	.09	.09	.07	.06	.05	.06	.55
20	.07	.11	.12	.66	.55	.08	.11	.07	.14	.05	.15	.24
21	.05	.13	.10	.68	.33	5.4	.08	.07	.11	.05	12	5.1
22	.05	.12	.12	.81	.34	.30	.12	.07	.08	.05	.12	1.3
23	.05	.12	2.1	3.5	.34	.14	.09	.07	.07	.05	.10	.29
24	.05	.11	3.4	8.4	.33	.13	.08	.07	.07	.44	.09	.24
25	.05	.10	.42	.56	.34	1.0	.08	.07	.09	.06	.66	.22
26	.06	.81	.14	.35	.32	.41	.08	.14	.24	.04	3.3	.21
27	.05	.07	.15	.30	.33	.13	.18	.13	.09	.04	.19	6.6
28	.06	.10	.27	.27	.79	.10	.96	.08	.07	.03	.12	9.8
29	.07	.10	.14	.26	---	.13	1.8	.08	.07	.09	.11	1.1
30	.07	.11	.14	.25	---	.11	.37	.08	.07	.03	.11	1.2
31	.08	---	.18	.26	---	.11	---	.07	---	.04	.13	---
TOTAL	11.79	12.20	13.48	36.86	13.59	14.25	7.86	4.48	5.31	6.39	22.04	83.37
MEAN	.38	.41	.43	1.19	.49	.46	.26	.14	.18	.21	.71	2.78
MAX	7.8	2.6	3.4	8.4	2.0	5.4	1.8	1.4	1.7	2.7	12	15
MIN	.05	.07	.08	.13	.20	.07	.08	.07	.06	.03	.03	.10
CFSM	1.41	1.51	1.61	4.40	1.80	1.70	.97	.54	.66	.76	2.63	10.3
IN.	1.62	1.68	1.86	5.08	1.87	1.96	1.08	.62	.73	.88	3.04	11.49

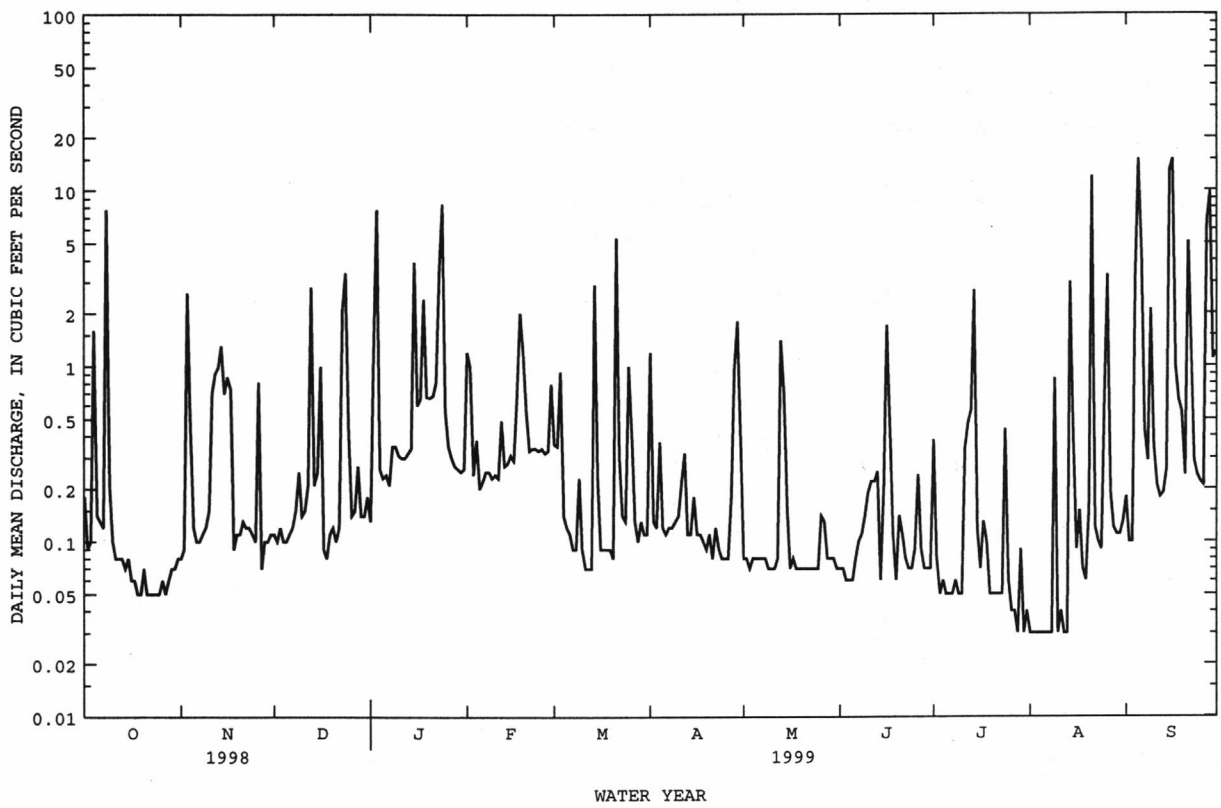
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 1999, BY WATER YEAR (WY)

MEAN	.32	.42	.43	.96	.66	.82	.44	.40	.38	.56	.60	1.14
MAX	.43	.46	.51	1.32	1.02	1.31	.63	.60	.50	.90	.71	2.78
(WY)	1998	1998	1998	1998	1998	1998	1997	1997	1998	1998	1999	1999
MIN	.15	.40	.33	.37	.48	.46	.26	.14	.18	.21	.53	.23
(WY)	1997	1997	1997	1997	1997	1999	1999	1999	1999	1999	1998	1997

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1997 - 1999	
ANNUAL TOTAL	245.69		231.62			
ANNUAL MEAN	.67		.63		.59	
HIGHEST ANNUAL MEAN					.69	1998
LOWEST ANNUAL MEAN					.46	1997
HIGHEST DAILY MEAN	13	Mar 19	15	Sep 5	15	Aug 31 1997
LOWEST DAILY MEAN	.05	Oct 18	.03	Jul 28	.03	Jul 28 1999
ANNUAL SEVEN-DAY MINIMUM	.05	Oct 21	.03	Aug 1	.03	Aug 1 1999
INSTANTANEOUS PEAK FLOW			622	Aug 21	622	Aug 21 1999
INSTANTANEOUS PEAK STAGE			8.23	Aug 21	8.23	Aug 21 1999
INSTANTANEOUS LOW FLOW			.02*	Jul 28	NOT DETERMINED	
ANNUAL RUNOFF (CFSM)	2.49		2.35		2.20	
ANNUAL RUNOFF (INCHES)	33.85		31.91		29.85	
10 PERCENT EXCEEDS	2.0		1.2		1.3	
50 PERCENT EXCEEDS	.13		.12		.12	
90 PERCENT EXCEEDS	.09		.06		.07	

* See REMARKS.

0208732534 PIGEON HOUSE CREEK AT CAMERON VILLAGE AT RALEIGH, NC--Continued



0208732885 MARSH CREEK NEAR NEW HOPE, NC

LOCATION.--Lat 35°48'59", long 78°35'37", 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 mi^2

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 sea level, from topographic map. Satellite telemetry and rain gage at station.

REMARKS.-- Records fair except those for estimated daily discharges, which are poor. Maximum discharge for period of record from rating curve extension above 1,300 ft^3/s, on basis of indirect measurement of peak flow. Minimum discharge for period of record and current water year also occurred Aug. 5.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	5.3	1.3	2.7	9.6	4.0	17	5.3	.81	1.0	.13	1.8
2	.66	5.7	1.2	9.0	18	3.4	7.4	4.1	.82	1.4	.06	1.6
3	.54	40	1.2	134	6.0	6.9	4.8	3.5	.85	.64	.00	1.7
4	15	24	1.3	9.4	5.0	4.6	3.7	3.0	.80	.49	.01	47
5	5.8	4.8	1.3	5.0	3.8	3.2	3.1	2.8	.70	.46	.00	393
6	3.6	3.2	1.4	4.0	3.3	2.9	2.9	2.7	.68	.32	.16	152
7	2.4	2.5	1.5	3.5	3.2	2.8	3.3	2.6	.70	.36	.01	38
8	98	2.2	1.5	3.3	3.1	2.7	3.6	2.4	.66	.34	.36	8.4
9	25	2.0	2.3	3.3	3.1	4.1	3.8	2.3	.63	.46	4.6	14
10	5.3	2.0	1.6	3.3	3.0	4.1	3.5	2.1	.59	2.9	1.1	16
11	3.3	3.3	1.5	2.8	2.9	3.3	22	2.0	.75	3.2	.68	4.9
12	2.5	2.4	1.6	2.9	5.3	2.9	6.5	2.1	.87	8.6	.23	3.3
13	2.2	2.6	49	2.7	4.0	3.7	4.3	2.4	26	9.2	.06	2.5
14	2.0	4.8	8.6	2.6	3.2	43	3.8	15	7.9	56	89	3.9
15	1.9	11	4.7	56	3.1	26	4.0	5.8	4.6	7.2	22	207
16	1.8	9.5	25	7.7	3.0	5.9	2.7	3.0	13	3.7	4.3	643
17	1.8	16	6.5	4.8	2.9	4.0	3.0	2.5	13	2.3	2.4	16
18	1.9	3.5	4.1	25	21	3.2	2.9	2.0	3.8	7.5	e1.5	7.1
19	1.9	2.5	3.2	7.0	11	2.7	3.0	1.5	2.3	2.6	.94	4.6
20	2.6	2.0	2.9	4.7	11	2.5	3.1	1.3	1.9	1.6	1.2	3.6
21	2.0	2.0	2.7	3.9	4.9	88	2.9	1.1	1.8	1.1	66	11
22	2.3	1.8	2.6	3.4	3.7	22	2.7	2.6	1.4	.72	5.4	42
23	2.5	1.8	24	23	3.3	7.4	2.7	2.1	1.2	.46	2.8	6.1
24	2.5	1.9	73	130	3.2	5.2	2.6	2.0	.94	5.6	1.7	3.9
25	2.5	2.0	18	15	3.1	12	2.6	1.5	1.4	7.4	9.3	2.9
26	2.6	12	6.5	7.1	3.0	16	2.6	1.6	2.6	2.8	65	2.5
27	2.7	2.6	4.5	5.2	3.0	9.5	2.8	1.3	2.2	1.6	11	132
28	3.1	1.9	4.2	4.4	6.3	5.2	9.7	1.0	1.4	1.0	3.8	135
29	4.0	1.5	3.4	3.8	---	3.9	30	.81	1.1	2.3	2.3	45
30	4.3	1.4	3.0	3.4	---	3.5	31	.81	.97	.80	1.9	72
31	4.6	---	2.9	3.1	---	3.2	---	.85	---	.34	1.9	---
TOTAL	212.90	178.2	266.5	496.0	156.0	311.8	198.0	84.07	96.37	134.39	299.84	2021.8
MEAN	6.87	5.94	8.60	16.0	5.57	10.1	6.60	2.71	3.21	4.34	9.67	67.4
MAX	98	40	73	134	21	88	31	15	26	56	89	643
MIN	.54	1.4	1.2	2.6	2.9	2.5	2.6	.81	.59	.32	.00	1.6
CFSM	1.00	.87	1.26	2.34	.81	1.47	.96	.40	.47	.63	1.41	9.85
IN.	1.16	.97	1.45	2.70	.85	1.70	1.08	.46	.52	.73	1.63	11.00

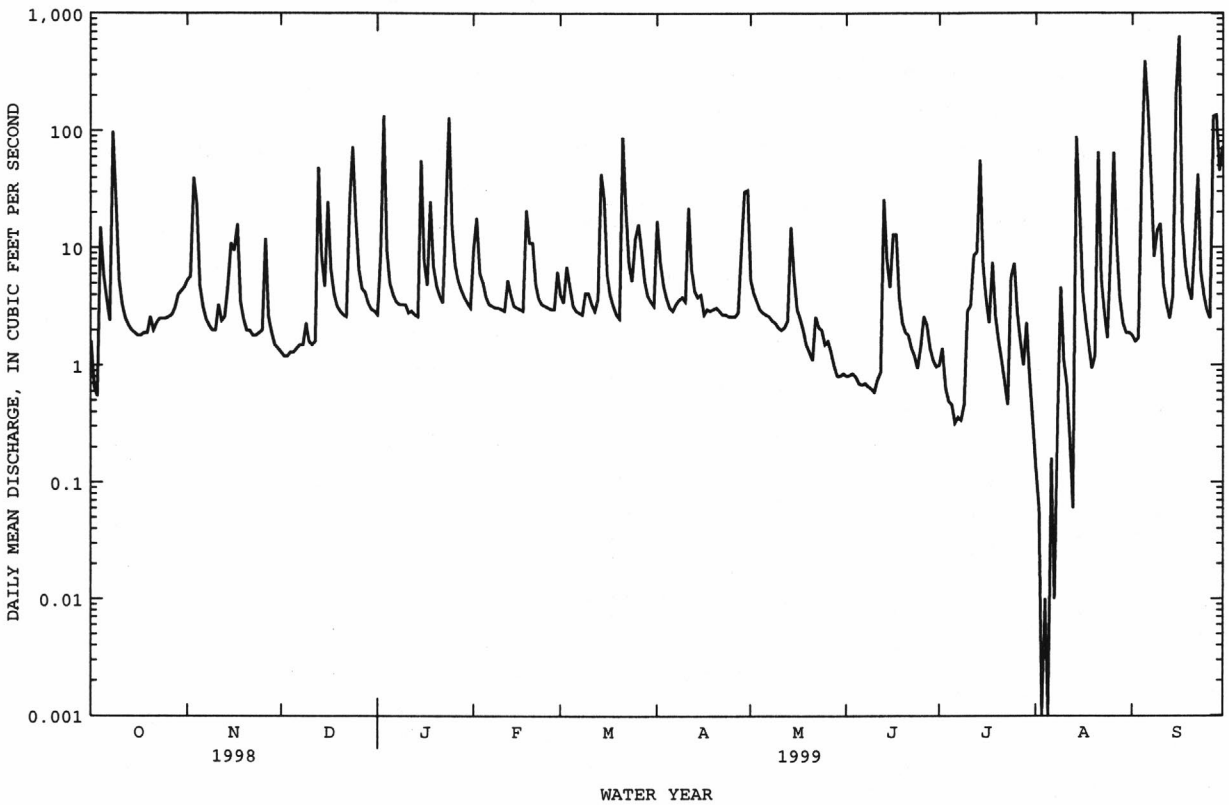
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 1999, BY WATER YEAR (WY)

MEAN	7.19	7.93	6.83	12.6	11.6	14.2	9.42	8.79	8.45	8.40	9.10	12.9
MAX	23.3	15.7	10.3	30.3	22.0	31.9	19.2	25.9	20.3	25.0	38.0	67.4
(WY)	1996	1996	1990	1998	1998	1998	1989	1984	1989	1997	1986	1999
MIN	1.95	1.72	2.02	3.77	2.77	4.54	2.08	2.71	1.29	2.44	2.07	1.86
(WY)	1987	1992	1995	1986	1991	1986	1985	1999	1993	1987	1993	1990

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1984 - 1999	
ANNUAL TOTAL	4530.44		4455.87			
ANNUAL MEAN	12.4		12.2		9.82	
HIGHEST ANNUAL MEAN					14.9	1996
LOWEST ANNUAL MEAN					5.87	1988
HIGHEST DAILY MEAN	253	Mar 19	643	Sep 16	890	Sep 6 1996
LOWEST DAILY MEAN	.36	Aug 24	.00	Aug 3	.00	Aug 3 1999
ANNUAL SEVEN-DAY MINIMUM	.65	Aug 19	.05	Aug 1	.05	Aug 1 1999
INSTANTANEOUS PEAK FLOW			1640	Sep 16	3900	Sep 6 1996
INSTANTANEOUS PEAK STAGE			10.75	Sep 16	13.33	Sep 6 1996
INSTANTANEOUS LOW FLOW			.00*	Aug 3	.00*	Aug 3 1999
ANNUAL RUNOFF (CFSM)	1.81		1.78		1.44	
ANNUAL RUNOFF (INCHES)	24.64		24.23		19.50	
10 PERCENT EXCEEDS	27		22		18	
50 PERCENT EXCEEDS	3.8		3.1		3.4	
90 PERCENT EXCEEDS	1.1		.84		1.3	

e Estimated.
* See REMARKS.

0208732885 MARSH CREEK NEAR NEW HOPE, NC--Continued



0208735012 ROCKY BRANCH BELOW PULLEN DRIVE AT RALEIGH, NC

LOCATION.--Lat 35°46'48", long 78°39'59", 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 mi^2.

PERIOD OF RECORD.--October 1996 to current year. Fragmentary records, June 1992 to September 1996, are available in the files of the District office, Raleigh, NC.

GAGE.--Water-stage recorder. Datum of gage is 315 ft above sea level from topographic map. Satellite telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges and those above 300 ft^3/s, which are poor. Minimum discharge for period of record and current water year due to diversion by City of Raleigh.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.40	.68	.42	.36	3.7	.64	5.8	.68	.46	2.2	.39	1.4
2	.32	.54	.48	3.6	3.8	.61	.87	.77	.50	.56	.38	1.4
3	.32	11	.54	57	.57	3.4	.79	.95	.49	.00	.41	1.5
4	7.0	1.3	.42	.48	.94	.57	2.5	.84	.53	.07	.41	18
5	.20	.36	.40	.36	.55	.54	.89	.39	.53	.33	.47	109
6	.00	.36	.37	.37	.53	.61	.87	.00	.53	.45	.43	34
7	.17	.36	.39	.43	.53	.68	.87	.35	.51	.61	.36	1.5
8	40	.39	.40	.51	.51	.68	.88	.78	.46	.46	.47	1.0
9	.96	.49	.44	.53	.42	1.3	.98	.80	.24	.34	3.8	7.2
10	.61	.59	.41	.50	.41	.50	1.1	.84	.08	.40	.51	1.3
11	.72	.85	.41	.42	.41	.46	1.2	.69	.33	1.6	.51	.87
12	.74	.36	.55	.51	1.0	.47	.86	.69	.27	2.8	.54	.86
13	.65	.36	9.2	.52	.43	.33	.83	11	.54	2.5	.23	.86
14	.68	1.7	.53	.54	.41	14	.72	6.1	.29	15	11	1.3
15	.71	1.6	.49	e7.8	.43	1.8	.84	.94	.36	.80	1.0	85
16	.63	1.9	3.6	e1.3	.55	.73	.73	.53	6.3	.44	.04	96
17	.53	2.5	.38	e.90	.53	.72	.68	.57	1.8	.48	.23	1.6
18	.54	.45	.34	e5.4	6.2	.98	.68	.54	.49	.49	.18	1.1
19	.65	.60	.34	e.94	3.0	.91	.71	.62	.46	.18	.20	1.1
20	.58	.45	.36	e.70	1.7	.86	.69	.60	1.1	.16	.35	.96
21	.53	.28	.36	e.67	.68	31	.68	.54	.53	.17	63	45
22	.56	.48	.38	.71	.62	2.1	.66	.54	.48	.26	.09	12
23	.61	.60	9.1	12	.61	.87	.64	.53	.42	.34	.08	.98
24	.61	.45	15	33	.55	.86	.60	.53	.43	2.0	.08	.87
25	.68	.47	1.3	1.2	.62	4.9	.79	.53	.45	.50	.65	.79
26	.62	3.2	.37	.83	.62	2.5	.82	.63	.49	.39	16	.80
27	.51	.38	.37	.79	.66	.93	1.0	.53	.65	.47	.28	38
28	.42	.41	.68	.73	1.8	.82	4.8	.53	.47	.47	.19	52
29	.45	.41	.33	.68	---	.85	9.4	.50	.54	.53	.26	7.7
30	.47	.44	.36	.68	---	.87	3.5	.48	.54	.41	.38	9.0
31	.54	---	.36	.51	---	.84	---	.43	---	.40	.98	---
TOTAL	62.41	33.96	49.08	134.97	32.78	77.33	46.38	34.45	21.27	35.81	103.90	533.09
MEAN	2.01	1.13	1.58	4.35	1.17	2.49	1.55	1.11	.71	1.16	3.35	17.8
MAX	40	11	15	57	6.2	31	9.4	11	6.3	15	63	109
MIN	.00	.28	.33	.36	.41	.33	.60	.00	.08	.00	.04	.79
CFSM	1.72	.97	1.35	3.72	1.00	2.13	1.32	.95	.61	.99	2.86	15.2
IN.	1.98	1.08	1.56	4.29	1.04	2.46	1.47	1.10	.68	1.14	3.30	16.95

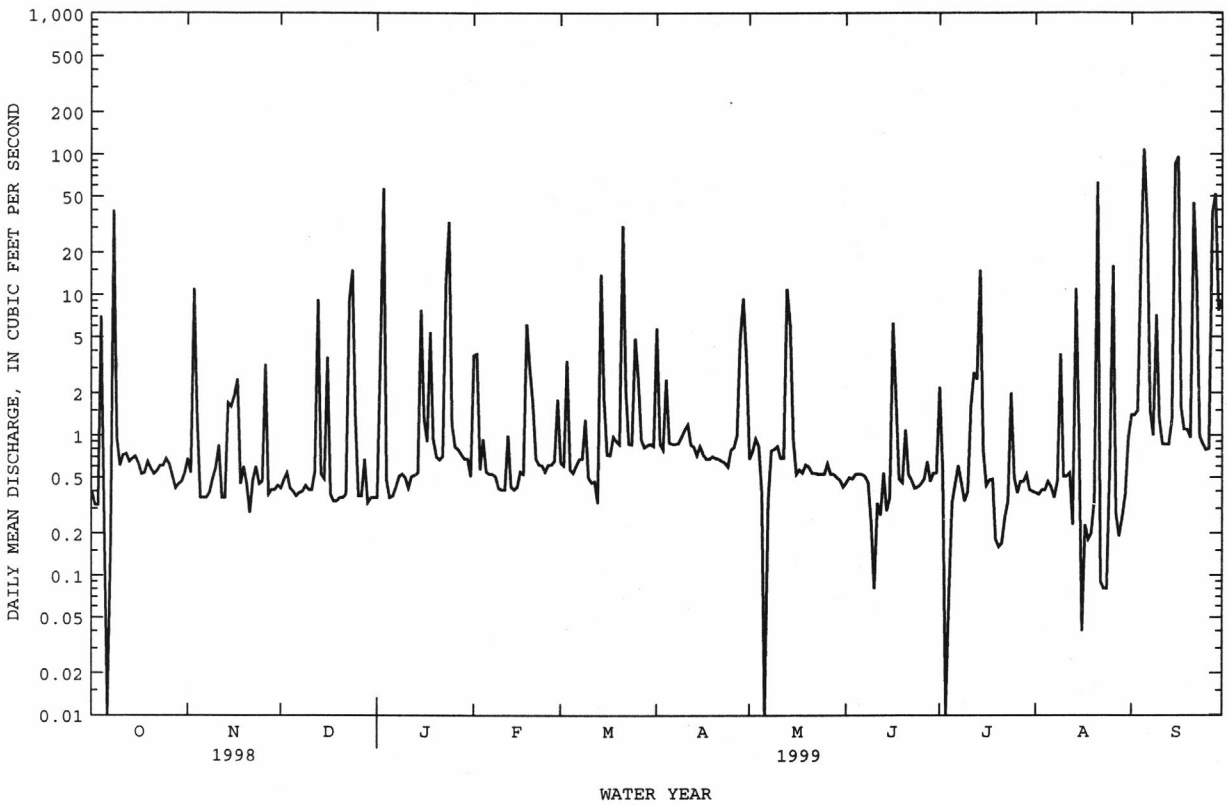
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 1999, BY WATER YEAR (WY)

MEAN	1.86	1.55	1.69	4.05	2.93	3.55	2.22	1.46	1.45	2.94	2.33	6.79
MAX	2.24	2.00	1.85	6.08	5.45	6.58	2.65	1.71	2.09	5.22	3.35	17.8
(WY)	1998	1998	1998	1998	1998	1998	1997	1997	1998	1997	1999	1999
MIN	1.32	1.13	1.58	1.71	1.17	1.59	1.55	1.11	.71	1.16	.71	.91
(WY)	1997	1999	1999	1997	1999	1997	1999	1999	1999	1999	1997	1997

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1997 - 1999	
ANNUAL TOTAL	1092.62		1165.43			
ANNUAL MEAN	2.99		3.19		2.73	
HIGHEST ANNUAL MEAN					3.19	1999
LOWEST ANNUAL MEAN					1.89	1997
HIGHEST DAILY MEAN	67	Mar 19	109	Sep 5	119	Jul 24 1997
LOWEST DAILY MEAN	.00	Oct 6	.00	Oct 6	.00	Oct 6 1998
ANNUAL SEVEN-DAY MINIMUM	.33	Sep 10	.30	Jul 17	.25	Oct 5 1997
INSTANTANEOUS PEAK FLOW			2010	Aug 21	2590	Jul 24 1997
INSTANTANEOUS PEAK STAGE			8.62	Aug 21	9.23	Jul 24 1997
INSTANTANEOUS LOW FLOW			.00*	Oct 5	.00*	Jun 8 1997
ANNUAL RUNOFF (CFSM)	2.56		2.73		2.33	
ANNUAL RUNOFF (INCHES)	34.74		37.05		31.71	
10 PERCENT EXCEEDS	7.1		4.8		4.9	
50 PERCENT EXCEEDS	.60		.60		.61	
90 PERCENT EXCEEDS	.33		.35		.33	

e Estimated.
* See REMARKS.

0208735012 ROCKY BRANCH BELOW PULLEN DRIVE AT RALEIGH, NC--Continued



02087359 WALNUT CREEK AT SUNNYBROOK DRIVE AT RALEIGH, NC

LOCATION.--Lat 35°45'30", long 78°34'58", 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 mi^2.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Elevation of gage is 190 ft above sea level, from topographic map. Satellite telemetry and rain gage at station.

REMARKS.--Records good except those for estimated daily discharges, which are fair. 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 current water and period of record also occurred on Aug. 5, 6, 7, 8.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	9.9	13	17	28	20	50	27	8.7	5.9	3.3	6.0
2	7.4	11	12	19	68	16	35	17	8.5	13	2.8	5.1
3	8.0	72	12	556	31	23	24	14	8.5	7.0	2.5	5.0
4	49	28	12	215	26	23	24	12	8.9	5.5	2.2	31
5	21	19	13	35	21	17	31	11	9.9	4.5	2.1	781
6	12	14	14	26	19	15	21	11	11	4.0	2.2	1200
7	9.6	11	15	22	18	14	19	9.7	12	4.0	2.2	258
8	152	9.1	19	20	17	13	17	9.7	12	3.7	2.3	e130
9	138	9.2	22	20	16	14	17	9.1	13	3.3	17	e62
10	24	8.8	21	19	16	18	16	8.5	12	2.8	6.8	e45
11	16	13	20	17	15	14	16	8.4	13	6.3	4.4	16
12	14	13	22	16	18	14	15	8.5	15	18	3.0	13
13	12	11	74	15	21	13	14	9.4	20	22	2.5	11
14	10	13	38	15	16	41	13	57	14	104	25	11
15	9.9	41	24	143	15	148	14	21	15	29	29	136
16	8.2	25	46	38	14	33	14	13	36	15	11	2450
17	8.6	76	30	24	14	23	13	10	70	11	12	459
18	8.1	27	22	80	40	19	12	9.1	14	13	11	48
19	7.9	20	19	32	30	17	12	8.1	9.2	7.4	7.4	26
20	9.0	17	18	24	37	15	12	7.6	7.8	6.5	7.9	20
21	7.9	15	17	21	22	186	12	6.8	8.6	6.0	168	107
22	7.5	14	17	19	18	251	11	6.6	7.4	5.3	36	246
23	8.1	14	50	33	16	41	11	7.6	7.1	4.9	17	48
24	8.0	14	195	515	15	27	11	8.3	6.2	5.7	11	25
25	7.9	13	160	233	15	36	10	8.3	6.2	11	13	19
26	7.9	29	37	40	14	67	10	8.6	6.6	5.9	92	17
27	7.8	18	27	29	14	41	12	10	6.8	4.7	64	261
28	13	15	25	25	20	26	24	8.5	7.0	4.6	19	595
29	24	14	22	22	---	21	48	8.4	6.6	7.7	12	635
30	19	13	21	20	---	19	90	8.4	5.8	4.8	e8.6	228
31	7.7	---	19	18	---	18	---	8.3	---	3.7	e7.3	---
TOTAL	654.5	607.0	1056	2328	614	1243	628	370.9	386.8	350.2	604.5	7894.1
MEAN	21.1	20.2	34.1	75.1	21.9	40.1	20.9	12.0	12.9	11.3	19.5	263
MAX	152	76	195	556	68	251	90	57	70	104	168	2450
MIN	7.4	8.8	12	15	14	13	10	6.6	5.8	2.8	2.1	5.0
CFSM	.73	.70	1.17	2.59	.76	1.38	.72	.41	.44	.39	.67	9.07
IN.	.84	.78	1.35	2.99	.79	1.59	.81	.48	.50	.45	.78	10.13

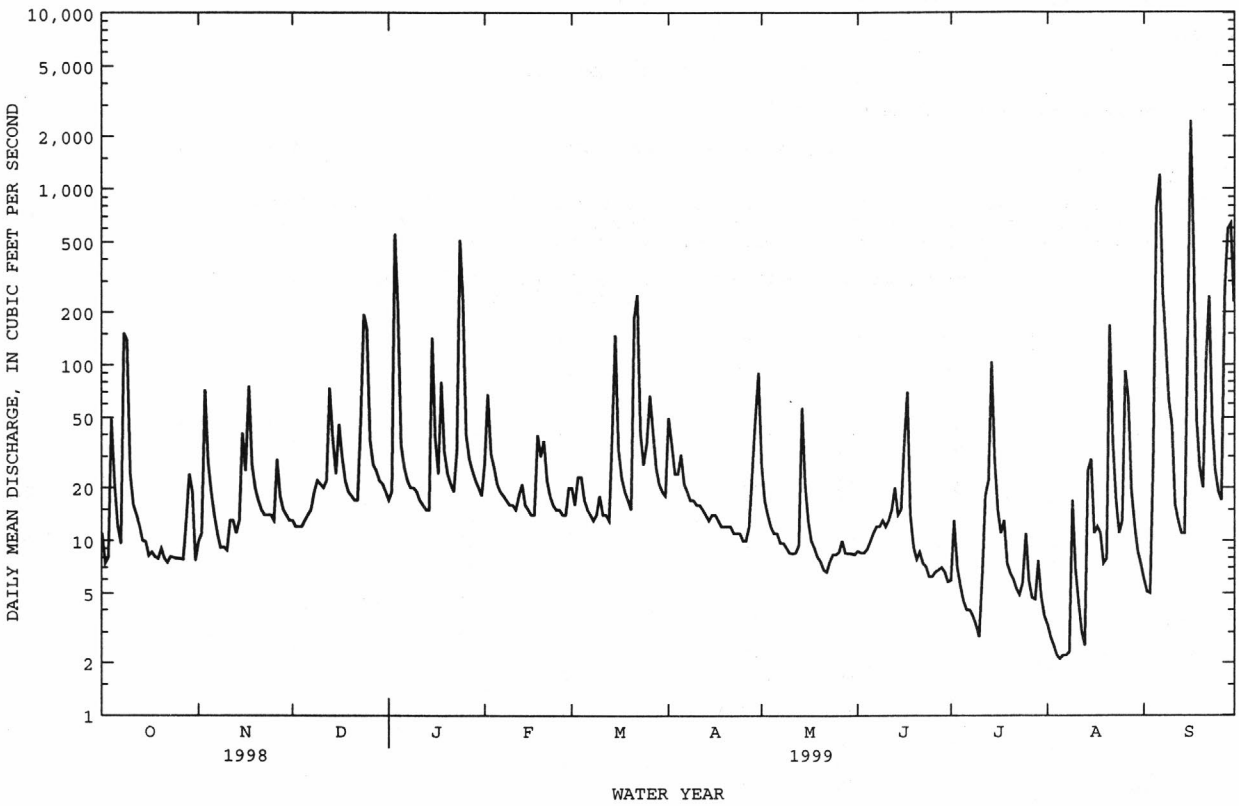
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 1999, BY WATER YEAR (WY)

MEAN	27.9	23.7	31.4	71.1	55.4	67.1	40.1	21.5	26.3	31.6	22.5	123
MAX	45.5	26.9	34.1	106	98.0	123	65.2	27.7	45.2	48.6	40.1	263
(WY)	1997	1997	1999	1998	1998	1998	1997	1998	1997	1997	1998	1999
MIN	17.2	20.2	26.6	32.3	21.9	38.0	20.9	12.0	12.9	11.3	8.00	11.0
(WY)	1998	1999	1998	1997	1999	1997	1999	1999	1999	1999	1997	1997

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1996 - 1999	
ANNUAL TOTAL	17659.1		16737.0			
ANNUAL MEAN	48.4		45.9		42.8	
HIGHEST ANNUAL MEAN					47.7	1998
LOWEST ANNUAL MEAN					34.9	1997
HIGHEST DAILY MEAN	1050	Mar 19	2450	Sep 16	3600	Sep 6 1996
LOWEST DAILY MEAN	4.6	Sep 27	2.1	Aug 5	2.1	Aug 5 1999
ANNUAL SEVEN-DAY MINIMUM	5.7	Sep 23	2.3	Aug 2	2.3	Aug 2 1999
INSTANTANEOUS PEAK FLOW			3690	Sep 16	6760*	Sep 6 1996
INSTANTANEOUS PEAK STAGE			13.93	Sep 16	17.03*	Sep 6 1996
INSTANTANEOUS LOW FLOW			2.0*	Aug 4	2.0*	Aug 4 1999
ANNUAL RUNOFF (CFSM)	1.67		1.58		1.48	
ANNUAL RUNOFF (INCHES)	22.65		21.47		20.06	
10 PERCENT EXCEEDS	89		65		69	
50 PERCENT EXCEEDS	20		15		17	
90 PERCENT EXCEEDS	7.9		6.6		6.8	

e Estimated.
* See REMARKS.

02087359 WALNUT CREEK AT SUNNYBROOK DRIVE AT RALEIGH, NC--Continued



02087359 WALNUT CREEK AT SUNNYBROOK DRIVE AT RALEIGH, NC--Continued

PRECIPITATION RECORDS

PERIOD OF RECORD.--July 1996 to September 1999. Records from July 1996 to September 1998 are unpublished and available in the USGS District Office, Raleigh, NC.

ISTRUMENTATION.--Tipping bucket raingage and data collection platform records rainfall at fifteen-minute intervals.

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.02	.00	.00	.00	.36	.00	.50	.00	.00	.22	.00	.00
2	.00	.02	.00	.48	.17	.00	.00	.00	.00	.01	.00	.00
3	.00	.91	.00	1.19	.00	.24	.00	.00	.00	.00	.00	.01
4	.53	.05	.00	.00	.04	.00	.22	.00	.00	.00	.00	1.40
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.41
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.16
7	.00	.00	.00	.00	.00	.00	.11	.00	.00	.00	.01	.00
8	1.15	.00	.00	.02	.00	.00	.00	.00	.00	.00	.01	---
9	.01	.00	.07	.02	.00	.13	.00	.00	.00	.00	.61	---
10	.00	.00	.00	.00	.00	.01	.00	.00	.00	.03	.00	---
11	.00	.07	.00	.00	.00	.00	.11	.00	.00	.14	.00	.00
12	.00	.00	.02	.00	.05	.00	.00	.00	.00	.48	.00	.00
13	.00	.00	.65	.00	.00	.00	.00	.29	.32	.71	.00	.00
14	.00	.33	.00	.00	.00	.90	.00	.14	.00	.64	.89	.15
15	.00	.07	.05	.92	.00	.02	.08	.02	.10	.01	.06	3.87
16	.00	.16	.21	.00	.00	.00	.00	.00	1.60	.00	.00	2.99
17	.00	.58	.00	.02	.00	.00	.00	.02	.06	.00	.01	.00
18	.00	.00	.00	.36	.19	.00	.00	.00	.00	.13	.00	.00
19	.00	.00	.03	.00	.19	.00	.00	.00	.00	.00	.00	.00
20	.06	.00	.00	.00	.01	.00	.00	.00	.06	.00	1.05	.00
21	.00	.00	.00	.00	.00	1.54	.00	.00	.00	.00	.78	.80
22	.00	.00	.01	.00	.00	.01	.00	.03	.00	.00	.00	.21
23	.00	.00	---	.53	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	---	1.19	.00	.00	.00	.02	.00	.27	.00	.00
25	.00	.00	.00	.00	.00	.60	.00	.00	.07	.01	.10	.00
26	.00	.18	.04	.00	.00	.31	.00	.06	.00	.00	1.08	.00
27	---	.00	.02	.00	.00	.00	.04	.00	.00	.00	.02	1.89
28	.00	.00	.04	.00	.14	.00	.48	.00	.00	.47	.00	2.37
29	.00	.00	.00	.00	---	.00	.59	.00	.00	.02	.00	.49
30	.00	.00	.01	.00	---	.00	.09	.00	.00	.00	---	.22
31	.00	---	.00	.00	---	.00	---	.00	---	.00	---	---
TOTAL	---	2.37	---	4.73	1.15	3.76	2.22	0.58	2.21	3.14	---	---



USGS crew using an acoustic doppler current profiler to measure streamflow at Potecasi Creek, September 1999.

02087500 NEUSE RIVER NEAR CLAYTON, NC

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

DRAINAGE AREA.--1,150 mi^2.

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 1032: 1930, 1935(M). WSP 1333: 1935. WSP 1503: 1949. WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 128.41 ft above sea level. Prior to Mar. 18, 1942, at site 1,100 ft upstream at same datum. U.S. Army Corps of Engineers satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges which are poor. Flow regulated by Falls Lake (station 02087182), since Dec. 7, 1983. The City of Raleigh diverted an average of 84.6 ft^3/s upstream from station, most of which was returned upstream from station as treated effluent. Prior to regulation, maximum discharge: 22,900 ft^3/s, Sept. 19, 1945; gage height: 22.12 ft; minimum discharge: 44 ft^3/s, Sept. 15, 1932; gage height: 0.28 ft, at site then in use.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 23, 1919, reached a stage of 21.15 ft, from floodmark at former site; discharge 21,200 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	370	261	221	282	3550	621	1040	861	269	242	246	283
2	312	262	227	273	3520	566	1210	629	258	286	216	266
3	303	472	219	2690	2930	554	1190	533	255	279	275	256
4	316	630	216	2970	2710	604	2880	1740	252	253	318	265
5	476	475	213	1140	2360	559	3560	2640	249	234	296	3110
6	345	380	219	691	1240	463	2450	2030	241	231	282	7140
7	318	314	218	542	867	430	1320	913	241	232	273	6470
8	548	288	218	464	825	406	1260	400	240	241	271	2580
9	1500	287	220	417	813	417	696	376	241	234	301	3180
10	627	279	226	390	555	432	464	361	245	236	340	4480
11	422	267	214	365	473	421	495	349	239	267	290	3610
12	359	280	209	409	485	418	735	351	239	316	283	3230
13	362	266	359	444	523	406	1050	351	244	298	199	3040
14	357	271	662	422	473	417	1320	501	325	680	285	2940
15	350	348	386	927	437	1680	1100	490	255	705	915	2550
16	352	359	385	912	443	1250	638	407	220	420	447	e14500
17	341	477	535	585	447	1580	589	378	540	353	341	19700
18	341	457	375	717	539	1400	573	360	373	358	331	11800
19	337	349	321	874	696	1080	567	346	241	340	312	2800
20	336	322	287	1680	701	1000	590	338	231	311	302	1870
21	338	305	273	2280	658	1340	558	324	282	293	735	1640
22	321	293	263	1500	582	2910	557	312	274	282	547	2040
23	314	285	249	1000	1970	1800	552	324	269	281	354	1420
24	310	270	e800	3300	1640	2610	545	322	256	273	307	881
25	311	232	1630	4430	1000	3070	539	312	249	329	290	1760
26	316	276	797	2150	847	3260	465	299	260	313	755	2840
27	311	301	524	3250	625	2490	409	299	270	243	1120	3830
28	310	245	424	3760	557	1550	418	249	260	264	534	7430
29	315	230	382	3680	---	1400	551	236	259	316	395	8850
30	291	226	341	3590	---	1350	1040	234	243	287	337	5030
31	261	---	305	3540	---	1310	---	259	---	258	321	---
TOTAL	12070	9707	11918	49674	32466	37794	29361	17524	8020	9655	12218	129791
MEAN	389	324	384	1602	1160	1219	979	565	267	311	394	4326
MAX	1500	630	1630	4430	3550	3260	3560	2640	540	705	1120	19700
MIN	261	226	209	273	437	406	409	234	220	231	199	256

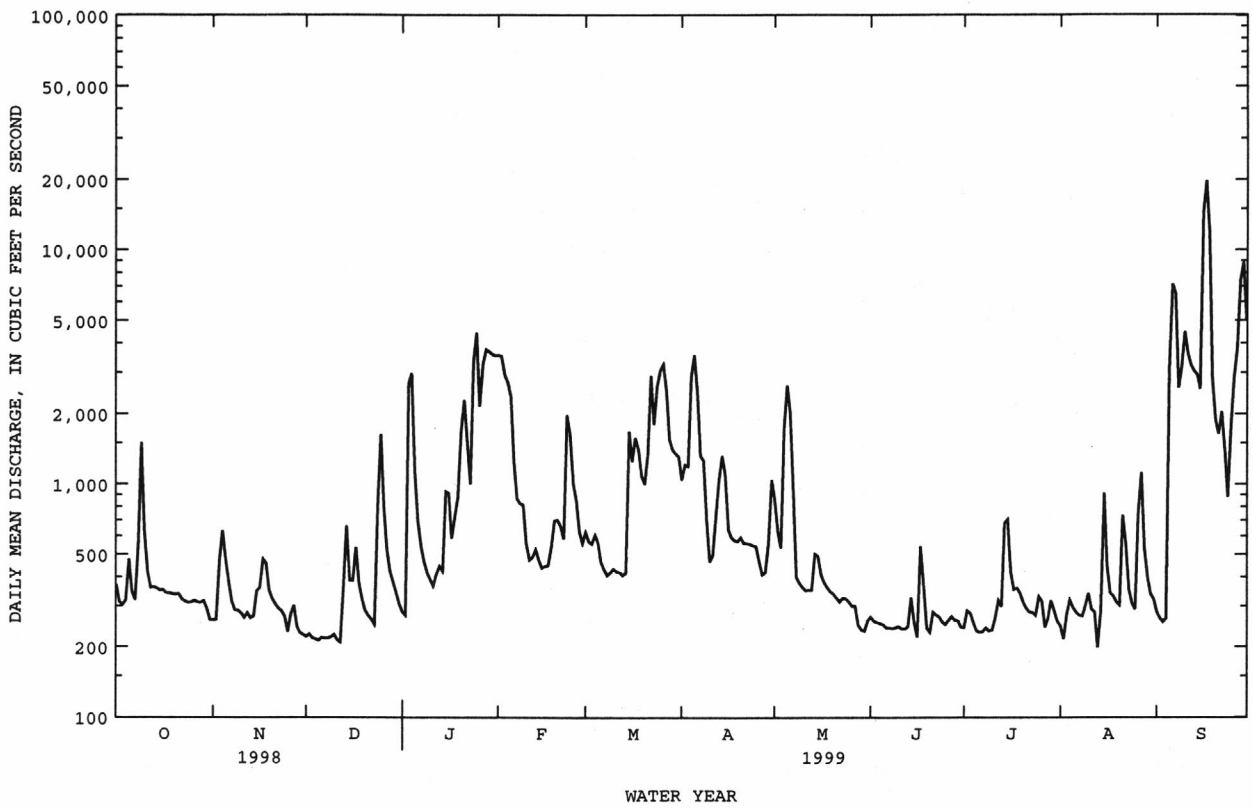
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1999*, BY WATER YEAR (WY)

MEAN	570	624	869	1514	1924	2495	1698	946	615	602	562	951
MAX	1881	2201	2013	2821	4961	5688	3426	2864	1211	1841	1539	6620
(WY)	1997	1996	1986	1984	1998	1998	1998	1989	1995	1995	1989	1996
MIN	212	215	237	419	520	483	290	309	267	234	204	136
(WY)	1984	1992	1995	1986	1991	1988	1986	1995	1999	1983	1983	1985

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1983 - 1999*	
ANNUAL TOTAL	607080		360198			
ANNUAL MEAN	1663		987		1110	
HIGHEST ANNUAL MEAN					1760	1996
LOWEST ANNUAL MEAN					458	1988
HIGHEST DAILY MEAN	8800	Mar 20	19700	Sep 17	19700	Sep 17 1999
LOWEST DAILY MEAN	209	Dec 12	199	Aug 13	105	Sep 16 1985
ANNUAL SEVEN-DAY MINIMUM	218	Dec 3	218	Dec 3	117	Sep 12 1985
INSTANTANEOUS PEAK FLOW			20500	Sep 17	20500	Sep 17 1999
INSTANTANEOUS PEAK STAGE			20.67	Sep 17	20.67	Sep 17 1999
INSTANTANEOUS LOW FLOW			102	Aug 13	78	Sep 18 1985
10 PERCENT EXCEEDS	5640		2660		3250	
50 PERCENT EXCEEDS	472		390		456	
90 PERCENT EXCEEDS	274		243		253	

e Estimated.
* Regulated period only (1983-1999). See REMARKS.

02087500 NEUSE RIVER NEAR CLAYTON, NC--Continued



02087500 NEUSE RIVER NEAR CLAYTON, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--1955, 1959 -60, 1968-78, 1982-84, 1996, September 1999.

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN, DIS-SOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)
SEP												
17...	1130	20400	764	64	5.7	5.8	50	20.5	.065	.52	.185	.004
19...	1030	2620	767	79	7.2	6.5	63	20.0	.171	.67	.269	.005
20...	1100	1880	761	83	7.5	6.2	86	20.5	.072	.54	.314	.004
28...	0900	7260	755	88	7.7	6.6	79	21.6	--	--	--	--

DATE	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	CLOS-TRIDIUM PERFRI-GENS, MF-MCP, (COL/ 100 ML) (90915)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)
SEP												
17...	.70	.030	.118	K75	6500	1	<1.6	<8.0	<1.0	<10	450	<100
19...	.94	.070	.156	--	--	<1	<1.6	<8.0	<1.0	<10	280	<100
20...	.85	.028	--	67	730	<1	<1.6	<8.0	2.5	<10	210	<100
28...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)	METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)
SEP												
17...	75	<.1	<40	<1	E11	9.9	1.9	<.0030	<.0020	<.002	.007	<.0010
19...	78	<.1	<40	<1	<20	9.4	3.3	<.0030	<.0020	<.002	.004	<.0010
20...	60	<.1	<40	<1	<20	8.4	1.3	<.0030	<.0020	<.002	.007	<.0010
28...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)
SEP											
17...	<.0020	<.0020	E.0476	<.0030	.0099	<.0040	<.0020	<.0020	.029	<.001	<.0170
19...	<.0020	<.0020	E.0500	<.0030	.0102	<.0040	<.0020	<.0020	.026	<.001	<.0170
20...	<.0020	<.0020	E.0224	<.0030	.0097	<.0040	<.0020	<.0020	.026	<.001	<.0170
28...	--	--	--	--	--	--	--	--	--	--	--

DATE	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DIS-SOLVED (UG/L) (39341)	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA-THION, DIS-SOLVED (UG/L) (39532)	METO-LACHLOR WATER DISSOLV (UG/L) (39415)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)
SEP											
17...	<.0020	<.0040	<.0030	<.0030	<.004	<.0020	<.005	.074	<.004	<.0040	<.0030
19...	<.0020	<.0040	<.0030	<.0030	<.004	<.0020	<.005	.022	<.004	<.0040	<.0030
20...	<.0020	<.0040	<.0030	<.0030	<.004	<.0020	<.005	.022	<.004	<.0040	<.0030
28...	--	--	--	--	--	--	--	--	--	--	--

02087500 NEUSE RIVER NEAR CLAYTON, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	PARA-THION, DIS-SOLVED (UG/L) (39542)	METHYL PARA-THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	PROP-CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)
SEP											
17...	<.004	<.0060	<.0040	<.0040	<.0020	E.0167	<.0070	<.0040	<.0130	<.0030	.0127
19...	<.004	<.0060	<.0040	.0051	<.0020	E.0089	<.0070	<.0040	<.0130	<.0030	.0077
20...	<.004	<.0060	<.0040	<.0040	<.0020	E.0110	<.0070	<.0040	<.0130	<.0030	.0104
28...	--	--	--	--	--	--	--	--	--	--	--

DATE	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	ALPHA BHC DIS-SOLVED (UG/L) (34253)	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	P,P' DDE DISSOLV (UG/L) (34653)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
SEP											
17...	<.0100	<.0070	<.0130	<.0020	<.0010	<.0020	<.0020	<.0050	<.0060	104	5730
19...	<.0100	<.0070	<.0130	<.0020	<.0010	<.0020	<.0020	<.0050	<.0060	99	700
20...	<.0100	<.0070	<.0130	<.0020	<.0010	<.0020	<.0020	<.0050	<.0060	54	274
28...	--	--	--	--	--	--	--	--	--	--	--

02087570 NEUSE RIVER AT SMITHFIELD, NC

LOCATION.--Lat 35°30'46", long 78°21'00", Johnston County, Hydrologic Unit 03020201, on left bank 10 ft downstream from bridge on U.S. Highway 70, at Smithfield, 2.1 mi upstream from Swift Creek, and 178 mi upstream from mouth.

DRAINAGE AREA.--1,206 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1959 to September 1990, October 1998 to September 1999 (gage height only).

GAGE.--Water-stage recorder. Datum of gage is 99.26 ft above sea level. 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 data transmitter at station.

REMARKS.--Records good.

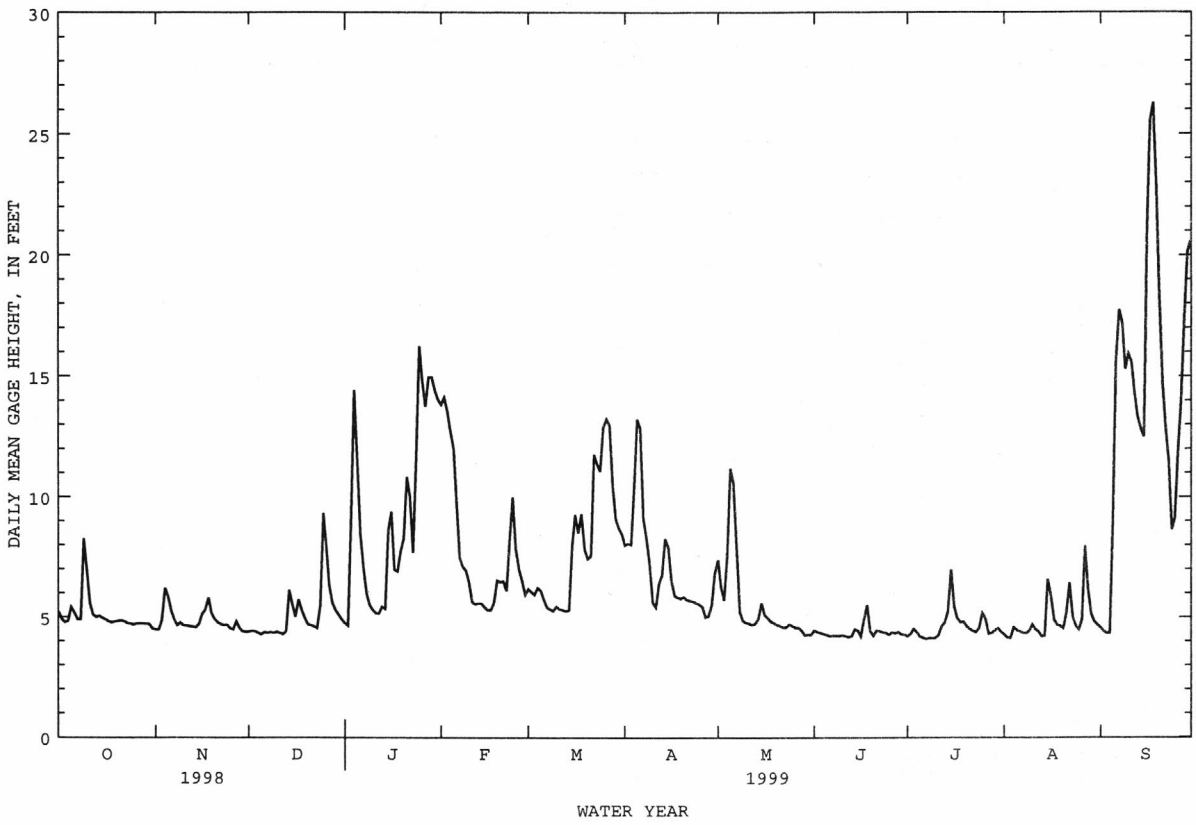
EXTREMES FOR PERIOD OF RECORD.--Maximum, 26.72 ft, Sept. 18, 1999; minimum not determined.

EXTREMES FOR CURRENT YEAR.--Maximum, 26.72 ft, Sept. 18; minimum, 3.57 ft, Aug. 14.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.21	4.48	4.39	4.75	13.83	6.17	7.99	7.38	4.44	4.20	4.28	4.56
2	4.91	4.48	4.43	4.64	14.12	6.05	8.06	6.23	4.39	4.31	4.15	4.41
3	4.79	4.86	4.40	9.07	13.57	5.94	8.02	5.71	4.34	4.51	4.14	4.33
4	4.84	6.21	4.35	14.42	12.74	6.22	10.45	7.62	4.31	4.36	4.58	4.34
5	5.42	5.83	4.28	11.53	12.01	6.09	13.22	11.19	4.26	4.19	4.46	9.00
6	5.17	5.24	4.37	8.47	9.67	5.71	12.84	10.56	4.21	4.15	4.40	15.60
7	4.91	4.90	4.35	7.02	7.47	5.40	9.09	7.93	4.23	4.09	4.35	17.75
8	4.91	4.66	4.37	5.96	7.08	5.32	8.29	5.21	4.23	4.13	4.33	17.19
9	8.26	4.77	4.35	5.50	6.94	5.26	7.23	4.86	4.22	4.12	4.43	15.29
10	6.96	4.65	4.38	5.30	6.43	5.44	5.60	4.77	4.24	4.13	4.69	15.92
11	5.59	4.64	4.34	5.16	5.63	5.33	5.42	4.75	4.22	4.25	4.49	15.60
12	5.11	4.62	4.28	5.15	5.54	5.30	6.40	4.68	4.17	4.62	4.40	14.32
13	5.00	4.60	4.41	5.43	5.58	5.25	6.75	4.73	4.20	4.78	4.20	13.33
14	5.04	4.57	6.12	5.35	5.57	5.30	8.27	4.93	4.49	5.24	4.23	12.83
15	4.96	4.72	5.54	8.62	5.41	7.96	7.92	5.59	4.45	6.97	6.57	12.49
16	4.90	5.13	5.01	9.38	5.29	9.26	6.54	5.10	4.20	5.44	5.87	21.07
17	4.82	5.30	5.73	6.97	5.30	8.51	5.89	4.98	4.91	4.96	4.89	25.56
18	4.78	5.80	5.29	6.90	5.58	9.30	5.83	4.83	5.50	4.79	4.68	26.27
19	4.81	5.15	4.96	7.74	6.53	7.80	5.78	4.76	4.42	4.81	4.63	22.91
20	4.84	4.92	4.70	8.25	6.46	7.43	5.85	4.68	4.23	4.61	4.54	18.28
21	4.86	4.79	4.66	10.83	6.49	7.55	5.72	4.64	4.44	4.51	5.19	14.68
22	4.83	4.71	4.61	10.02	6.09	11.76	5.69	4.58	4.41	4.42	6.42	12.85
23	4.75	4.67	4.54	7.68	8.18	11.37	5.66	4.58	4.37	4.38	5.00	11.48
24	4.72	4.68	5.50	11.64	9.98	11.07	5.59	4.70	4.35	4.55	4.65	8.64
25	4.69	4.53	9.32	16.24	7.84	12.89	5.53	4.64	4.27	5.18	4.48	9.13
26	4.74	4.49	7.96	14.79	6.98	13.23	5.43	4.56	4.36	4.92	4.89	11.89
27	4.74	4.82	6.29	13.75	6.50	12.96	5.00	4.56	4.32	4.31	7.97	13.92
28	4.73	4.55	5.58	14.96	5.94	10.44	5.05	4.44	4.38	4.34	6.19	17.47
29	4.72	4.40	5.28	14.96	---	9.08	5.49	4.25	4.28	4.45	5.15	20.13
30	4.71	4.39	5.10	14.43	---	8.69	6.83	4.27	4.27	4.54	4.83	20.59
31	4.52	---	4.90	14.04	---	8.46	---	4.27	---	4.39	4.68	---
MEAN	5.07	4.85	5.09	9.32	7.81	7.95	7.05	5.48	4.37	4.60	4.90	14.39
MAX	8.26	6.21	9.32	16.24	14.12	13.23	13.22	11.19	5.50	6.97	7.97	26.27
MIN	4.52	4.39	4.28	4.64	5.29	5.25	5.00	4.25	4.17	4.09	4.14	4.33

02087570 NEUSE RIVER AT SMITHFIELD, NC--Continued



02087570 NEUSE RIVER AT SMITHFIELD, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1972 to 1973, 1976 to 1978, 1982, 1988 to 1996, September 1999.

REMARKS.--Samples from current year collected during flooding from Hurricane Floyd.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN, DIS-SOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)
SEP												
17...	1400	22300	764	59	5.3	6.0	49	20.7	.038	.59	.190	.004
19...	1400	15300	767	49	4.4	6.1	53	20.3	.087	.63	.160	.005
20...	1330	8020	761	55	4.9	6.2	78	20.5	.102	.56	.226	.005
28...	0930	6670	755	85	7.4	6.6	75	21.8	--	--	--	--

DATE	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	CLOS-TRIDIUM PERFRI-GENS, MF-MCP, (COL/ 100 ML) (90915)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)
SEP												
17...	.78	.039	.122	K170	3800	<1	<1.6	<8.0	<1.0	<10	320	<100
19...	.80	.045	.099	--	--	<1	<1.6	<8.0	<1.0	<10	440	<100
20...	.79	.043	--	K53	2800	<1	<1.6	<8.0	<1.0	<10	200	<100
28...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)	METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)
SEP												
17...	33	<.1	<40	<1	<20	10	1.6	<.0030	<.0020	<.002	<.008	<.0010
19...	77	<.1	<40	<1	E17	11	1.8	<.0030	<.0020	<.002	E.004	<.0010
20...	86	<.1	<40	<1	<20	10	.30	<.0030	<.0020	<.002	.007	<.0010
28...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)
SEP											
17...	<.0020	<.0020	E.0469	<.0030	.0066	<.0040	<.0020	<.0020	.024	<.001	<.0170
19...	<.0020	<.0020	E.0190	<.0030	.0044	<.0040	<.0020	<.0020	.012	<.001	<.0170
20...	<.0020	<.0020	E.0170	<.0030	.0076	<.0040	<.0020	<.0020	<.002	<.001	<.0170
28...	--	--	--	--	--	--	--	--	--	--	--

DATE	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DIS-SOLVED (UG/L) (39341)	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA-THION, DIS-SOLVED (UG/L) (39532)	METO-LACHLOR WATER DISSOLV (UG/L) (39415)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)
SEP											
17...	<.0020	<.0040	<.0030	<.0030	<.004	<.0020	<.005	.102	<.004	<.0040	<.0030
19...	<.0020	<.0040	<.0030	<.0030	<.004	<.0020	<.005	.027	<.004	<.0040	<.0030
20...	<.0020	<.0040	<.0030	<.0030	<.004	<.0020	<.005	.023	<.004	<.0040	<.0030
28...	--	--	--	--	--	--	--	--	--	--	--

02087570 NEUSE RIVER AT SMITHFIELD, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	PARA-THION, DIS-SOLVED (UG/L) (39542)	METHYL PARA-THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	PROP-CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)
SEP											
17...	<.004	<.0060	<.0040	<.0040	<.0020	E.0155	<.0070	<.0040	<.0130	<.0030	<.0100
19...	<.004	<.0060	<.0040	<.0040	<.0020	E.0061	<.0070	<.0040	<.0130	<.0030	.0061
20...	<.004	<.0060	<.0040	<.0040	<.0020	E.0107	<.0070	<.0040	<.0130	<.0030	.0084
28...	--	--	--	--	--	--	--	--	--	--	--

DATE	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	ALPHA BHC DIS-SOLVED (UG/L) (34253)	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	P,P' DDE DISSOLV (UG/L) (34653)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
SEP											
17...	<.0100	<.0070	<.0130	<.0020	<.0010	<.0020	<.0020	<.0050	<.0060	71	4270
19...	E.0045	<.0070	<.0130	<.0020	<.0010	<.0020	<.0020	<.0050	<.0060	23	950
20...	<.0100	<.0070	<.0130	<.0020	<.0010	<.0020	<.0020	<.0050	<.0060	29	628
28...	--	--	--	--	--	--	--	--	--	--	--

0208758850 SWIFT CREEK NEAR MCCULLARS CROSSROADS, NC

LOCATION.--Lat 35°41'33", long 78°41'34", Wake County, Hydrologic Unit 03020201, 0.1 mi downstream of Secondary Road 1375, 0.1 mi downstream of Lake Wheeler, and 2.0 mi north of McCullars Crossroads.

DRAINAGE AREA.--35.8 mi^2.

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

GAGE.--Water-stage recorder. Elevation of gage is 258 ft above sea level, from topographic map. Satellite telemetry at station.

REMARKS.--Records poor. Some regulation by Lake Wheeler (station 02087588). Maximum gage-height for period of record from floodmarks. Minimum discharge for period of record, no flow, also occurred June 28, 29, 1993.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	.38	7.7	11	17	19	29	56	.19	e.12	.11	3.5
2	.34	.47	7.0	11	58	16	71	28	.35	e.13	.06	1.9
3	.24	7.6	6.8	626	54	22	50	16	.12	e.13	.04	.63
4	.62	12	5.7	341	38	19	37	11	.08	e.14	.02	2.4
5	1.7	11	6.3	77	27	12	32	9.6	.08	e.12	e.03	684
6	1.6	9.6	7.1	37	22	14	26	9.5	.08	e.12	e.03	1670
7	1.6	8.0	8.6	24	19	11	23	8.0	.08	.11	e.03	e200
8	41	8.2	7.0	19	16	9.6	20	7.8	.09	.10	e.02	93
9	68	9.1	6.4	19	14	9.8	22	5.6	.09	.11	e.03	46
10	29	10	5.2	17	13	12	12	4.4	.10	.10	e.06	31
11	14	13	4.2	14	12	13	12	3.6	.10	.08	e.07	21
12	7.5	12	3.2	14	15	12	12	3.4	.10	.09	e.05	15
13	4.9	12	12	12	20	11	10	3.5	.10	.11	e.04	12
14	3.9	12	21	11	17	18	8.9	12	.11	8.4	e.04	9.7
15	2.5	19	16	57	13	189	9.0	11	.12	14	e2.0	88
16	1.8	18	19	60	12	96	12	8.2	.22	9.4	e1.0	2500
17	1.4	29	20	33	11	48	8.7	6.6	.15	6.8	e.80	e400
18	1.6	24	14	51	26	32	6.8	6.6	.41	8.7	e2.0	126
19	1.7	14	13	50	45	22	6.3	e5.5	.36	6.1	e1.0	50
20	1.7	11	12	31	50	17	6.7	e5.0	.10	4.7	e1.0	30
21	1.7	9.8	12	22	37	95	6.0	e4.5	.09	4.9	e4.0	43
22	2.2	8.1	14	18	23	413	7.1	4.0	.09	5.4	e13	531
23	1.0	6.7	14	21	16	126	8.2	3.7	.14	5.2	e10	171
24	1.0	6.7	e40	698	14	62	5.3	3.6	.15	4.4	e5.0	62
25	1.3	6.7	178	497	13	48	5.3	1.7	.11	5.8	e4.0	33
26	.97	12	71	116	12	73	5.5	1.2	.17	4.2	e20	22
27	1.0	11	36	55	12	80	5.7	.96	.57	2.8	68	541
28	1.3	9.7	26	36	15	56	7.7	.62	.52	1.9	28	967
29	.72	9.2	21	27	---	37	22	.59	.67	1.4	14	834
30	.22	8.7	19	21	---	28	89	.47	.18	.67	8.0	504
31	.36	---	13	17	---	23	---	.45	---	.27	5.0	---
TOTAL	197.97	328.95	646.2	3043	641	1643.4	576.2	243.09	5.72	96.50	187.43	9692.13
MEAN	6.39	11.0	20.8	98.2	22.9	53.0	19.2	7.84	.19	3.11	6.05	323
MAX	68	29	178	698	58	413	89	56	.67	14	68	2500
MIN	.22	.38	3.2	11	11	9.6	5.3	.45	.08	.08	.02	.63

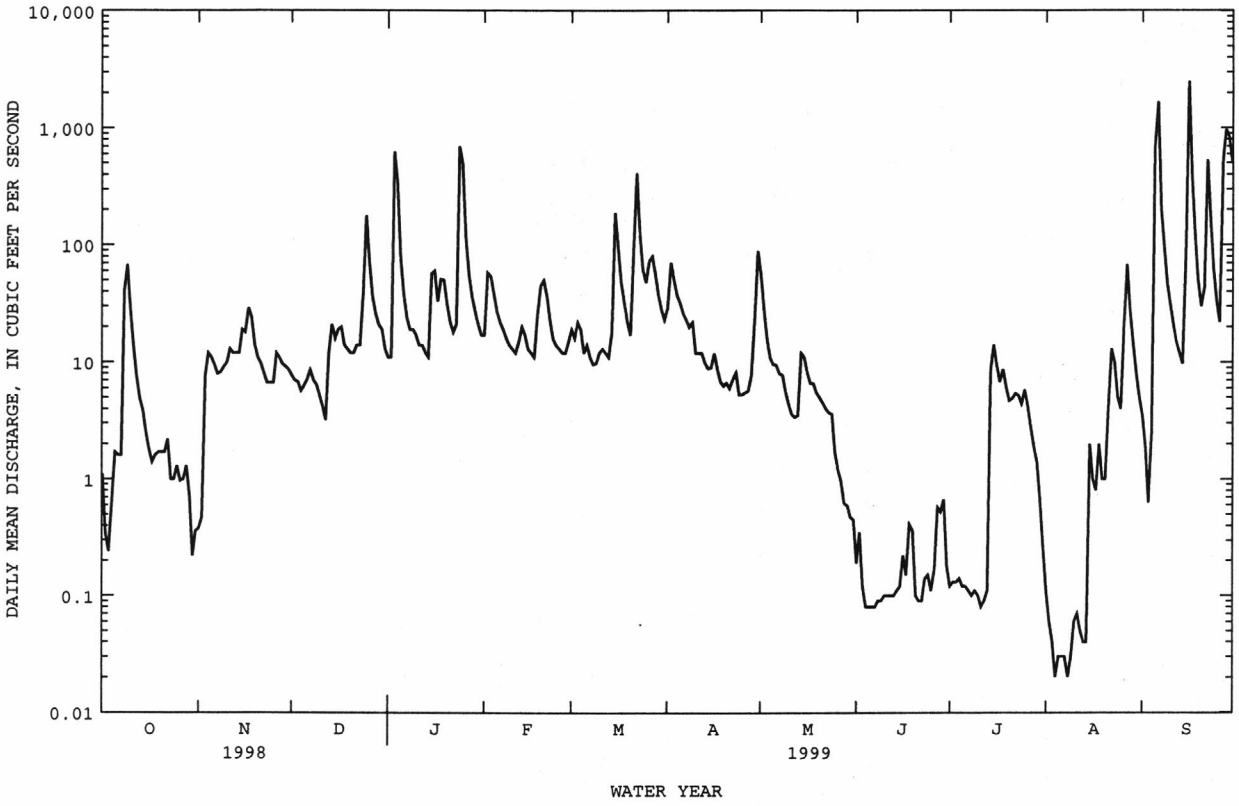
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1999, BY WATER YEAR (WY)

MEAN	23.9	28.3	23.3	66.2	59.3	74.3	37.8	25.8	26.1	15.6	16.9	49.7
MAX	106	69.4	50.9	183	159	183	90.5	75.7	65.8	51.5	81.4	323
(WY)	1996	1996	1990	1998	1998	1998	1993	1989	1992	1989	1989	1999
MIN	4.38	3.16	7.81	19.7	14.4	15.1	10.7	6.42	.19	1.16	.61	.11
(WY)	1992	1992	1989	1989	1991	1988	1995	1992	1999	1988	1997	1990

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1988 - 1999	
ANNUAL TOTAL	21284.24		17301.59			
ANNUAL MEAN	58.3		47.4		38.6	
HIGHEST ANNUAL MEAN					61.9	1998
LOWEST ANNUAL MEAN					18.4	1992
HIGHEST DAILY MEAN	1390	Mar 19	2500	Sep 16	2700	Sep 6 1996
LOWEST DAILY MEAN	.06	Jul 24	.02	Aug 4	.01	Jun 28 1993
ANNUAL SEVEN-DAY MINIMUM	.19	Sep 23	.03	Aug 3	.03	Aug 3 1999
INSTANTANEOUS PEAK FLOW			3640	Sep 16	6790	Sep 6 1996
INSTANTANEOUS PEAK STAGE			13.06	Sep 16	14.15*	Sep 6 1996
INSTANTANEOUS LOW FLOW			NOT DETERMINED		.00*	Jun 27 1993
10 PERCENT EXCEEDS	127		59		76	
50 PERCENT EXCEEDS	13		9.7		13	
90 PERCENT EXCEEDS	.78		.12		.33	

e Estimated.
* See REMARKS.

0208758850 SWIFT CREEK NEAR MCCULLARS CROSSROADS, NC--Continued



02088000 MIDDLE CREEK NEAR CLAYTON, NC

LOCATION.--Lat 35°34'10", long 78°35'30", Johnston County, Hydrologic Unit 03020201, on left bank 800 ft downstream of bridge on State Highway 50, 0.5 mi upstream from Buffalo Branch, 3.7 mi downstream of Wake-Johnston County line, and 9.5 mi southwest of Clayton.

DRAINAGE AREA.--83.5 mi^2.

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

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

GAGE.--Water-stage recorder. Datum of gage is 184.53 ft above sea level. Nov. 1-20, 1939, nonrecording gage at same site and datum. Satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Maximum discharge for period of record from rating curve extended above 10,000 ft^3/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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	13	22	39	77	59	79	116	8.7	11	8.3	13
2	25	15	21	38	167	57	186	64	12	12	6.7	11
3	18	28	20	197	221	50	131	47	11	12	5.5	10
4	18	47	20	459	124	57	92	39	10	13	4.6	11
5	33	37	21	646	98	51	97	34	8.8	11	4.8	103
6	34	26	20	133	85	47	94	31	7.6	11	4.3	450
7	27	21	21	85	79	47	78	30	7.6	8.9	4.5	1260
8	34	19	21	75	75	44	71	27	7.3	7.4	4.2	719
9	142	19	20	69	69	43	66	25	8.1	7.7	5.4	99
10	74	19	20	65	66	51	63	20	7.6	6.6	6.2	67
11	38	17	19	61	63	56	54	18	7.5	6.3	6.6	50
12	27	18	19	58	62	49	52	17	5.8	11	5.8	38
13	23	19	24	53	66	48	49	18	6.2	14	6.0	32
14	19	19	38	50	64	51	43	25	6.8	44	6.0	30
15	18	28	39	117	57	158	43	31	7.0	75	14	109
16	16	42	33	203	55	206	46	30	8.2	38	19	3490
17	15	41	39	102	53	90	44	25	29	21	15	3320
18	14	51	37	94	57	72	38	22	38	17	14	1160
19	14	39	29	129	70	63	35	e19	21	22	10	326
20	16	31	27	91	76	57	34	e17	13	15	10	119
21	16	28	27	75	80	106	33	e16	12	11	15	114
22	15	27	28	68	64	396	30	15	12	11	23	152
23	14	24	27	66	56	464	29	13	12	9.3	19	201
24	14	23	55	290	52	148	26	16	12	8.4	13	103
25	17	23	208	e830	51	99	24	16	11	28	10	77
26	14	25	179	e810	51	142	22	13	9.7	27	30	66
27	15	35	79	261	51	209	24	13	10	14	123	163
28	16	32	61	127	52	169	29	13	11	10	57	2050
29	13	28	57	103	---	104	65	12	12	8.4	28	2290
30	12	24	50	89	---	86	112	11	12	7.8	18	1410
31	14	---	43	81	---	74	---	9.6	---	7.2	16	---
TOTAL	800	818	1324	5564	2141	3353	1789	802.6	344.9	506.0	512.9	18043
MEAN	25.8	27.3	42.7	179	76.5	108	59.6	25.9	11.5	16.3	16.5	601
MAX	142	51	208	830	221	464	186	116	38	75	123	3490
MIN	12	13	19	38	51	43	22	9.6	5.8	6.3	4.2	10
CFSM	.31	.33	.51	2.15	.92	1.30	.71	.31	.14	.20	.20	7.20
IN.	.36	.36	.59	2.48	.95	1.49	.80	.36	.15	.23	.23	8.04

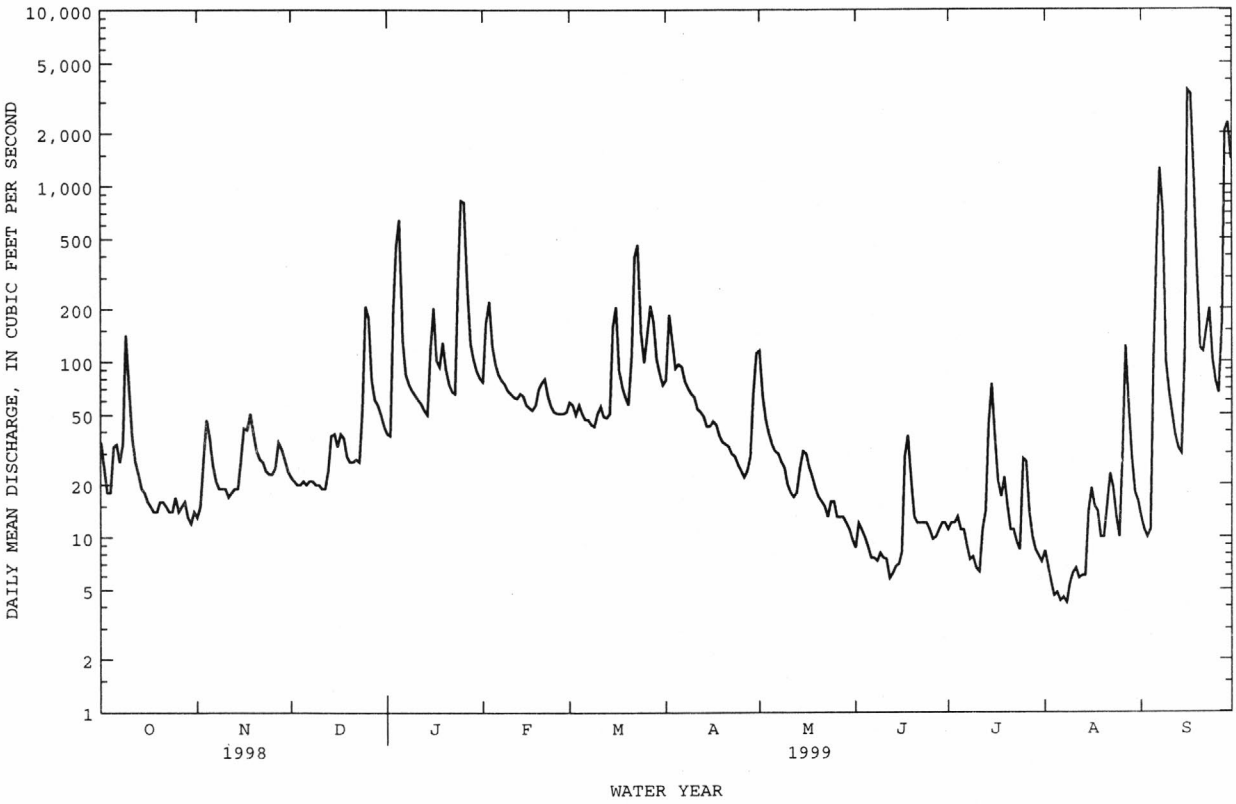
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1999, BY WATER YEAR (WY)

MEAN	50.1	64.9	85.2	139	166	170	116	72.5	52.6	54.2	55.5	61.7
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	.77	4.67	19.7	31.6	46.2	45.1	16.1	11.4	2.15	.23	1.75	.50
(WY)	1987	1974	1952	1942	1941	1981	1986	1981	1986	1986	1983	1954

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1940 - 1999	
ANNUAL TOTAL	49268.5		35998.4			
ANNUAL MEAN	135		98.6		90.3	
HIGHEST ANNUAL MEAN					161	1965
LOWEST ANNUAL MEAN					30.0	1981
HIGHEST DAILY MEAN	2270	Mar 20	3490	Sep 16	6260	Sep 6 1996
LOWEST DAILY MEAN	7.0	Jul 15	4.2	Aug 8	.00*	Oct 11 1954
ANNUAL SEVEN-DAY MINIMUM	8.3	Jul 11	4.8	Aug 3	.00*	Jul 13 1986
INSTANTANEOUS PEAK FLOW			5270	Sep 16	11900*	Sep 6 1996
INSTANTANEOUS PEAK STAGE			13.02	Sep 16	14.88*	Sep 6 1996
INSTANTANEOUS LOW FLOW			3.3	Aug 8	.00*	Oct 11 1954
ANNUAL RUNOFF (CFSM)	1.62		1.18		1.08	
ANNUAL RUNOFF (INCHES)	21.95		16.04		14.69	
10 PERCENT EXCEEDS	299		132		198	
50 PERCENT EXCEEDS	39		30		45	
90 PERCENT EXCEEDS	12		9.1		7.5	

e Estimated.
* See REMARKS.

02088000 MIDDLE CREEK NEAR CLAYTON, NC--Continued



02088500 LITTLE RIVER NEAR PRINCETON, NC

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

DRAINAGE AREA.--232 mi^2.

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

REVISED RECORD.--WSP 1233: 1935(M). WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 107.75 ft above sea level. Prior to Nov. 17, 1934, nonrecording gage at same site and datum. Satellite telemetry at station.

REMARKS.--No estimated daily discharges. Records fair. Slight fluctuation and occasional regulation for short periods is caused by mills upstream from station. Minimum discharge for period of record occurred frequently in June 1986 due to regulation from unknown source. Maximum discharge for current water year and period of record, from rating curve extended above 9,000 ft^3/s, by logarithmic plotting.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	4.7	32	112	258	168	182	111	15	7.3	5.3	14
2	14	4.6	31	94	346	180	199	116	13	6.8	5.5	11
3	13	9.0	31	360	467	158	208	116	13	7.6	5.5	13
4	13	19	30	798	419	223	202	113	12	8.2	4.0	19
5	13	29	30	826	362	233	198	91	11	8.6	2.4	762
6	12	30	32	758	303	190	180	73	10	9.0	.91	944
7	12	27	28	599	262	160	151	62	10	8.4	.59	773
8	16	31	28	391	231	136	134	53	10	6.3	.23	759
9	24	34	30	271	203	122	123	46	10	4.3	2.3	861
10	35	32	30	234	183	134	110	40	10	3.5	5.6	1140
11	30	29	30	201	166	142	101	34	9.5	4.0	4.0	1190
12	31	26	31	172	153	135	101	31	8.3	9.8	1.3	952
13	25	24	40	151	155	119	122	29	6.8	13	.85	643
14	26	23	55	138	145	117	139	30	6.5	57	5.9	461
15	26	26	60	775	134	237	146	35	6.9	19	33	517
16	22	31	73	1370	129	369	122	43	7.1	8.1	14	7090
17	19	67	92	1040	124	291	101	53	9.7	10	11	17600
18	17	55	92	636	136	253	87	52	9.1	11	7.2	16700
19	13	61	80	663	226	222	76	51	8.2	10	5.9	8590
20	11	55	70	545	276	174	73	47	17	8.1	4.8	5390
21	10	45	65	377	275	156	67	41	18	6.3	20	3470
22	9.4	44	59	299	223	258	58	36	15	5.7	18	2800
23	8.5	42	55	258	187	336	53	35	13	5.4	10	2230
24	7.6	38	93	808	162	345	49	31	13	9.7	6.0	1560
25	7.5	34	300	1490	146	350	45	27	13	70	4.0	866
26	6.8	36	349	1510	137	335	40	23	12	22	5.1	534
27	6.0	39	295	1280	128	395	37	21	11	13	20	479
28	6.1	41	249	1090	129	418	38	20	10	8.6	21	1770
29	5.6	38	211	778	---	340	55	18	10	9.7	29	3890
30	4.8	34	178	448	---	264	91	18	8.3	7.9	34	3810
31	4.6	---	140	307	---	210	---	17	---	6.0	20	---
TOTAL	465.9	1008.3	2919	18779	6065	7170	3288	1513	326.4	384.3	307.38	85838
MEAN	15.0	33.6	94.2	606	217	231	110	48.8	10.9	12.4	9.92	2861
MAX	35	67	349	1510	467	418	208	116	18	70	34	17600
MIN	4.6	4.6	28	94	124	117	37	17	6.5	3.5	.23	11
CFSM	.06	.14	.41	2.61	.93	1.00	.47	.21	.05	.05	.04	12.3
IN.	.07	.16	.47	3.01	.97	1.15	.53	.24	.05	.06	.05	13.76

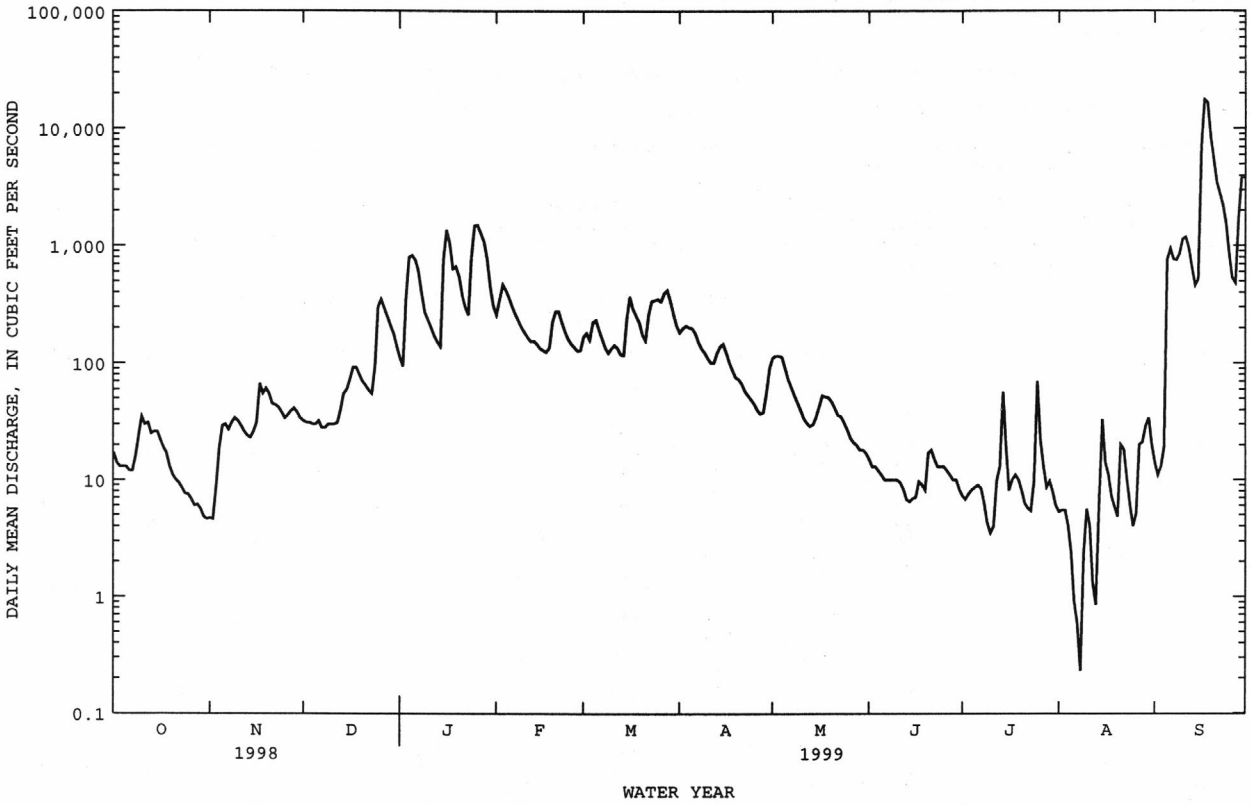
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 1999, BY WATER YEAR (WY)

MEAN	135	146	230	394	474	482	324	189	151	177	178	181
MAX	1202	645	717	999	1285	1204	969	835	698	826	783	2861
(WY)	1965	1948	1937	1954	1948	1989	1959	1989	1995	1959	1931	1999
MIN	6.00	13.0	16.0	24.1	49.6	120	53.3	17.3	10.9	12.4	4.10	2.84
(WY)	1934	1934	1934	1934	1934	1981	1986	1986	1999	1999	1993	1980

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1930 - 1999	
ANNUAL TOTAL	104452.0		128064.28			
ANNUAL MEAN	286		351		256	
HIGHEST ANNUAL MEAN					511	1960
LOWEST ANNUAL MEAN					91.8	1951
HIGHEST DAILY MEAN	4880	Mar 11	17600	Sep 17	17600	Sep 17 1999
LOWEST DAILY MEAN	2.0	Aug 25	.23	Aug 8	.08	Jun 16 1986
ANNUAL SEVEN-DAY MINIMUM	3.5	Aug 20	2.1	Aug 7	.36	Aug 29 1993
INSTANTANEOUS PEAK FLOW			20700	Sep 17	20700	Sep 17 1999
INSTANTANEOUS PEAK STAGE			16.58	Sep 17	16.58	Sep 17 1999
INSTANTANEOUS LOW FLOW			.11	Aug 8	.08*	Jun 1 1986
ANNUAL RUNOFF (CFSM)	1.23		1.51		1.10	
ANNUAL RUNOFF (INCHES)	16.75		20.53		14.98	
10 PERCENT EXCEEDS	979		614		630	
50 PERCENT EXCEEDS	58		43		117	
90 PERCENT EXCEEDS	11		6.8		20	

* See REMARKS.

02088500 LITTLE RIVER NEAR PRINCETON, NC--Continued



02089000 NEUSE RIVER NEAR GOLDSBORO, NC

LOCATION.--Lat 35°20'14", long 77°59'51", Wayne County, Hydrologic Unit 03020202, on left bank at downstream side of bridge on Secondary Road 1915, 0.2 mi upstream from Stony Creek, 1.5 mi downstream of Seaboard Coast Line Railroad bridge, 3.2 mi south of Wayne County courthouse in Goldsboro, 4.3 mi downstream of Little River, and 135 mi upstream from mouth.

DRAINAGE AREA.--2,399 mi^2.

WATER-DISCHARGE RECORDS

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

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

GAGE.--Water-stage recorder. Datum of gage is 42.95 ft above sea level. Prior to July 24, 1931, nonrecording gage at railroad bridge 1.5 mi upstream at 44.95 ft. July 24, 1931, to Aug. 31, 1948, water-stage recorder at site 2.3 mi upstream at 44.66 ft. National Weather Service telephone telemetry at station. Satellite telemetry at station.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Falls Lake (station 02087182). Prior to regulation, maximum discharge: 30,700 ft^3/s, Sept. 27, 1945; gage height: 26.72 ft at site and datum then in use; minimum discharge: 76 ft^3/s, Sept. 26, 1968. Minimum discharge during regulation also occurred Oct. 3, 1985.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of June 1866 and July 1919, reached stages of about 29 and 28 ft, respectively, at site 2.3 mi upstream at present datum, from flood profiles of U.S. Army Corps of Engineers. Flood of Oct. 5, 1929, reached a stage of 27.3 ft at railroad bridge at present datum; discharge, 38,600 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	397	417	505	1560	7750	1710	2750	1670	374	551	447	556
2	451	371	489	1370	7200	1690	2450	2140	363	511	421	480
3	522	390	476	1770	6800	1740	2340	2020	385	421	398	433
4	632	409	479	2950	6570	1710	2430	1720	362	416	347	468
5	1000	690	469	4450	6430	1760	2700	1650	352	412	337	2220
6	833	893	459	4950	6240	1820	3310	2500	328	382	381	3660
7	941	756	435	5330	5880	1690	3640	2780	317	336	385	7450
8	890	620	448	5170	4420	1500	3630	2260	298	315	375	7620
9	823	524	429	3730	3110	1380	2890	1290	295	311	403	7130
10	1250	516	435	2650	2670	1320	2200	873	339	306	401	6790
11	1600	508	424	2270	2370	1320	1580	735	526	318	406	6830
12	1210	485	443	2010	2050	1330	1300	662	366	478	442	7160
13	888	439	480	1800	1930	1320	1320	640	341	668	403	7460
14	709	449	512	1670	1780	1280	1420	628	323	982	425	7570
15	629	463	723	2400	1670	1380	1780	675	880	838	818	8260
16	595	471	1250	3770	1570	1890	1890	831	1340	1130	875	19800
17	544	544	1110	5040	1490	2910	1550	858	1010	1090	1110	22000
18	528	719	1120	5640	1480	2900	1170	811	701	816	853	29000
19	491	899	1170	5590	1580	2950	1060	742	888	664	622	34600
20	475	889	1040	5100	1920	2590	1020	691	766	586	577	38200
21	476	773	915	4590	2150	2210	977	626	628	540	573	36600
22	464	674	814	4410	2200	2130	960	593	505	480	529	32600
23	459	612	764	4260	2040	3030	902	604	495	447	829	28200
24	452	570	954	5020	2170	3570	866	1070	459	528	762	24400
25	430	541	1430	6570	2850	3790	836	690	430	985	561	21000
26	427	586	2660	7290	2620	3940	773	599	421	1060	497	17900
27	424	539	3130	8090	2090	4100	911	560	403	864	483	15300
28	435	548	2870	8790	1880	4270	835	520	411	696	1110	16200
29	436	594	2470	9110	---	4430	903	500	387	550	1250	15200
30	430	528	2080	8990	---	4240	1220	451	406	493	933	14500
31	419	---	1810	8510	---	3210	---	399	---	476	669	---
TOTAL	20260	17417	32793	144850	92910	75110	51613	32788	15099	18650	18622	439587
MEAN	654	581	1058	4673	3318	2423	1720	1058	503	602	601	14650
MAX	1600	899	3130	9110	7750	4430	3640	2780	1340	1130	1250	38200
MIN	397	371	424	1370	1480	1280	773	399	295	306	337	433

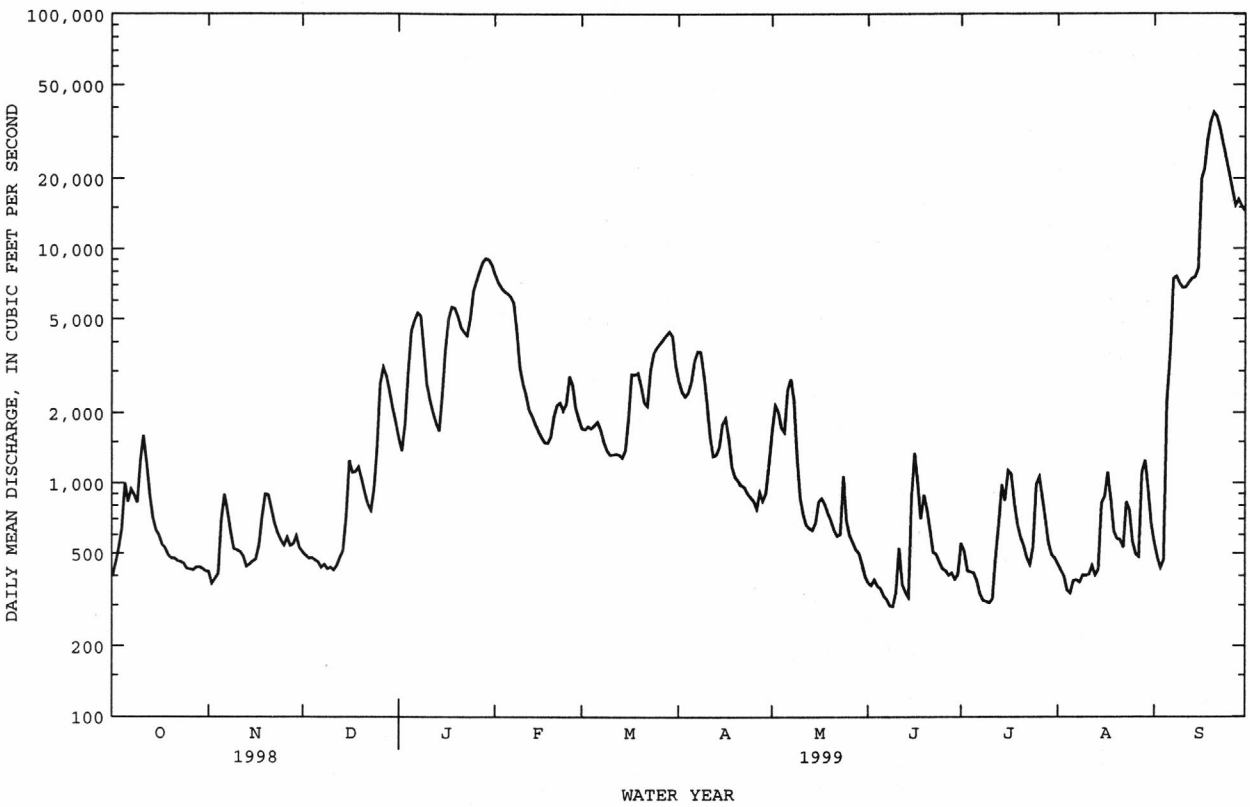
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1999*, BY WATER YEAR (WY)

MEAN	1391	1376	2046	3563	4349	5471	3946	2106	1503	1400	1341	2403
MAX	6120	5287	4546	6644	12080	11400	7850	7276	5530	4668	3601	14650
(WY)	1997	1996	1997	1993	1998	1998	1989	1989	1995	1989	1989	1999
MIN	310	326	622	884	1518	1575	631	433	342	394	264	246
(WY)	1984	1988	1988	1986	1986	1988	1986	1986	1986	1987	1983	1985

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1983 - 1999*	
ANNUAL TOTAL	1366732		959699			
ANNUAL MEAN	3744		2629		2688	
HIGHEST ANNUAL MEAN					3869	1996
LOWEST ANNUAL MEAN					1042	1988
HIGHEST DAILY MEAN	18600	Mar 14	38200	Sep 20	38200	Sep 20 1999
LOWEST DAILY MEAN	371	Nov 2	295	Jun 9	162	Sep 10 1983
ANNUAL SEVEN-DAY MINIMUM	410	Oct 29	327	Jun 4	172	Sep 15 1985
INSTANTANEOUS PEAK FLOW			38500	Sep 20	38500	Sep 20 1999
INSTANTANEOUS PEAK STAGE			28.85	Sep 20	28.85	Sep 20 1999
INSTANTANEOUS LOW FLOW			289	Jun 9	157*	Sep 19 1985
10 PERCENT EXCEEDS	12000		6320		6910	
50 PERCENT EXCEEDS	1210		899		1280	
90 PERCENT EXCEEDS	449		408		394	

* Regulated period only (1983-1999). See REMARKS.

02089000 NEUSE RIVER NEAR GOLDSBORO, NC--Continued



02089000 NEUSE RIVER NEAR GOLDSBORO, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--1954-55, 1957 -60, 1969, 1971-73, 1976-77, 1982, 1996, September 1999.

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN, DIS-SOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)
SEP												
17...	1710	22500	--	--	--	6.2	41	--	.075	.55	.149	.003
28...	1045	16400	767	36	3.2	6.1	76	21.3	.071	.94	.119	.006

DATE	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	CLOS-TRIDIUM PERFRI-GENS, MF-MCP, (COL/ 100 ML) (90915)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)
SEP												
17...	.70	.074	.118	K56	430	<1	<1.6	<8.0	<1.0	<10	390	<100
28...	1.1	.051	.125	K49	3300	--	--	--	--	--	--	--

DATE	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)	METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)
SEP												
17...	48	<.1	<40	<1	E17	12	1.2	<.0030	<.0020	<.002	.017	<.0010
28...	--	--	--	--	--	14	--	<.0030	<.0020	<.002	.007	<.0010

DATE	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)
SEP											
17...	<.0020	<.0200	<.0030	<.0030	<.0040	<.0200	<.0020	<.0020	<.002	<.001	<.0170
28...	<.0020	<.0020	E.0184	<.0030	<.0040	<.0040	<.0020	<.0020	.010	<.001	<.0170

DATE	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DIS-SOLVED (UG/L) (39341)	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA-THION, DIS-SOLVED (UG/L) (39532)	METO-LACHLOR WATER DISSOLV (UG/L) (39415)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)
SEP											
17...	<.0020	<.0040	<.0030	<.0030	<.004	<.0020	<.005	.025	<.004	<.0040	<.0030
28...	<.0020	<.0040	<.0030	<.0030	<.004	<.0020	<.005	.012	<.004	<.0040	<.0030

DATE	PARA-THION, DIS-SOLVED (UG/L) (39542)	METHYL PARA-THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	PROP-CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)
SEP											
17...	<.004	<.0060	<.0040	<.0040	<.0020	<.0180	<.0070	<.0040	<.0130	<.0030	.0125
28...	<.004	<.0060	<.0040	<.0040	<.0020	E.0113	<.0070	<.0040	<.0130	<.0030	.0087

02089000 NEUSE RIVER NEAR GOLDSBORO, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	ALPHA BHC DIS-SOLVED (UG/L) (34253)	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	P,P' DDE DISSOLV (UG/L) (34653)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDIMENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
SEP											
17...	<.0100	<.0070	<.0130	<.0020	<.0010	<.0020	<.0020	<.0050	<.0060	28	1700
28...	<.0100	<.0070	<.0130	<.0020	<.0010	<.0020	<.0020	<.0050	<.0060	11	487

0208925200 BEAR CREEK AT MAYS STORE, NC

LOCATION.--Lat 35°16'28", long 77°47'40", Lenoir County, Hydrologic Unit 03020202, at downstream side of bridge on Secondary Road 1326, 0.7 mi west of Mays Store, and 1.0 mi downstream of Secondary Road 1002.

DRAINAGE AREA.--57.7 mi^2.

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

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

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Maximum discharge for period of record and current water year from rating extension above 3,000 ft^3/s on basis of slope conveyance of peak flow. Maximum gage height for period of record and current water year from floodmark.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	24	28	69	144	71	45	96	27	25	20	31
2	20	24	27	63	148	64	47	78	24	25	21	31
3	19	25	27	176	139	61	44	66	23	22	18	32
4	20	28	26	197	129	63	e42	55	21	20	18	43
5	26	28	26	117	119	56	e43	47	20	19	17	385
6	23	29	25	94	105	53	e40	42	19	18	17	400
7	21	28	25	84	98	51	e38	38	18	18	17	349
8	21	30	25	78	93	47	37	37	16	17	28	235
9	40	29	25	86	87	47	35	32	16	26	22	166
10	29	28	24	98	84	50	34	29	15	21	26	281
11	23	29	24	90	80	48	33	27	15	19	22	240
12	21	29	27	81	79	46	64	26	15	29	22	154
13	20	30	34	75	93	44	47	33	15	61	22	119
14	20	30	37	71	84	46	40	78	15	90	21	96
15	19	32	33	303	79	93	36	70	59	82	27	209
16	18	32	79	335	76	79	42	58	175	68	26	e8000
17	18	32	90	199	73	69	34	49	135	53	24	e2300
18	18	31	70	216	78	61	31	43	102	44	23	e1780
19	18	31	59	198	78	54	29	38	70	38	22	e1350
20	19	33	53	154	79	49	28	34	56	34	23	e1200
21	19	32	49	132	72	52	26	30	68	31	36	e4300
22	20	30	47	109	66	74	25	27	60	31	30	e3100
23	21	30	46	97	61	68	24	29	51	30	27	e2150
24	21	29	66	403	58	60	23	217	42	38	24	e1900
25	21	29	128	814	56	54	22	128	36	197	24	e1700
26	21	31	121	411	56	55	21	84	33	115	26	e1600
27	20	32	112	270	54	62	35	63	31	70	31	e4500
28	21	30	105	219	56	60	39	49	29	46	30	e3020
29	22	29	105	195	---	54	58	41	27	34	29	e1350
30	23	29	89	173	---	49	110	35	25	28	32	e1000
31	23	---	76	156	---	45	---	30	---	23	32	---
TOTAL	665	883	1708	5763	2424	1785	1172	1709	1258	1372	757	42021
MEAN	21.5	29.4	55.1	186	86.6	57.6	39.1	55.1	41.9	44.3	24.4	1401
MAX	40	33	128	814	148	93	110	217	175	197	36	8000
MIN	18	24	24	63	54	44	21	26	15	17	17	31
CFSM	.37	.51	.95	3.22	1.50	1.00	.68	.96	.73	.77	.42	24.3
IN.	.43	.57	1.10	3.72	1.56	1.15	.76	1.10	.81	.88	.49	27.09

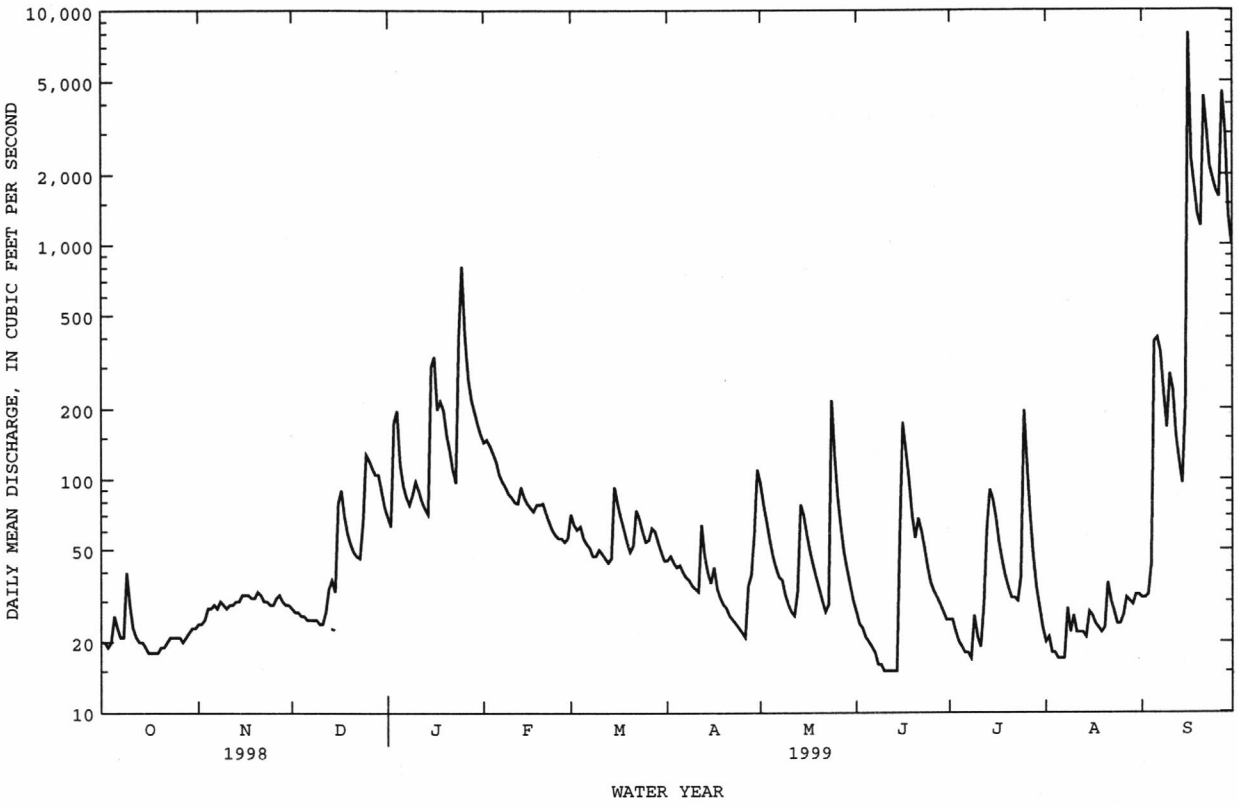
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1999, BY WATER YEAR (WY)

MEAN	49.7	45.8	58.6	109	89.5	105	74.6	62.4	57.2	45.7	61.0	168
MAX	206	119	133	266	306	230	204	216	201	98.5	231	1401
(WY)	1997	1993	1993	1993	1998	1998	1998	1989	1995	1989	1992	1999
MIN	17.2	15.8	21.5	29.0	45.0	35.3	26.5	19.8	13.2	12.5	12.8	17.6
(WY)	1995	1995	1995	1995	1988	1988	1995	1994	1994	1993	1993	1994

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1988 - 1999	
ANNUAL TOTAL	41490		61517			
ANNUAL MEAN	114		169		77.0	
HIGHEST ANNUAL MEAN					169	1999
LOWEST ANNUAL MEAN					31.7	1988
HIGHEST DAILY MEAN	1110	Feb 18	8000	Sep 16	8000	Sep 16 1999
LOWEST DAILY MEAN	15	Aug 24	15	Jun 10	8.4	Aug 18 1997
ANNUAL SEVEN-DAY MINIMUM	17	Aug 19	15	Jun 8	9.2	Aug 12 1997
INSTANTANEOUS PEAK FLOW			11000*	Sep 16	11000*	Sep 16 1999
INSTANTANEOUS PEAK STAGE			16.04*	Sep 16	16.04*	Sep 16 1999
INSTANTANEOUS LOW FLOW			14	Jun 11	7.7	Aug 18 1997
ANNUAL RUNOFF (CFSM)	1.97		2.92		1.33	
ANNUAL RUNOFF (INCHES)	26.75		39.66		18.12	
10 PERCENT EXCEEDS	274		184		147	
50 PERCENT EXCEEDS	61		40		39	
90 PERCENT EXCEEDS	20		20		17	

e Estimated.
* See REMARKS.

0208925200 BEAR CREEK AT MAYS STORE, NC--Continued



02089500 NEUSE RIVER AT KINSTON, NC

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

DRAINAGE AREA.--2,692 mi^2.

WATER-DISCHARGE RECORDS

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

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

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Falls Lake (station 02087182). Prior to regulation, maximum discharge: 26,000 ft^3/s, Oct. 13, 1964; gage height: 22.86 ft, at site and datum then in use; minimum discharge: 124 ft^3/s, Sept. 26, 1932, at site then in use. Minimum for current water year also occurred June 11.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in July 1919 reached a stage of 25.0 ft, at present site and datum; discharge, about 39,000 ft^3/s, from information provided by North Carolina State Highway Commission. Flood in October 1924 reached a stage of 24.7 ft, at present site and datum; discharge, 36,000 ft^3/s, from information provided by North Carolina State Highway Commission. Flood of Sept. 25-26, 1928, reached a stage of 24.2 ft, at present site and datum; discharge, 34,000 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	491	469	636	2420	9270	2380	4530	1510	566	545	585	829
2	488	467	599	2060	9260	2160	4000	1820	532	608	559	676
3	498	450	574	2060	8980	2040	3280	2190	507	638	523	593
4	573	440	564	2520	8520	2090	2820	2240	502	570	498	709
5	689	475	552	3070	8060	2070	2720	2000	496	524	465	1750
6	1070	584	549	3700	7650	2040	2820	1830	478	514	426	3040
7	994	844	533	4250	7340	2070	3170	2310	461	490	436	3610
8	988	844	518	4800	7070	1980	3540	2720	437	455	448	4270
9	997	746	510	5290	6750	1810	3780	2670	422	444	482	5520
10	1070	649	507	5480	6060	1700	3660	1780	408	430	467	6460
11	1150	592	502	4990	4540	1620	2800	1250	409	408	494	7270
12	1530	581	497	3660	3570	1570	2040	1010	559	412	477	7560
13	1390	564	526	2780	3080	1560	1690	942	510	534	496	7540
14	1090	536	600	2400	2650	1560	1550	1070	456	809	507	7570
15	875	533	643	2390	2360	1650	1600	1120	478	1200	517	9080
16	754	549	884	3170	2170	1780	1930	1050	894	1180	710	17100
17	703	556	1480	3690	2030	2010	2110	1060	1580	1160	831	24400
18	654	577	1530	4340	1960	2700	1880	1100	1450	1220	1030	25100
19	622	710	1340	5080	1980	3040	1510	1040	1120	1020	984	25700
20	587	959	1340	5800	2060	3130	1310	961	1120	827	760	27400
21	564	1010	1240	6140	2260	3050	1230	887	1170	722	667	34300
22	553	907	1130	6060	2440	2770	1180	817	1050	661	668	35600
23	550	797	1000	5730	2520	2560	1140	764	852	604	623	35800
24	538	727	965	5840	2440	2780	1090	812	742	583	709	34200
25	532	676	1230	6480	2440	3310	1030	1270	673	756	815	32000
26	510	645	1930	7490	2830	3750	995	1110	623	1130	680	29400
27	501	667	2570	7930	2980	4060	1040	892	594	1200	606	26800
28	490	664	3230	8130	2670	4270	1140	792	577	1080	582	25800
29	492	627	3500	8440	---	4420	1160	720	560	886	745	26500
30	487	662	3370	8840	---	4560	1240	666	550	725	1160	26200
31	484	---	2900	9150	---	4670	---	621	---	629	1070	---
TOTAL	22914	19507	37949	154180	125940	81160	63985	41024	20776	22964	20020	492777
MEAN	739	650	1224	4974	4498	2618	2133	1323	693	741	646	16430
MAX	1530	1010	3500	9150	9270	4670	4530	2720	1580	1220	1160	35800
MIN	484	440	497	2060	1960	1560	995	621	408	408	426	593

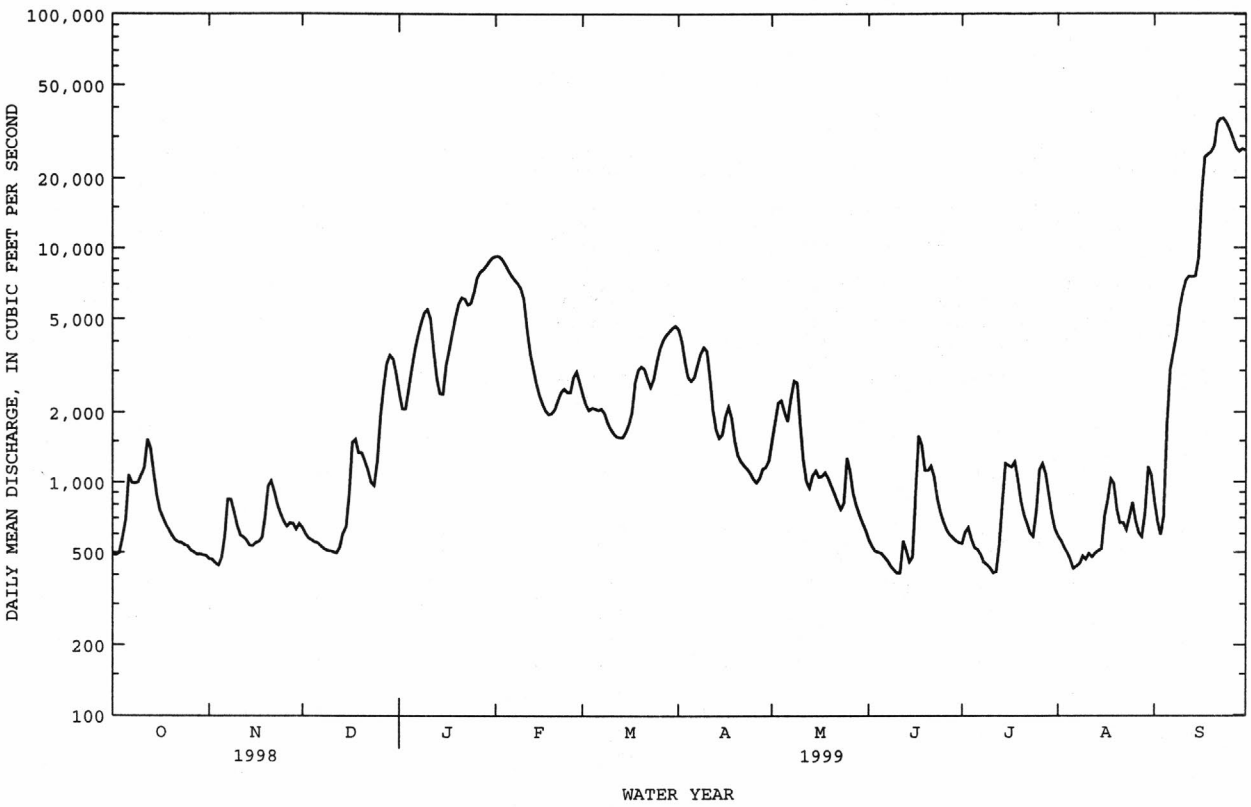
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1999*, BY WATER YEAR (WY)

MEAN	1351	1522	2350	3814	4755	6023	4596	2374	1785	1596	1614	2730
MAX	7637	5643	5097	7560	12600	11410	9582	8773	6062	5223	4068	16430
(WY)	1997	1996	1990	1993	1998	1998	1989	1989	1995	1989	1989	1999
MIN	366	430	760	1181	1768	1673	878	563	460	468	314	357
(WY)	1984	1988	1988	1986	1986	1988	1986	1986	1986	1987	1983	1985

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1983 - 1999*	
ANNUAL TOTAL	1471794		1103196			
ANNUAL MEAN	4032		3022		2803	
HIGHEST ANNUAL MEAN					4216	1989
LOWEST ANNUAL MEAN					1204	1988
HIGHEST DAILY MEAN	16600	Mar 17	35800	Sep 23	35800	Sep 23 1999
LOWEST DAILY MEAN	440	Nov 4	408	Jun 10	200	Sep 20 1985
ANNUAL SEVEN-DAY MINIMUM	467	Oct 30	444	Jun 5	214	Sep 16 1985
INSTANTANEOUS PEAK FLOW			36300	Sep 22	36300	Sep 22 1999
INSTANTANEOUS PEAK STAGE			27.71	Sep 22	27.71	Sep 22 1999
INSTANTANEOUS LOW FLOW			403*	Jun 10	196	Sep 20 1985
10 PERCENT EXCEEDS	11800		6470		7560	
50 PERCENT EXCEEDS	1530		1120		1570	
90 PERCENT EXCEEDS	555		498		490	

* Regulated period only (1983-1999). See REMARKS.

02089500 NEUSE RIVER AT KINSTON, NC--Continued



02089500 NEUSE RIVER AT KINSTON, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1950, 1955-56, 1959-67, 1973 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: July 1973 to September 1986.

WATER TEMPERATURE: October 1949 to September 1950, January 1955 to September 1956, July 1973 to September 1986.

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

REMARKS.--Station operated as part of NAWQA Program from March 1993 to present. Station also operated as part of NASQAN network from October 1974 to September 1994. Daily records of specific conductance for January 1955 to September 1956 are available in the files of the District Office in Raleigh, NC. Samples in September 1999 and October 1999 collected during flooding from Hurricane Floyd.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 242 microsiemens, Sept. 21, 1983; minimum daily, 43 microsiemens, Mar. 28, 1975.

WATER TEMPERATURE: Maximum recorded, 36.0°C, July 13, 14, 19, 20, 1986; minimum daily, 0.0°C, Feb. 7, 1978, Jan. 13, 1981.

WATER-QUALITY DATA

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633)	CLOS-TRIDIUM PERFRI-GENS, MF-MCP, (COL/ 100 ML) (90915)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
OCT 1998												
28...	1045	488	166	7.7	16.4	766	9.7	99	--	--	33	8.3
NOV												
23...	1045	800	160	7.2	13.6	771	10.4	99	--	--	34	8.1
DEC												
16...	1100	871	147	7.2	11.0	759	10.4	95	--	--	28	7.0
JAN 1999												
19...	1100	5050	86	6.7	10.5	764	9.2	82	--	--	19	4.5
FEB												
11...	1030	4960	104	5.4	12.8	772	9.1	85	--	--	25	5.8
MAR												
23...	1000	2550	105	7.0	13.6	768	9.1	87	--	--	23	5.3
APR												
15...	1015	1580	113	7.1	18.2	760	7.6	80	--	--	24	5.1
MAY												
27...	1030	896	125	7.2	22.8	763	6.8	79	--	--	26	5.9
JUN												
23...	1030	856	145	7.3	21.4	748	6.9	79	--	--	28	6.7
JUL												
27...	1030	1210	120	7.3	29.0	761	5.5	71	--	--	24	5.6
AUG												
24...	1130	696	157	7.4	27.5	765	6.4	81	--	--	30	7.2
SEP												
20...	1230	27300	49	6.3	21.1	761	2.8	32	2400	K37	12	2.8
28...	1300	25600	70	6.0	21.3	755	2.3	27	770	K18	--	--
OCT												
29...	1115	12200	68	6.6	13.6	754	--	--	--	--	18	4.3

02089500 NEUSE RIVER AT KINSTON, NC--Continued

WATER-QUALITY DATA

DATE	MAGNESIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DIS-SOLVED (MG/L AS K) (00935)	BICARBONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLORIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUORIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)
OCT 1998												
28...	3.1	16	47	1	4.7	40	33	14	15	.22	7.8	107
NOV												
23...	3.3	16	47	1	5.9	35	29	14	16	.19	9.1	106
DEC												
16...	2.7	13	45	1	5.2	30	25	12	15	.19	5.7	86
JAN 1999												
19...	1.9	5.9	35	.6	4.0	10	8	9.3	8.8	<.10	5.7	73
FEB												
11...	2.5	8.3	38	.7	3.4	19	15	12	10	<.10	6.3	77
MAR												
23...	2.4	8.7	41	.8	3.4	17	14	11	11	<.10	6.2	74
APR												
15...	2.7	10	44	.9	3.4	23	19	10	12	.13	7.2	85
MAY												
27...	2.6	12	45	1	3.7	22	18	11	12	.17	7.3	79
JUN												
23...	2.8	13	46	1	4.2	23	19	15	14	.17	8.3	95
JUL												
27...	2.4	9.9	43	.9	3.4	21	18	13	11	.17	6.2	72
AUG												
24...	2.9	15	48	1	4.4	27	22	15	15	.16	8.0	97
SEP												
20...	1.1	2.0	21	.3	3.3	8	7	3.5	3.2	<.10	3.2	47
28...	--	--	--	--	--	--	--	--	--	--	--	--
OCT												
29...	1.7	4.5	31	.5	3.2	17	14	5.5	6.4	<.10	6.7	60

DATE	NITROGEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITROGEN, TOTAL (MG/L AS N) (00600)	NITROGEN DIS-SOLVED (MG/L AS N) (00602)	PHOSPHORUS TOTAL (MG/L AS P) (00665)	PHOSPHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOSPHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)
OCT 1998												
28...	<.010	.788	.033	.30	.27	.33	.30	1.1	1.1	.062	.022	.027
NOV												
23...	.011	.898	.069	2.1	.28	2.2	.35	3.1	1.2	.071	E.040	.034
DEC												
16...	.030	.853	.060	.38	.22	.44	.28	1.3	1.1	.092	E.041	.043
JAN 1999												
19...	<.010	.723	<.020	--	--	.60	.47	1.3	1.2	.124	.034	.016
FEB												
11...	<.010	.637	.035	.44	--	.47	--	1.1	--	.069	.025	.015
MAR												
23...	<.010	.673	.029	.46	.35	.49	.38	1.2	1.1	.083	.027	<.010
APR												
15...	<.010	.603	.049	.48	.42	.53	.47	1.1	1.1	.111	.050	.039
MAY												
27...	.011	.971	.068	.45	.38	.52	.45	1.5	1.4	.118	.066	.054
JUN												
23...	.013	.996	.075	.54	.40	.61	.47	1.6	1.5	.154	.082	.072
JUL												
27...	.011	.604	.079	.56	.40	.64	.48	1.2	1.1	.165	.074	.054
AUG												
24...	<.010	.577	.027	.52	.36	.55	.39	1.1	.97	.134	.082	.064
SEP												
20...	<.010	.137	.030	.62	.53	.65	.56	.79	.69	.137	.094	.073
28...	.005	.051	.072	.78	--	.85	--	.90	--	.135	--	.078
OCT												
29...	<.010	.326	.033	.56	.40	.59	.44	.91	.76	.100	.062	.057

02089500 NEUSE RIVER AT KINSTON, NC--Continued

WATER-QUALITY DATA

DATE	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
OCT 1998												
28...	--	--	--	--	--	280	--	39	--	--	--	--
NOV												
23...	--	--	--	--	--	250	--	25	--	--	--	--
DEC												
16...	--	--	--	--	--	240	--	27	--	--	--	--
JAN 1999												
19...	--	--	--	--	--	290	--	30	--	--	--	--
FEB												
11...	--	--	--	--	--	330	--	42	--	--	--	--
MAR												
23...	--	--	--	--	--	180	--	20	--	--	--	--
APR												
15...	--	--	--	--	--	640	--	39	--	--	--	--
MAY												
27...	--	--	--	--	--	240	--	27	--	--	--	--
JUN												
23...	--	--	--	--	--	410	--	41	--	--	--	--
JUL												
27...	--	--	--	--	--	270	--	34	--	--	--	--
AUG												
24...	--	--	--	--	--	380	--	36	--	--	--	--
SEP												
20...	<1	<1.6	<8.0	<1.0	<10	300	<100	51	<.1	<40	<1	<20
28...	--	--	--	--	--	--	--	--	--	--	--	--
OCT												
29...	--	--	--	--	--	960	--	57	--	--	--	--

DATE	TRITIUM TOTAL (PCI/L) (07000)	TRITIUM 2 SIGMA WATER, WHOLE, TOTAL (PCI/L) (75985)	H-2 / H-1 STABLE ISOTOPE RATIO PER MIL (82082)	O-18 / O-16 STABLE ISOTOPE RATIO PER MIL (82085)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)
OCT 1998												
28...	--	--	--	--	--	4.2	<.20	<.002	E.015	<.0020	<.0020	<.0040
NOV												
23...	--	--	--	--	--	5.3	.40	<.002	.011	<.0020	<.0020	<.0040
DEC												
16...	--	--	--	--	--	5.1	.80	<.002	.087	<.0020	<.0020	<.0040
JAN 1999												
19...	--	--	--	--	--	8.8	1.7	<.004	.007	<.0020	<.0020	<.0040
FEB												
11...	--	--	--	--	--	7.4	.60	<.002	.009	<.0020	<.0020	<.0040
MAR												
23...	--	--	--	--	--	6.0	.50	<.002	.010	<.0020	<.0020	<.0040
APR												
15...	--	--	--	--	--	7.0	.70	.025	.046	<.0020	<.0020	<.0040
MAY												
27...	37	2.6	-20.5	-3.66	--	5.8	.70	.062	.080	<.0020	<.0020	<.0040
JUN												
23...	32	1.9	-23.8	-4.13	--	7.1	.80	<.002	.020	<.0020	<.0040	<.0040
JUL												
27...	35	1.9	-13.4	-2.96	--	6.7	.80	<.002	.019	<.0020	<.0020	<.0040
AUG												
24...	36	2.6	-14.9	-2.79	--	6.2	.30	<.002	.007	<.0020	<.0020	<.0040
SEP												
20...	11	1.3	-41.7	-6.50	--	13	.60	.010	.010	<.0020	<.0020	<.0040
28...	--	--	--	--	--	15	.60	.008	.006	<.0020	<.0020	<.0040
OCT												
29...	--	--	--	--	15	--	--	.006	.006	<.0020	<.0020	<.0040

02089500 NEUSE RIVER AT KINSTON, NC--Continued

WATER-QUALITY DATA

DATE	CYANAZINE, WATER, DISS, REC (UG/L) (04041)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	P,P' DDE DISSOLV (UG/L) (34653)	DIAZINON, DISSOLVED (UG/L) (39572)	DIELDRIN DISSOLVED (UG/L) (39381)	2,6-DIETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	DISULFOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHALFLURALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHOPROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FONOFOS WATER DISS REC (UG/L) (04095)	ALPHA BHC DISSOLVED (UG/L) (34253)
OCT 1998												
28...	<.0040	<.0020	<.0060	E.002	<.001	<.0030	<.0170	<.0020	<.0040	<.0030	<.0030	<.0020
NOV												
23...	<.0040	<.0020	<.0060	<.002	<.001	<.0030	<.0170	<.0020	<.0040	<.0030	<.0030	<.0020
DEC												
16...	<.0040	<.0020	<.0060	.009	<.001	<.0030	<.0170	<.0075	<.0040	<.0030	<.0030	<.0020
JAN 1999												
19...	<.0040	E.0019	E.0010	<.002	<.001	<.0030	<.0170	<.0020	<.0040	<.0030	<.0030	<.0020
FEB												
11...	<.0040	<.0020	<.0060	<.002	<.001	<.0030	<.0170	<.0100	<.0040	<.0030	<.0030	<.0020
MAR												
23...	<.0040	<.0020	<.0060	E.002	<.001	<.0030	<.0170	<.0020	<.0040	<.0030	<.0030	<.0020
APR												
15...	<.0040	<.0020	<.0060	<.002	<.001	<.0030	<.0170	<.0020	<.0040	<.0030	<.0030	<.0020
MAY												
27...	<.0040	<.0020	<.0060	.007	<.001	<.0030	<.0170	<.0020	<.0040	<.0030	<.0030	<.0020
JUN												
23...	<.0040	<.0020	<.0060	<.002	<.001	<.0030	<.0170	<.0020	<.0040	<.0030	<.0030	<.0020
JUL												
27...	.311	<.0020	<.0060	.015	<.001	<.0030	<.0170	<.0020	<.0040	<.0030	<.0030	<.0020
AUG												
24...	.0101	<.0020	<.0060	E.004	<.001	<.0030	<.0170	<.0020	<.0040	<.0030	<.0030	<.0020
SEP												
20...	.0089	<.0020	<.0060	<.020	<.001	<.0030	<.0170	<.0020	<.0040	<.0030	<.0030	<.0020
28...	.0057	<.0020	<.0060	.005	<.001	<.0030	<.0170	<.0020	<.0040	<.0030	<.0030	<.0020
OCT												
29...	<.0040	<.0020	<.0060	.005	<.001	<.0030	<.0170	<.0020	<.0040	<.0030	<.0030	<.0020

DATE	LINDANE DISSOLVED (UG/L) (39341)	LINURON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALATHION, DISSOLVED (UG/L) (39532)	METOLACHLOR WATER DISSOLV (UG/L) (39415)	METRIBUZIN SENCOR WATER DISSOLV (UG/L) (82630)	MOLINATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROPAMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PARATHION, DISSOLVED (UG/L) (39542)	METHYL PARATHION WAT FLT 0.7 U GF, REC (UG/L) (82667)	PEBULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDIMETHALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)
OCT 1998											
28...	<.004	<.0020	<.005	<.004	<.004	<.0040	<.0030	<.004	<.0060	<.0040	<.0040
NOV											
23...	<.004	<.0020	<.005	.028	<.004	<.0040	<.0030	<.004	<.0060	<.0040	<.0040
DEC											
16...	<.004	<.0020	E.004	.013	<.004	<.0040	<.0030	<.004	<.0060	<.0040	<.0040
JAN 1999											
19...	<.004	<.0020	<.005	.020	<.004	<.0040	<.0030	<.004	<.0060	<.0040	<.0040
FEB											
11...	<.004	<.0020	<.005	.010	<.004	<.0040	<.0030	<.004	<.0060	<.0040	<.0040
MAR											
23...	<.004	<.0020	<.005	.009	<.004	<.0040	<.0030	<.004	<.0060	<.0040	<.0040
APR											
15...	<.004	<.0020	<.005	.022	<.004	<.0040	<.0030	<.004	<.0060	<.0040	<.0040
MAY											
27...	<.004	<.0020	<.005	.086	.007	<.0040	<.0030	<.004	<.0060	<.0040	<.0040
JUN											
23...	<.004	<.0020	<.005	.069	<.004	<.0040	<.0030	<.004	<.0060	<.0040	<.0040
JUL											
27...	<.004	<.0020	<.005	.034	.152	<.0040	<.0030	<.004	<.0060	<.0040	<.0040
AUG											
24...	<.004	<.0020	<.005	.024	<.004	<.0040	<.0030	<.004	<.0060	<.0040	<.0040
SEP											
20...	<.004	<.0020	.052	.022	<.004	<.0040	<.0030	<.004	<.0060	<.0040	<.0040
28...	<.004	<.0020	<.005	.020	<.004	<.0040	<.0030	<.004	<.0060	<.0040	<.0040
OCT											
29...	<.004	<.0020	E.004	.015	<.004	<.0040	<.0030	<.004	<.0060	<.0040	<.0040

02089500 NEUSE RIVER AT KINSTON, NC--Continued

WATER-QUALITY DATA

DATE	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	PROP-CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)
OCT 1998											
28...	<.0050	<.0020	<.0030	E.0124	<.0070	<.0040	<.0130	<.0100	<.0020	E.0058	<.0130
NOV											
23...	<.0050	<.0020	<.0030	E.0134	<.0070	<.0040	<.0130	.0467	<.0020	E.0079	<.0130
DEC											
16...	<.0050	<.0020	<.0030	E.0098	<.0070	<.0040	<.0130	.177	<.0020	.0102	<.0130
JAN 1999											
19...	<.0050	<.0020	<.0030	E.0101	<.0070	<.0040	<.0130	.118	<.0020	<.0100	<.0130
FEB											
11...	<.0050	<.0020	<.0030	E.0163	<.0070	<.0040	<.0130	.0925	<.0020	E.0088	<.0130
MAR											
23...	<.0050	<.0020	<.0030	E.0158	<.0070	<.0040	<.0130	.0980	<.0020	<.0100	<.0130
APR											
15...	<.0050	<.0020	<.0030	E.0167	<.0070	<.0040	<.0130	.0750	<.0020	<.0100	<.0130
MAY											
27...	<.0050	<.0020	<.0030	.0890	<.0070	<.0040	<.0130	.0386	<.0020	E.0094	<.0130
JUN											
23...	<.0050	<.0020	<.0030	.0308	<.0070	<.0040	<.0130	.0326	<.0020	<.0300	<.0130
JUL											
27...	<.0050	<.0020	<.0030	.0637	<.0070	<.0040	<.0130	.0300	<.0020	E.0224	<.0130
AUG											
24...	<.0050	<.0020	<.0030	.0282	<.0070	<.0040	<.0130	.0269	<.0020	E.0046	<.0130
SEP											
20...	<.0050	<.0020	<.0030	E.0139	<.0070	<.0040	<.0130	.0082	<.0020	<.0100	<.0130
28...	<.0050	<.0020	<.0030	E.0106	<.0070	<.0040	<.0130	.0054	<.0020	<.0100	<.0130
OCT											
29...	<.0050	<.0020	<.0030	E.0104	<.0070	<.0040	<.0130	.0055	<.0020	E.0037	<.0130

DATE	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT 1998											
28...	<.0010	<.0020	E.0047	<.0250	<.0030	<.0030	<.0070	<.0020	8	11	84
NOV											
23...	<.0010	<.0020	E.0029	<.0010	<.0030	<.0030	<.0070	<.0020	8	17	74
DEC											
16...	<.0010	<.0020	E.0053	<.0200	E.0120	<.0030	<.0070	<.0020	8	19	89
JAN 1999											
19...	<.0010	E.0013	<.0020	<.0010	E.0042	<.0030	<.0070	<.0020	42	573	89
FEB											
11...	<.0010	<.0020	<.0020	<.0010	<.0030	<.0030	<.0070	<.0020	17	228	91
MAR											
23...	<.0010	<.0020	E.0013	<.0100	<.0030	<.0030	<.0070	<.0020	29	200	85
APR											
15...	<.0010	<.0020	E.0043	<.0250	<.0030	<.0030	<.0070	<.0020	18	77	90
MAY											
27...	<.0010	E.0021	E.0082	<.0250	E.0057	<.0030	<.0070	<.0020	18	44	79
JUN											
23...	<.0010	<.0020	<.0020	<.0300	E.0085	<.0030	<.0070	<.0020	16	37	93
JUL											
27...	<.0010	<.0020	E.0068	E.0310	E.0408	<.0030	<.0070	<.0020	24	78	95
AUG											
24...	<.0010	<.0020	E.0026	<.0200	E.0069	<.0030	<.0070	<.0020	14	26	90
SEP											
20...	<.0010	<.0020	<.0020	<.0010	E.0117	<.0030	<.0070	<.0020	5	369	96
28...	<.0010	<.0020	<.0020	<.0010	E.0077	<.0030	<.0070	<.0020	3	207	88
OCT											
29...	<.0010	<.0020	<.0020	<.0010	E.0035	<.0030	<.0070	<.0020	5	165	77



Floodwaters from the Neuse River inundate highways N.C. 17 and N.C. 55 at Kinston, September 1999.

02090380 CONTENTNEA CREEK NEAR LUCAMA, NC

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

DRAINAGE AREA.--161 mi^2.

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

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

GAGE.--Water-stage recorder. Datum of gage is 117.43 ft above sea level (levels by U.S. Army Corps of Engineers). Satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Since September 1976, some regulation at low flow by Buckhorn Reservoir (station 02090370) 1 mi upstream. Maximum discharge for current water year and period of record, from rating curve extended above 6,000 ft^3/s, on basis of flow over dam measurement of peak flow; maximum gage height, about 25.0 ft, from flood marks. Minimum discharge for period of record also occurred Sept. 10-14, 1976, due to regulation. Minimum discharge for current year, due to regulation.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	17	19	58	162	102	121	90	24	11	25	15
2	18	17	19	50	202	103	118	105	24	11	29	12
3	17	20	19	211	253	114	127	87	23	11	33	13
4	18	19	18	563	256	139	131	65	24	11	35	15
5	17	19	18	610	199	130	110	56	28	11	39	22
6	17	19	18	485	169	129	97	52	27	11	38	3.3
7	17	19	18	305	145	111	89	47	27	11	36	2.3
8	19	18	18	213	135	76	80	47	25	15	34	2.5
9	18	18	18	165	114	73	76	38	23	19	30	8.1
10	17	17	18	122	105	79	56	33	26	19	29	9.8
11	17	18	18	98	95	81	63	30	25	20	28	5.7
12	17	18	18	85	100	81	140	29	25	22	27	25
13	18	18	19	74	92	69	200	29	24	21	27	10
14	18	18	18	66	80	75	163	41	23	20	27	12
15	18	18	18	485	76	142	113	72	24	13	27	104
16	18	18	19	691	74	252	97	81	15	13	26	e8000
17	18	18	19	539	73	253	72	90	22	13	26	e13000
18	18	18	19	438	94	194	59	80	9.2	13	25	e4500
19	18	18	19	400	140	139	49	67	.51	14	25	e1300
20	18	18	19	317	170	107	47	51	1.7	14	24	e850
21	18	19	19	231	166	101	40	41	3.5	14	24	e1000
22	18	19	21	176	139	159	41	44	8.6	14	23	1380
23	17	19	19	140	108	226	40	38	8.3	17	22	904
24	17	19	32	477	96	241	31	38	8.5	24	21	574
25	17	19	135	999	87	197	30	30	11	24	21	353
26	17	19	192	998	84	190	31	29	9.5	25	22	231
27	17	18	155	731	78	260	30	28	10	25	21	218
28	17	19	120	494	84	297	30	26	9.1	25	18	1580
29	17	19	99	317	---	252	40	25	9.1	26	19	3140
30	17	19	99	239	---	188	61	25	10	25	22	2480
31	17	---	61	190	---	141	---	25	---	25	20	---
TOTAL	542	552	1321	10967	3576	4701	2382	1539	508.01	537	823	39769.7
MEAN	17.5	18.4	42.6	354	128	152	79.4	49.6	16.9	17.3	26.5	1326
MAX	19	20	192	999	256	297	200	105	28	26	39	13000
MIN	17	17	18	50	73	69	30	25	.51	11	18	2.3
CFSM	.11	.11	.26	2.20	.79	.94	.49	.31	.11	.11	.16	8.23
IN.	.13	.13	.31	2.53	.83	1.09	.55	.36	.12	.12	.19	9.19

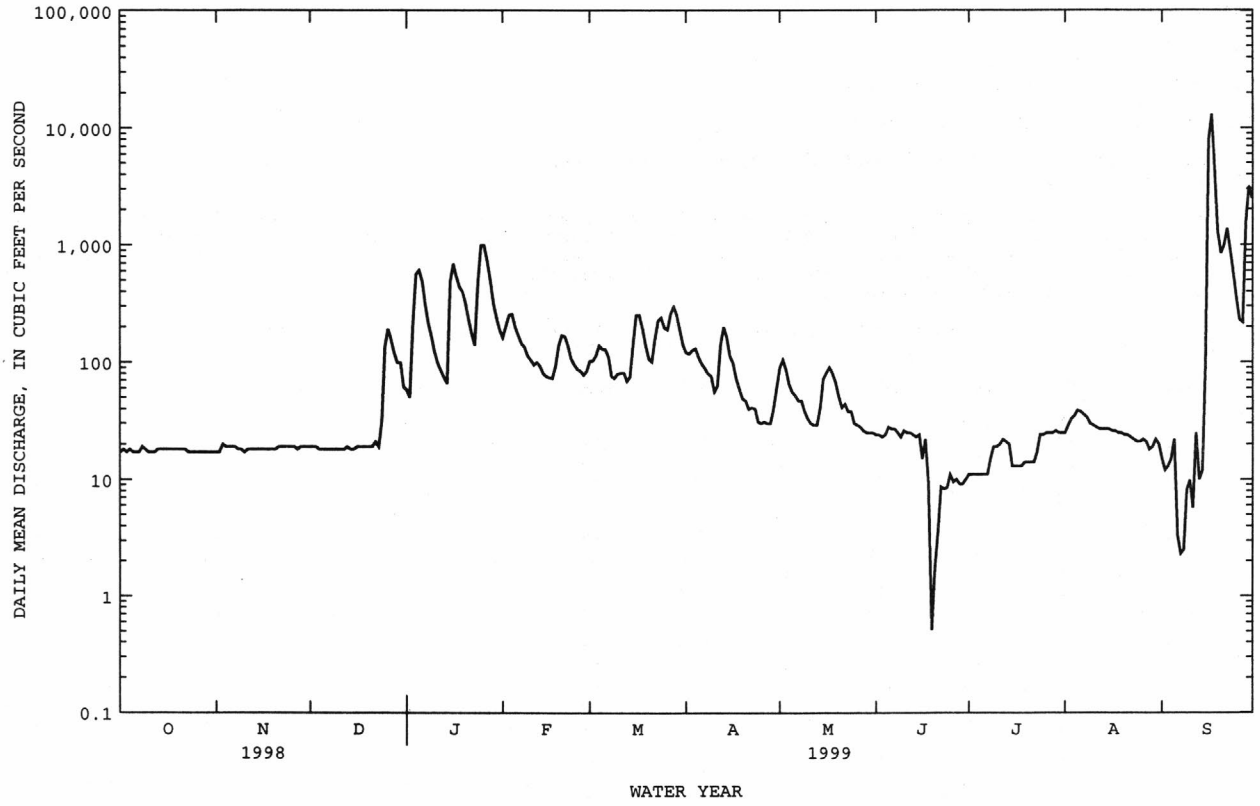
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1999, BY WATER YEAR (WY)

MEAN	70.4	86.8	136	268	308	340	198	123	92.8	86.4	95.5	95.2
MAX	644	304	404	690	633	803	701	537	359	624	512	1326
(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

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1964 - 1999	
ANNUAL TOTAL	68706		67217.71			
ANNUAL MEAN	188		184		156	
HIGHEST ANNUAL MEAN					278	1984
LOWEST ANNUAL MEAN					35.5	1981
HIGHEST DAILY MEAN	3900	Mar 10	13000	Sep 17	13000	Sep 17 1999
LOWEST DAILY MEAN	13	Jun 22	.51	Jun 19	.04	Sep 9 1976
ANNUAL SEVEN-DAY MINIMUM	15	Aug 19	5.8	Jun 18	.04	Sep 8 1976
INSTANTANEOUS PEAK FLOW			24000*	Sep 17	24000*	Sep 17 1999
INSTANTANEOUS PEAK STAGE			25.00*	Sep 17	25.00*	Sep 17 1999
INSTANTANEOUS LOW FLOW			.30	Jun 19	.04	Sep 9 1976
ANNUAL RUNOFF (CFSM)	1.17		1.14		.97	
ANNUAL RUNOFF (INCHES)	15.87		15.53		13.20	
10 PERCENT EXCEEDS	523		245		385	
50 PERCENT EXCEEDS	32		27		68	
90 PERCENT EXCEEDS	17		14		11	

e Estimated.
* See REMARKS.

02090380 CONTENTNEA CREEK NEAR LUCAMA, NC--Continued



02091000 NAHUNTA SWAMP NEAR SHINE, NC

LOCATION.--Lat 35°29'20", long 77°48'22", Greene County, Hydrologic Unit 03020203, on right bank 10 ft downstream of bridge on Secondary Road 1058, 2 mi upstream from Appletree Swamp, 3.5 mi north of Shine, and 8 mi northwest of Snow Hill.

DRAINAGE AREA.--80.4 mi^2.

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

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

GAGE.--Water-stage recorder. Datum of gage is 50.74 ft above sea level. Prior to Apr. 1, 1955, nonrecording gage at same site and datum. Satellite telemetry at station.

REMARKS.--Records fair except those for estimated discharges which are poor. Maximum discharge for current water year and 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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	9.9	20	62	113	83	40	68	8.6	53	11	14
2	16	10	20	56	143	68	48	49	7.9	67	11	12
3	15	20	19	267	148	60	44	38	7.5	28	11	11
4	14	36	17	270	133	68	42	30	7.1	18	11	25
5	25	26	17	145	124	58	47	26	6.9	15	12	481
6	22	20	18	103	109	52	43	23	6.3	13	9.6	595
7	19	18	18	85	94	49	40	21	6.1	12	9.6	649
8	17	16	18	74	87	46	37	22	5.6	12	12	820
9	24	18	18	118	77	45	34	23	5.2	18	12	499
10	18	16	18	133	73	55	37	23	4.9	12	14	345
11	17	16	17	100	68	54	46	19	4.7	11	12	233
12	15	17	17	82	72	49	62	17	4.5	47	10	136
13	14	17	32	71	120	45	46	17	4.4	116	9.9	97
14	14	17	42	72	82	51	37	64	4.6	250	10	79
15	13	21	31	449	71	92	31	52	118	134	114	330
16	12	26	118	410	66	67	30	44	335	68	52	e1600
17	12	37	108	194	64	56	27	33	140	47	24	e7000
18	12	36	59	215	91	51	24	27	76	32	17	e6000
19	11	28	43	220	113	46	23	23	43	27	14	e2000
20	11	27	38	157	100	43	22	20	34	22	13	e1000
21	11	26	35	130	82	55	21	17	43	19	43	e600
22	11	23	33	115	70	102	20	15	36	18	27	487
23	11	21	32	104	62	71	19	15	31	16	19	401
24	11	20	107	574	61	58	19	33	25	14	16	280
25	11	20	246	1350	59	51	17	23	21	46	13	199
26	11	30	165	734	63	56	16	17	19	45	14	169
27	13	37	130	342	61	63	18	16	19	25	23	224
28	11	26	124	189	64	57	20	13	21	19	20	3400
29	11	23	122	155	---	51	53	12	18	16	16	3360
30	10	22	95	134	---	45	99	10	16	14	15	1450
31	10	---	73	120	---	40	---	9.1	---	12	14	---
TOTAL	443	679.9	1850	7230	2470	1787	1062	819.1	1079.3	1246	609.1	32496
MEAN	14.3	22.7	59.7	233	88.2	57.6	35.4	26.4	36.0	40.2	19.6	1083
MAX	25	37	246	1350	148	102	99	68	335	250	114	7000
MIN	10	9.9	17	56	59	40	16	9.1	4.4	11	9.6	11
CFSM	.18	.28	.74	2.90	1.10	.72	.44	.33	.45	.50	.24	13.5
IN.	.20	.31	.86	3.35	1.14	.83	.49	.38	.50	.58	.28	15.04

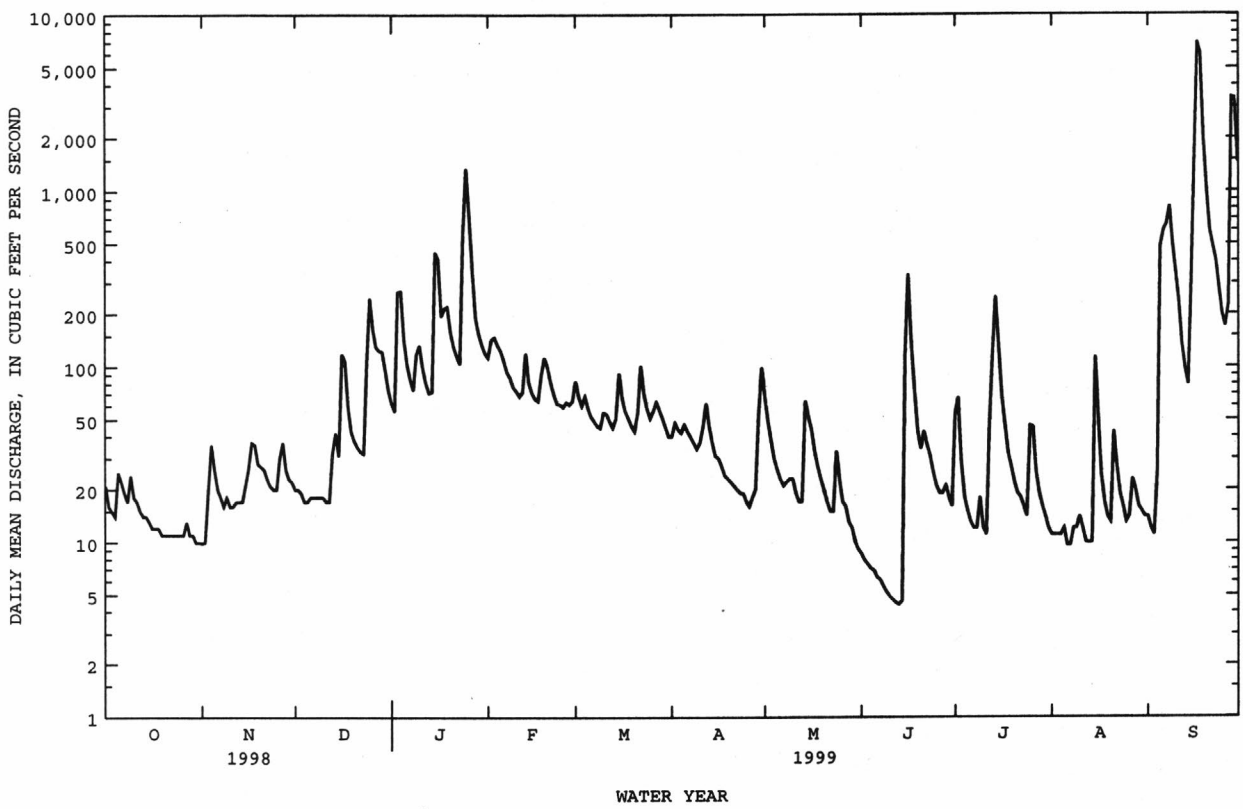
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 1999, BY WATER YEAR (WY)

MEAN	49.1	55.0	70.6	122	143	146	103	60.3	53.2	59.8	69.4	83.5
MAX	473	253	184	261	327	311	252	277	243	395	360	1083
(WY)	1965	1978	1958	1993	1998	1983	1974	1989	1995	1965	1974	1999
MIN	2.26	11.2	19.7	31.1	34.6	33.7	19.1	10.8	5.35	3.10	4.71	2.58
(WY)	1955	1987	1995	1955	1988	1986	1986	1986	1986	1987	1954	1954

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1954 - 1999	
ANNUAL TOTAL	44524.8		51771.4			
ANNUAL MEAN	122		142		85.4	
HIGHEST ANNUAL MEAN					150	1965
LOWEST ANNUAL MEAN					22.9	1986
HIGHEST DAILY MEAN	1700	Mar 10	7000	Sep 17	7000	Sep 17 1999
LOWEST DAILY MEAN	9.9	Aug 25	4.4	Jun 13	1.0	Oct 7 1954
ANNUAL SEVEN-DAY MINIMUM	11	Oct 27	4.8	Jun 8	1.3	Oct 4 1954
INSTANTANEOUS PEAK FLOW			23000*	Sep 17	23000*	Sep 17 1999
INSTANTANEOUS PEAK STAGE			21.00*	Sep 17	21.00*	Sep 17 1999
INSTANTANEOUS LOW FLOW			4.2	Jun 12	1.0*	Oct 7 1954
ANNUAL RUNOFF (CFSM)	1.52		1.76		1.06	
ANNUAL RUNOFF (INCHES)	20.60		23.95		14.44	
10 PERCENT EXCEEDS	313		191		176	
50 PERCENT EXCEEDS	50		32		43	
90 PERCENT EXCEEDS	14		11		10	

e Estimated.
* See REMARKS.

02091000 NAHUNTA SWAMP NEAR SHINE, NC--Continued



02091500 CONTENTNEA CREEK AT HOOKERTON, NC

LOCATION.--Lat 35°25'44", long 77°34'59", Greene County, Hydrologic Unit 03020203, on left bank at bridge on State Highway 123 at Hookerton, and 2.2 mi upstream from Wheat Swamp Creek.

DRAINAGE AREA.--733 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1928 to current year.

REVISED RECORDS.--WSP 1333: 1903-35. WSP 1383: Drainage area. WSP 1503: 1951. WSP 1723: 1932. WDR NC-90-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 14.85 ft above sea level (U.S. Army Corps of Engineers bench mark). Prior to Nov. 26, 1934, nonrecording gage at site 1,400 ft upstream and Nov. 27, 1934, to Sept. 30, 1987, water-stage recorder at site 0.3 mi upstream at present datum. Satellite telemetry at station.

REMARKS.--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 current water year and 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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	118	66	175	1350	3480	562	763	355	131	100	80	96
2	117	65	163	1160	3070	581	732	381	117	99	78	84
3	128	68	157	1130	2610	602	667	375	105	134	73	77
4	124	76	149	1470	2130	644	608	373	e93	139	67	83
5	118	111	141	e1560	1750	652	570	365	e85	112	63	611
6	115	181	137	e1510	1540	636	542	341	79	87	60	1340
7	126	196	134	e1610	1470	611	524	306	71	71	57	1550
8	139	179	133	1800	1420	580	498	269	64	60	69	1770
9	153	162	132	1980	1320	551	466	239	61	54	70	2080
10	173	146	128	2070	1170	526	438	270	57	51	74	2580
11	312	135	127	e2000	997	506	443	295	54	50	72	2870
12	353	124	125	1800	856	497	527	265	52	55	70	2820
13	296	114	139	1540	745	486	597	239	50	80	67	2530
14	231	109	167	1290	733	479	681	344	51	186	67	2210
15	186	108	204	1250	718	541	744	618	68	432	83	2100
16	154	108	307	1560	674	642	767	717	278	468	95	9230
17	130	111	543	1930	630	654	699	735	589	395	143	18900
18	113	141	648	2250	601	668	578	674	581	309	129	e30000
19	101	223	646	2540	615	706	473	564	401	240	107	e31500
20	90	290	567	2910	689	722	401	465	303	189	91	e29500
21	82	278	462	3160	763	707	352	392	290	159	95	e26500
22	78	258	381	3200	807	689	313	335	273	140	95	e22000
23	78	237	329	3070	888	693	279	289	241	123	110	e16500
24	80	212	e339	3220	856	705	251	306	209	111	100	e12000
25	78	187	556	3780	762	709	229	336	180	e133	87	8080
26	75	178	920	e4000	669	725	211	301	151	e185	80	5970
27	73	178	1160	e4350	593	758	203	261	136	e150	77	4680
28	72	193	1320	4530	546	787	199	229	128	126	74	6320
29	71	202	1490	4620	---	781	217	198	119	110	77	9860
30	68	188	1550	4340	---	772	270	169	109	97	100	10900
31	67	---	1490	3920	---	772	---	148	---	86	109	---
TOTAL	4099	4824	14919	76900	33102	19944	14242	11154	5126	4731	2619	264741
MEAN	132	161	481	2481	1182	643	475	360	171	153	84.5	8825
MAX	353	290	1550	4620	3480	787	767	735	589	468	143	31500
MIN	67	65	125	1130	546	479	199	148	50	50	57	77
CFSM	.18	.22	.66	3.38	1.61	.88	.65	.49	.23	.21	.12	12.0
IN.	.21	.24	.76	3.90	1.68	1.01	.72	.57	.26	.24	.13	13.44

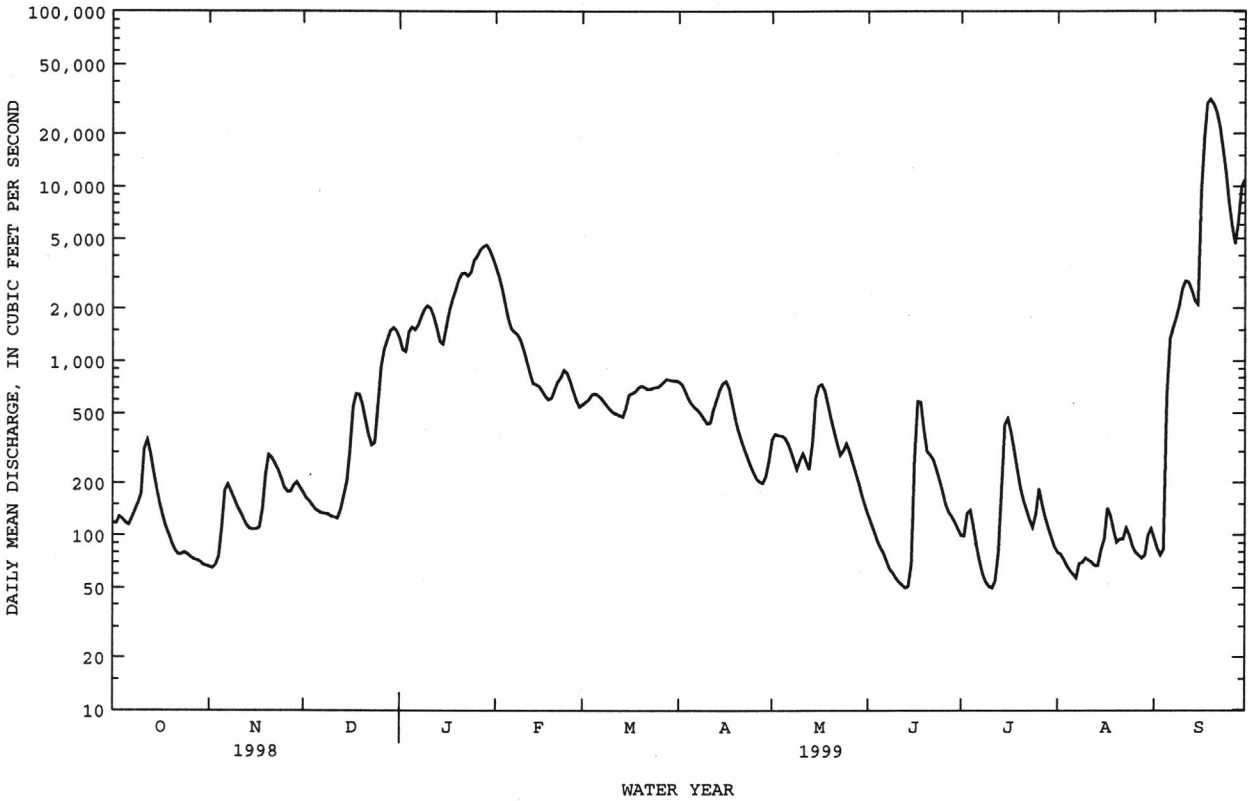
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 1999, BY WATER YEAR (WY)

MEAN	449	454	680	1134	1386	1458	1027	587	459	554	624	639
MAX	4183	2150	2349	2626	4316	3491	2752	3363	1770	2203	2422	8825
(WY)	1965	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 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1929 - 1999	
ANNUAL TOTAL	376543		456401			
ANNUAL MEAN	1032		1250		775	
HIGHEST ANNUAL MEAN					1422	1960
LOWEST ANNUAL MEAN					242	1951
HIGHEST DAILY MEAN	5830	Feb 9	31500	Sep 19	31500	Sep 19 1999
LOWEST DAILY MEAN	65	Nov 2	50	Jun 13	15	Oct 28 1933
ANNUAL SEVEN-DAY MINIMUM	68	Oct 28	56	Jun 8	16	Oct 8 1954
INSTANTANEOUS PEAK FLOW			31900	Sep 18	31900	Sep 18 1999
INSTANTANEOUS PEAK STAGE			28.28*	Sep 18	28.28*	Sep 18 1999
INSTANTANEOUS LOW FLOW			54	Aug 7	15	Oct 28 1933
ANNUAL RUNOFF (CFSM)	1.41		1.71		1.06	
ANNUAL RUNOFF (INCHES)	19.11		23.16		14.36	
10 PERCENT EXCEEDS	3240		2230		1920	
50 PERCENT EXCEEDS	421		301		444	
90 PERCENT EXCEEDS	110		75		86	

e Estimated.
* See REMARKS.



02091500 CONTENTNEA CREEK AT HOOKERTON, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1950, 1969-72, 1979 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: March 1979 to September 1984.

WATER TEMPERATURE: October 1949 to September 1950, March 1979 to September 1984.

INSTRUMENTATION.--Water-quality monitor from October 1981 to September 1984.

REMARKS.--Station operated as part of NAWQA Program from March 1993 to present. Station also operated as part of NASQAN network from March 1979 to September 1993. Miscellaneous chemical data published for water years 1945, 1947-49, 1955-67. Samples for September 1999 and October 1999 were collected during flooding from Hurricane Floyd.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 218 microsiemens, Nov. 1, 10, 1983; minimum daily, 41 microsiemens, June 11, 1979.

WATER TEMPERATURE: Maximum, 29.5°C, Aug. 23, 1983; minimum daily, 1.0°C, Jan. 13, 14, 1981, Jan. 18, 1982.

WATER-QUALITY DATA

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633)	CLOS-TRIDIUM PERFRI-GENS, MF-MCP, (COL/ 100 ML) (90915)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)
OCT 1998												
28...	1315	--	72	128	7.2	15.0	764	10.0	99	--	--	25
NOV												
23...	1315	--	236	133	6.6	12.4	769	9.1	85	--	--	25
DEC												
16...	1400	--	348	121	7.0	10.3	758	10.4	93	--	--	24
JAN 1999												
19...	1430	--	2550	78	6.5	9.9	766	7.2	63	--	--	17
FEB												
11...	1315	--	994	89	6.2	11.7	770	8.6	78	--	--	22
MAR												
23...	1230	--	693	90	6.6	13.1	766	9.1	86	--	--	21
APR												
15...	1230	--	746	95	6.7	16.7	757	7.2	75	--	--	21
MAY												
27...	1300	--	258	98	6.8	21.3	762	6.2	69	--	--	22
JUN												
23...	1400	--	237	129	6.6	20.7	765	6.2	69	--	--	26
JUL												
27...	1330	--	142	104	6.8	27.5	761	4.6	59	--	--	24
AUG												
24...	1430	--	98	176	6.7	25.9	763	6.0	73	--	--	27
SEP												
21...	1300	26500	--	35	6.1	20.9	757	2.9	33	K86	80	9
OCT												
29...	1400	--	3360	60	6.2	13.3	754	6.7	65	--	--	16

02091500 CONTENTNEA CREEK AT HOOKERTON, NC--Continued

WATER-QUALITY DATA

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)
OCT 1998												
28...	6.3	2.4	11	45	1	3.7	23	19	9.4	14	.20	7.1
NOV												
23...	6.0	2.4	12	43	1	7.7	22	18	7.5	17	.13	6.3
DEC												
16...	5.5	2.4	9.6	40	.9	5.8	17	14	7.7	15	<.10	6.2
JAN 1999												
19...	3.9	1.8	4.7	31	.5	4.1	6	5	7.4	9.1	<.10	4.6
FEB												
11...	5.1	2.3	5.7	31	.5	3.5	11	9	7.8	11	<.10	5.0
MAR												
23...	4.7	2.3	6.7	37	.6	3.2	13	11	6.0	11	<.10	4.2
APR												
15...	4.7	2.2	7.0	37	.7	4.1	16	13	6.5	12	.12	3.7
MAY												
27...	5.2	2.3	7.8	39	.7	3.0	17	14	6.5	12	.14	5.1
JUN												
23...	6.0	2.6	10	43	.9	3.4	17	14	12	14	.14	6.6
JUL												
27...	5.8	2.4	6.8	33	.6	4.3	18	15	7.9	11	.16	6.8
AUG												
24...	6.5	2.6	20	57	2	4.5	27	22	11	23	.18	5.7
SEP												
21...	2.1	.86	1.5	20	.2	2.9	8	7	2.6	2.1	<.10	2.9
OCT												
29...	3.7	1.6	3.2	25	.3	3.5	10	9	4.0	6.5	<.10	6.2

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)
OCT 1998												
28...	87	<.010	1.03	.050	.39	.37	.44	.42	1.5	1.5	.103	E.040
NOV												
23...	96	<.010	.596	.042	.60	.50	.64	.54	1.2	1.1	.113	.066
DEC												
16...	88	.032	.744	.057	.57	.40	.62	.46	1.4	1.2	.179	.071
JAN 1999												
19...	65	<.010	.658	.035	.56	.52	.59	.56	1.2	1.2	--	.049
FEB												
11...	71	<.010	.706	.068	.47	.45	.53	.52	1.2	1.2	.081	.035
MAR												
23...	69	.016	.716	<.020	--	--	.56	.47	1.3	1.2	.078	.037
APR												
15...	81	.021	.590	.102	.73	.57	.83	.67	1.4	1.3	.166	.103
MAY												
27...	71	<.010	.837	.086	.56	.62	.65	.71	1.5	1.5	.170	.089
JUN												
23...	95	.012	.812	.085	.54	.44	.62	.53	1.4	1.3	.171	.093
JUL												
27...	79	<.010	.796	.073	.68	.51	.75	.59	1.5	1.4	.196	.099
AUG												
24...	108	<.010	.566	.050	.59	.47	.64	.52	1.2	1.1	.188	.117
SEP												
21...	48	<.010	<.050	<.020	--	--	.62	.52	--	--	.148	.098
OCT												
29...	60	<.010	.339	.030	.61	.49	.64	.52	.98	.86	.019	.080

02091500 CONTENTNEA CREEK AT HOOKERTON, NC--Continued

WATER-QUALITY DATA

DATE	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BERYLLIUM, DISSOLVED (UG/L AS BE) (01010)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, DISSOLVED (UG/L AS PB) (01049)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY DISSOLVED (UG/L AS HG) (71890)	NICKEL, DISSOLVED (UG/L AS NI) (01065)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)
OCT 1998												
28...	.043	--	--	--	--	--	440	--	33	--	--	--
NOV												
23...	.058	--	--	--	--	--	720	--	16	--	--	--
DEC												
16...	.078	--	--	--	--	--	1200	--	21	--	--	--
JAN 1999												
19...	.028	--	--	--	--	--	310	--	20	--	--	--
FEB												
11...	.022	--	--	--	--	--	450	--	38	--	--	--
MAR												
23...	.016	--	--	--	--	--	500	--	24	--	--	--
APR												
15...	.084	--	--	--	--	--	1600	--	35	--	--	--
MAY												
27...	.079	--	--	--	--	--	1200	--	55	--	--	--
JUN												
23...	.084	--	--	--	--	--	920	--	90	--	--	--
JUL												
27...	.071	--	--	--	--	--	540	--	89	--	--	--
AUG												
24...	.096	--	--	--	--	--	710	--	69	--	--	--
SEP												
21...	.066	1	<1.6	<8.0	<1.0	<10	370	<100	26	<.1	<40	<1
OCT												
29...	.058	--	--	--	--	--	1200	--	24	--	--	--

DATE	ZINC, DISSOLVED (UG/L AS ZN) (01090)	TRITIUM TOTAL (PCI/L) (07000)	TRITIUM 2 SIGMA WATER, WHOLE, TOTAL (PCI/L) (75985)	H-2 / H-1 STABLE ISOTOPE RATIO PER MIL (82082)	O-18 / O-16 STABLE ISOTOPE RATIO PER MIL (82085)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C) (00689)	ALACHLOR, WATER, DISS, REC, (UG/L) (46342)	ATRAZINE, WATER, DISS, REC (UG/L) (39632)	BENFLURALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BUTYLATE, WATER, DISS, REC (UG/L) (04028)
OCT 1998												
28...	--	--	--	--	--	--	6.4	.20	--	--	--	--
NOV												
23...	--	--	--	--	--	--	10	.40	--	--	--	--
DEC												
16...	--	--	--	--	--	--	8.4	1.2	--	--	--	--
JAN 1999												
19...	--	--	--	--	--	--	10	--	--	--	--	--
FEB												
11...	--	--	--	--	--	--	9.7	.40	--	--	--	--
MAR												
23...	--	--	--	--	--	--	8.0	.30	E.003	.010	<.0020	<.0020
APR												
15...	--	--	--	--	--	--	11	1.1	.072	.652	<.0020	<.0020
MAY												
27...	--	33	1.9	-20.2	-3.91	--	8.9	.90	.010	.050	<.0020	<.0020
JUN												
23...	--	29	1.9	-24.0	-4.16	--	8.8	3.2	.020	.024	<.0020	<.0020
JUL												
27...	--	29	1.9	-15.8	-3.36	--	9.6	.90	<.002	.015	<.0020	<.0020
AUG												
24...	--	35	2.6	-16.7	-3.09	--	9.4	.50	.006	.008	<.0020	<.0020
SEP												
21...	E16	9.3	1.0	-51.0	-7.57	--	14	1.1	.010	.009	<.0020	E.0025
OCT												
29...	--	--	--	--	--	17	--	--	.006	.007	<.0020	<.0020

02091500 CONTENTNEA CREEK AT HOOKERTON, NC--Continued

WATER-QUALITY DATA

DATE	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	P,P' DDE DISSOLV (UG/L) (34653)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FONOFOS WATER DISS REC (UG/L) (04095)
OCT 1998												
28...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
23...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
16...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 1999												
19...	--	--	--	--	--	--	--	--	--	--	--	--
FEB												
11...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
23...	<.0040	<.0040	<.0020	<.0060	<.002	<.001	<.0030	<.0170	<.0020	<.0040	<.0030	<.0030
APR												
15...	<.0040	<.0040	<.0020	<.0060	.011	<.001	<.0030	<.0170	<.0020	<.0040	<.0030	<.0030
MAY												
27...	<.0040	<.0040	<.0020	<.0060	E.003	<.001	<.0030	<.0170	<.0020	<.0040	<.0030	<.0030
JUN												
23...	<.0040	<.0040	<.0020	<.0060	<.002	<.001	<.0030	<.0170	<.0020	<.0040	<.0030	<.0030
JUL												
27...	<.0300	.939	<.0020	<.0060	<.002	<.001	<.0030	<.0170	<.0020	<.0040	<.0030	<.0030
AUG												
24...	<.0040	.0111	<.0020	<.0060	<.002	<.001	<.0030	<.0170	<.0020	<.0040	<.0030	<.0030
SEP												
21...	.0049	.0079	<.0020	<.0060	E.004	<.001	<.0030	<.0170	<.0020	<.0040	<.0030	<.0030
OCT												
29...	<.0040	<.0040	<.0020	<.0060	<.002	<.001	<.0030	<.0170	<.0020	<.0040	<.0030	<.0030

DATE	ALPHA BHC DIS-SOLVED (UG/L) (34253)	LINDANE DIS-SOLVED (UG/L) (39341)	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA-THION, DIS-SOLVED (UG/L) (39532)	METO-LACHLOR WATER DISSOLV (UG/L) (39415)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PARA-THION, DIS-SOLVED (UG/L) (39542)	METHYL PARA-THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)
OCT 1998												
28...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
23...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
16...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 1999												
19...	--	--	--	--	--	--	--	--	--	--	--	--
FEB												
11...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
23...	<.0020	<.004	<.0020	<.005	.008	<.004	<.0040	<.0030	<.004	<.0060	<.0040	<.0040
APR												
15...	<.0020	<.004	<.0020	<.005	.244	<.004	<.0040	<.0030	<.004	<.0060	<.0040	<.0040
MAY												
27...	<.0020	<.004	<.0020	<.005	.077	<.004	<.0040	<.0030	<.004	<.0060	<.0040	<.0040
JUN												
23...	<.0020	<.004	<.0020	<.005	.049	<.004	<.0040	<.0030	<.004	<.0060	<.0040	<.0040
JUL												
27...	<.0020	<.004	<.0020	<.005	.024	<.004	<.0040	<.0030	<.004	<.0060	<.0040	<.0040
AUG												
24...	<.0020	<.004	<.0020	<.005	.008	<.004	<.0040	<.0030	<.004	<.0060	<.0040	<.0040
SEP												
21...	<.0020	<.004	<.0020	<.005	.019	<.004	<.0040	<.0030	<.004	<.0060	<.0040	<.0040
OCT												
29...	<.0020	<.004	<.0020	.008	.013	<.004	<.0040	<.0030	<.004	<.0060	<.0040	<.0040

02091500 CONTENTNEA CREEK AT HOOKERTON, NC--Continued

WATER-QUALITY DATA

DATE	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	PROP-CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)
OCT 1998											
28...	--	--	--	--	--	--	--	--	--	--	--
NOV											
23...	--	--	--	--	--	--	--	--	--	--	--
DEC											
16...	--	--	--	--	--	--	--	--	--	--	--
JAN 1999											
19...	--	--	--	--	--	--	--	--	--	--	--
FEB											
11...	--	--	--	--	--	--	--	--	--	--	--
MAR											
23...	<.0050	<.0020	<.0030	E.0041	<.0070	<.0040	<.0130	.0151	<.0020	<.0100	<.0130
APR											
15...	<.0050	<.0020	<.0030	.0581	<.0070	<.0040	<.0130	.114	<.0020	<.0100	<.0130
MAY											
27...	<.0050	<.0020	<.0030	.0386	<.0070	<.0040	<.0130	.0392	<.0020	<.0100	<.0130
JUN											
23...	<.0050	<.0020	<.0030	.0476	<.0070	<.0040	<.0130	.0136	<.0020	.0257	<.0130
JUL											
27...	<.0050	<.0020	<.0030	.0507	<.0070	<.0040	<.0130	.0136	<.0020	E.0223	<.0130
AUG											
24...	<.0050	<.0020	<.0030	.0584	<.0070	<.0040	<.0130	.0090	<.0020	E.0147	<.0130
SEP											
21...	<.0050	<.0020	<.0030	E.0087	<.0070	<.0040	<.0130	.0057	<.0020	E.0022	<.0130
OCT											
29...	<.0050	<.0020	<.0030	E.0101	<.0070	<.0040	<.0130	E.0039	<.0020	<.0100	<.0130

DATE	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT 1998											
28...	--	--	--	--	--	--	--	--	10	1.9	78
NOV											
23...	--	--	--	--	--	--	--	--	4	2.5	78
DEC											
16...	--	--	--	--	--	--	--	--	9	8.5	66
JAN 1999											
19...	--	--	--	--	--	--	--	--	14	96	86
FEB											
11...	--	--	--	--	--	--	--	--	13	35	88
MAR											
23...	<.0010	<.0020	E.0008	<.0010	<.0030	<.0030	<.0070	<.0020	10	19	77
APR											
15...	<.0010	<.0020	E.0258	<.0010	E.127	<.0030	<.0070	<.0020	14	28	71
MAY											
27...	<.0010	E.0020	E.0065	<.0010	E.0070	<.0030	<.0070	<.0020	13	9.1	77
JUN											
23...	<.0010	<.0020	E.0043	<.0010	E.0089	<.0030	<.0070	<.0020	14	9.0	66
JUL											
27...	<.0010	<.0020	<.0020	<.0010	E.0544	<.0030	<.0070	<.0020	9	3.5	92
AUG											
24...	<.0010	<.0020	<.0020	<.0010	<.0030	<.0030	<.0070	<.0020	5	1.3	70
SEP											
21...	<.0010	.0047	<.0020	<.0010	E.0120	<.0030	E.0122	<.0020	8	572	96
OCT											
29...	<.0010	<.0020	<.0020	<.0010	<.0030	<.0030	<.0070	<.0020	4	36	77

0209173150 UNNAMED TRIBUTARY TO SANDY RUN AT SECONDARY ROAD 1335 NEAR LIZZIE, NC

LOCATION.--Lat 35°31'03", long 77°33'52", Greene County, Hydrologic Unit 03020203, at Secondary Road 1335, approximately 6.0 mi south of Farmville.

DRAINAGE AREA.--0.34 mi^2

PERIOD OF RECORD.--April to September 1999.

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, APRIL TO SEPTEMBER 1999

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
JUL 01...	1012	.005	185	6.3	22.8	769	5.9	68	51	14

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)
JUL 01...	4.0	8.7	26	.5	2.0	8.1	29	.31	5.6	156

DATE	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN DIS-SOLVED (MG/L AS N) (00602)
JUL 01...	2.09	.010	2.10	.200	.44	.26	.64	.46	2.7	2.6

DATE	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	TRITIUM TOTAL (PCI/L) (07000)	TRITIUM 2 SIGMA WATER, WHOLE, TOTAL (PCI/L) (75985)	H-2 / H-1 STABLE ISOTOPE RATIO PER MIL (82082)	O-18 / O-16 STABLE ISOTOPE RATIO PER MIL (82085)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)
JUL 01...	.060	E.020	<.010	210	34	28	1.9	-24.9	-4.75	7.6

0209173190 UNNAMED TRIBUTARY TO SANDY RUN NEAR LIZZIE, NC

LOCATION.--Lat 35°31'37", long 77°33'46", Greene County, Hydrologic Unit 03020203, Everet Murphy's farm, approximately 6.0 mi south of Farmville.

DRAINAGE AREA.-- Aproximately 0.57 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April to September 1999.

GAGE.--Water-stage recorder. Datum of gage is 48.50 ft above sea level. Satellite telemetry at station.

REMARKS.--Records poor. Maximum discharge for current water year from rating curve extended above 10 ft^3/s by logarithmic plotting. No flow occurred periodically June to Sept.

DISCHARGE, CUBIC FEET PER SECOND, PERIOD APRIL 1999 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	.19	.29	.02	.03	.00	.00
2	---	---	---	---	---	---	.19	.28	.02	.08	.00	.00
3	---	---	---	---	---	---	.16	.24	.02	.07	.00	.00
4	---	---	---	---	---	---	.15	.18	.02	.05	.00	1.5
5	---	---	---	---	---	---	.13	.13	.02	.03	.00	8.0
6	---	---	---	---	---	---	.14	.09	.01	.02	.00	.30
7	---	---	---	---	---	---	.12	.04	.01	.01	.00	.35
8	---	---	---	---	---	---	.23	.05	.01	.01	.00	.43
9	---	---	---	---	---	---	.24	.10	.01	.01	.00	e1.4
10	---	---	---	---	---	---	.16	.11	.00	.00	.00	4.0
11	---	---	---	---	---	---	.59	.07	.00	.00	.00	3.6
12	---	---	---	---	---	---	.38	.05	.00	.01	.00	3.2
13	---	---	---	---	---	---	.26	.21	.01	e.05	.00	2.8
14	---	---	---	---	---	---	.19	.64	.00	e.24	.00	4.3
15	---	---	---	---	---	---	.11	1.5	.20	.18	.03	64
16	---	---	---	---	---	---	.10	.79	.29	.04	.01	283
17	---	---	---	---	---	---	.04	.37	.75	.04	.01	13
18	---	---	---	---	---	---	.09	.24	.08	.04	.00	3.1
19	---	---	---	---	---	---	.08	.21	.09	.04	.00	1.6
20	---	---	---	---	---	---	.09	.14	.16	.03	.00	1.7
21	---	---	---	---	---	---	.19	.12	.25	.02	.00	3.9
22	---	---	---	---	---	---	.07	.10	.11	.02	.00	2.6
23	---	---	---	---	---	---	.05	.10	.14	.02	.00	1.3
24	---	---	---	---	---	---	.05	.15	.13	.01	.00	2.9
25	---	---	---	---	---	---	.04	.11	.10	.03	.00	2.6
26	---	---	---	---	---	---	.05	.10	.08	.02	.00	2.3
27	---	---	---	---	---	---	.20	.08	.07	.01	.00	14
28	---	---	---	---	---	---	.20	.03	.05	.01	.00	27
29	---	---	---	---	---	---	.38	.03	.04	.01	.00	6.0
30	---	---	---	---	---	---	.39	.02	.03	.00	.00	3.5
31	---	---	---	---	---	---	---	.02	---	.00	.00	---
TOTAL	---	---	---	---	---	---	5.26	6.59	2.72	1.13	0.05	462.38
MEAN	---	---	---	---	---	---	.18	.21	.091	.036	.002	15.4
MAX	---	---	---	---	---	---	.59	1.5	.75	.24	.03	283
MIN	---	---	---	---	---	---	.04	.02	.00	.00	.00	.00
CFSM	---	---	---	---	---	---	.31	.37	.16	.06	.00	27.0
IN.	---	---	---	---	---	---	.34	.43	.18	.07	.00	30.18

STATISTICS OF MONTHLY MEAN DATA FOR PERIOD APRIL TO SEPTEMBER 1999

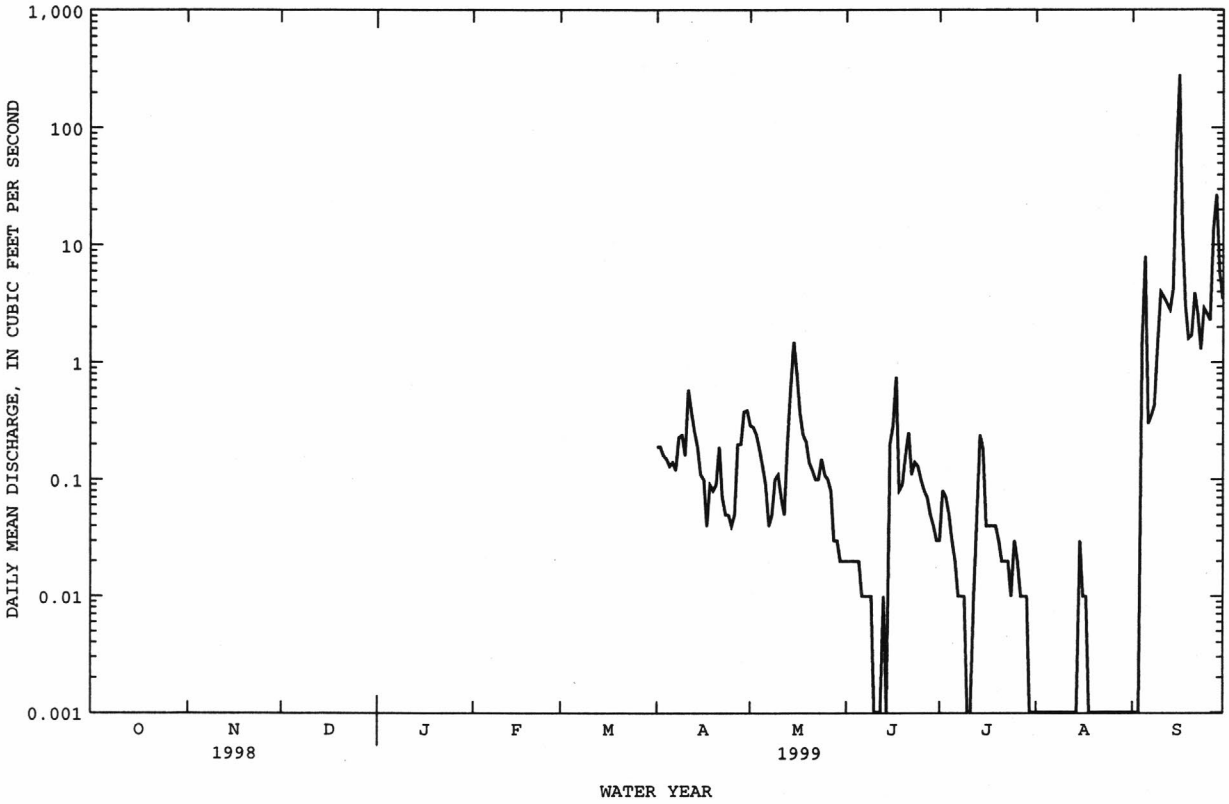
MEAN	---	---	---	---	---	---	.18	.21	.091	.036	.002	15.4
MAX	---	---	---	---	---	---	.18	.21	.091	.036	.002	15.4
(WY)	---	---	---	---	---	---	1999	1999	1999	1999	1999	1999
MIN	---	---	---	---	---	---	.18	.21	.091	.036	.002	15.4
(WY)	---	---	---	---	---	---	1999	1999	1999	1999	1999	1999

SUMMARY STATISTICS FOR PERIOD APRIL TO SEPTEMBER

HIGHEST DAILY MEAN	283	Sep 16
LOWEST DAILY MEAN	.00	Jun 10
INSTANTANEOUS PEAK FLOW	500	Sep 16
INSTANTANEOUS PEAK STAGE	5.18	Sep 16
INSTANTANEOUS LOW FLOW	.00*	Jun 10

e Estimated.
* See REMARKS.

0209173190 UNNAMED TRIBUTARY TO SANDY RUN NEAR LIZZIE, NC--Continued



0209173190 UNNAMED TRIBUTARY TO SANDY RUN NEAR LIZZIE, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April to September 1999.

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, APRIL TO SEPTEMBER 1999

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
APR											
20...	1430	.09	214	6.0	14.5	763	5.7	55	57	17	3.6
MAY											
17...	1310	.25	225	5.7	16.2	770	6.8	68	67	19	4.7
JUN											
30...	1520	.03	234	6.0	23.5	763	3.0	35	63	19	3.8
JUL											
15...	1300	.34	190	6.1	21.0	742	1.2	14	46	14	2.8
SEP											
08...	1530	.59	253	5.8	22.7	763	5.7	66	63	18	4.3
19...	1530	1.4	120	5.2	19.4	768	7.1	77	35	8.2	3.6

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)
APR											
20...	8.2	22	.5	4.1	12	26	.18	7.2	159	--	E.030
MAY											
17...	7.8	19	.4	5.5	13	28	.21	7.4	196	8.95	.050
JUN											
30...	11	26	.6	5.2	9.7	33	.20	7.1	175	4.10	.200
JUL											
15...	6.6	21	.4	6.7	9.6	23	.17	6.0	140	2.01	.090
SEP											
08...	9.4	21	.5	9.5	18	31	.20	8.0	174	8.07	.030
19...	4.1	17	.3	7.6	8.3	20	.13	7.2	98	--	<.010

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)
APR											
20...	5.10	1.50	.10	--	1.6	E1.4	6.7	--	.070	E.020	E.050
MAY											
17...	9.00	.600	.60	--	1.2	E1.1	10	--	.030	<.020	.010
JUN											
30...	4.30	2.30	.10	.00	2.4	2.3	6.7	6.6	.070	E.030	.010
JUL											
15...	2.10	2.10	--	--	1.8	2.0	3.9	4.1	.120	<.020	.020
SEP											
08...	8.10	.700	.40	.40	1.1	1.1	9.2	9.2	.050	.020	.020
19...	1.10	.070	.40	.27	.47	.34	1.6	1.4	.040	<.020	.020

0209173190 UNNAMED TRIBUTARY TO SANDY RUN NEAR LIZZIE, NC--Continued

WATER-QUALITY DATA, APRIL TO SEPTEMBER 1999

DATE	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	TRITIUM TOTAL (PCI/L) (07000)	TRITIUM 2 SIGMA WATER, WHOLE, TOTAL (PCI/L) (75985)	H-2 / H-1 STABLE ISOTOPE RATIO PER MIL (82082)	O-18 / O-16 STABLE ISOTOPE RATIO PER MIL (82085)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)
APR											
20...	260	56	24	1.6	--	--	3.3	--	--	--	--
MAY											
17...	130	50	25	1.9	-26.4	-4.92	3.0	--	--	--	--
JUN											
30...	110	58	15	1.3	-27.0	-4.78	3.7	--	--	--	--
JUL											
15...	440	52	--	--	-22.9	-4.67	8.7	<.002	.046	<.0020	<.0020
SEP											
08...	130	47	15	1.3	-29.8	-5.26	5.5	--	--	--	--
19...	180	66	21	1.6	-31.1	-5.44	5.0	--	--	--	--

DATE	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	P,P' DDE DISSOLV (UG/L) (34653)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)
APR											
20...	--	--	--	--	--	--	--	--	--	--	--
MAY											
17...	--	--	--	--	--	--	--	--	--	--	--
JUN											
30...	--	--	--	--	--	--	--	--	--	--	--
JUL											
15...	<.0040	<.0040	<.0020	<.0060	<.002	<.001	<.0030	<.0170	<.0020	<.0040	<.0030
SEP											
08...	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--

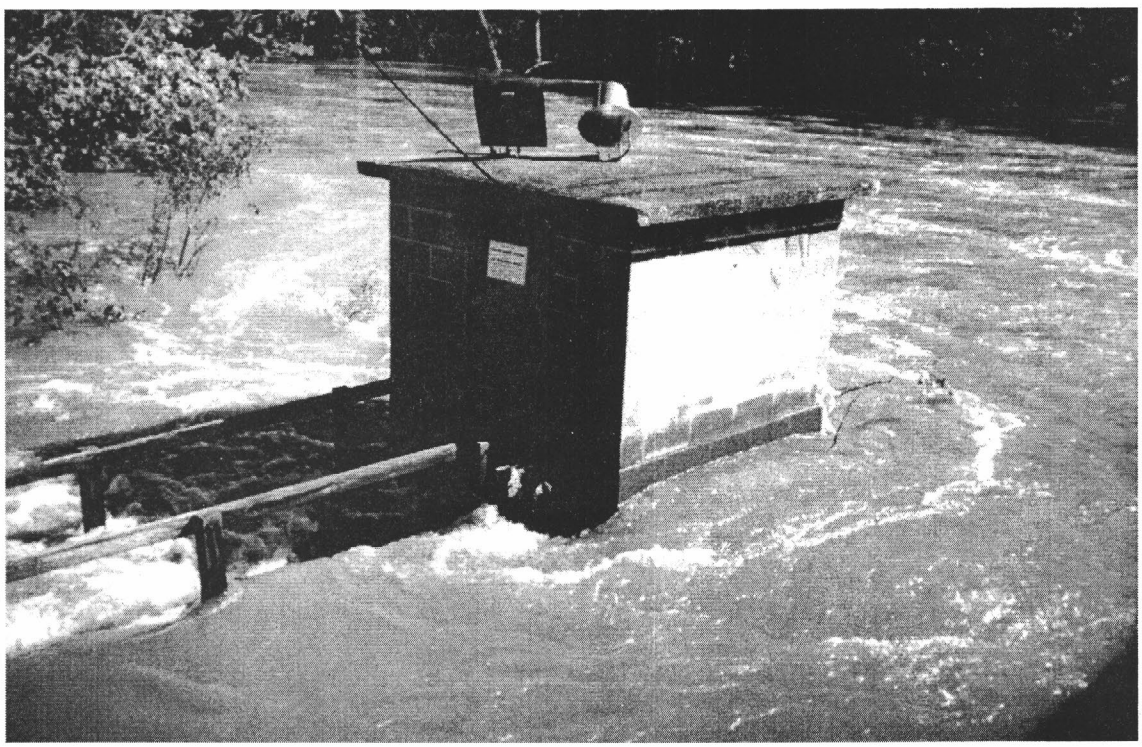
DATE	FONOFOS WATER DISS REC (UG/L) (04095)	ALPHA BHC DIS-SOLVED (UG/L) (34253)	LINDANE DIS-SOLVED (UG/L) (39341)	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA-THION, DIS-SOLVED (UG/L) (39532)	METO-LACHLOR WATER DISSOLV (UG/L) (39415)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PARA-THION, DIS-SOLVED (UG/L) (39542)	METHYL PARA-THION WAT FLT 0.7 U GF, REC (UG/L) (82667)
APR											
20...	--	--	--	--	--	--	--	--	--	--	--
MAY											
17...	--	--	--	--	--	--	--	--	--	--	--
JUN											
30...	--	--	--	--	--	--	--	--	--	--	--
JUL											
15...	<.0030	<.0020	<.004	<.0020	<.005	.034	<.004	<.0040	<.0030	<.004	<.0060
SEP											
08...	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--

DATE	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	PROP-CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)
APR											
20...	--	--	--	--	--	--	--	--	--	--	--
MAY											
17...	--	--	--	--	--	--	--	--	--	--	--
JUN											
30...	--	--	--	--	--	--	--	--	--	--	--
JUL											
15...	<.0040	<.0040	<.0050	<.0020	<.0030	<.0180	<.0070	<.0040	<.0130	<.0050	<.0020
SEP											
08...	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--

0209173190 UNNAMED TRIBUTARY TO SANDY RUN NEAR LIZZIE, NC--Continued

WATER-QUALITY DATA, APRIL TO SEPTEMBER 1999

DATE	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)
APR										
20...	--	--	--	--	--	--	--	--	--	--
MAY										
17...	--	--	--	--	--	--	--	--	--	--
JUN										
30...	--	--	--	--	--	--	--	--	--	--
JUL										
15...	<.0100	<.0130	<.0010	E.0015	E.0184	<.0010	<.0030	<.0030	<.0070	<.0020
SEP										
08...	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--



The USGS gage house on the Tar River at N.C. 97 near Rocky Mount, N.C., September 1999.

0209173192 DRAINAGE DITCH TO TRIBUTARY TO SANDY RUN NEAR LIZZIE, NC

LOCATION.--Lat 35°31'37", long 77°33'46", Greene County, Hydrologic Unit 03020203, Everet Murphy's farm, approximately 6.0 mi south of Farmville.

DRAINAGE AREA.-- Approximately 0.02 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April to September 1999.

GAGE.--Water-stage recorder. Datum of gage is 45 ft above sea level, from topographic map. Satellite telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Maximum instantaneous discharge not determined. Minimum instantaneous discharge occurred on many days during the year.

DISCHARGE, CUBIC FEET PER SECOND, PERIOD APRIL TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
2	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
3	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
4	---	---	---	---	---	---	.00	.00	.00	.00	.00	e.10
5	---	---	---	---	---	---	.00	.00	.00	.00	.00	e.40
6	---	---	---	---	---	---	.00	.00	.00	.00	.00	e.02
7	---	---	---	---	---	---	.00	.00	.00	.00	.00	e.04
8	---	---	---	---	---	---	.00	.00	.00	.00	.00	e.06
9	---	---	---	---	---	---	.00	.00	.00	.00	.00	.10
10	---	---	---	---	---	---	.00	.00	.00	.00	.00	.35
11	---	---	---	---	---	---	.09	.00	.00	.00	.00	.10
12	---	---	---	---	---	---	.02	.00	.00	.00	.00	.04
13	---	---	---	---	---	---	.01	.00	.00	.00	.00	.03
14	---	---	---	---	---	---	.00	.01	.00	.00	.00	.20
15	---	---	---	---	---	---	.00	.08	.00	.00	.00	e1.5
16	---	---	---	---	---	---	.00	.03	.00	.00	.00	e10
17	---	---	---	---	---	---	.00	.01	.00	.00	.00	e.70
18	---	---	---	---	---	---	.00	.01	.00	.00	.00	e.20
19	---	---	---	---	---	---	.00	.01	.00	.00	.00	e.10
20	---	---	---	---	---	---	.00	.00	.01	.00	.00	e.10
21	---	---	---	---	---	---	.00	.00	.02	.00	.00	e.20
22	---	---	---	---	---	---	.00	.00	.01	.00	.00	e.10
23	---	---	---	---	---	---	.00	.00	.00	.00	.00	e.06
24	---	---	---	---	---	---	.00	.00	.00	.00	.00	e.15
25	---	---	---	---	---	---	.00	.00	.00	.00	.00	e.10
26	---	---	---	---	---	---	.00	.00	.00	.00	.00	e.10
27	---	---	---	---	---	---	.00	.00	.00	.00	.00	e.70
28	---	---	---	---	---	---	.00	.00	.00	.00	.00	e5.0
29	---	---	---	---	---	---	.00	.00	.00	.00	.00	2.8
30	---	---	---	---	---	---	.00	.00	.00	.00	.00	1.1
31	---	---	---	---	---	---	---	.00	---	.00	.00	---
TOTAL	---	---	---	---	---	---	0.12	0.15	0.04	0.00	0.00	24.35
MEAN	---	---	---	---	---	---	.004	.005	.001	.000	.000	.81
MAX	---	---	---	---	---	---	.09	.08	.02	.00	.00	10
MIN	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
CFSM	---	---	---	---	---	---	.20	.24	.07	.00	.00	40.6
IN.	---	---	---	---	---	---	.22	.28	.07	.00	.00	45.29

STATISTICS OF MONTHLY MEAN DATA FOR PERIOD APRIL TO SEPTEMBER 1999

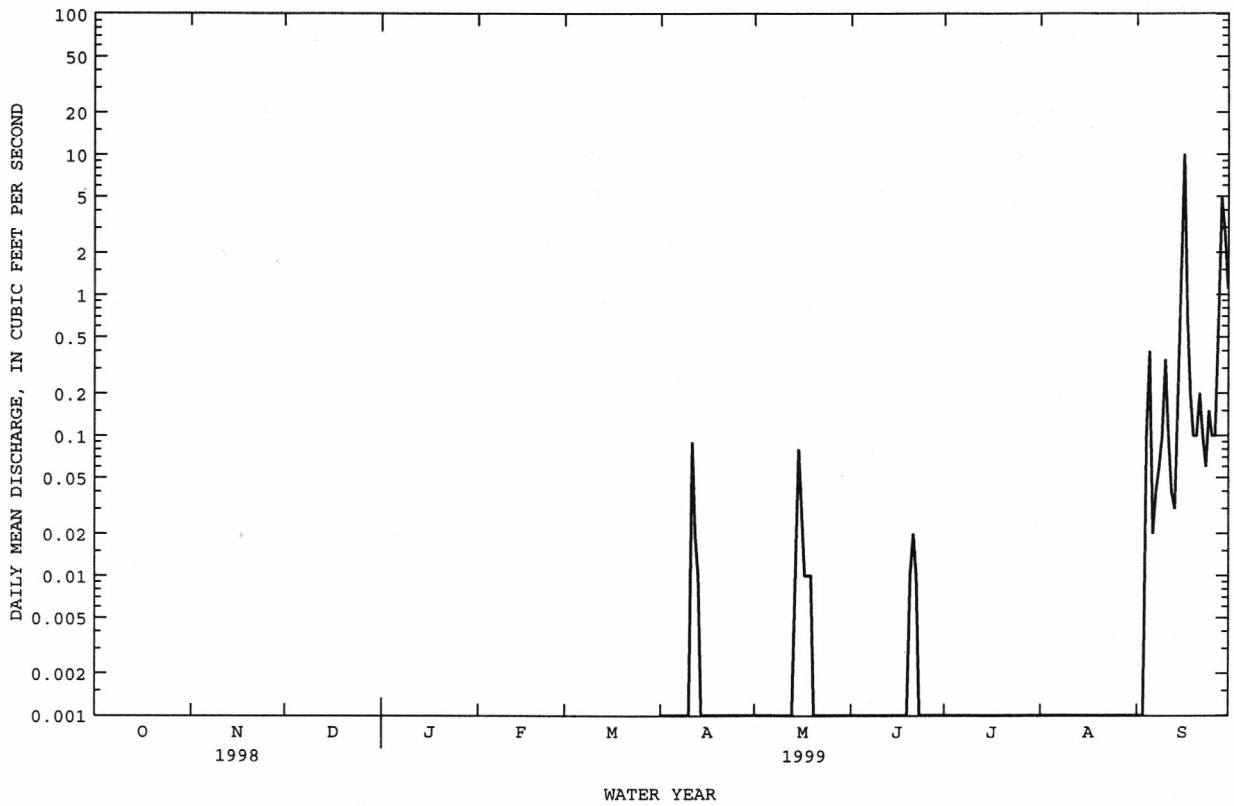
MEAN	---	---	---	---	---	---	.004	.005	.001	.000	.000	.81
MAX	---	---	---	---	---	---	.004	.005	.001	.000	.000	.81
(WY)	---	---	---	---	---	---	1999	1999	1999	1999	1999	1999
MIN	---	---	---	---	---	---	.004	.005	.001	.000	.000	.81
(WY)	---	---	---	---	---	---	1999	1999	1999	1999	1999	1999

SUMMARY STATISTICS FOR PERIOD APRIL TO SEPTEMBER 1999

HIGHEST DAILY MEAN	10	Sep 16
LOWEST DAILY MEAN	.00	Apr 1
INSTANTANEOUS PEAK FLOW	NOT DETERMINED*	
INSTANTANEOUS PEAK STAGE	4.43	Sep 16
INSTANTANEOUS LOW FLOW	.00*	Apr 1

e Estimated.
* See REMARKS.

0209173192 DRAINAGE DITCH TO TRIBUTARY TO SANDY RUN NEAR LIZZIE, NC--Continued



0209173192 DRAINAGE DITCH TO TRIBUTARY TO SANDY RUN NEAR LIZZIE, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April to September 1999.

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, APRIL TO SEPTEMBER 1999

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
APR										
20...	1330	.002	124	5.7	19.8	763	4.9	53	34	8.5
MAY										
17...	1245	.02	122	5.9	17.6	770	6.5	68	30	7.1
JUL										
15...	1330	.001	120	5.9	22.1	--	1.1	--	38	9.7
SEP										
08...	1523	.14	142	5.6	23.2	763	5.5	64	34	8.0
19...	1600	.11	132	5.9	20.1	768	7.4	81	30	8.6

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)
APR										
20...	3.1	3.8	17	.3	5.1	5.8	16	.12	8.9	100
MAY										
17...	3.0	3.7	18	.3	5.0	7.0	18	.12	6.9	92
JUL										
15...	3.3	3.4	14	.2	7.1	4.1	12	.12	10	112
SEP										
08...	3.3	4.8	19	.4	9.4	12	22	.14	7.7	90
19...	2.0	4.8	24	.4	3.2	8.1	14	.11	6.1	103

DATE	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN DIS-SOLVED (MG/L AS N) (00602)
APR										
20...	3.68	.020	3.70	.070	.39	--	.46	E.28	4.2	--
MAY										
17...	--	<.010	1.20	.050	.25	--	.30	E.26	1.5	--
JUL										
15...	.740	.050	.790	.200	1.0	.44	1.2	.64	2.0	1.4
SEP										
08...	--	<.010	1.20	.060	.57	.41	.63	.47	1.8	1.7
19...	--	<.010	2.90	.400	.60	.70	1.0	1.1	3.9	4.0

DATE	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	TRITIUM TOTAL (PCI/L) (07000)	TRITIUM 2 SIGMA WATER, WHOLE, TOTAL (PCI/L) (75985)	H-2 / H-1 STABLE ISOTOPE RATIO PER MIL (82082)	O-18 / O-16 STABLE ISOTOPE RATIO PER MIL (82085)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)
APR										
20...	.040	E.030	.020	81	73	23	1.6	--	--	2.0
MAY										
17...	<.020	<.020	<.010	100	47	26	1.9	-29.5	-5.24	3.2
JUL										
15...	.090	<.020	.020	950	170	--	--	-25.0	-5.16	13
SEP										
08...	.050	.040	.030	130	44	17	1.6	-33.4	-5.66	7.8
19...	.050	.030	.040	670	38	15	1.3	-30.0	-5.33	21

0209173196 WEATHER STATION NEAR LIZZIE, NC

LOCATION.--Lat 35°31'30", long 77°33'42", Greene County, Hydrologic Unit 03020203, Everet Murphy's farm, approximately 6.0 mi south of Farmville.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April to September 1999.

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, APRIL TO SEPTEMBER 1999

DATE	TIME	ENDING TIME	PRECIP-ITATION TOTAL INCHES (00045)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)
APR 19-MAY 04	1310	1200	1.49	21	4.3	0	.083	.057	.30
MAY 04-17	1205	1230	3.19	8	4.7	0	.067	.026	.16
JUL 08-15	1200	1100	1.91	20	4.4	0	.029	.023	.20

DATE	SODIUM PERCENT (00932)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	BROMIDE DIS-SOLVED (MG/L AS BR) (71870)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)
APR 19-MAY 04	54	.2	.08	1.7	.83	<.01	<.010	.301
MAY 04-17	51	.1	.05	1.1	.28	.01	<.010	.191
JUL 08-15	60	.2	.10	1.5	.38	.01	<.010	.269

DATE	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	TRITIUM TOTAL (PCI/L) (07000)	TRITIUM 2 SIGMA WATER, WHOLE, TOTAL (PCI/L) (75985)	H-2 / H-1 STABLE ISOTOPE RATIO PER MIL (82082)	O-18 / O-16 STABLE ISOTOPE RATIO PER MIL (82085)
APR 19-MAY 04	.002	.245	.248	.002	43	2.6	-25.1	-4.53
MAY 04-17	.003	.157	.403	.001	21	1.6	-40.3	-6.87
JUL 08-15	.002	.252	.237	.001	--	--	-21.6	-4.95

0209173196 WEATHER STATION NEAR LIZZIE, NC--Continued

PRECIPITATION RECORDS

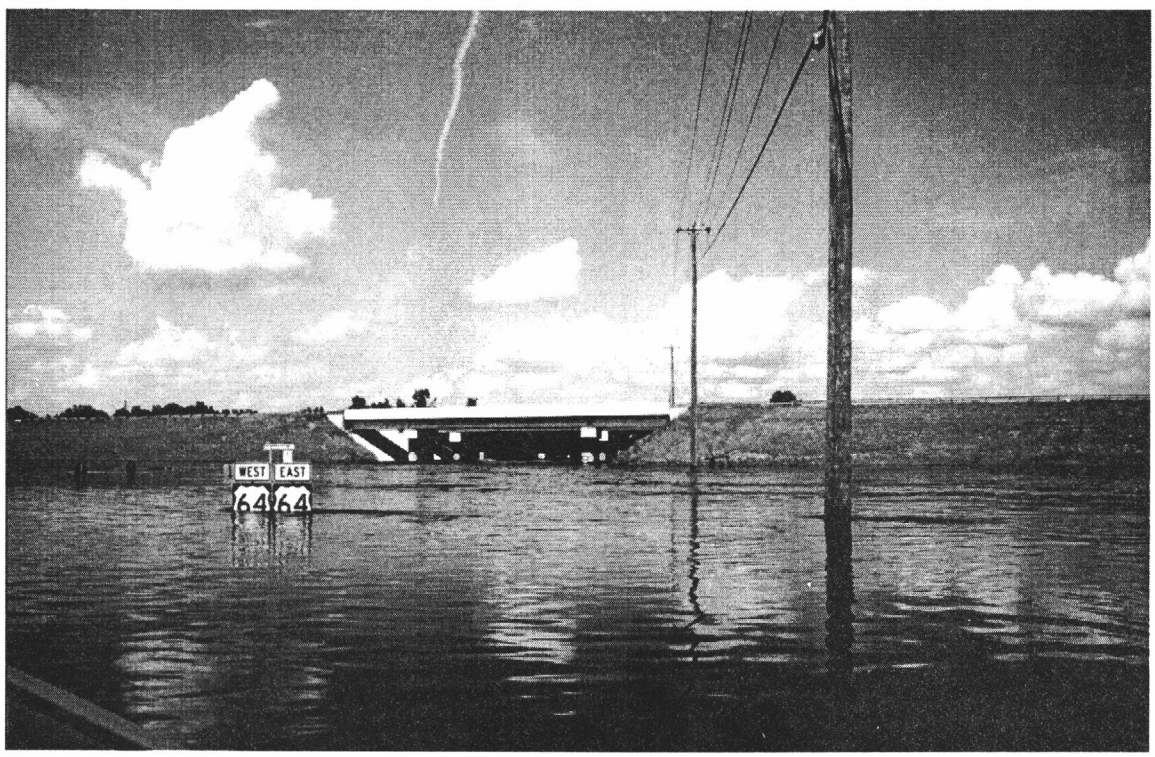
PERIOD OF RECORD.--March to September 1999.

INSTRUMENTATION.--Tipping bucket raingage and data collection platform records rainfall at fifteen-minute intervals.

REMARKS.--Precipition gage is operated in cooperation with the U.S.Environmental Protection Agency and the North Carolina Department of Environment, Health, and Natural Resources as part of a long-term project to develop a multimedia integrated modeling system (MIMS).

PRECIPITATION, TOTAL, INCHES, MARCH TO SEPTEMBER 1999
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	.17	.01	.00	.00	.02	.02
2	---	---	---	---	---	---	.00	.04	.00	.00	.00	.00
3	---	---	---	---	---	---	.00	.00	.00	.00	.00	.03
4	---	---	---	---	---	---	.02	.00	.01	.00	.00	4.48
5	---	---	---	---	---	---	.01	.00	.00	.00	.00	1.69
6	---	---	---	---	---	---	.00	.04	.00	.00	.00	.47
7	---	---	---	---	---	---	.00	.13	.00	.00	.19	.00
8	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
9	---	---	---	---	---	---	.00	.00	.00	.00	.45	.22
10	---	---	---	---	---	---	.00	.00	.00	.00	.00	.27
11	---	---	---	---	---	---	1.49	.00	.00	.17	.00	.00
12	---	---	---	---	---	---	.00	.13	.00	.75	.00	.00
13	---	---	---	---	---	---	.00	1.45	.00	.71	.00	.00
14	---	---	---	---	---	---	.00	.59	.00	.25	1.31	---
15	---	---	---	---	---	---	.01	.84	1.87	.03	.00	---
16	---	---	---	---	---	---	.00	.01	.44	.00	.00	---
17	---	---	---	---	---	---	.00	.00	.34	.00	.00	---
18	---	---	---	---	---	---	.00	.00	.01	.00	.00	---
19	---	---	---	---	---	---	.00	.00	.04	.00	.00	---
20	---	---	---	---	---	---	.00	.00	.91	.00	.54	.00
21	---	---	---	---	---	---	.00	.00	.01	.01	.16	.00
22	---	---	---	---	---	---	.00	.09	.00	.00	.00	.01
23	---	---	---	---	---	---	.00	.20	.00	.00	.00	.00
24	---	---	---	---	---	.00	.00	.02	.00	.49	.00	.00
25	---	---	---	---	---	.18	.00	.00	.00	.04	.00	.00
26	---	---	---	---	---	.45	.00	.02	.00	.00	.05	.00
27	---	---	---	---	---	.12	.02	.02	.00	.00	.00	4.11
28	---	---	---	---	---	.00	.75	.00	.00	.08	.00	1.07
29	---	---	---	---	---	.00	.52	.00	.00	.01	.00	.09
30	---	---	---	---	---	.00	.15	.00	.00	.00	.95	.13
31	---	---	---	---	---	.00	---	.00	---	.00	.00	---
TOTAL	---	---	---	---	---	---	3.14	3.59	3.63	2.54	3.67	---



Highway 33 completely covered by the Tar River at the U.S. highway 64 interchange near Tarboro, N.C., September 1999.

02091736 MIDDLE SWAMP NEAR FARMVILLE, NC

LOCATION.--Lat 35°32'00", long 77°32'40", 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 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April to September 1999.

GAGE.--Water-stage recorder. Datum of gage is 45 ft above sea level, from topographic map. Satellite telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Maximum gage height for period probably occurred on Sept. 17, 1999, discharge not determined. Maximum gage height from floodmarks. Minimum instantaneous discharge also occurred on June 10.

DISCHARGE, CUBIC FEET PER SECOND, PERIOD APRIL TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	22	18	2.1	3.6	.54	.20
2	---	---	---	---	---	---	24	16	1.7	3.1	.43	.17
3	---	---	---	---	---	---	23	14	1.4	2.2	.34	.15
4	---	---	---	---	---	---	22	12	1.3	1.5	.24	7.3
5	---	---	---	---	---	---	20	9.4	1.0	1.0	.18	467
6	---	---	---	---	---	---	18	7.7	.86	.63	.13	660
7	---	---	---	---	---	---	16	6.5	.68	.37	.11	306
8	---	---	---	---	---	---	14	5.9	.52	.27	.11	213
9	---	---	---	---	---	---	13	5.3	.36	.22	.13	170
10	---	---	---	---	---	---	11	4.5	.37	.19	.13	115
11	---	---	---	---	---	---	20	3.6	.36	.17	.10	98
12	---	---	---	---	---	---	70	3.1	.29	.24	.11	105
13	---	---	---	---	---	---	65	3.1	.23	.83	.10	84
14	---	---	---	---	---	---	46	40	.20	6.4	.14	65
15	---	---	---	---	---	---	34	161	1.8	14	.15	e200
16	---	---	---	---	---	---	28	148	58	14	.13	e2200
17	---	---	---	---	---	---	24	110	71	13	.12	e3000
18	---	---	---	---	---	---	20	74	57	8.7	.12	e1100
19	---	---	---	---	---	---	17	48	37	5.6	.11	e450
20	---	---	---	---	---	---	15	32	28	3.3	.12	e180
21	---	---	---	---	---	---	12	22	34	2.1	.14	e300
22	---	---	---	---	---	---	9.5	20	32	1.5	.13	e200
23	---	---	---	---	---	---	7.9	15	24	1.6	.13	164
24	---	---	---	---	---	---	6.6	12	19	1.7	.10	120
25	---	---	---	---	---	---	5.5	9.4	15	2.4	.08	88
26	---	---	---	---	---	---	4.6	7.7	11	2.8	.08	69
27	---	---	---	---	---	---	4.5	7.2	8.1	2.4	.08	76
28	---	---	---	---	---	---	5.1	5.7	6.5	1.7	.08	e1470
29	---	---	---	---	---	---	11	4.6	5.3	1.2	.08	1250
30	---	---	---	---	---	---	14	3.2	4.4	.76	.15	702
31	---	---	---	---	---	---	---	2.5	---	.61	.22	---
TOTAL	---	---	---	---	---	---	602.7	831.4	423.47	98.09	4.81	13859.82
MEAN	---	---	---	---	---	---	20.1	26.8	14.1	3.16	.16	462
MAX	---	---	---	---	---	---	70	161	71	14	.54	3000
MIN	---	---	---	---	---	---	4.5	2.5	.20	.17	.08	.15
CFSM	---	---	---	---	---	---	.39	.53	.28	.06	.00	9.06
IN.	---	---	---	---	---	---	.44	.61	.31	.07	.00	10.11

STATISTICS OF MONTHLY MEAN DATA FOR PERIOD APRIL TO SEPTEMBER 1999

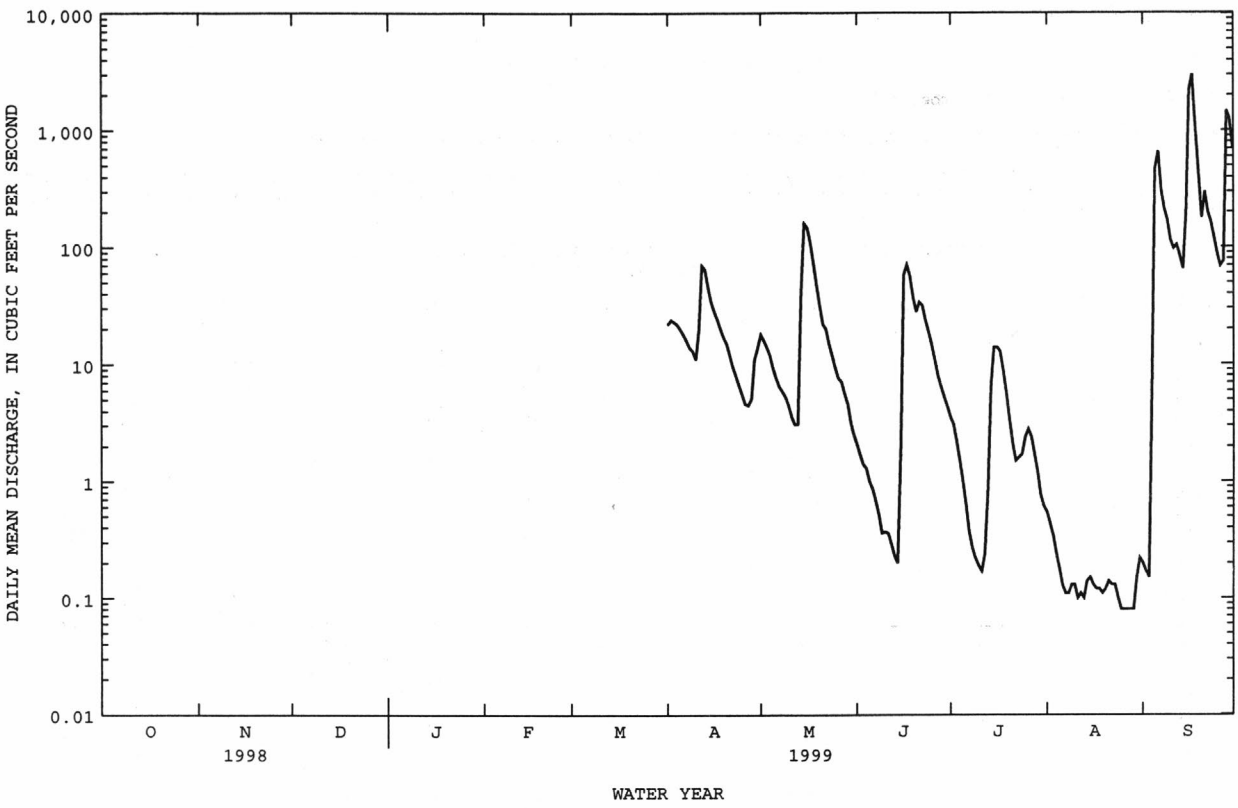
MEAN	---	---	---	---	---	---	20.1	26.8	14.1	3.16	.16	462
MAX	---	---	---	---	---	---	20.1	26.8	14.1	3.16	.16	462
(WY)	---	---	---	---	---	---	1999	1999	1999	1999	1999	1999
MIN	---	---	---	---	---	---	20.1	26.8	14.1	3.16	.16	462
(WY)	---	---	---	---	---	---	1999	1999	1999	1999	1999	1999

SUMMARY STATISTICS FOR PERIOD APRIL TO SEPTEMBER

HIGHEST DAILY MEAN	3000	Sep 17
LOWEST DAILY MEAN	.08	Aug 25
INSTANTANEOUS PEAK FLOW	NOT DETERMINED*	
INSTANTANEOUS PEAK STAGE	19.03	Sep 17
INSTANTANEOUS LOW FLOW	.00*	Jun 9

e Estimated.
* See REMARKS.

02091736 MIDDLE SWAMP NEAR FARMVILLE, NC--Continued



02091736 MIDDLE SWAMP NEAR FARMVILLE, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April to September 1999.

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, APRIL TO SEPTEMBER 1999

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
APR										
20...	1500	15	110	6.7	18.4	763	9.1	97	29	8.0
MAY										
18...	1325	71	96	5.6	20.0	767	8.1	88	25	6.7
JUL										
01...	1140	3.4	124	6.6	25.7	769	2.9	35	36	10
AUG										
11...	1120	.09	128	6.3	24.5	761	.4	5	44	13
SEP										
07...	1230	291	76	5.8	23.5	763	3.0	35	21	5.9
20...	1430	171	68	5.6	20.6	767	--	--	19	5.1

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)
APR										
20...	2.3	5.4	25	.4	4.5	3.5	13	.16	2.2	92
MAY										
18...	1.9	3.9	23	.3	3.5	6.4	10	.13	4.0	87
JUL										
01...	2.6	5.9	24	.4	3.4	3.9	14	.18	1.9	100
AUG										
11...	2.8	6.8	24	.4	2.6	1.4	9.2	.22	3.5	104
SEP										
07...	1.5	3.4	21	.3	5.8	8.9	7.3	.11	4.2	63
20...	1.4	2.6	19	.3	4.2	3.5	6.4	<.10	4.5	83

DATE	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN DIS-SOLVED (MG/L AS N) (00602)
APR										
20...	.280	.010	.290	.060	.83	--	.89	E.84	1.2	--
MAY										
18...	.560	.010	.570	.060	.75	--	.81	E.75	1.4	--
JUL										
01...	--	<.010	.070	.070	.69	.65	.76	.72	.83	.79
AUG										
11...	--	<.010	<.020	.400	.90	.80	1.3	1.2	--	--
SEP										
07...	--	<.010	.260	.040	.82	.71	.86	.75	1.1	1.0
20...	--	<.010	.100	.200	1.1	.80	1.3	1.0	1.4	1.1

02091736 MIDDLE SWAMP NEAR FARMVILLE, NC--Continued

WATER-QUALITY DATA, APRIL TO SEPTEMBER 1999

DATE	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	TRITIUM TOTAL (PCI/L) (07000)	TRITIUM 2 SIGMA WATER, WHOLE, TOTAL (PCI/L) (75985)	H-2 / H-1 STABLE ISOTOPE RATIO PER MIL (82082)	O-18 / O-16 STABLE ISOTOPE RATIO PER MIL (82085)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)
APR										
20...	.530	E.210	.230	1900	26	28	1.9	--	--	15
MAY										
18...	.200	E.150	.130	800	9.1	17	1.3	-29.6	-4.94	15
JUL										
01...	.300	E.190	.180	1100	50	26	1.6	-22.1	-3.82	14
AUG										
11...	.660	.330	.290	3000	500	21	1.6	-10.2	-1.92	17
SEP										
07...	.230	.210	.200	540	27	14	1.3	-44.4	-6.77	18
20...	.310	.240	.270	1300	48	11	1.0	-36.4	-5.90	24

02091737 LITTLE CONTENTNEA CREEK NEAR WILLOW GREEN, NC

LOCATION.--Lat 35°31'30", long 77°31'15", Greene County, Hydrologic Unit 03020203, at bridge on Secondary Road 1343, 0.3 mi downstream from Middle Swamp, and 0.7 mi northeast of Willow Green.

DRAINAGE AREA.--145 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April to September 1999.

GAGE.--Water-stage recorder. Datum of gage is 45 ft above sea level, from topographic map.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Maximum gage height for period probably occurred on Sept. 17, 1999. Maximum gage height from floodmarks. Minimum instantaneous discharge also occurred on July 12.

DISCHARGE, CUBIC FEET PER SECOND, PERIOD APRIL TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	100	42	26	22	9.7	51
2	---	---	---	---	---	---	94	45	24	21	13	49
3	---	---	---	---	---	---	90	43	22	20	15	49
4	---	---	---	---	---	---	84	40	21	17	14	64
5	---	---	---	---	---	---	81	37	20	15	13	711
6	---	---	---	---	---	---	78	35	17	14	13	1460
7	---	---	---	---	---	---	75	34	16	13	14	1100
8	---	---	---	---	---	---	71	33	15	12	15	729
9	---	---	---	---	---	---	62	31	14	11	16	623
10	---	---	---	---	---	---	55	31	13	10	18	486
11	---	---	---	---	---	---	62	29	13	9.2	20	348
12	---	---	---	---	---	---	226	29	13	11	21	304
13	---	---	---	---	---	---	374	32	14	17	22	306
14	---	---	---	---	---	---	300	56	14	33	23	245
15	---	---	---	---	---	---	203	241	28	45	30	472
16	---	---	---	---	---	---	133	304	275	49	33	e5500
17	---	---	---	---	---	---	93	247	257	43	33	e6300
18	---	---	---	---	---	---	69	177	159	36	34	e4800
19	---	---	---	---	---	---	54	115	101	32	34	e3300
20	---	---	---	---	---	---	44	77	74	26	36	e2100
21	---	---	---	---	---	---	37	55	92	21	39	1480
22	---	---	---	---	---	---	34	47	101	17	40	1300
23	---	---	---	---	---	---	30	40	71	15	43	1270
24	---	---	---	---	---	---	27	36	53	15	46	1080
25	---	---	---	---	---	---	26	32	41	18	47	885
26	---	---	---	---	---	---	26	33	35	19	47	691
27	---	---	---	---	---	---	26	37	30	17	49	515
28	---	---	---	---	---	---	28	34	27	15	48	2330
29	---	---	---	---	---	---	32	30	25	13	48	3320
30	---	---	---	---	---	---	37	28	23	12	52	2930
31	---	---	---	---	---	---	---	26	---	11	54	---
TOTAL	---	---	---	---	---	---	2651	2076	1634	629.2	939.7	44798
MEAN	---	---	---	---	---	---	88.4	67.0	54.5	20.3	30.3	1493
MAX	---	---	---	---	---	---	374	304	275	49	54	6300
MIN	---	---	---	---	---	---	26	26	13	9.2	9.7	49
CFSM	---	---	---	---	---	---	.61	.46	.38	.14	.21	10.3
IN.	---	---	---	---	---	---	.68	.53	.42	.16	.24	11.49

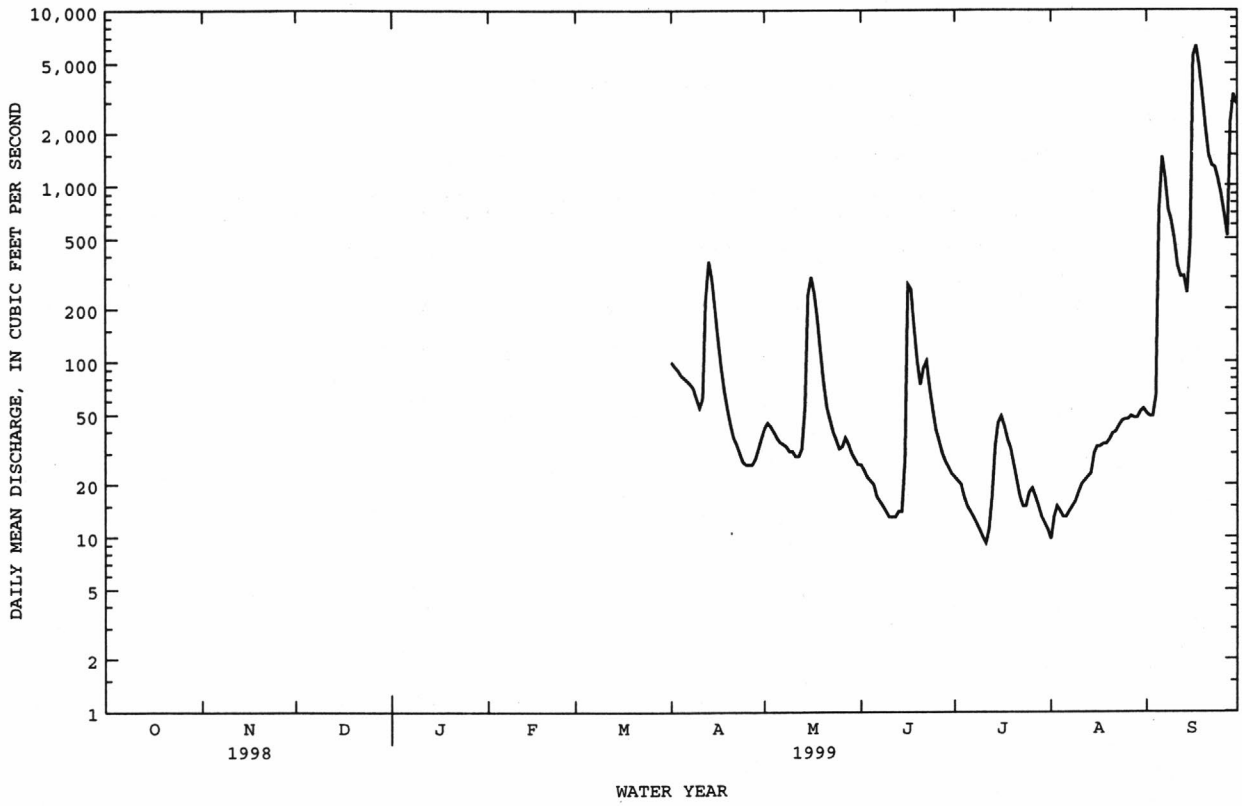
STATISTICS OF MONTHLY MEAN DATA FOR PERIOD APRIL TO SEPTEMBER 1999

MEAN	---	---	---	---	---	---	88.4	67.0	54.5	20.3	30.3	1493
MAX	---	---	---	---	---	---	88.4	67.0	54.5	20.3	30.3	1493
(WY)	---	---	---	---	---	---	1999	1999	1999	1999	1999	1999
MIN	---	---	---	---	---	---	88.4	67.0	54.5	20.3	30.3	1493
(WY)	---	---	---	---	---	---	1999	1999	1999	1999	1999	1999

SUMMARY STATISTICS	FOR PERIOD APRIL TO SEPTEMBER	
HIGHEST DAILY MEAN	6300	Sep 17
LOWEST DAILY MEAN	9.2	Jul 11
INSTANTANEOUS PEAK FLOW	6650*	Sep 17
INSTANTANEOUS PEAK STAGE	22.78*	Sep 17
INSTANTANEOUS LOW FLOW	9.0*	Jul 11

e Estimated.
* See REMARKS.

02091737 LITTLE CONTENTNEA CREEK NEAR WILLOW GREEN, NC--Continued



02091737 LITTLE CONTENTNEA CREEK NEAR WILLOW GREEN, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April to September 1999.

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, APRIL TO SEPTEMBER 1999

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
APR										
21...	1245	37	107	6.2	16.3	767	6.5	66	27	7.6
MAY										
18...	1535	168	105	5.9	18.9	767	7.3	78	24	6.7
JUL										
01...	0830	22	132	6.4	25.2	769	4.0	48	35	10
15...	1730	47	151	6.9	21.8	--	5.2	--	33	9.4
AUG										
11...	1000	20	168	6.3	25.3	761	2.8	35	40	12
SEP										
07...	1500	1030	76	5.9	23.8	763	3.4	40	21	5.9
19...	1300	2860	43	5.4	20.7	768	3.2	36	10	2.8

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)
APR										
21...	2.0	7.3	34	.6	3.2	4.7	12	.14	3.8	82
MAY										
18...	1.8	6.2	32	.5	3.3	7.5	11	.13	4.1	90
JUL										
01...	2.5	9.2	34	.7	3.2	5.3	14	.18	3.4	104
15...	2.3	16	48	1	4.2	9.6	13	.16	5.1	118
AUG										
11...	2.5	19	48	1	4.1	5.0	13	.23	4.1	121
SEP										
07...	1.5	4.0	24	.4	5.0	9.6	6.9	.11	4.1	61
19...	.80	1.2	16	.2	2.4	2.5	2.2	<.10	2.1	47

DATE	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)
APR										
21...	<.010	.170	.060	.68	--	.74	E.60	.91	--	.270
MAY										
18...	<.010	.430	.050	.87	--	.92	E.73	1.4	--	.210
JUL										
01...	<.010	.210	.080	.56	.54	.64	.62	.85	.83	.250
15...	<.010	.240	.070	.65	.62	.72	.69	.96	.93	.320
AUG										
11...	<.010	<.020	.060	.54	.52	.60	.58	--	--	.290
SEP										
07...	<.010	.240	.040	.83	.66	.87	.70	1.1	.94	.200
19...	<.010	.070	.030	.60	.47	.63	.50	.70	.57	.210

02091737 LITTLE CONTENTNEA CREEK NEAR WILLOW GREEN, NC--Continued

WATER-QUALITY DATA, APRIL TO SEPTEMBER 1999

DATE	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	TRITIUM TOTAL (PCI/L) (07000)	TRITIUM 2 SIGMA WATER, WHOLE, TOTAL (PCI/L) (75985)	H-2 / H-1 STABLE ISOTOPE RATIO PER MIL (82082)	O-18 / O-16 STABLE ISOTOPE RATIO PER MIL (82085)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)
APR									
21...	.200	.190	1800	40	25	1.9	--	--	14
MAY									
18...	E.160	.130	930	17	26	1.9	-25.9	-4.57	15
JUL									
01...	E.180	.190	910	71	23	1.6	-23.6	-3.99	12
15...	.200	.190	1300	26	27	1.9	-18.6	-3.54	12
AUG									
11...	.140	.130	500	100	28	1.9	-12.3	-2.65	13
SEP									
07...	.170	.160	510	26	14	1.3	-42.6	-6.46	15
19...	.190	.200	570	40	7.4	1.0	-42.7	-6.62	18

02091814 NEUSE RIVER NEAR FORT BARNWELL, NC

LOCATION.--Lat 35°18'40", long 77°18'20", 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 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1996 to current year. Occasional measurements water years 1955-1995.

GAGE.--Water-stage recorder and acoustic velocity meter. Datum of gage is at sea level. Satellite telemetry at station.

REMARKS.--Records good, except those for estimated daily discharges, which are fair. Maximum gage height for current water year and period of record, from floodmarks.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	876	681	1100	e4200	13700	3310	4400	1790	937	932	882	1160
2	714	638	1050	e4050	14100	3090	4340	2050	890	904	756	915
3	826	627	1030	e3900	13100	2950	4200	2370	861	978	616	709
4	926	595	1000	e3800	12600	2950	3740	2580	692	978	574	664
5	1000	539	976	3990	12000	3030	3510	2560	615	901	677	2600
6	1160	665	976	4410	10900	2960	3310	2430	672	839	628	4030
7	1390	926	966	4670	10500	2950	3210	2380	660	812	566	4500
8	1370	1120	941	4940	9760	2940	3320	2550	625	769	625	5260
9	1380	1100	860	5090	9470	2890	3450	2720	606	702	614	6920
10	1450	1030	864	5880	8980	2640	3600	2610	437	712	595	7930
11	1500	970	836	6480	8340	2530	3630	2010	382	512	695	9280
12	1770	854	808	6350	6030	2410	3340	1580	502	534	616	10500
13	1940	876	900	5030	4390	2360	2900	1450	629	610	685	11000
14	1750	871	858	4430	3950	2370	2620	1600	575	1020	712	11700
15	1310	868	927	4090	3600	2480	2560	1840	607	1500	753	12500
16	1090	836	1180	4030	3330	2560	2800	1950	830	1970	798	26100
17	1020	860	1700	3540	3150	2730	2980	2050	1510	1880	1050	41600
18	974	811	2150	3970	3050	3060	2930	2110	1960	1870	1250	52200
19	949	926	2230	4690	3000	3380	2640	2070	1810	1730	1360	e55900
20	879	1220	2160	6970	2940	3600	2300	1910	1560	1490	1210	e57000
21	857	1390	2150	8390	3050	3610	2040	1710	1700	1240	1030	e56900
22	817	1400	1990	8990	3160	3560	1930	1560	1700	1130	904	e55300
23	795	1330	1770	9400	3320	3460	1800	1440	1490	1000	868	e54000
24	824	1240	1640	9450	3310	3260	1640	1400	1290	909	849	e52200
25	825	1170	1730	10700	3270	3480	1540	1550	1170	1100	1050	e48900
26	806	1130	2310	12600	3320	3730	1520	1730	1060	1370	1060	e46100
27	773	1090	3110	13800	3440	3860	1480	1480	988	1560	948	e43000
28	733	1100	3650	14300	3470	4050	1470	1310	979	1520	822	e40700
29	746	1080	4160	14500	---	4120	1490	1180	963	1340	766	38900
30	714	1090	4310	14700	---	4270	1470	1100	943	1130	792	39300
31	683	---	4360	14100	---	4340	---	1010	---	953	1300	---
TOTAL	32847	29033	54692	225440	183230	98930	82160	58080	29643	34895	26051	797768
MEAN	1060	968	1764	7272	6544	3191	2739	1874	988	1126	840	26590
MAX	1940	1400	4360	14700	14100	4340	4400	2720	1960	1970	1360	57000
MIN	683	539	808	3540	2940	2360	1470	1010	382	512	566	664
CFSM	.27	.25	.45	1.86	1.68	.82	.70	.48	.25	.29	.22	6.82
IN.	.31	.28	.52	2.15	1.75	.94	.78	.55	.28	.33	.25	7.61

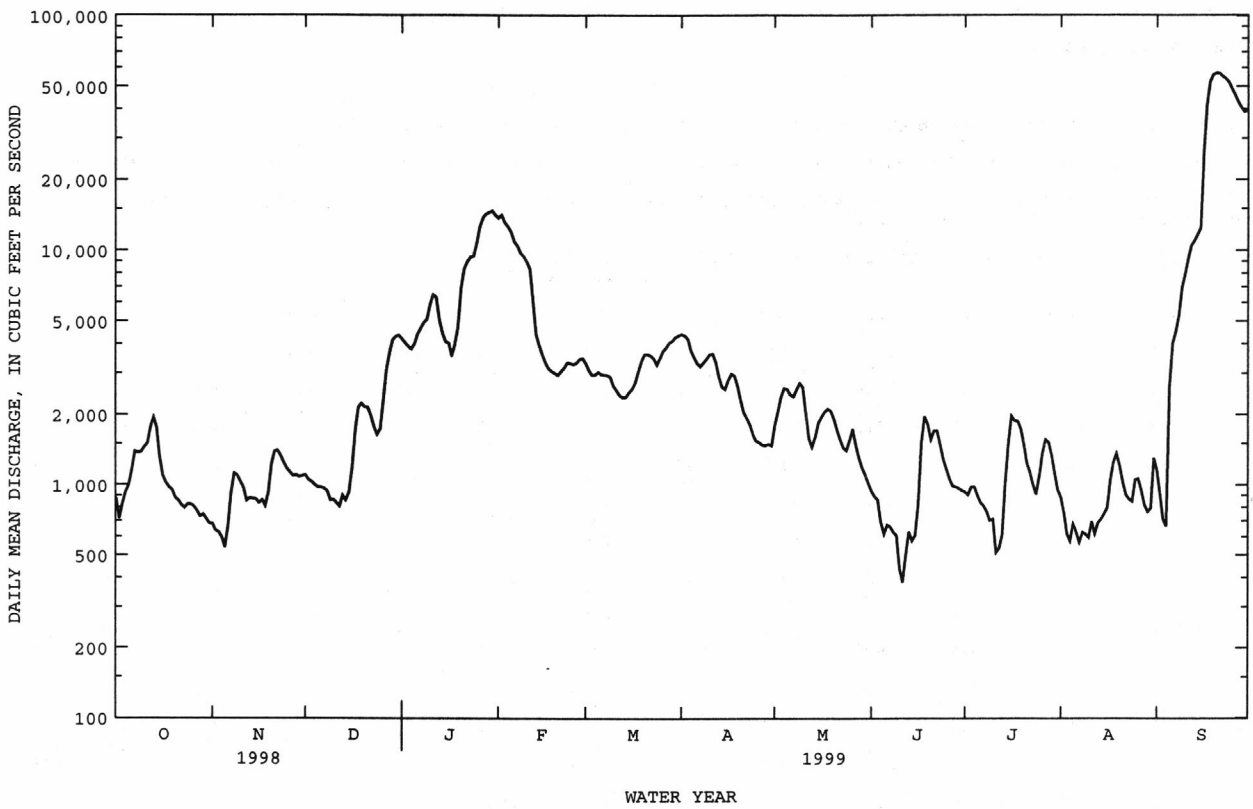
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 1999, BY WATER YEAR (WY)

MEAN	3969	2285	3854	7548	10670	8091	5807	3635	1606	1210	1257	10110
MAX	9745	4210	6969	8707	19110	15340	11760	5023	1937	1338	1596	26590
(WY)	1997	1997	1997	1998	1998	1998	1998	1997	1998	1997	1998	1999
MIN	1060	968	1764	6666	6366	3191	2739	1874	988	1126	840	1041
(WY)	1999	1999	1999	1997	1997	1999	1999	1999	1999	1999	1999	1997

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1997 - 1999	
ANNUAL TOTAL	2098612		1652769			
ANNUAL MEAN	5750		4528		4958	
HIGHEST ANNUAL MEAN					5902	1998
LOWEST ANNUAL MEAN					4442	1997
HIGHEST DAILY MEAN	24100	Feb 7	e57000	Sep 20	e57000	Sep 20 1999
LOWEST DAILY MEAN	539	Nov 5	382	Jun 11	382	Jun 11 1999
ANNUAL SEVEN-DAY MINIMUM	633	Oct 31	534	Jun 9	534	Jun 9 1999
INSTANTANEOUS PEAK FLOW			e57200	Sep 20	e57200	Sep 20 1999
INSTANTANEOUS PEAK STAGE			22.75*	Sep 20	22.75*	Sep 20 1999
INSTANTANEOUS LOW FLOW			41	Jul 11	41	Jul 11 1999
ANNUAL RUNOFF (CFSM)	1.47		1.16		1.27	
ANNUAL RUNOFF (INCHES)	20.02		15.76		17.27	
10 PERCENT EXCEEDS	16500		9420		12200	
50 PERCENT EXCEEDS	2500		1700		2600	
90 PERCENT EXCEEDS	872		711		880	

e Estimated.
* See REMARKS.

02091814 NEUSE RIVER NEAR FORT BARNWELL, NC--Continued



02091814 NEUSE RIVER NEAR FORT BARNWELL, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1954 - 60, April to September 1999.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: September 1954 to September 1960.

WATER TEMPERATURE: September 1954 to September 1960.

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). Daily records of specific conductance for September 1954 to September 1960 are available in the files of the District Office in Raleigh, NC. Sample in September 1999 collected during flooding from Hurricane Floyd.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 673 microsiemens, Aug. 21, 1955; minimum daily, 39 microsiemens, Nov. 2, 1959.

WATER TEMPERATURE: Maximum daily, 35.0°C, June 28, 29, 1959; minimum daily, 0.0°C Jan. 13, 1955, Dec. 11, 1958.

WATER-QUALITY DATA, WATER YEAR APRIL 1999 TO SEPTEMBER 1999

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND (00061)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	BAROMETRIC PRESSURE (MM OF HG) (00025)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	HARDNESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)
APR											
21...	1515	2000	126	6.4	19.1	765	7.3	79	26	6.3	2.6
JUL											
01...	1345	931	168	6.9	27.6	769	7.4	93	34	8.8	2.9
SEP											
22...	1230	54600	47	6.1	21.0	--	--	--	--	--	--

DATE	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	NITROGEN, NITRATE DISSOLVED (MG/L AS N) (00618)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)
APR											
21...	10	41	.8	3.4	10	13	.12	6.4	83	--	<.010
JUL											
01...	15	45	1	4.2	15	17	.19	7.7	113	.850	.010
SEP											
22...	--	--	--	--	--	--	--	--	--	.065	.001

DATE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N) (00607)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITROGEN, TOTAL (MG/L AS N) (00600)	NITROGEN DISSOLVED (MG/L AS N) (00602)	PHOSPHORUS TOTAL (MG/L AS P) (00665)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)
APR											
21...	.660	.090	.36	--	.45	E.49	1.1	--	.090	E.060	E.040
JUL											
01...	.860	.050	.32	.18	.37	.23	1.2	1.1	.120	E.090	.090
SEP											
22...	.066	.073	1.6	--	1.7	--	1.7	--	.121	--	.088

DATE	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BERYLLIUM, DISSOLVED (UG/L AS BE) (01010)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, DISSOLVED (UG/L AS PB) (01049)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY DISSOLVED (UG/L AS HG) (71890)	NICKEL, DISSOLVED (UG/L AS NI) (01065)
APR											
21...	--	--	--	--	--	--	640	--	44	--	--
JUL											
01...	--	--	--	--	--	--	360	--	39	--	--
SEP											
22...	13000	1	<1.6	<8.0	<1.0	<10	370	<100	45	<.1	<40

02091814 NEUSE RIVER NEAR FORT BARNWELL, NC--Continued

WATER-QUALITY DATA, WATER YEAR APRIL 1999 TO SEPTEMBER 1999

DATE	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	TRITIUM TOTAL (PCI/L) (07000)	TRITIUM 2 SIGMA WATER, WHOLE, TOTAL (PCI/L) (75985)	H-2 / H-1 STABLE ISOTOPE RATIO PER MIL (82082)	O-18 / O-16 STABLE ISOTOPE RATIO PER MIL (82085)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)
APR											
21...	--	--	34	2.6	--	--	7.9	--	--	--	--
JUL											
01...	--	--	28	1.9	-23.8	-3.99	6.1	--	--	--	--
SEP											
22...	<1	22	--	--	--	--	13	.50	.012	.011	<.0020

DATE	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	P,P' DDE DISSOLV (UG/L) (34653)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)
APR											
21...	--	--	--	--	--	--	--	--	--	--	--
JUL											
01...	--	--	--	--	--	--	--	--	--	--	--
SEP											
22...	.0052	E.0018	.0081	<.0020	<.0060	.012	<.001	<.0030	<.0170	<.0020	<.0040

DATE	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FONOFOS WATER DISS REC (UG/L) (04095)	ALPHA BHC DIS-SOLVED (UG/L) (34253)	LINDANE DIS-SOLVED (UG/L) (39341)	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA-THION, DIS-SOLVED (UG/L) (39532)	METO-LACHLOR WATER DISSOLV (UG/L) (39415)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PARA-THION, DIS-SOLVED (UG/L) (39542)
APR											
21...	--	--	--	--	--	--	--	--	--	--	--
JUL											
01...	--	--	--	--	--	--	--	--	--	--	--
SEP											
22...	<.0030	<.0030	<.0020	<.004	<.0020	.013	.024	<.004	<.0040	<.0030	<.004

DATE	METHYL PARA-THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	PROP-CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)
APR											
21...	--	--	--	--	--	--	--	--	--	--	--
JUL											
01...	--	--	--	--	--	--	--	--	--	--	--
SEP											
22...	<.0060	<.0040	<.0040	<.0050	<.0020	<.0030	E.0125	<.0070	<.0040	<.0130	.0063

DATE	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)
APR											
21...	--	--	--	--	--	--	--	--	--	--	--
JUL											
01...	--	--	--	--	--	--	--	--	--	--	--
SEP											
22...	<.0020	<.0100	<.0130	<.0010	E.0004	<.0020	<.0010	E.0153	<.0030	<.0070	<.0020

0209205053 SWIFT CREEK AT NC HWY 43 NEAR STREETS FERRY, NC

LOCATION.--Lat 35°13'56", long 77°06'52", Craven County, Hydrologic Unit 03020202, at downstream side of bridge on Highway 43, 0.5 mi upstream from mouth, 2 mi upstrean from Little Fisher Creek, and 1.3 mi north-northeast of Streets Ferry.

DRAINAGE AREA.--269 mi^2.

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

GAGE.--Water-stage recorder and acoustic velocity meter. Datum of gage is 10 ft below sea level, from topographic map. Satellite telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Maximum gage height for current water year and period of record, from floodmark.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	-11	-57	-11	545	577	228	292	664	78	88	85	30
2	e-26	-38	63	-278	877	282	129	827	106	88	-202	-471
3	-10	-263	37	1090	451	343	322	857	20	26	-414	-154
4	-93	-129	-.14	617	727	171	322	304	-209	60	65	-771
5	-170	-340	18	610	378	192	-228	264	-96	5.6	304	2270
6	-382	325	19	606	781	270	484	158	-40	25	69	3130
7	101	77	30	363	523	106	190	92	46	108	-6.4	3730
8	-79	29	36	294	374	184	137	140	12	-94	129	3730
9	-126	-16	-75	362	504	128	227	55	-5.2	106	-125	3460
10	-12	-27	-19	217	240	196	-166	-249	-449	67	77	2720
11	-136	-5.8	37	379	481	142	470	283	-73	-203	72	1690
12	-106	-59	-39	373	388	135	351	119	89	-24	-32	1100
13	-91	71	112	313	290	102	635	51	5.9	-109	26	765
14	-52	23	-316	274	257	198	600	-156	15	-16	125	731
15	-84	36	-17	361	334	132	442	-475	-23	-38	-5.8	177
16	-216	-7.7	502	566	275	472	487	372	80	116	-134	4040
17	32	-2.6	163	832	222	307	557	306	269	406	138	e5600
18	36	-111	46	777	118	292	443	322	19	187	36	e7150
19	-38	120	182	729	-35	101	382	299	-490	118	35	e8700
20	-90	29	107	832	566	154	256	78	836	20	55	e10500
21	29	-3.6	93	689	225	322	197	169	94	150	6.5	e10600
22	-126	31	50	541	234	225	251	172	6.7	196	-185	9820
23	82	56	-4.7	464	218	419	150	158	100	20	51	8370
24	-8.9	-66	58	477	339	423	-91	82	277	272	8.6	7320
25	-29	54	249	791	318	200	169	31	132	98	78	6090
26	-42	83	613	1180	180	-20	151	43	111	130	48	e4950
27	-71	-13	738	1790	242	564	-185	18	83	85	-11	e4040
28	18	79	888	1670	182	501	-310	122	130	108	-8.3	e3280
29	-68	36	809	674	---	521	-1140	91	112	24	-189	2920
30	-65	-.13	937	872	---	341	-548	80	24	97	-1970	2760
31	-60	---	796	-26	---	403	---	79	---	14	1280	---
TOTAL	-1893.9	-89.83	6101.16	18984	10266	8034	4976	5356	1260.4	2130.6	-594.4	118277
MEAN	-61.1	-2.99	197	612	367	259	166	173	42.0	68.7	-19.2	3943
MAX	101	325	937	1790	877	564	635	857	836	406	1280	10600
MIN	-382	-340	-316	-278	-35	-20	-1140	-475	-490	-203	-1970	-771
MED	-60	-1.4	50	566	326	225	239	122	35	85	35	3370
AC-FT	-3760	-178	12100	37650	20360	15940	9870	10620	2500	4230	-1180	234600
CFSM	-.23	-.01	.73	2.28	1.36	.96	.62	.64	.16	.26	-.07	14.7
IN.	-.26	-.01	.84	2.63	1.42	1.11	.69	.74	.17	.29	-.08	16.36

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 1999, BY WATER YEAR (WY)

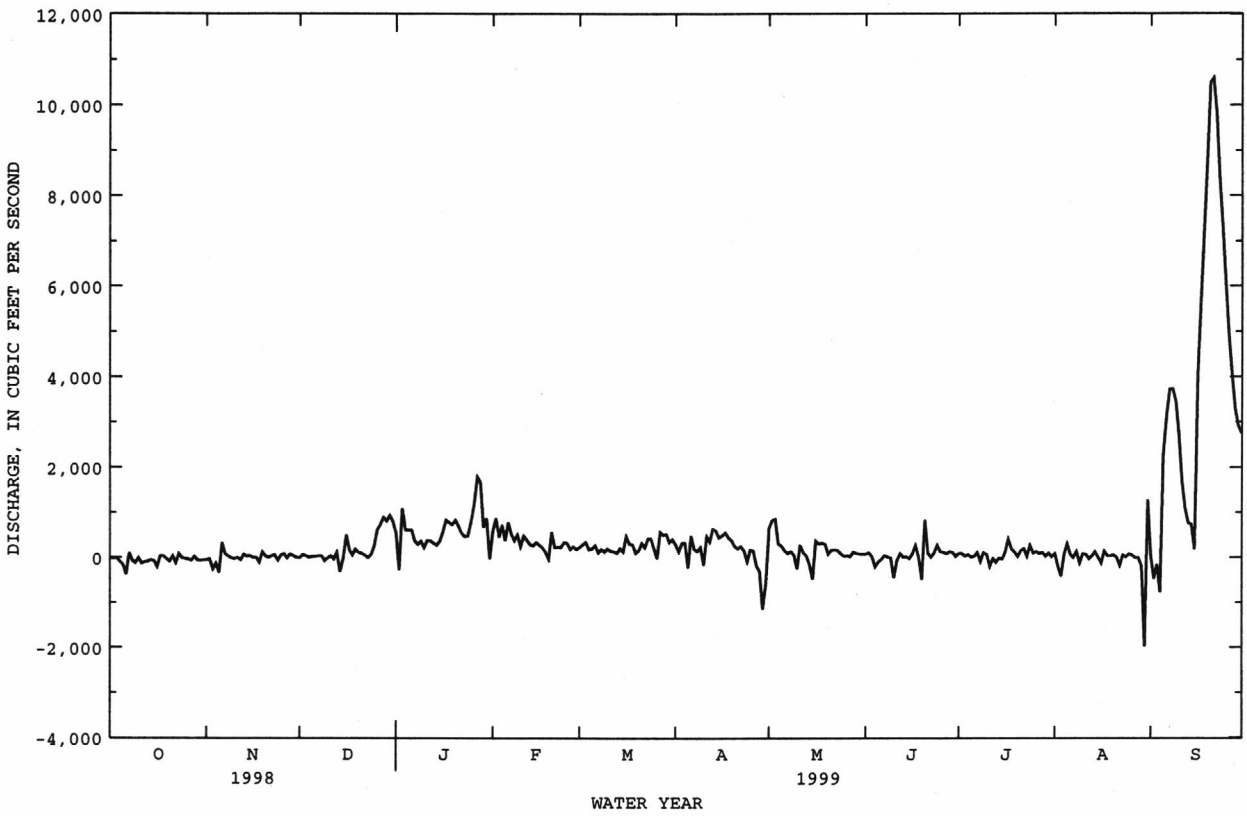
MEAN	232	81.0	246	573	784	370	217	242	112	217	141	1456
MAX	738	183	276	912	1715	558	394	450	265	594	303	3943
(WY)	1997	1997	1998	1998	1998	1998	1998	1998	1998	1996	1998	1999
MIN	-61.1	-2.99	197	194	271	259	90.8	104	30.1	62.9	-19.2	109
(WY)	1999	1999	1999	1997	1997	1999	1997	1997	1997	1997	1999	1997

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1996 - 1999	
ANNUAL TOTAL	155127.37		172807.03			
ANNUAL MEAN	425		473		373	
HIGHEST ANNUAL MEAN					473	1999
LOWEST ANNUAL MEAN					202	1997
HIGHEST DAILY MEAN	4060	Feb 8	e10600	Sep 21	e10600	Sep 21 1999
LOWEST DAILY MEAN	-1380	Aug 26	-1970	Aug 30	-1970	Aug 30 1999
ANNUAL SEVEN-DAY MINIMUM	-136	Oct 30	-321	Aug 29	-321	Aug 29 1999
INSTANTANEOUS PEAK FLOW			10900	Sep 21	10900	Sep 21 1999
INSTANTANEOUS PEAK STAGE			12.28*	Sep 21	12.28*	Sep 21 1999
INSTANTANEOUS LOW FLOW			-5140	Aug 30	-5140	Aug 30 1999
ANNUAL RUNOFF (AC-FT)	307700		342800		270400	
ANNUAL RUNOFF (CFSM)	1.58		1.76		1.39	
ANNUAL RUNOFF (INCHES)	21.45		23.90		18.85	
10 PERCENT EXCEEDS	1400		829		959	
50 PERCENT EXCEEDS	210		108		145	
90 PERCENT EXCEEDS	-72		-107		-35	

e Estimated.
* See REMARKS.

Note.--Negative values indicate reverse flow.

0209205053 SWIFT CREEK AT NC HWY 43 NEAR STREETS FERRY, NC--Continued



02092162 NEUSE RIVER AT NEW BERN, NC

LOCATION.--Lat 35°06'33", long 77°01'59"(revised), Craven County, Hydrologic Unit 03020204, at bridge on U.S. Highway 17 at New Bern, and 0.9 mi upstream from Trent River.

DRAINAGE AREA.--4,470 mi^2.

TIDAL-ELEVATION RECORDS

TIDAL-ELEVATION RECORDS

PERIOD OF RECORD.--March 1988 to August 1999 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 10 ft above sea level; gage readings have been adjusted to sea level.

REMARKS.--Records good.

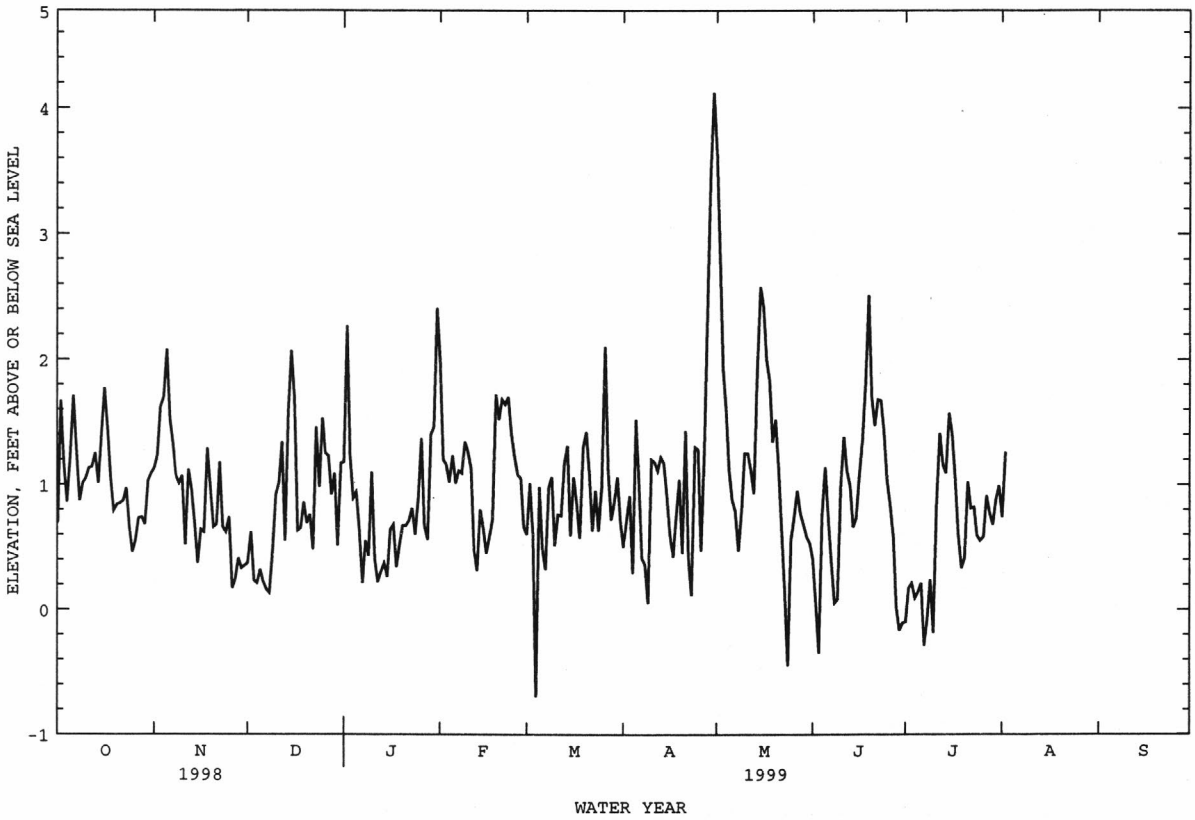
EXTREMES FOR PERIOD OF RECORD.--Maximum elevation recorded, 8.28 ft, Sept. 5, 1996; minimum elevation recorded, -3.96 ft, Mar. 14, 1993.

EXTREMES FOR CURRENT YEAR.--Maximum elevation recorded, 4.77 ft, Apr. 30; minimum elevation, -1.70 ft, Mar. 4.

ELEVATION, FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.69	1.13	.37	1.18	1.99	.60	.50	3.63	.40	-.10	.74	---
2	1.67	1.23	.62	2.27	1.20	1.01	.70	2.80	.04	.17	1.26	---
3	1.16	1.62	.23	1.23	1.16	.61	.91	1.93	-.35	.21	---	---
4	.86	1.70	.21	.89	1.02	-.70	.29	1.60	.76	.09	---	---
5	1.21	2.08	.32	.94	1.23	.98	1.52	1.12	1.14	.14	---	---
6	1.71	1.52	.22	.64	1.01	.49	1.03	.88	.72	.21	---	---
7	1.27	1.32	.16	.21	1.11	.32	.41	.79	.37	-.29	---	---
8	.87	1.07	.13	.55	1.09	.98	.36	.47	.05	-.09	---	---
9	1.01	1.01	.49	.43	1.34	1.06	.05	.79	.08	.24	---	---
10	1.05	1.07	.92	1.10	1.26	.51	1.20	1.25	.99	-.19	---	---
11	1.13	.52	1.01	.41	1.13	.76	1.18	1.25	1.38	.84	---	---
12	1.14	1.12	1.34	.22	.47	.75	1.11	1.12	1.11	1.41	---	---
13	1.25	.96	.55	.30	.31	1.17	1.22	.93	.99	1.16	---	---
14	1.01	.69	1.56	.37	.80	1.31	1.17	1.89	.66	1.09	---	---
15	1.40	.37	2.07	.26	.65	.59	.91	2.58	.73	1.57	---	---
16	1.77	.64	1.70	.64	.45	1.06	.61	2.42	1.07	1.40	---	---
17	1.45	.62	.63	.68	.58	.85	.42	1.99	1.35	1.04	---	---
18	1.05	1.29	.65	.34	.72	.57	.75	1.83	1.81	.60	---	---
19	.79	.97	.86	.52	1.72	1.30	1.04	1.34	2.51	.33	---	---
20	.84	.66	.69	.67	1.52	1.42	.45	1.52	1.69	.41	---	---
21	.85	.68	.76	.67	1.68	1.09	1.43	1.13	1.47	1.02	---	---
22	.87	1.18	.48	.71	1.64	.63	.42	.64	1.68	.81	---	---
23	.97	.66	1.46	.81	1.70	.95	.11	.13	1.67	.82	---	---
24	.66	.62	.98	.60	1.41	.63	1.30	-.45	1.41	.59	---	---
25	.46	.74	1.53	.89	1.23	.98	1.28	.56	1.03	.55	---	---
26	.55	.17	1.25	1.37	1.08	2.10	.47	.74	.84	.58	---	---
27	.73	.24	1.23	.67	1.05	1.12	1.23	.95	.58	.91	---	---
28	.74	.41	.92	.56	.66	.72	2.37	.77	.02	.77	---	---
29	.68	.33	1.09	1.40	---	.86	3.47	.68	-.17	.68	---	---
30	1.03	.35	.51	1.46	---	1.06	4.12	.58	-.11	.88	---	---
31	1.09	---	1.17	2.41	---	.70	---	.53	---	.99	---	---
MEAN	1.03	.90	.84	.82	1.11	.85	1.07	1.24	.86	.61	---	---
MAX	1.77	2.08	2.07	2.41	1.99	2.10	4.12	3.63	2.51	1.57	---	---
MIN	.46	.17	.13	.21	.31	-.70	.05	-.45	-.35	-.29	---	---

02092162 NEUSE RIVER AT NEW BERN, NC--Continued



02092162 NEUSE RIVER AT NEW BERN, NC -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.-- Water years 1957-67, June 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 flooded during Hurricane Dennis and Floyd. It was repaired on September 29. Top constituents were monitored at 8 feet above the streambed, and the bottom constituents, 2 feet above the streambed. Salinity and dissloved oxygen, percent saturation are computed. Dissolved oxygen, minimum extremes are reported only 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	14.1, August 5, 1999	< 0.1, on many days during the period.
SALINITY (BOTOM), ppt	17.3, August 4, 1999	< 0.1, on many days during the period.
pH (TOP), standard units	9.9, June 6, 7, 1999	5.7, September 29, 30, 1999
pH (BOTTOM), standard units	9.7, July 10, 11, 1997	5.7, September 24, 1996
WATER TEMPERATURE (TOP), °C	33.4, August 1, 1999	4.9, January 23, 1997
WATER TEMPERATURE (BOTTOM), °C	31.0, July 23, 1998	4.9, January 23, 1997
DISSOLVED OXYGEN (TOP), mg/L	17.4, December 19, 1997	< 1.0, on several days during the period
DISSOLVED OXYGEN (BOTTOM), mg/L	16.1, January 8, 1998	<1.0, on several days during the period

EXTREMES FOR CURRENT YEAR.--

CONSTITUENT	MAXIMUM RECORDED	MINIMUM RECORDED
SALINITY (TOP), ppt	14.1, August 5	< .1, on many days during the year
SALINITY (BOTTOM), ppt	17.3, August 4	< .1, on many days during the year
pH (TOP), standard units	9.9, June 6, 7	5.7, September 29, 30
pH (BOTTOM), standard units	9.2, July 7	5.8, September 29, 30
WATER TEMPERATURE (TOP), °C	33.4, August 1	5.1, January 7
WATER TEMPERATURE (BOTTOM), °C	30.8, August 14	5.8, January 12
DISSOLVED OXYGEN (TOP), mg/L	15.3, December 21	< 1.0, on May 30, August 6, 7, 10
DISSOLVED OXYGEN (BOTTOM), mg/L	12.6, December 18	< 1.0, on many days during the year
DISSOLVED OXYGEN, PERCENT SATURATION (TOP),%	195, May 30	< 10, May 30, Junel, August 6, 10
DISSOLVED OXYGEN, PERCENT SATURATION (BOTTOM),%	154, June 10	< 10, on several days during the year

02092162 NEUSE RIVER AT NEW BERN, NC -- Continued

SALINITY, TOP, (PARTS PER THOUSAND), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	.34	.12	.18	3.6	2.2	2.7	2.2	.88	1.5	5.0	.97	2.8
2	1.5	.20	.59	4.3	2.1	3.2	3.1	.81	1.4	9.5	1.4	5.2
3	.38	.22	.32	4.4	3.0	3.6	3.0	.63	1.8	4.4	.71	2.4
4	.30	.12	.22	4.0	3.4	3.8	---	---	---	1.7	.64	1.2
5	.32	.13	.25	4.3	3.2	3.8	---	---	---	1.6	.81	1.2
6	.75	.27	.41	4.4	3.8	4.0	---	---	---	1.8	.57	.98
7	.54	.20	.29	4.2	3.3	3.7	---	---	---	1.2	.28	.63
8	.30	.10	.19	4.4	2.8	3.4	7.3	1.0	2.3	.39	.16	.26
9	.42	.11	.29	4.3	2.8	3.3	6.4	1.3	3.2	.61	.18	.27
10	.72	.31	.51	3.5	2.1	2.6	5.4	2.1	3.3	2.8	.24	1.0
11	.55	.27	.40	3.3	2.0	2.5	6.0	3.0	3.8	.56	.15	.27
12	.85	.28	.41	3.1	2.1	2.4	7.8	2.7	5.1	.45	.07	.14
13	1.1	.35	.64	2.6	1.4	1.9	7.4	4.1	5.3	.19	.09	.11
14	1.4	.47	.90	4.4	1.3	2.3	8.2	4.5	5.8	.14	.08	.11
15	2.2	.46	.95	3.8	1.6	2.3	7.9	6.2	7.1	.28	.06	.14
16	1.9	.70	1.3	4.2	1.6	3.0	8.1	6.2	7.7	.31	.10	.16
17	2.4	.94	1.5	4.3	1.9	3.0	8.4	5.3	6.7	.17	.08	.12
18	2.0	1.1	1.5	4.5	1.7	2.7	6.2	3.3	5.1	.27	.07	.13
19	1.8	1.1	1.4	4.7	2.4	3.0	5.2	2.1	3.5	.11	.06	.08
20	2.3	.90	1.4	4.9	2.1	3.4	6.3	1.6	2.9	.13	.08	.10
21	2.2	1.1	1.6	4.8	3.4	4.0	7.3	1.6	4.1	.14	.07	.10
22	2.6	1.3	1.9	4.0	2.9	3.4	3.3	.95	1.9	.19	.07	.10
23	2.2	.88	1.6	4.1	2.5	3.1	4.9	2.4	3.5	.30	.07	.13
24	1.8	.83	1.3	3.7	1.9	2.7	4.0	2.9	3.5	.09	.04	.06
25	1.7	.75	1.1	3.4	1.6	2.2	3.7	2.3	3.0	.12	.06	.08
26	2.1	.55	1.3	3.3	2.1	2.6	4.9	3.0	3.8	.17	.05	.09
27	3.0	.46	1.0	2.8	2.0	2.3	5.0	3.2	4.1	.08	.04	.05
28	4.5	.68	1.8	2.6	1.5	1.9	4.9	1.6	2.7	.05	.04	.04
29	2.8	1.7	2.1	2.7	.93	1.7	7.3	1.1	3.8	.39	.04	.12
30	3.6	1.6	2.6	3.5	.74	1.5	6.7	2.7	4.4	.12	.05	.08
31	3.4	1.7	2.5	---	---	---	5.6	2.3	4.5	.30	.06	.17
MONTH	4.5	.10	1.0	4.9	.74	2.9	---	---	---	9.5	.04	.59

SALINITY, TOP, (PARTS PER THOUSAND), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	.18	.07	.12	1.0	.19	.51	.06	.05	.06	2.2	1.1	1.5
2	.09	.03	.05	.65	.21	.34	.06	.05	.06	1.5	.46	.90
3	.05	.03	.04	.70	.07	.24	.06	.05	.05	.50	.21	.34
4	.05	.04	.04	.73	.06	.30	.06	.05	.05	.35	.13	.26
5	.17	.04	.06	.67	.24	.49	.16	.05	.08	.53	.15	.23
6	.23	.06	.09	.25	.07	.12	.06	.06	.06	.21	.13	.15
7	.16	.05	.08	.64	.06	.39	.06	.06	.06	---	---	---
8	.07	.05	.06	.51	.08	.22	.06	.06	.06	---	---	---
9	.06	.05	.05	.15	.06	.10	.07	.06	.06	---	---	---
10	.11	.05	.06	.39	.06	.20	.11	.06	.08	---	---	---
11	.10	.05	.07	.38	.11	.30	.11	.07	.07	---	---	---
12	.10	.05	.06	.42	.12	.27	.08	.07	.07	.69	.29	.40
13	.28	.05	.11	.43	.21	.27	.11	.08	.09	.69	.32	.45
14	.25	.07	.16	.34	.06	.20	.10	.07	.09	1.2	.39	.56
15	.09	.05	.06	.37	.06	.15	.08	.06	.07	2.8	.93	1.8
16	.06	.05	.06	.33	.10	.18	.10	.07	.07	2.4	1.8	2.1
17	.07	.06	.06	.10	.06	.07	.08	.07	.07	1.8	.65	.94
18	.13	.05	.07	.09	.06	.06	.10	.07	.07	.86	.62	.73
19	.19	.06	.10	.59	.06	.26	.23	.08	.13	1.6	.54	.88
20	.23	.06	.13	.21	.12	.16	.50	.08	.14	2.5	1.2	1.7
21	.39	.12	.21	.14	.06	.08	1.2	.12	.50	3.1	1.5	2.1
22	1.1	.36	.71	.10	.06	.07	.13	.08	.09	2.6	1.7	2.0
23	.68	.15	.23	.08	.05	.07	.13	.08	.09	2.1	1.5	1.8
24	1.4	.25	.49	.06	.05	.05	.80	.08	.36	2.2	1.4	1.6
25	1.4	.34	.65	.05	.05	.05	.37	.10	.25	2.8	1.4	2.1
26	1.7	.54	1.1	.09	.05	.06	.12	.09	.09	2.2	1.1	1.6
27	1.8	.62	1.2	.09	.05	.07	.93	.09	.38	3.4	1.1	2.1
28	.78	.40	.60	.09	.05	.06	1.2	.46	.84	3.3	1.7	2.2
29	---	---	---	.06	.05	.06	3.7	.69	1.8	3.7	1.6	2.1
30	---	---	---	.15	.05	.09	3.4	1.6	2.6	3.1	1.8	2.3
31	---	---	---	.14	.06	.08	---	---	---	2.7	1.7	2.0
MONTH	1.8	.03	.24	1.0	.05	.18	3.7	.05	.28	---	---	---

02092162 NEUSE RIVER AT NEW BERN, NC -- Continued--Continued

SALINITY, TOP, (PARTS PER THOUSAND), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	1.4	.84	1.1	8.2	4.0	5.7	---	---	---
2	---	---	---	1.6	.99	1.3	9.0	5.0	6.1	---	---	---
3	2.5	1.2	1.6	1.7	1.1	1.3	10.9	6.1	8.5	---	---	---
4	4.3	1.7	2.7	1.6	.93	1.2	---	---	---	---	---	---
5	4.3	2.1	2.9	1.9	.88	1.2	---	---	---	---	---	---
6	4.3	1.7	2.7	1.7	.79	1.2	12.0	7.7	9.8	---	---	---
7	4.3	2.3	3.0	1.7	.63	.91	11.5	8.5	9.9	---	---	---
8	4.4	2.1	2.8	2.3	.60	1.2	10.6	8.4	9.4	---	---	---
9	3.5	2.0	2.6	2.6	.82	1.5	9.0	6.5	8.1	---	---	---
10	6.1	2.1	3.5	1.6	.80	1.1	12.1	7.2	9.0	---	---	---
11	6.1	3.3	4.1	5.0	.85	2.5	9.9	8.2	9.3	---	---	---
12	4.8	3.2	3.8	5.2	2.2	3.2	10.0	6.9	8.9	---	---	---
13	5.1	2.5	3.5	6.2	3.9	4.9	9.6	5.9	8.6	---	---	---
14	4.6	3.3	3.9	6.2	4.3	5.3	8.7	6.4	7.6	---	---	---
15	4.4	3.3	3.8	5.4	4.2	4.5	9.3	5.0	7.0	---	---	---
16	4.0	2.4	3.1	5.3	2.8	4.0	9.8	4.2	6.3	---	---	---
17	4.9	2.3	3.3	5.6	2.6	3.5	9.1	3.2	5.6	---	---	---
18	5.6	2.9	3.6	3.5	1.8	2.7	7.1	3.4	4.7	---	---	---
19	7.0	3.9	5.0	1.9	.97	1.3	6.9	2.9	4.4	---	---	---
20	7.2	3.3	5.3	1.5	.76	1.0	10.2	3.3	5.1	---	---	---
21	3.7	1.5	2.4	6.4	.81	2.2	5.7	3.9	4.7	---	---	---
22	4.2	2.2	3.1	4.9	2.5	3.3	12.7	4.0	7.6	---	---	---
23	5.0	3.0	3.6	9.7	3.4	5.2	10.9	6.7	8.0	---	---	---
24	3.9	2.4	3.0	6.0	3.6	5.3	9.5	6.1	7.6	---	---	---
25	3.5	2.2	3.0	7.8	4.7	6.1	8.6	6.0	7.0	---	---	---
26	3.4	1.7	2.4	6.5	4.3	5.3	7.4	5.1	6.4	---	---	---
27	2.5	1.5	2.0	5.0	3.3	4.3	8.1	4.0	5.7	---	---	---
28	2.2	1.0	1.4	5.9	3.0	4.5	7.6	3.6	4.8	---	---	---
29	1.5	.82	1.1	5.5	3.0	4.1	6.4	3.7	4.3	---	---	---
30	1.5	.68	.99	6.7	3.9	4.6	---	---	---	.02	.02	.02
31	---	---	---	8.0	4.5	5.7	---	---	---	---	---	---
MONTH	---	---	---	9.7	.60	3.1	---	---	---	---	---	---

SALINITY, BOTTOM, (PARTS PER THOUSAND), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	6.2	5.2	5.6	4.8	2.9	3.9	9.2	6.7	8.1
2	---	---	---	6.6	5.4	6.0	5.2	4.6	4.9	11.2	7.4	8.8
3	---	---	---	5.8	3.5	4.6	5.1	4.2	4.7	7.4	2.9	4.2
4	---	---	---	5.0	3.7	4.0	---	---	---	4.8	2.5	3.9
5	---	---	---	4.7	3.5	4.1	---	---	---	7.7	3.6	7.1
6	---	---	---	4.5	3.8	4.1	---	---	---	7.7	6.5	7.3
7	---	---	---	4.3	3.7	4.0	---	---	---	7.2	3.7	6.1
8	---	---	---	4.6	4.0	4.3	8.4	6.7	7.7	7.0	5.8	6.7
9	---	---	---	4.9	4.2	4.5	7.1	3.5	5.8	6.9	4.2	6.3
10	---	---	---	5.9	4.0	4.8	8.8	3.5	6.5	5.6	1.3	2.3
11	---	---	---	4.4	2.2	3.0	10.0	7.9	9.2	2.6	1.2	1.9
12	2.0	.62	1.5	3.7	2.4	3.1	10.4	9.8	10.0	1.7	.08	.77
13	2.1	.21	1.4	4.8	3.1	4.0	10.9	8.9	9.9	3.3	.52	1.7
14	2.4	1.2	1.8	5.6	4.6	5.2	11.8	8.7	10.7	5.9	1.2	3.8
15	4.7	1.3	3.0	5.5	3.7	5.0	11.0	8.0	9.4	5.4	.17	.90
16	6.2	2.5	4.4	5.7	4.9	5.4	8.7	7.2	8.1	3.0	.94	1.8
17	5.2	2.9	4.4	5.3	4.3	4.9	8.3	6.6	7.5	4.1	.88	2.0
18	4.3	2.8	3.7	6.2	5.1	5.7	6.9	5.7	6.6	2.4	.10	.99
19	3.3	1.8	2.8	6.2	5.4	5.8	7.9	6.4	7.2	.42	.07	.15
20	3.9	1.8	2.9	6.1	5.6	5.8	9.3	6.3	8.2	5.5	.30	1.8
21	2.8	1.6	2.1	5.9	4.2	4.8	9.7	8.9	9.5	6.3	.29	2.5
22	2.4	1.6	2.1	4.6	3.5	4.2	9.6	7.3	9.0	6.0	.68	2.8
23	2.3	1.7	2.1	4.6	3.8	4.2	9.5	4.6	7.9	6.7	.09	2.3
24	2.7	2.0	2.3	4.5	3.2	4.0	9.2	6.8	7.7	.40	.05	.11
25	3.1	2.0	2.6	4.1	3.1	3.6	8.1	6.1	7.3	.68	.09	.28
26	4.5	2.6	3.4	3.9	2.4	3.0	7.9	4.9	6.5	1.7	.08	.45
27	6.3	3.6	5.1	3.6	2.3	3.0	7.3	5.0	6.1	.21	.05	.08
28	6.6	5.2	6.2	3.7	2.8	3.3	8.7	5.3	7.2	.06	.04	.05
29	5.7	4.3	5.0	4.6	3.3	3.9	11.7	8.7	9.7	3.9	.04	.86
30	5.7	4.9	5.5	4.9	3.1	4.2	12.2	6.4	10.1	1.2	.08	.35
31	5.5	4.6	5.1	---	---	---	7.5	6.3	6.8	8.2	.09	3.7
MONTH	---	---	---	6.6	2.2	4.4	---	---	---	11.2	.04	2.9

02092162 NEUSE RIVER AT NEW BERN, NC -- Continued--Continued

SALINITY, BOTTOM, (PARTS PER THOUSAND), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	3.7	.19	1.7	1.9	.30	1.0	.07	.05	.05	2.5	.99	1.5
2	.22	.05	.09	1.8	1.3	1.5	.06	.05	.05	1.6	.50	.94
3	.06	.04	.05	1.7	.08	.76	.06	.05	.05	.78	.29	.55
4	.04	.04	.04	.73	.06	.33	.06	.05	.05	4.1	.29	1.8
5	4.1	.04	.50	.71	.27	.53	.19	.05	.09	5.8	2.2	3.6
6	2.6	.07	.50	.60	.07	.26	.07	.05	.06	4.7	.47	3.2
7	2.6	.05	.60	.66	.07	.43	.06	.06	.06	---	---	---
8	.09	.05	.06	.50	.14	.36	.07	.06	.07	---	---	---
9	.13	.05	.06	.40	.07	.18	.07	.06	.07	---	---	---
10	1.2	.05	.20	.41	.07	.29	.11	.06	.09	---	---	---
11	1.4	.08	.30	.43	.28	.37	.11	.07	.08	---	---	---
12	.27	.05	.11	.51	.28	.39	.08	.07	.07	6.2	1.6	4.4
13	.33	.05	.19	.79	.30	.49	.12	.08	.10	8.3	.76	4.5
14	.26	.07	.17	.86	.09	.34	.11	.08	.09	9.5	5.8	7.9
15	.12	.06	.07	.39	.08	.18	.09	.08	.08	9.8	2.2	4.9
16	.07	.06	.06	.36	.14	.27	.11	.08	.08	3.0	2.0	2.4
17	.14	.07	.08	.16	.09	.11	.09	.08	.09	4.6	1.6	2.4
18	.27	.07	.09	.44	.08	.13	1.3	.08	.23	5.7	4.2	5.2
19	.37	.07	.16	1.3	.15	.67	3.5	.75	2.1	10.1	5.2	7.2
20	.58	.08	.27	1.4	.16	.57	1.0	.10	.46	12.7	9.4	10.8
21	2.0	.18	.59	.42	.09	.19	1.4	.21	.76	12.0	9.4	10.5
22	3.8	1.1	1.7	.17	.09	.11	.57	.10	.21	11.5	8.6	9.9
23	5.8	2.7	4.3	.13	.09	.10	.15	.10	.11	10.1	4.5	7.7
24	5.8	2.3	4.2	.10	.09	.10	.85	.11	.42	5.7	1.3	2.8
25	6.4	4.4	5.3	.10	.09	.09	.42	.13	.29	3.6	1.6	2.9
26	5.5	2.7	4.1	.14	.09	.11	.14	.11	.12	5.7	2.3	4.3
27	5.4	2.7	4.2	.14	.09	.11	.92	.12	.40	7.3	4.6	5.6
28	3.7	.58	2.1	.14	.10	.11	1.2	.47	.83	7.4	4.7	6.0
29	---	---	---	.11	.10	.11	3.7	.70	1.7	9.0	5.9	7.4
30	---	---	---	2.3	.11	.62	3.1	1.6	2.4	8.3	5.9	7.2
31	---	---	---	1.0	.05	.29	---	---	---	8.7	5.2	6.9
MONTH	6.4	.04	1.1	2.3	.05	.36	3.7	.05	.38	---	---	---

SALINITY, BOTTOM, (PARTS PER THOUSAND), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	1.5	.89	1.2	14.9	13.5	14.4	---	---	---
2	---	---	---	2.2	1.0	1.7	15.8	13.5	14.9	---	---	---
3	4.1	2.8	3.6	2.0	1.2	1.6	16.3	14.0	15.5	---	---	---
4	5.2	3.1	4.4	3.3	1.1	1.9	---	---	---	---	---	---
5	5.2	3.7	4.4	5.3	1.7	3.2	---	---	---	---	---	---
6	6.6	5.0	5.9	5.8	2.7	4.0	13.8	11.0	12.4	---	---	---
7	7.7	5.8	6.7	3.7	.91	2.5	12.9	10.0	11.7	---	---	---
8	6.7	5.2	6.1	3.8	.90	2.3	11.1	8.8	10.4	---	---	---
9	6.0	4.5	5.3	5.9	2.6	4.2	12.2	9.4	11.0	---	---	---
10	7.3	4.3	5.8	7.7	3.1	4.8	12.8	9.8	11.9	---	---	---
11	6.8	4.3	5.0	11.5	3.6	6.7	11.4	8.9	10.0	---	---	---
12	7.2	4.4	5.7	12.2	7.3	10.1	10.0	8.7	9.6	---	---	---
13	7.1	4.9	5.8	10.9	8.3	9.7	10.0	8.5	9.3	---	---	---
14	7.2	4.7	6.4	10.6	6.1	8.5	9.5	6.5	8.6	---	---	---
15	6.7	4.3	5.7	9.9	8.0	9.1	10.0	7.3	9.2	---	---	---
16	8.1	6.7	7.3	10.4	8.6	9.6	10.4	8.7	9.7	---	---	---
17	8.9	8.0	8.5	10.2	7.1	8.7	11.5	7.7	10.0	---	---	---
18	9.4	8.7	9.1	8.5	5.3	7.3	11.8	6.9	9.4	---	---	---
19	9.0	7.5	8.5	10.4	6.9	8.6	12.8	9.1	11.0	---	---	---
20	8.4	7.3	7.9	10.7	8.4	9.6	13.3	8.3	12.4	---	---	---
21	9.2	6.4	7.3	12.2	10.6	11.4	12.6	8.8	11.8	---	---	---
22	9.9	9.1	9.7	12.8	11.1	11.9	13.5	12.2	13.0	---	---	---
23	9.8	8.1	9.4	13.5	12.3	12.8	13.0	8.7	11.5	---	---	---
24	9.7	8.1	9.3	13.3	6.2	11.3	11.5	7.1	9.0	---	---	---
25	8.6	5.8	7.5	9.7	6.6	7.9	10.1	7.6	9.1	---	---	---
26	6.3	3.8	4.8	10.9	7.6	9.3	9.7	6.1	8.6	---	---	---
27	4.2	2.2	3.5	12.3	10.9	11.7	9.7	7.0	8.3	---	---	---
28	3.1	1.3	2.1	13.1	11.1	12.2	10.6	8.1	9.7	---	---	---
29	2.1	1.0	1.6	13.2	8.9	11.3	12.6	9.8	11.5	---	---	---
30	2.4	.72	1.3	14.5	12.6	13.8	---	---	---	.02	.02	.02
31	---	---	---	15.1	14.1	14.6	---	---	---	---	---	---
MONTH	---	---	---	15.1	.89	7.9	---	---	---	---	---	---

02092162 NEUSE RIVER AT NEW BERN, NC -- Continued--Continued

PH, TOP, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	7.3	6.8	7.0	7.4	7.0	7.2	7.7	7.5	7.6	7.5	7.1	7.3
2	7.3	6.9	7.1	7.9	6.9	7.2	7.7	7.4	7.5	7.6	7.2	7.4
3	7.3	7.0	7.2	8.0	7.0	7.4	7.8	7.4	7.5	7.5	6.9	7.3
4	7.2	7.0	7.1	7.3	7.2	7.3	---	---	---	7.3	6.9	7.1
5	7.3	7.0	7.1	7.8	7.2	7.5	---	---	---	7.3	7.1	7.2
6	7.4	7.1	7.2	8.2	7.8	7.9	---	---	---	7.3	6.9	7.1
7	7.3	7.1	7.2	8.4	7.8	8.1	---	---	---	7.1	6.8	7.0
8	7.3	7.0	7.1	8.4	7.9	8.1	7.6	7.2	7.4	6.9	6.8	6.8
9	7.3	7.0	7.1	8.4	7.9	8.0	7.5	7.3	7.4	7.1	6.8	6.8
10	7.5	7.1	7.3	8.4	7.7	8.1	7.5	7.4	7.5	7.3	6.8	7.1
11	7.3	7.2	7.3	7.9	7.6	7.7	7.5	7.3	7.4	6.9	6.6	6.8
12	7.3	7.1	7.2	7.9	7.7	7.8	7.7	7.2	7.4	6.8	6.5	6.6
13	7.3	7.1	7.1	7.9	7.7	7.7	7.8	7.3	7.6	6.8	6.6	6.6
14	7.2	6.9	7.0	7.7	7.4	7.6	8.0	7.4	7.6	6.7	6.5	6.6
15	7.2	6.9	7.0	7.7	7.5	7.6	8.1	7.6	7.8	6.9	6.5	6.6
16	7.3	7.0	7.1	7.7	7.3	7.5	7.9	7.6	7.8	6.9	6.6	6.8
17	7.5	7.0	7.2	7.8	7.3	7.5	8.0	7.4	7.7	6.8	6.7	6.7
18	7.4	6.9	7.1	7.6	7.3	7.5	8.2	7.5	7.7	6.8	6.6	6.7
19	7.3	6.8	7.1	7.5	7.3	7.5	7.9	7.4	7.6	6.8	6.6	6.7
20	7.6	6.8	7.1	7.5	7.2	7.4	8.2	7.4	7.6	6.8	6.5	6.7
21	7.3	6.8	7.1	7.5	7.3	7.4	8.4	7.4	7.6	6.7	6.5	6.6
22	7.4	7.2	7.3	7.5	7.4	7.5	7.6	7.2	7.4	6.6	6.3	6.5
23	7.5	7.3	7.4	7.6	7.3	7.4	7.7	7.4	7.5	6.5	6.3	6.4
24	7.5	7.3	7.4	7.5	7.3	7.4	7.5	7.4	7.5	6.5	6.2	6.3
25	7.5	7.3	7.4	7.6	7.3	7.4	7.6	7.4	7.5	6.5	6.3	6.4
26	7.6	7.0	7.3	7.6	7.2	7.5	7.7	7.5	7.6	6.6	6.3	6.4
27	7.5	7.2	7.3	7.7	7.5	7.6	7.7	7.5	7.6	6.4	6.3	6.3
28	7.7	6.9	7.2	7.7	7.5	7.6	7.6	7.3	7.4	6.4	6.2	6.3
29	7.5	7.1	7.3	7.8	7.6	7.7	7.7	7.2	7.4	6.4	6.1	6.3
30	7.8	7.1	7.4	7.7	7.5	7.6	7.6	7.2	7.4	6.4	6.2	6.2
31	7.4	7.0	7.3	---	---	---	7.5	7.2	7.5	6.5	6.3	6.4
MONTH	7.8	6.8	7.2	8.4	6.9	7.6	---	---	---	7.6	6.1	6.7

PH, TOP, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	6.4	6.2	6.3	6.9	6.5	6.7	6.4	6.3	6.4	7.4	7.2	7.3
2	6.3	6.1	6.2	6.8	6.6	6.7	6.7	6.4	6.5	7.3	6.9	7.0
3	6.6	6.1	6.3	7.3	6.5	6.9	6.6	6.4	6.5	6.9	6.5	6.7
4	6.6	6.5	6.6	7.4	6.9	7.2	6.7	6.5	6.5	6.9	6.5	6.7
5	6.8	6.6	6.7	7.4	7.2	7.3	7.0	6.6	6.8	6.8	6.6	6.7
6	6.7	6.5	6.6	7.2	6.9	7.0	7.0	6.6	6.7	6.8	6.7	6.7
7	6.7	6.5	6.6	7.5	6.9	7.2	6.9	6.6	6.7	---	---	---
8	6.6	6.5	6.5	7.4	7.0	7.2	7.0	6.7	6.8	---	---	---
9	6.8	6.5	6.6	7.1	6.9	7.0	7.1	6.8	6.9	---	---	---
10	6.6	6.4	6.5	7.4	6.9	7.2	7.6	7.1	7.3	---	---	---
11	6.5	6.4	6.4	7.4	7.2	7.3	7.4	6.9	7.1	---	---	---
12	6.6	6.4	6.4	7.6	7.1	7.4	7.1	6.9	7.0	8.0	7.0	7.3
13	6.9	6.5	6.7	7.4	7.2	7.3	7.3	7.1	7.2	8.6	7.3	7.9
14	7.0	6.7	6.8	7.2	6.9	7.1	7.2	6.9	7.1	8.1	7.3	7.6
15	6.7	6.3	6.5	7.5	6.9	7.0	7.0	6.7	6.8	7.4	7.1	7.2
16	6.5	6.3	6.4	7.3	7.1	7.2	7.3	6.9	7.0	7.3	7.2	7.3
17	6.5	6.4	6.4	7.1	6.8	7.0	7.2	7.0	7.1	7.3	7.1	7.2
18	6.6	6.4	6.5	6.9	6.8	6.9	7.1	6.9	7.1	7.3	7.1	7.2
19	6.7	6.5	6.6	7.2	6.8	7.0	7.2	6.9	7.0	7.4	7.1	7.2
20	6.7	6.5	6.6	7.0	6.9	7.0	7.0	6.8	6.9	7.6	7.2	7.3
21	7.3	6.5	6.7	7.0	6.8	6.9	7.2	6.8	7.0	7.4	7.2	7.2
22	7.0	6.7	6.9	7.1	6.8	6.9	7.2	7.0	7.1	7.7	7.3	7.4
23	6.8	6.6	6.7	7.0	6.7	6.9	7.4	7.1	7.2	7.6	7.3	7.4
24	7.0	6.7	6.8	6.8	6.7	6.7	7.5	7.2	7.4	7.7	7.4	7.5
25	6.9	6.6	6.7	6.8	6.7	6.7	7.7	7.3	7.5	7.8	7.4	7.6
26	7.0	6.6	6.8	7.1	6.8	6.9	7.4	7.1	7.2	8.7	7.4	7.9
27	6.9	6.6	6.8	7.3	6.9	7.1	7.7	7.1	7.3	8.3	7.7	7.9
28	6.7	6.6	6.7	7.4	6.7	6.9	7.5	7.3	7.4	8.4	7.6	7.9
29	---	---	---	6.8	6.7	6.7	7.4	7.2	7.3	9.4	7.7	8.2
30	---	---	---	6.9	6.7	6.8	7.4	7.2	7.3	9.5	7.4	8.3
31	---	---	---	6.8	6.3	6.6	---	---	---	9.6	7.6	8.4
MONTH	7.3	6.1	6.6	7.6	6.3	7.0	7.7	6.3	7.0	---	---	---

02092162 NEUSE RIVER AT NEW BERN, NC -- Continued--Continued

PH, TOP, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	8.4	7.6	7.9	8.3	6.7	7.6	---	---	---
2	---	---	---	8.7	7.6	8.1	8.1	7.1	7.4	---	---	---
3	9.5	7.7	8.7	8.9	7.7	8.2	7.8	7.1	7.4	---	---	---
4	9.6	7.6	8.5	9.0	7.6	8.3	---	---	---	---	---	---
5	9.7	7.2	8.5	9.1	8.0	8.6	---	---	---	---	---	---
6	9.9	6.8	8.4	9.1	7.7	8.4	7.6	7.0	7.4	---	---	---
7	9.9	6.8	8.2	8.8	7.6	8.2	8.1	7.1	7.5	---	---	---
8	9.1	6.9	8.2	8.8	7.4	8.1	7.8	7.1	7.4	---	---	---
9	8.2	6.7	7.4	8.8	7.4	8.1	7.6	7.1	7.3	---	---	---
10	8.5	6.7	7.4	9.1	7.7	8.6	7.6	6.9	7.1	---	---	---
11	8.1	6.9	7.5	8.7	7.4	8.0	7.9	7.0	7.3	---	---	---
12	7.6	7.1	7.3	7.7	7.3	7.4	8.0	7.1	7.4	---	---	---
13	8.4	6.9	7.4	7.5	7.0	7.2	8.2	7.1	7.7	---	---	---
14	8.9	6.8	7.6	8.9	7.0	7.7	8.5	7.4	8.1	---	---	---
15	8.3	7.1	7.4	8.3	7.4	7.8	8.4	7.3	7.9	---	---	---
16	8.0	7.2	7.5	8.5	7.1	7.5	8.8	7.1	8.0	---	---	---
17	7.6	7.0	7.3	8.6	7.2	7.5	8.6	7.2	7.9	---	---	---
18	7.7	7.2	7.4	8.7	7.0	7.8	8.7	7.3	8.2	---	---	---
19	8.0	7.3	7.6	8.6	7.2	7.8	9.0	7.5	8.3	---	---	---
20	8.3	7.1	7.5	9.1	7.3	8.0	8.6	7.5	8.0	---	---	---
21	7.6	7.0	7.2	8.5	7.4	7.7	9.2	7.3	8.3	---	---	---
22	7.6	7.2	7.4	8.7	7.3	7.8	8.4	7.5	7.8	---	---	---
23	7.6	6.9	7.2	8.7	7.5	7.9	8.7	7.6	8.3	---	---	---
24	8.4	6.9	7.3	9.0	7.9	8.4	8.7	7.8	8.4	---	---	---
25	9.0	7.2	7.9	8.6	7.7	8.0	8.5	7.6	8.1	---	---	---
26	8.2	7.2	7.6	8.8	7.6	8.1	8.4	7.5	8.1	---	---	---
27	8.7	7.2	7.8	8.2	7.3	7.8	8.6	7.3	8.0	---	---	---
28	8.1	7.3	7.6	8.8	7.0	7.6	8.5	7.3	7.8	---	---	---
29	8.7	7.4	7.8	8.4	7.1	7.7	8.6	7.3	7.9	---	---	---
30	8.1	7.3	7.7	8.3	7.0	7.7	---	---	---	5.8	5.7	5.7
31	---	---	---	8.5	7.1	7.9	---	---	---	---	---	---
MONTH	---	---	---	9.1	7.0	7.9	---	---	---	---	---	---

PH, BOTTOM, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	7.2	7.0	7.1	6.6	6.3	6.5	7.2	6.9	7.0	7.6	7.5	7.5
2	7.4	7.0	7.2	6.8	6.5	6.6	7.1	6.9	7.0	7.5	7.4	7.5
3	7.3	7.0	7.1	7.2	6.4	6.7	7.2	6.9	7.0	7.5	7.3	7.4
4	7.3	7.1	7.2	6.8	6.4	6.6	---	---	---	7.5	7.3	7.4
5	7.3	7.0	7.1	7.5	6.3	6.9	---	---	---	7.6	7.4	7.6
6	7.3	7.0	7.2	7.7	7.2	7.4	---	---	---	7.6	7.4	7.5
7	7.4	7.0	7.2	7.5	7.1	7.3	---	---	---	7.4	7.2	7.3
8	7.3	7.1	7.2	7.4	6.9	7.1	6.9	6.8	6.8	7.4	7.3	7.3
9	7.2	7.0	7.1	7.3	6.8	7.0	7.4	6.8	7.1	7.3	7.1	7.2
10	7.3	7.0	7.1	7.2	6.9	7.0	7.3	7.1	7.2	7.4	7.1	7.3
11	7.2	6.9	7.0	7.5	7.1	7.2	7.1	7.0	7.0	7.4	7.2	7.3
12	7.1	6.8	7.0	7.3	7.0	7.2	7.0	6.9	7.0	7.3	6.8	7.0
13	7.1	6.7	6.9	7.1	6.9	7.0	7.0	6.9	7.0	7.4	6.9	7.2
14	6.9	6.7	6.8	7.0	6.8	6.9	7.8	6.9	7.2	7.3	7.1	7.2
15	6.9	6.7	6.8	7.2	6.8	6.9	7.8	7.2	7.4	7.3	6.7	7.0
16	6.9	6.8	6.8	7.0	6.8	6.8	8.0	7.5	7.8	7.2	6.9	7.1
17	6.9	6.8	6.9	7.0	6.8	6.8	8.0	7.4	7.7	7.3	7.0	7.1
18	6.9	6.7	6.8	7.0	6.8	6.9	8.4	7.7	8.0	7.2	6.8	6.9
19	6.8	6.7	6.7	6.9	6.8	6.8	8.2	7.7	7.8	7.0	6.9	7.0
20	7.2	6.7	6.8	6.8	6.8	6.8	7.9	7.4	7.6	7.1	6.8	6.9
21	7.3	6.7	7.0	7.1	6.8	6.9	7.7	7.4	7.6	7.0	6.7	6.8
22	7.3	6.8	7.0	7.1	6.8	6.9	7.8	7.3	7.5	6.9	6.7	6.8
23	7.3	6.9	7.2	7.0	6.8	6.8	7.9	7.5	7.7	7.0	6.5	6.8
24	7.0	6.7	6.8	7.1	6.7	6.9	7.9	7.6	7.8	7.0	6.6	6.7
25	6.8	6.4	6.6	7.0	6.8	6.9	8.0	7.8	7.9	7.1	6.6	6.8
26	6.7	6.4	6.6	7.3	6.8	7.0	8.2	7.9	8.0	7.0	6.5	6.7
27	6.6	6.4	6.5	7.2	6.9	7.0	7.9	7.8	7.9	6.7	6.5	6.6
28	6.5	6.3	6.4	7.2	6.9	7.0	8.0	7.8	7.9	6.7	6.6	6.6
29	6.5	6.4	6.5	7.2	6.9	7.0	8.0	7.5	7.8	6.9	6.4	6.6
30	6.7	6.5	6.5	7.2	6.9	7.0	7.6	7.5	7.5	6.7	6.4	6.6
31	6.6	6.4	6.5	---	---	---	7.6	7.5	7.5	6.9	6.6	6.8
MONTH	7.4	6.3	6.9	7.7	6.3	6.9	---	---	---	7.6	6.4	7.0

02092162 NEUSE RIVER AT NEW BERN, NC -- Continued--Continued

PH, BOTTOM, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

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

PH, BOTTOM, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	8.5	7.6	7.9	7.1	7.0	7.0	---	---	---
2	---	---	---	8.8	7.5	8.0	7.1	7.0	7.0	---	---	---
3	7.2	6.7	6.9	9.1	7.5	8.1	7.2	7.0	7.1	---	---	---
4	7.8	6.6	7.0	8.6	7.3	7.9	---	---	---	---	---	---
5	7.2	6.7	6.9	8.4	7.1	7.5	---	---	---	---	---	---
6	6.7	6.5	6.6	8.0	7.1	7.3	7.3	6.9	7.1	---	---	---
7	6.6	6.5	6.5	9.2	7.3	7.8	7.1	6.9	7.0	---	---	---
8	6.6	6.4	6.5	8.9	6.9	7.6	7.7	6.9	7.1	---	---	---
9	6.7	6.5	6.5	7.2	6.8	6.9	7.2	6.9	7.1	---	---	---
10	7.8	6.5	6.6	7.1	6.8	6.9	7.6	6.9	7.0	---	---	---
11	7.4	6.6	7.2	7.5	6.8	7.0	7.9	6.8	7.2	---	---	---
12	7.1	6.7	6.8	6.9	6.8	6.9	7.6	7.1	7.3	---	---	---
13	6.8	6.3	6.7	6.9	6.8	6.8	8.2	7.1	7.5	---	---	---
14	6.6	6.3	6.4	7.5	6.8	7.1	8.4	7.3	7.7	---	---	---
15	6.9	6.4	6.7	7.5	7.1	7.1	7.9	7.1	7.3	---	---	---
16	6.9	6.5	6.7	7.1	7.0	7.1	7.3	7.0	7.2	---	---	---
17	7.1	6.8	7.0	7.1	6.9	7.0	7.2	7.0	7.1	---	---	---
18	7.1	6.8	6.9	7.0	6.9	6.9	7.2	6.9	7.0	---	---	---
19	7.2	7.0	7.1	7.2	6.8	6.9	7.4	7.1	7.2	---	---	---
20	7.3	7.0	7.2	7.2	7.0	7.1	7.5	7.2	7.4	---	---	---
21	7.3	6.6	7.2	7.2	7.1	7.1	7.4	7.2	7.3	---	---	---
22	6.8	6.5	6.6	7.2	7.1	7.1	7.4	7.3	7.3	---	---	---
23	6.9	6.7	6.8	7.1	7.0	7.1	8.5	7.2	7.5	---	---	---
24	6.7	6.6	6.6	7.6	6.9	7.0	8.5	7.1	8.0	---	---	---
25	6.7	6.6	6.7	7.4	6.9	7.1	8.4	7.1	7.6	---	---	---
26	7.3	6.7	6.9	7.2	6.9	7.0	8.0	7.0	7.3	---	---	---
27	7.3	6.8	7.0	7.0	6.9	6.9	7.7	6.9	7.2	---	---	---
28	7.5	6.9	7.1	7.0	6.8	6.9	7.1	6.9	7.0	---	---	---
29	7.8	7.2	7.5	7.0	6.8	6.9	7.1	6.9	7.1	---	---	---
30	8.0	7.1	7.5	7.1	7.0	7.0	---	---	---	5.9	5.8	5.8
31	---	---	---	7.1	7.0	7.0	---	---	---	---	---	---
MONTH	---	---	---	9.2	6.8	7.2	---	---	---	---	---	---

02092162 NEUSE RIVER AT NEW BERN, NC -- Continued--Continued

TEMPERATURE, TOP, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	27.1	26.0	26.4	18.6	17.6	18.2	16.4	15.2	15.7	7.3	6.0	6.6
2	26.4	25.0	25.4	18.6	17.2	17.9	16.0	15.3	15.6	8.2	5.4	6.8
3	25.2	24.5	24.8	18.4	17.5	17.9	16.2	15.4	15.8	8.5	6.7	8.1
4	24.7	24.3	24.5	18.0	16.4	17.4	---	---	---	8.4	7.8	8.0
5	24.7	24.2	24.5	16.4	15.1	15.7	---	---	---	7.9	6.2	6.9
6	24.4	23.9	24.2	15.1	13.9	14.5	---	---	---	6.8	5.4	6.1
7	24.1	23.4	23.8	14.1	13.1	13.8	---	---	---	6.8	5.1	5.9
8	24.0	23.6	23.9	14.0	12.7	13.5	18.6	17.3	18.0	6.7	5.3	6.1
9	24.0	23.3	23.7	14.0	13.3	13.6	18.2	16.1	17.4	7.9	6.4	7.0
10	23.5	22.6	23.0	14.7	13.3	13.9	16.1	14.8	15.5	7.9	6.5	7.2
11	23.2	22.1	22.7	16.5	14.6	15.7	15.7	13.9	14.8	6.8	5.8	6.4
12	22.8	22.0	22.5	16.0	15.3	15.7	14.8	13.0	14.0	6.4	5.6	6.0
13	23.5	21.9	22.6	15.7	14.4	15.0	14.9	13.8	14.2	7.0	5.8	6.5
14	23.0	22.0	22.5	15.5	14.0	14.5	13.8	13.1	13.5	7.6	6.7	7.0
15	22.6	21.4	22.0	15.3	14.0	14.8	13.1	12.1	12.5	8.8	7.5	8.2
16	22.1	20.6	21.4	15.6	14.4	15.1	12.8	12.3	12.5	8.8	8.1	8.5
17	22.1	20.2	20.9	16.8	15.5	16.0	12.9	11.2	12.2	9.6	8.4	8.8
18	21.4	20.5	21.1	16.7	15.4	15.8	11.3	10.1	10.8	10.6	8.9	9.7
19	22.1	21.0	21.5	15.6	15.0	15.2	10.9	9.1	10.3	10.8	10.1	10.4
20	21.9	21.3	21.7	15.6	14.9	15.3	11.1	10.3	10.6	11.1	10.4	10.7
21	21.5	19.8	20.7	15.6	15.0	15.3	12.2	10.7	11.3	11.6	10.7	11.1
22	19.9	18.1	19.3	15.1	14.0	14.5	13.0	12.0	12.5	12.6	11.5	12.0
23	18.1	16.1	17.1	14.9	13.4	14.2	12.5	10.2	11.1	13.8	12.3	13.0
24	17.2	15.7	16.6	16.3	14.7	15.4	10.4	8.6	9.4	14.4	13.8	14.1
25	17.6	16.0	16.6	15.7	14.8	15.3	8.7	7.7	8.1	14.0	13.2	13.5
26	18.6	16.5	17.3	15.7	15.0	15.3	8.2	7.5	7.8	13.4	12.4	12.8
27	18.7	17.1	17.8	15.1	14.1	14.7	8.1	6.9	7.4	12.9	12.1	12.4
28	19.3	17.5	18.1	14.8	13.5	14.2	8.1	7.6	7.9	13.5	12.3	12.9
29	19.0	17.7	18.4	15.0	13.4	14.3	8.4	7.5	8.1	13.3	12.8	13.1
30	18.8	17.8	18.4	15.4	14.3	14.8	8.3	7.0	7.9	12.8	12.0	12.4
31	18.9	18.2	18.6	---	---	---	7.2	5.9	6.9	12.0	10.4	11.2
MONTH	27.1	15.7	21.4	18.6	12.7	15.2	---	---	---	14.4	5.1	9.3

TEMPERATURE, TOP, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	10.4	10.0	10.2	10.5	9.1	9.7	16.0	15.2	15.6	15.3	14.4	14.8
2	11.8	10.3	11.1	10.8	9.0	9.8	18.9	15.9	16.9	14.5	14.3	14.4
3	12.1	11.3	11.6	12.1	10.3	11.1	18.6	16.8	17.6	15.4	14.1	14.6
4	12.0	11.3	11.6	11.9	9.6	10.7	19.7	17.9	18.7	17.6	15.0	15.6
5	11.8	10.9	11.3	11.0	10.1	10.5	19.7	18.8	19.3	17.4	15.4	16.1
6	11.4	10.8	11.1	11.7	10.1	10.8	19.2	17.8	18.4	18.8	16.9	17.8
7	12.0	10.9	11.4	11.6	10.8	11.2	19.9	18.5	19.0	---	---	---
8	12.5	11.7	12.1	10.8	9.1	9.7	21.3	19.0	19.7	---	---	---
9	12.6	11.6	12.1	9.7	9.0	9.3	21.9	20.0	20.9	---	---	---
10	13.5	12.1	12.7	9.3	8.8	9.1	21.6	20.9	21.2	---	---	---
11	13.3	12.3	12.7	9.6	8.6	9.0	21.0	20.1	20.4	---	---	---
12	14.4	12.7	13.5	9.8	8.6	9.2	20.5	19.5	20.0	23.5	22.8	23.1
13	14.3	12.7	13.2	9.8	8.7	9.3	19.9	18.9	19.2	24.7	22.4	23.5
14	13.0	10.2	11.4	10.3	9.2	9.5	19.2	18.2	18.7	23.8	21.5	22.8
15	11.1	10.0	10.5	10.6	9.6	10.2	19.3	18.7	19.0	21.5	19.1	20.1
16	10.9	10.0	10.4	11.1	9.1	10.0	20.1	19.0	19.5	19.1	18.6	18.8
17	11.6	10.5	10.9	10.9	9.8	10.3	19.5	18.0	18.8	20.7	18.6	19.7
18	12.3	11.4	11.7	12.9	10.6	11.7	18.2	17.0	17.6	21.5	19.9	20.6
19	11.9	11.5	11.7	13.7	11.6	12.8	19.5	17.0	17.8	22.3	20.5	21.4
20	12.1	10.8	11.4	13.9	12.6	13.2	19.0	17.9	18.4	23.0	21.0	21.9
21	11.4	10.0	10.7	14.1	13.0	13.5	20.3	17.7	18.8	25.3	20.8	22.5
22	10.0	8.3	9.3	14.4	13.5	14.0	20.8	19.3	19.9	24.0	21.4	22.5
23	8.6	7.6	7.9	14.7	13.8	14.2	22.2	20.5	21.2	24.2	22.3	23.3
24	8.5	7.3	7.8	15.5	14.3	14.8	21.6	20.5	21.0	24.4	23.3	23.8
25	8.3	7.2	7.6	16.1	15.2	15.6	21.3	19.8	20.5	25.2	23.5	24.1
26	8.7	7.4	8.0	15.5	13.4	14.5	20.5	19.6	20.1	26.3	23.5	24.6
27	9.2	7.9	8.6	13.4	12.3	12.8	21.5	20.1	20.6	25.0	23.7	24.5
28	9.8	8.8	9.2	13.4	11.3	12.3	20.6	18.9	19.7	26.0	22.9	24.6
29	---	---	---	13.8	12.4	12.9	18.9	17.0	18.0	27.9	23.9	25.3
30	---	---	---	14.6	13.0	13.8	17.0	15.2	16.3	29.1	24.6	26.1
31	---	---	---	15.5	13.9	14.7	---	---	---	27.4	25.3	26.1
MONTH	14.4	7.2	10.8	16.1	8.6	11.6	22.2	15.2	19.1	---	---	---

02092162 NEUSE RIVER AT NEW BERN, NC -- Continued--Continued

TEMPERATURE, TOP, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	27.6	26.6	27.0	33.4	30.5	31.8	---	---	---
2	---	---	---	27.8	26.8	27.3	32.1	30.4	31.0	---	---	---
3	26.7	25.6	26.0	28.5	27.2	27.8	30.4	28.5	29.2	---	---	---
4	27.5	25.6	26.3	29.9	27.8	28.6	---	---	---	---	---	---
5	27.7	25.6	26.5	30.9	28.3	29.3	---	---	---	---	---	---
6	29.4	26.2	27.0	31.2	28.9	29.9	29.1	27.9	28.6	---	---	---
7	28.4	26.5	27.2	31.0	29.1	29.9	30.0	28.4	29.1	---	---	---
8	30.5	26.5	27.6	30.8	29.0	29.6	30.8	28.9	29.8	---	---	---
9	29.7	27.4	28.1	30.9	29.0	29.9	29.9	28.0	29.0	---	---	---
10	30.2	27.5	28.5	30.7	29.1	29.9	29.2	26.8	28.1	---	---	---
11	28.5	27.5	27.9	30.0	27.7	28.9	29.4	27.9	28.5	---	---	---
12	27.6	25.6	26.4	27.8	26.6	27.1	29.6	27.7	28.6	---	---	---
13	27.9	25.0	26.0	27.2	25.6	26.1	30.1	28.8	29.4	---	---	---
14	27.8	26.2	26.7	27.5	25.5	26.5	31.1	29.6	30.2	---	---	---
15	27.0	26.6	26.8	27.0	26.1	26.5	30.1	28.1	29.3	---	---	---
16	26.8	25.7	26.4	30.1	25.9	27.4	30.7	29.1	29.8	---	---	---
17	25.7	25.0	25.3	30.2	27.5	28.5	31.4	29.5	30.2	---	---	---
18	25.2	24.1	24.4	29.5	27.8	28.8	32.9	29.8	30.9	---	---	---
19	24.5	22.9	23.4	30.3	27.5	28.8	31.1	29.5	30.4	---	---	---
20	25.0	23.0	24.1	30.5	28.1	29.1	30.2	28.7	29.6	---	---	---
21	24.6	23.5	24.1	30.4	28.7	29.5	31.9	28.6	30.0	---	---	---
22	24.3	23.2	23.6	31.2	28.2	29.6	29.9	28.3	29.2	---	---	---
23	24.3	22.4	23.4	32.1	29.0	30.0	29.5	27.8	28.7	---	---	---
24	25.6	23.5	24.4	31.9	29.6	30.7	28.5	27.5	28.0	---	---	---
25	26.4	24.1	25.2	31.1	28.8	29.8	28.4	27.4	27.9	---	---	---
26	26.1	25.3	25.6	31.0	28.5	30.0	28.7	27.8	28.2	---	---	---
27	27.6	25.3	26.3	31.4	29.6	30.5	29.7	27.7	28.4	---	---	---
28	27.2	26.1	26.7	33.2	29.2	30.7	29.4	27.3	28.4	---	---	---
29	27.7	26.4	27.0	31.8	30.5	31.2	29.3	28.4	28.8	---	---	---
30	27.2	26.8	27.0	31.9	29.9	30.9	---	---	---	22.0	21.3	21.6
31	---	---	---	33.3	30.1	31.3	---	---	---	---	---	---
MONTH	---	---	---	33.3	25.5	29.1	---	---	---	---	---	---

TEMPERATURE, BOTTOM, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	26.8	25.9	26.2	18.7	18.6	18.7	15.5	15.3	15.4	8.4	8.1	8.3
2	26.4	25.0	25.4	18.8	18.7	18.7	15.5	15.3	15.4	8.4	7.9	8.3
3	25.2	24.4	24.8	18.8	17.6	18.3	15.7	15.4	15.6	9.1	7.8	8.4
4	24.8	24.2	24.5	18.1	17.1	17.7	---	---	---	9.1	8.6	8.9
5	24.7	24.2	24.4	17.3	15.4	16.2	---	---	---	8.9	8.7	8.8
6	24.5	24.0	24.2	15.4	14.4	14.7	---	---	---	8.9	8.6	8.8
7	24.3	23.4	23.9	14.4	13.7	14.0	---	---	---	8.7	7.5	8.4
8	24.0	23.7	23.9	14.1	13.9	14.0	16.3	15.9	16.1	8.8	8.0	8.6
9	24.1	23.4	23.7	14.3	14.1	14.2	17.4	16.2	16.8	8.8	7.8	8.4
10	23.4	22.7	23.2	14.6	14.3	14.4	16.7	15.3	16.4	8.6	7.5	7.9
11	23.4	22.4	23.0	16.3	14.6	15.4	16.2	15.3	15.8	8.3	7.3	7.7
12	23.2	22.6	22.9	16.0	15.4	15.7	15.7	15.4	15.5	7.5	5.8	6.7
13	22.9	22.0	22.4	15.8	15.5	15.6	15.7	15.1	15.4	8.1	6.7	7.4
14	22.7	22.4	22.6	15.8	15.6	15.7	15.2	13.6	14.6	8.2	7.1	7.8
15	---	---	---	15.8	15.3	15.7	14.4	12.8	13.4	9.3	7.6	8.4
16	---	---	---	15.8	15.4	15.6	12.9	12.4	12.6	9.3	8.6	8.9
17	---	---	---	15.9	15.5	15.8	13.0	12.1	12.6	9.5	8.9	9.1
18	22.6	21.5	22.1	15.6	15.3	15.5	12.2	10.8	11.2	10.6	9.0	9.7
19	---	---	---	15.6	15.5	15.6	11.5	10.9	11.3	10.6	10.1	10.3
20	---	---	---	15.8	15.6	15.7	11.6	11.1	11.4	10.9	10.1	10.5
21	---	---	---	15.8	15.3	15.6	11.6	11.3	11.4	11.5	10.2	10.8
22	20.5	18.4	19.6	15.4	14.4	15.0	12.0	11.5	11.8	11.7	10.7	11.3
23	18.4	17.1	17.5	15.5	14.6	15.2	11.9	11.5	11.7	13.8	11.1	12.3
24	17.7	17.2	17.5	15.9	15.1	15.4	11.8	10.7	11.4	14.4	13.8	14.1
25	17.9	17.4	17.6	15.6	15.4	15.6	11.1	9.4	10.4	14.1	13.2	13.6
26	17.9	17.7	17.8	15.8	15.4	15.6	10.1	8.4	9.2	13.4	12.5	12.9
27	18.3	17.8	18.0	15.6	14.9	15.2	9.2	8.0	8.7	12.9	12.1	12.4
28	18.4	18.3	18.3	15.2	14.7	14.9	9.1	8.5	8.7	13.5	12.3	12.9
29	18.6	18.4	18.5	15.2	14.9	15.0	8.8	8.4	8.6	13.3	12.6	13.0
30	18.7	18.5	18.6	15.4	15.1	15.2	8.9	8.1	8.7	12.9	12.2	12.5
31	18.7	18.6	18.7	---	---	---	8.6	8.0	8.3	12.2	11.0	11.7
MONTH	---	---	---	18.8	13.7	15.7	---	---	---	14.4	5.8	10.0

02092162 NEUSE RIVER AT NEW BERN, NC -- Continued--Continued

TEMPERATURE, BOTTOM, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	11.2	10.3	10.7	10.6	9.2	10.0	16.0	15.2	15.6	15.5	14.5	14.9
2	11.8	10.3	11.1	10.3	10.1	10.2	17.8	15.9	16.2	14.7	14.4	14.5
3	11.9	11.3	11.6	12.1	10.3	11.1	18.0	16.8	17.2	15.5	14.2	14.7
4	12.0	11.3	11.6	11.9	9.6	10.8	19.6	17.9	18.6	15.3	14.6	15.0
5	11.7	10.9	11.3	11.2	10.3	10.7	19.6	18.8	19.2	15.2	14.6	14.8
6	11.5	10.9	11.2	11.7	10.4	11.0	19.2	17.7	18.3	18.1	14.8	15.6
7	12.1	10.9	11.4	11.6	10.8	11.3	19.1	18.5	18.7	---	---	---
8	12.4	11.7	12.1	10.9	9.1	9.9	19.3	18.9	19.1	---	---	---
9	12.6	11.6	12.1	10.1	9.1	9.5	21.9	19.3	20.6	---	---	---
10	13.3	12.1	12.6	9.5	8.9	9.1	21.5	20.9	21.2	---	---	---
11	13.3	12.3	12.7	9.5	8.6	9.1	21.0	20.1	20.4	---	---	---
12	14.4	12.7	13.5	9.9	8.8	9.3	20.5	19.5	20.0	22.2	18.3	19.8
13	14.2	12.7	13.4	9.7	8.9	9.2	19.9	18.7	19.1	22.6	18.0	20.0
14	13.1	10.2	11.4	10.4	9.2	9.5	19.0	18.0	18.4	19.9	18.0	18.6
15	10.7	10.1	10.3	10.6	9.7	10.3	19.3	18.7	18.9	20.0	18.3	19.4
16	10.8	10.1	10.4	10.3	9.3	9.7	20.0	19.0	19.4	19.3	18.7	18.9
17	11.4	10.4	10.8	10.6	9.8	10.2	19.5	18.0	18.8	19.2	18.7	18.9
18	12.3	11.3	11.7	12.7	10.6	11.5	18.2	16.8	17.4	19.1	18.8	18.9
19	12.0	11.6	11.8	13.5	11.4	12.2	18.2	18.0	18.1	19.6	18.9	19.2
20	11.6	10.9	11.3	13.6	11.9	12.8	18.8	17.9	18.2	20.2	19.5	19.9
21	11.5	10.5	11.0	14.1	12.9	13.5	19.3	18.0	18.4	20.2	19.8	19.9
22	10.9	9.3	9.9	14.4	13.6	14.0	20.8	19.1	19.7	20.4	19.9	20.0
23	10.5	9.2	10.0	14.7	13.8	14.1	22.2	20.4	21.0	21.8	20.2	20.7
24	10.5	8.8	9.7	15.5	14.4	14.8	21.6	20.5	21.0	24.4	21.3	22.9
25	9.9	9.4	9.7	15.9	15.2	15.5	20.8	19.8	20.3	24.2	23.5	23.8
26	9.7	8.4	8.9	15.5	13.4	14.5	20.3	19.6	20.0	24.0	23.7	23.8
27	9.2	8.9	9.1	13.4	12.4	12.8	21.4	20.1	20.5	24.0	23.5	23.7
28	10.1	8.9	9.3	13.4	11.4	12.3	20.8	19.0	19.8	23.9	23.3	23.4
29	---	---	---	13.0	12.4	12.6	19.0	17.2	18.1	23.5	23.1	23.3
30	---	---	---	14.5	12.8	13.5	17.2	15.5	16.4	23.8	23.3	23.5
31	---	---	---	15.5	14.0	14.6	---	---	---	24.1	23.3	23.7
MONTH	14.4	8.4	11.1	15.9	8.6	11.6	22.2	15.2	19.0	---	---	---

TEMPERATURE, BOTTOM, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	27.6	26.6	27.1	29.1	28.5	28.6	---	---	---
2	---	---	---	27.8	27.1	27.4	29.6	28.6	28.9	---	---	---
3	26.2	25.3	25.6	28.5	27.3	27.6	29.1	28.9	29.0	---	---	---
4	26.9	25.0	25.8	28.7	28.0	28.2	---	---	---	---	---	---
5	26.3	25.6	25.9	28.6	28.0	28.4	---	---	---	---	---	---
6	25.8	25.5	25.6	29.8	28.1	28.6	28.7	28.1	28.5	---	---	---
7	25.8	25.5	25.6	30.3	28.7	29.5	29.2	28.3	28.6	---	---	---
8	26.6	25.6	25.9	30.0	29.2	29.5	30.3	28.8	29.5	---	---	---
9	27.4	26.4	26.7	29.7	29.0	29.3	30.1	28.8	29.3	---	---	---
10	29.9	26.3	27.1	29.7	28.7	29.2	29.1	28.7	28.9	---	---	---
11	28.3	26.8	27.6	29.8	28.2	28.9	29.4	28.2	28.7	---	---	---
12	27.6	26.3	26.9	28.3	27.5	28.0	29.1	28.2	28.5	---	---	---
13	26.3	26.0	26.2	27.7	27.0	27.4	30.0	28.6	29.3	---	---	---
14	26.4	25.8	26.1	27.5	26.2	27.0	30.8	29.5	30.0	---	---	---
15	26.9	26.0	26.3	27.0	26.6	26.8	30.3	29.3	29.8	---	---	---
16	26.1	25.6	25.9	26.9	26.6	26.7	29.8	29.5	29.6	---	---	---
17	25.7	25.5	25.6	27.4	26.6	27.0	30.2	29.5	29.7	---	---	---
18	25.6	25.0	25.3	27.9	27.1	27.4	30.2	29.6	29.9	---	---	---
19	25.1	23.9	24.8	27.8	26.8	27.3	30.0	29.5	29.8	---	---	---
20	24.8	24.2	24.5	27.8	27.0	27.4	30.0	29.5	29.7	---	---	---
21	24.2	23.3	23.8	27.5	27.2	27.3	29.8	29.6	29.7	---	---	---
22	23.5	23.3	23.4	27.5	27.1	27.3	29.8	29.6	29.7	---	---	---
23	23.5	23.3	23.4	27.6	27.1	27.3	29.8	29.0	29.5	---	---	---
24	23.7	23.5	23.6	29.8	27.2	27.8	29.1	27.7	28.4	---	---	---
25	24.4	23.7	23.9	29.6	28.6	29.0	28.6	27.7	28.3	---	---	---
26	25.5	24.3	25.1	29.2	28.8	29.0	28.6	28.1	28.4	---	---	---
27	26.2	24.6	25.5	28.8	28.2	28.5	28.5	27.9	28.3	---	---	---
28	27.0	25.5	26.3	28.8	28.1	28.3	28.5	28.2	28.3	---	---	---
29	27.5	26.5	27.0	29.9	28.4	28.9	28.3	28.1	28.2	---	---	---
30	27.3	26.5	27.0	28.9	28.4	28.6	---	---	---	22.0	21.3	21.6
31	---	---	---	28.6	28.4	28.5	---	---	---	---	---	---
MONTH	---	---	---	30.3	26.2	28.0	---	---	---	---	---	---

02092162 NEUSE RIVER AT NEW BERN, NC -- Continued--Continued

OXYGEN DISSOLVED (MG/L), TOP, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	8.2	5.5	6.4	9.5	4.6	7.9	9.8	8.3	9.3	11.6	10.6	11.1
2	8.2	5.8	6.9	11.0	4.3	7.5	9.2	7.8	8.6	12.4	9.3	10.9
3	7.8	6.9	7.4	10.7	5.3	8.6	10.4	6.7	8.4	12.0	11.5	11.7
4	7.8	6.9	7.3	8.4	7.0	8.0	---	---	---	11.8	11.4	11.6
5	7.8	6.6	7.2	9.8	7.8	8.9	---	---	---	11.9	11.3	11.7
6	8.2	7.0	7.5	11.0	9.2	10.1	---	---	---	11.9	11.3	11.6
7	8.1	6.9	7.6	12.1	9.9	11.0	---	---	---	11.9	11.6	11.7
8	8.1	6.8	7.4	12.2	9.8	11.1	9.8	6.8	9.0	11.8	11.5	11.7
9	7.6	6.5	7.2	12.4	9.7	10.9	9.5	7.5	8.7	11.7	11.4	11.5
10	8.5	7.0	7.6	12.9	8.9	11.5	9.7	8.1	9.0	12.2	11.0	11.8
11	8.4	7.4	7.9	10.9	8.8	9.8	9.7	8.2	9.1	11.8	11.2	11.4
12	8.0	6.9	7.6	10.8	9.7	10.2	11.1	6.9	8.8	11.7	11.0	11.4
13	8.3	6.4	7.3	10.5	9.7	9.9	11.1	7.8	10.0	11.6	11.2	11.4
14	7.6	5.1	6.3	9.9	6.4	8.9	11.7	9.2	10.5	11.2	11.0	11.1
15	7.7	5.2	6.7	10.1	7.0	9.3	12.6	10.6	11.4	11.3	11.0	11.1
16	8.1	5.7	7.0	9.5	5.8	8.1	12.2	11.1	11.7	11.2	10.5	11.0
17	8.8	5.9	7.5	10.0	5.1	8.1	13.1	10.7	11.7	10.6	10.2	10.4
18	8.8	5.6	7.2	9.2	5.8	8.1	13.9	11.3	12.3	10.5	10.1	10.3
19	8.4	4.0	6.6	8.0	5.4	7.2	13.0	11.6	12.2	10.5	9.7	10.2
20	9.3	4.6	7.3	7.8	3.4	6.0	15.0	10.9	12.2	9.8	9.3	9.4
21	7.3	3.6	6.7	7.1	4.9	6.4	15.3	9.8	12.1	9.3	8.9	9.1
22	8.0	5.8	7.1	7.9	6.5	7.2	12.7	11.1	11.8	9.0	8.6	8.8
23	9.3	7.8	8.6	8.0	5.2	7.2	11.9	11.3	11.7	8.9	8.4	8.6
24	9.6	8.0	8.9	9.0	6.2	7.9	12.2	11.3	11.8	8.8	8.3	8.6
25	9.8	8.0	9.0	9.1	6.3	8.2	12.8	12.1	12.5	8.6	7.6	8.1
26	10.5	6.9	8.5	9.3	5.5	8.1	12.8	12.2	12.6	8.5	7.8	8.1
27	10.3	7.5	9.1	9.7	8.6	9.2	12.8	12.3	12.5	7.9	7.6	7.8
28	10.5	4.2	8.2	9.9	8.7	9.4	12.9	12.2	12.4	8.0	7.6	7.8
29	9.7	7.2	8.7	10.5	9.0	9.7	13.9	9.9	11.3	8.2	7.6	7.9
30	10.7	6.4	8.8	10.6	8.0	9.7	11.1	9.9	10.5	8.1	7.6	7.7
31	9.1	5.9	8.3	---	---	---	11.6	10.8	11.2	9.3	8.0	8.7
MONTH	10.7	3.6	7.6	12.9	3.4	8.8	---	---	---	12.4	7.6	10.1

OXYGEN DISSOLVED (MG/L), TOP, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	9.1	8.2	8.6	11.6	10.7	11.2	9.0	8.5	8.7	10.0	9.3	9.6
2	8.4	8.2	8.3	11.5	10.8	11.2	9.0	8.3	8.7	9.8	9.0	9.4
3	9.0	8.0	8.2	11.3	10.5	10.8	8.6	7.9	8.3	9.0	7.5	8.4
4	8.6	8.0	8.3	11.3	10.4	10.9	8.2	8.0	8.1	8.2	7.2	7.7
5	9.2	8.5	8.9	11.4	10.9	11.2	8.5	7.9	8.2	7.5	6.7	7.1
6	9.3	8.8	9.0	11.3	10.4	10.9	8.4	7.4	8.0	7.9	7.3	7.6
7	9.5	8.6	9.1	11.3	10.3	10.9	8.0	7.4	7.6	---	---	---
8	9.6	8.9	9.3	11.8	11.1	11.4	7.9	7.4	7.6	---	---	---
9	9.5	8.8	9.1	11.5	10.8	11.2	7.8	7.1	7.4	---	---	---
10	9.8	8.7	9.2	11.7	10.6	11.2	8.4	7.5	7.9	---	---	---
11	9.6	8.8	9.3	11.9	11.5	11.7	8.0	7.1	7.6	---	---	---
12	9.7	8.8	9.3	11.8	11.5	11.7	7.8	7.0	7.4	11.2	9.0	9.9
13	10.1	9.1	9.8	12.0	11.6	11.8	8.3	7.5	7.9	12.6	9.5	11.0
14	10.6	9.9	10.4	11.8	10.7	11.5	8.4	7.6	8.0	11.6	9.2	10.1
15	10.3	9.2	9.6	11.4	10.7	11.0	7.6	6.9	7.1	9.3	7.6	8.6
16	9.5	9.0	9.2	11.6	10.8	11.3	8.0	7.3	7.6	9.2	8.6	8.8
17	9.6	9.1	9.4	11.0	10.2	10.7	8.0	7.4	7.7	9.0	8.3	8.6
18	9.9	9.3	9.5	10.4	10.0	10.2	8.1	7.6	7.9	8.8	7.7	8.4
19	10.5	9.6	10.1	10.7	10.0	10.4	8.1	7.1	7.8	8.5	7.3	7.9
20	10.8	10.0	10.4	10.5	10.1	10.2	8.1	7.0	7.4	9.4	7.1	8.1
21	10.8	10.3	10.6	10.2	9.4	9.8	8.3	7.3	7.9	9.0	7.1	7.8
22	11.2	10.5	10.8	10.1	9.3	9.7	7.9	7.5	7.7	9.7	7.0	8.3
23	11.3	10.8	11.1	9.8	8.8	9.4	8.3	7.6	7.9	9.0	7.3	8.1
24	11.3	10.4	11.0	9.1	8.6	8.8	8.6	7.8	8.3	8.4	6.7	7.6
25	11.3	10.7	11.1	9.2	8.5	8.8	9.2	8.1	8.6	8.6	6.1	7.5
26	11.3	10.6	11.1	9.6	8.9	9.3	8.5	7.4	8.0	11.1	5.9	8.1
27	11.2	10.6	10.9	9.9	9.0	9.3	9.5	7.5	8.3	9.1	6.0	7.8
28	11.4	10.9	11.1	9.7	8.5	8.9	8.8	8.3	8.6	9.1	3.3	6.9
29	---	---	---	8.9	8.3	8.6	8.9	8.4	8.7	12.4	3.6	7.4
30	---	---	---	9.1	8.2	8.7	9.5	8.8	9.2	15.0	.0	9.1
31	---	---	---	9.7	8.4	8.9	---	---	---	13.5	2.7	9.1
MONTH	11.4	8.0	9.7	12.0	8.2	10.4	9.5	6.9	8.0	---	---	---

02092162 NEUSE RIVER AT NEW BERN, NC -- Continued--Continued

OXYGEN DISSOLVED (MG/L), TOP, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	9.4	7.2	8.2	10.8	1.8	7.3	---	---	---
2	---	---	---	10.0	7.3	8.6	8.6	4.8	6.5	---	---	---
3	11.6	8.7	10.1	11.3	8.3	9.3	7.4	4.5	6.1	---	---	---
4	12.7	9.4	10.5	10.7	8.1	9.3	---	---	---	---	---	---
5	13.3	8.8	11.1	10.2	7.8	9.2	---	---	---	---	---	---
6	---	---	---	10.0	6.0	7.8	7.0	.2	4.2	---	---	---
7	---	---	---	---	---	---	7.4	.7	4.4	---	---	---
8	---	---	---	---	---	---	5.9	2.0	4.2	---	---	---
9	---	---	---	7.1	4.4	5.7	5.6	4.0	4.9	---	---	---
10	12.5	4.6	8.5	7.6	4.8	6.3	6.7	.5	4.1	---	---	---
11	9.9	5.9	8.2	5.8	3.9	4.7	8.3	3.1	5.5	---	---	---
12	9.0	6.4	7.6	5.0	3.3	4.2	8.3	3.8	5.6	---	---	---
13	---	---	---	5.4	2.6	4.0	8.0	3.9	6.5	---	---	---
14	---	---	---	11.3	2.5	5.8	9.4	5.6	7.5	---	---	---
15	5.4	1.7	3.6	8.9	5.0	7.0	8.7	4.3	6.8	---	---	---
16	7.2	4.2	5.3	9.3	3.8	6.2	11.7	3.4	7.7	---	---	---
17	6.1	2.1	4.5	9.8	4.1	6.3	10.6	4.5	7.9	---	---	---
18	6.7	3.7	4.7	9.7	4.5	7.3	11.2	5.4	8.6	---	---	---
19	8.0	4.5	6.5	9.2	5.8	7.5	---	---	---	---	---	---
20	10.1	3.7	7.0	10.7	5.8	7.7	8.8	2.1	6.1	---	---	---
21	8.2	4.9	6.3	8.6	4.4	6.9	12.7	4.3	8.1	---	---	---
22	8.0	5.2	6.5	---	---	---	7.2	1.3	4.7	---	---	---
23	8.4	4.3	6.5	---	---	---	8.3	2.8	6.7	---	---	---
24	10.4	5.9	7.6	---	---	---	8.2	4.9	7.3	---	---	---
25	11.8	7.0	9.4	---	---	---	8.0	5.0	6.9	---	---	---
26	10.0	7.2	8.7	---	---	---	10.2	5.1	7.4	---	---	---
27	10.2	6.7	8.5	---	---	---	11.4	3.8	7.3	---	---	---
28	9.2	6.5	7.8	12.3	5.1	8.2	9.7	4.5	6.8	---	---	---
29	9.2	6.9	7.9	10.7	6.0	8.0	8.8	4.2	7.1	---	---	---
30	8.6	6.5	7.6	10.0	4.9	7.9	---	---	---	3.5	2.7	3.0
31	---	---	---	12.3	5.3	8.7	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

OXYGEN DISSOLVED (MG/L), BOTTOM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	6.5	3.7	4.6	---	---	---	8.5	3.6	6.0	9.9	9.3	9.6
2	7.3	3.6	5.4	---	---	---	6.3	2.9	4.9	9.6	8.9	9.2
3	6.8	3.2	5.4	---	---	---	7.4	3.5	4.9	11.5	9.4	10.9
4	6.9	3.9	6.0	---	---	---	---	---	---	11.1	10.7	10.9
5	6.5	4.0	5.6	---	---	---	---	---	---	10.9	10.0	10.4
6	7.0	3.9	5.8	11.9	7.4	10.1	---	---	---	10.2	9.4	9.7
7	7.7	4.3	6.5	11.5	7.2	9.5	---	---	---	10.2	8.6	9.3
8	7.4	4.4	6.3	11.3	2.6	6.6	2.6	1.4	1.9	9.6	8.1	8.9
9	6.6	4.3	5.6	9.4	2.3	5.2	7.2	1.9	4.9	9.0	7.5	8.1
10	6.9	3.0	5.4	7.3	2.9	5.3	7.5	5.6	6.5	11.4	9.0	11.0
11	6.6	2.3	4.3	10.3	7.2	8.3	6.1	4.6	5.4	11.1	10.2	10.8
12	5.8	.9	3.1	8.9	5.7	7.6	5.1	3.9	4.6	12.5	7.6	11.3
13	6.2	.8	3.7	6.7	2.1	4.3	4.7	3.5	3.9	11.5	9.8	10.7
14	3.9	.6	2.4	4.3	.8	2.1	9.1	2.4	4.9	10.9	7.8	9.1
15	2.4	.1	1.1	7.1	.7	2.4	9.7	5.3	7.4	11.3	7.8	10.7
16	1.6	.2	.5	5.6	.8	2.2	10.6	8.3	9.9	10.6	8.9	9.9
17	4.0	.1	.7	5.3	.9	2.3	11.0	8.8	9.8	10.5	7.7	9.4
18	1.2	.2	.3	4.5	.9	2.6	12.6	10.2	11.0	10.7	8.3	9.7
19	3.4	.2	.6	3.2	.8	1.3	11.9	9.3	10.3	10.6	9.6	10.1
20	7.5	.3	1.5	1.4	.8	.8	10.4	7.6	8.6	9.6	5.0	7.9
21	5.7	.6	3.7	6.1	.8	3.2	8.3	7.5	8.0	9.0	4.1	6.9
22	7.0	2.1	5.1	7.0	.9	4.0	8.9	6.9	7.7	8.6	3.3	6.3
23	7.6	3.9	6.2	5.3	.8	2.5	10.3	7.6	8.7	8.9	3.3	6.8
24	---	---	---	8.2	.8	3.5	9.6	8.0	9.1	8.9	8.5	8.7
25	---	---	---	6.7	2.3	4.7	10.1	9.3	9.6	8.8	7.5	8.1
26	---	---	---	9.5	3.1	6.2	10.9	9.4	10.2	8.3	6.5	7.9
27	---	---	---	9.6	3.7	6.9	11.0	9.6	10.2	8.2	7.8	7.9
28	---	---	---	9.0	5.0	6.9	10.5	9.6	10.1	7.9	7.4	7.7
29	---	---	---	8.6	3.4	5.5	11.7	9.0	9.9	8.0	5.4	7.1
30	---	---	---	8.0	3.6	5.9	10.6	8.8	9.3	8.2	6.8	7.6
31	---	---	---	---	---	---	10.6	9.4	10.1	8.7	1.7	5.4
MONTH	---	---	---	---	---	---	---	---	---	12.5	1.7	9.0

02092162 NEUSE RIVER AT NEW BERN, NC -- Continued--Continued

OXYGEN DISSOLVED (MG/L), BOTTOM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	8.9	4.8	7.0	10.8	9.0	10.0	9.0	8.6	8.8	9.7	9.0	9.4
2	8.6	8.0	8.3	10.1	9.2	9.6	9.1	8.2	8.8	9.6	8.6	9.1
3	---	---	---	11.1	8.8	10.1	8.6	7.8	8.3	8.8	7.1	8.2
4	8.5	7.9	8.2	11.7	10.7	11.2	8.3	8.0	8.2	---	---	---
5	8.6	3.5	7.8	11.6	11.0	11.3	8.7	7.9	8.4	---	---	---
6	8.5	5.0	7.8	11.4	10.9	11.1	8.6	7.4	8.1	---	---	---
7	8.9	5.5	7.9	11.7	10.9	11.3	7.7	7.4	7.5	---	---	---
8	9.0	8.6	8.8	12.0	11.4	11.8	7.7	7.0	7.3	---	---	---
9	9.0	8.6	8.8	12.1	11.5	11.8	7.7	6.6	7.3	---	---	---
10	8.9	7.7	8.5	12.2	11.8	12.0	8.3	7.6	7.9	---	---	---
11	8.6	7.7	8.3	12.2	11.6	12.0	8.2	7.0	7.6	---	---	---
12	9.2	8.2	8.8	12.2	11.7	12.0	7.8	6.9	7.4	7.1	1.0	2.8
13	9.6	8.7	9.2	12.2	11.6	11.9	8.4	7.5	7.9	8.8	.5	3.0
14	10.2	9.3	9.8	12.1	11.4	11.8	8.1	7.4	7.8	2.7	.4	.9
15	10.0	8.9	9.4	11.8	11.3	11.6	7.5	6.5	6.9	8.4	.6	5.2
16	9.2	8.9	9.0	11.6	11.2	11.4	8.1	7.1	7.6	8.8	8.0	8.4
17	9.3	8.8	9.1	11.5	11.0	11.3	7.9	7.2	7.6	8.6	7.0	7.9
18	9.8	8.9	9.3	11.0	10.0	10.7	7.8	4.7	7.3	7.1	5.4	6.5
19	9.9	9.4	9.6	10.7	9.5	10.1	5.9	.9	3.0	6.2	3.7	5.0
20	9.9	9.1	9.6	10.2	8.7	9.6	7.8	4.5	6.3	4.4	2.7	3.6
21	10.0	8.3	9.3	9.9	9.1	9.7	7.5	5.9	7.0	3.4	2.0	2.6
22	10.0	6.5	9.0	9.9	9.4	9.7	7.7	6.9	7.3	2.2	1.1	1.7
23	8.1	3.9	5.9	9.6	9.0	9.3	8.3	7.3	7.6	4.3	1.0	2.0
24	8.6	4.0	6.2	9.0	8.4	8.8	8.6	7.7	8.2	8.3	2.9	5.9
25	7.3	5.0	6.3	8.9	8.2	8.6	8.9	7.7	8.2	8.4	6.3	7.3
26	9.5	5.9	8.1	9.5	8.9	9.2	8.2	7.3	7.7	7.8	5.1	6.1
27	8.6	7.2	7.6	9.5	9.1	9.4	9.2	7.1	8.0	6.4	4.3	5.1
28	10.5	6.8	8.6	9.8	8.7	9.1	8.5	7.7	8.3	5.4	.8	2.4
29	---	---	---	9.2	8.3	8.8	8.8	8.1	8.5	1.3	.3	.5
30	---	---	---	8.6	5.6	7.8	9.3	8.5	9.0	1.2	.3	.4
31	---	---	---	9.3	7.3	8.4	---	---	---	1.4	.3	.4
MONTH	---	---	---	12.2	5.6	10.4	9.3	.9	7.7	---	---	---

OXYGEN DISSOLVED (MG/L), BOTTOM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	8.6	6.5	7.5	.6	.2	.3	---	---	---
2	---	---	---	8.8	5.5	7.0	.5	.3	.3	---	---	---
3	6.6	3.1	4.6	9.6	5.9	7.5	1.6	.3	.6	---	---	---
4	8.8	2.5	5.7	8.4	3.4	6.3	---	---	---	---	---	---
5	7.8	4.9	6.3	7.0	1.1	3.8	---	---	---	---	---	---
6	5.3	3.0	4.1	4.7	.6	2.1	3.5	.1	.4	---	---	---
7	4.0	3.0	3.5	7.0	1.9	3.8	2.3	.2	.5	---	---	---
8	4.4	2.6	3.4	6.4	2.6	4.4	5.8	.3	2.2	---	---	---
9	4.4	1.0	2.5	4.3	.5	2.1	3.5	1.0	2.2	---	---	---
10	11.4	1.0	3.4	3.8	.5	1.6	6.6	.0	1.4	---	---	---
11	6.7	1.1	2.9	6.1	.6	2.7	8.0	.0	3.8	---	---	---
12	6.1	1.2	1.8	2.4	.7	1.3	5.7	3.3	4.4	---	---	---
13	2.4	1.5	1.8	2.2	.9	1.4	7.1	2.4	4.7	---	---	---
14	2.7	1.0	1.6	5.2	.9	2.2	8.2	3.2	5.3	---	---	---
15	5.0	.6	1.5	4.0	.0	.7	6.0	1.7	3.5	---	---	---
16	2.3	.9	1.5	.8	.1	.2	3.4	.1	2.0	---	---	---
17	1.5	.7	.9	2.3	.1	.8	2.5	.0	.5	---	---	---
18	1.8	.7	1.0	2.9	.2	.8	4.0	.0	.4	---	---	---
19	4.4	.7	1.4	1.3	.0	.3	1.0	.0	.3	---	---	---
20	2.0	.7	1.0	.8	.0	.1	2.1	.1	.3	---	---	---
21	4.1	.8	2.2	.2	.1	.1	1.6	.2	.5	---	---	---
22	2.2	.9	1.6	.3	.1	.2	1.1	.2	.4	---	---	---
23	2.0	.2	1.0	1.1	.2	.3	7.8	.3	1.8	---	---	---
24	1.2	.1	.4	5.6	.2	.8	8.2	.9	5.3	---	---	---
25	2.4	.4	1.2	4.4	1.0	2.9	7.4	1.7	4.1	---	---	---
26	7.1	1.8	4.1	3.0	.3	1.4	6.5	1.2	2.8	---	---	---
27	6.9	2.7	4.7	.8	.0	.3	5.6	.0	2.3	---	---	---
28	7.6	4.3	6.2	.6	.0	.1	2.5	.0	.7	---	---	---
29	7.9	5.7	7.0	1.9	.1	.4	.1	.0	.0	---	---	---
30	7.7	4.7	6.6	1.3	.1	.2	---	---	---	3.4	2.7	3.0
31	---	---	---	.8	.2	.2	---	---	---	---	---	---
MONTH	---	---	---	9.6	.0	2.0	---	---	---	---	---	---

02092162 NEUSE RIVER AT NEW BERN, NC -- Continued--Continued

OXYGEN DISSOLVED (% OF SATURATION), TOP, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	103	67	80	103	50	85	100	84	94	95	90	92
2	100	72	84	117	46	80	93	80	87	102	83	92
3	94	83	89	114	57	92	107	69	86	102	99	101
4	94	82	87	89	75	85	---	---	---	100	97	99
5	93	79	86	102	82	92	---	---	---	98	94	97
6	98	84	90	111	92	101	---	---	---	97	91	94
7	96	80	90	120	97	108	---	---	---	97	92	94
8	96	80	87	118	98	109	106	72	97	97	92	94
9	90	77	85	121	97	107	102	80	93	98	93	95
10	100	82	89	128	90	114	99	84	92	101	94	98
11	98	86	92	113	89	100	97	86	93	95	90	92
12	93	80	88	110	100	104	109	71	89	94	88	91
13	97	74	84	108	97	99	111	81	101	94	90	92
14	88	58	73	98	66	88	119	93	105	92	90	91
15	90	61	77	102	72	93	125	105	113	97	92	94
16	90	67	80	95	60	82	122	111	116	95	90	93
17	101	66	85	103	53	84	128	106	115	92	88	89
18	99	63	81	95	60	83	131	107	116	94	88	91
19	96	44	75	80	55	73	122	105	114	93	86	90
20	107	53	84	78	35	61	139	105	114	86	83	84
21	82	41	75	73	50	65	146	96	115	84	80	82
22	87	65	78	80	65	72	122	108	114	84	79	81
23	97	83	90	80	53	72	114	106	111	85	78	81
24	100	84	92	93	63	81	111	106	109	85	81	83
25	101	84	93	92	65	83	114	110	112	83	72	78
26	113	73	89	95	56	83	114	110	113	78	73	76
27	110	80	97	98	87	92	114	109	112	74	70	72
28	114	45	87	99	87	92	116	109	111	75	72	73
29	105	77	93	105	88	95	122	86	100	78	70	74
30	115	70	95	106	81	96	95	87	91	75	70	72
31	99	64	90	---	---	---	96	92	94	83	73	79
MONTH	115	41	86	128	35	89	---	---	---	102	70	88

OXYGEN DISSOLVED (% OF SATURATION), TOP, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	81	72	75	102	96	99	90	86	87	100	95	98
2	76	72	75	103	94	98	96	86	90	98	90	94
3	83	73	75	103	94	98	93	85	88	90	75	84
4	80	74	77	102	93	98	89	86	87	83	72	78
5	84	78	82	104	98	100	93	85	89	77	68	72
6	85	80	82	101	96	98	91	79	85	84	76	80
7	88	78	83	103	94	100	87	79	82	---	---	---
8	90	82	86	103	97	100	90	81	84	---	---	---
9	89	82	85	100	93	97	88	79	84	---	---	---
10	94	81	87	102	92	97	96	86	90	---	---	---
11	91	83	88	103	98	100	90	78	84	---	---	---
12	94	83	89	104	99	101	86	77	82	133	104	116
13	96	89	94	106	100	103	90	80	86	152	110	130
14	97	91	96	103	94	100	92	82	86	138	106	118
15	92	82	86	101	94	97	83	75	78	107	84	95
16	85	80	82	104	96	100	88	80	84	99	93	95
17	88	82	84	98	90	95	87	81	84	97	91	94
18	92	85	87	96	90	93	86	80	83	99	86	94
19	97	89	93	102	93	98	89	76	82	98	80	89
20	99	91	95	101	96	97	87	75	80	109	82	93
21	98	93	95	97	90	93	93	78	86	110	80	90
22	96	91	94	98	89	93	89	82	86	116	79	97
23	95	90	93	96	86	91	96	85	90	108	85	96
24	95	88	93	89	83	86	98	89	94	100	81	90
25	94	91	93	92	84	87	104	89	96	105	73	90
26	98	90	94	94	87	91	95	82	89	139	71	98
27	97	91	94	92	83	87	108	83	93	111	73	95
28	100	94	97	91	76	82	97	92	95	110	41	84
29	---	---	---	84	80	81	97	91	94	158	43	91
30	---	---	---	89	77	83	100	93	97	195	0	115
31	---	---	---	97	81	87	---	---	---	172	34	115
MONTH	100	72	88	106	76	95	108	75	87	---	---	---

02092162 NEUSE RIVER AT NEW BERN, NC -- Continued--Continued

OXYGEN DISSOLVED (% OF SATURATION), TOP, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	122	92	106	154	23	103	---	---	---
2	---	---	---	130	95	112	120	67	91	---	---	---
3	146	109	126	148	107	122	103	61	83	---	---	---
4	161	119	133	146	106	123	---	---	---	---	---	---
5	170	112	141	139	104	123	---	---	---	---	---	---
6	---	---	---	136	81	105	94	3	57	---	---	---
7	---	---	---	---	---	---	102	10	60	---	---	---
8	---	---	---	---	---	---	83	26	58	---	---	---
9	---	---	---	95	58	76	75	55	66	---	---	---
10	166	57	108	102	62	82	94	8	55	---	---	---
11	124	73	101	76	50	62	117	43	76	---	---	---
12	105	73	87	63	42	53	117	54	79	---	---	---
13	---	---	---	68	33	50	114	56	92	---	---	---
14	---	---	---	145	32	74	135	80	108	---	---	---
15	68	21	46	114	63	89	123	62	96	---	---	---
16	90	53	67	124	48	80	166	49	109	---	---	---
17	75	27	55	131	53	83	152	65	112	---	---	---
18	84	46	58	129	58	96	162	78	124	---	---	---
19	97	54	79	124	74	97	---	---	---	---	---	---
20	125	45	86	143	76	103	120	29	84	---	---	---
21	100	59	76	115	59	93	179	57	112	---	---	---
22	96	63	78	---	---	---	101	17	64	---	---	---
23	102	51	78	---	---	---	113	39	92	---	---	---
24	130	70	93	---	---	---	110	66	98	---	---	---
25	150	86	117	---	---	---	108	68	92	---	---	---
26	125	90	108	---	---	---	139	69	99	---	---	---
27	131	82	107	---	---	---	154	52	98	---	---	---
28	117	82	99	179	71	115	131	61	91	---	---	---
29	117	87	100	151	83	113	119	57	96	---	---	---
30	110	82	97	141	68	110	---	---	---	39	31	35
31	---	---	---	175	73	123	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

OXYGEN DISSOLVED, (% OF SATURATION), BOTTOM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	81	45	58	---	---	---	87	37	61	88	84	86
2	89	44	66	---	---	---	65	30	50	87	80	83
3	83	38	65	---	---	---	76	36	51	100	83	96
4	83	46	72	---	---	---	---	---	---	98	94	96
5	78	47	67	---	---	---	---	---	---	97	91	94
6	84	46	69	121	75	102	---	---	---	92	84	88
7	92	51	77	114	72	94	---	---	---	87	77	82
8	87	52	75	113	26	66	28	15	21	85	73	79
9	78	51	66	94	23	52	78	21	52	80	66	72
10	81	36	63	74	30	54	78	61	70	96	80	94
11	77	26	50	105	73	85	65	49	58	94	86	92
12	67	10	36	92	59	78	54	41	49	100	64	92
13	70	9	42	69	21	45	50	37	41	95	82	90
14	45	6	28	45	8	22	93	27	52	93	68	78
15	---	---	---	72	8	24	97	56	76	96	67	91
16	---	---	---	59	9	24	104	83	98	91	77	85
17	---	---	---	55	10	24	108	87	97	92	68	82
18	13	2	3	47	9	27	121	100	106	95	73	85
19	---	---	---	33	8	13	114	91	99	93	86	89
20	---	---	---	14	8	9	99	74	83	86	45	71
21	---	---	---	63	8	33	82	74	78	81	38	63
22	77	24	56	70	10	40	88	69	76	77	31	57
23	80	42	66	53	9	25	99	75	85	86	31	65
24	---	---	---	85	8	35	92	80	88	87	81	84
25	---	---	---	68	23	48	94	89	91	85	72	78
26	---	---	---	98	32	64	98	89	94	78	62	74
27	---	---	---	97	38	70	98	88	93	76	72	73
28	---	---	---	91	51	70	95	88	92	74	70	72
29	---	---	---	87	34	56	109	83	91	76	51	67
30	---	---	---	82	37	60	93	82	85	75	63	71
31	---	---	---	---	---	---	93	85	89	78	15	50
MONTH	---	---	---	---	---	---	---	---	---	100	15	80

02092162 NEUSE RIVER AT NEW BERN, NC -- Continued--Continued

OXYGEN DISSOLVED (% OF SATURATION), BOTTOM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	80	44	63	93	79	88	88	84	87	94	88	92
2	77	72	74	90	81	85	94	82	87	93	83	88
3	---	---	---	103	79	92	87	80	85	84	69	79
4	79	73	75	103	97	101	88	84	86	---	---	---
5	79	33	71	104	99	102	93	84	89	---	---	---
6	78	47	71	103	97	101	92	78	84	---	---	---
7	82	50	72	106	100	103	82	77	79	---	---	---
8	84	79	82	105	102	103	81	74	77	---	---	---
9	84	79	81	105	101	103	87	71	79	---	---	---
10	84	73	80	105	101	103	92	84	88	---	---	---
11	82	73	78	105	101	103	90	76	83	---	---	---
12	90	78	84	107	101	103	85	74	80	82	11	32
13	91	83	88	106	101	103	89	79	84	103	5	34
14	92	86	90	105	99	102	85	77	81	31	5	11
15	89	79	83	105	99	102	79	68	73	92	7	59
16	83	78	80	101	97	99	86	75	81	96	87	92
17	85	79	82	101	97	99	83	77	80	94	78	87
18	90	81	85	100	92	97	79	49	74	79	60	73
19	91	86	88	99	86	93	62	8	31	69	43	57
20	90	83	88	95	80	90	82	46	66	52	32	42
21	91	75	84	95	85	92	79	62	73	40	24	30
22	87	58	79	95	91	93	83	73	78	25	14	20
23	72	36	53	92	87	89	94	79	84	50	12	23
24	74	36	55	88	81	85	96	85	91	100	34	70
25	64	45	56	89	80	85	98	83	90	101	75	88
26	82	52	71	91	87	89	89	78	83	93	62	74
27	75	64	67	89	84	86	103	77	88	78	53	62
28	92	59	75	92	78	83	92	85	90	66	10	29
29	---	---	---	84	77	80	92	86	89	16	4	7
30	---	---	---	83	53	74	94	87	91	14	4	5
31	---	---	---	93	69	80	---	---	---	18	4	5
MONTH	---	---	---	107	53	94	103	8	81	---	---	---

OXYGEN DISSOLVED (% OF SATURATION), BOTTOM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	111	82	96	8	2	3	---	---	---
2	---	---	---	116	71	91	7	3	4	---	---	---
3	83	39	57	126	77	98	21	3	7	---	---	---
4	112	32	71	110	44	83	---	---	---	---	---	---
5	99	62	79	92	14	51	---	---	---	---	---	---
6	68	38	52	63	8	28	48	1	5	---	---	---
7	50	38	45	95	25	52	30	2	6	---	---	---
8	56	33	43	86	34	58	82	3	31	---	---	---
9	56	13	32	57	7	28	49	13	30	---	---	---
10	154	13	44	51	7	21	93	1	19	---	---	---
11	88	13	38	79	8	35	113	1	53	---	---	---
12	78	15	23	32	9	17	79	46	62	---	---	---
13	30	19	22	28	10	18	101	33	66	---	---	---
14	34	12	21	66	11	28	116	46	75	---	---	---
15	64	8	19	52	0	9	85	24	49	---	---	---
16	30	11	19	11	1	2	48	2	29	---	---	---
17	20	8	11	30	2	11	36	0	7	---	---	---
18	22	9	13	39	2	10	56	0	5	---	---	---
19	54	8	17	18	0	4	15	0	4	---	---	---
20	24	9	12	11	0	2	29	2	4	---	---	---
21	50	10	27	3	1	2	22	2	6	---	---	---
22	27	11	19	4	2	2	15	3	5	---	---	---
23	25	2	12	15	2	5	108	4	24	---	---	---
24	16	2	5	77	3	11	111	11	71	---	---	---
25	31	5	15	61	14	39	100	22	55	---	---	---
26	90	22	53	43	4	19	87	16	37	---	---	---
27	88	34	59	10	0	4	76	1	31	---	---	---
28	98	56	78	7	0	1	35	0	10	---	---	---
29	102	73	90	27	1	5	2	0	0	---	---	---
30	99	60	85	18	1	3	---	---	---	39	31	34
31	---	---	---	10	2	3	---	---	---	---	---	---
MONTH	---	---	---	126	0	27	---	---	---	---	---	---

02092500 TRENT RIVER NEAR TRENTON, NC

LOCATION.--Lat 35°03'54", long 77°27'24", Jones County, Hydrologic Unit 03020204, on left bank 50 ft downstream of Free Bridge on Secondary Road 1129, 800 ft downstream of Little Chinquapin Branch, 1.5 mi southwest of Phillips Crossroads, and 6 mi west of Trenton.

DRAINAGE AREA.--168 mi^2.

PERIOD OF RECORD.--January 1951 to current year.

GAGE.--Water-stage recorder. Datum of gage is 19.15 ft above sea level. Prior to Mar. 21, 1951, nonrecording gage on bridge 50 ft upstream at same datum. Satellite telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Maximum discharge for current water year and period of record from rating curve extended above 4,000 ft^3/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 ft^3/s, from information provided by North Carolina State Highway Commission.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	5.3	12	187	324	116	181	135	18	30	17	83
2	10	5.1	9.6	154	260	127	163	186	15	68	14	91
3	9.9	4.9	7.3	130	293	131	151	217	14	85	10	83
4	9.9	5.0	5.8	144	313	126	139	230	14	76	8.7	89
5	9.9	5.0	4.6	201	342	123	129	228	14	61	7.5	400
6	9.6	4.9	5.3	235	356	119	119	207	14	52	6.3	567
7	9.0	5.5	5.7	235	343	114	109	174	13	44	5.2	1140
8	8.7	5.8	6.1	213	304	108	102	142	12	35	4.5	1530
9	10	5.6	5.8	184	249	102	94	113	12	27	3.9	1550
10	12	6.4	5.0	178	206	100	86	91	11	24	3.7	1380
11	9.5	6.5	4.8	169	176	99	78	78	10	18	4.0	1110
12	7.6	5.0	4.4	158	162	97	74	69	9.7	15	5.5	869
13	6.6	4.2	6.0	144	160	93	73	68	9.3	16	4.3	713
14	6.2	3.7	14	130	151	89	72	98	8.9	23	3.8	645
15	5.9	3.7	21	138	140	127	70	154	8.8	106	4.4	1320
16	5.6	3.4	28	180	130	204	102	181	9.2	180	4.6	e10000
17	5.4	3.5	56	224	123	242	165	188	12	239	4.7	e12000
18	5.8	3.4	78	267	120	251	207	191	14	303	4.4	e9000
19	6.2	3.6	81	290	123	232	234	183	14	328	4.1	e5000
20	6.4	4.4	75	284	132	196	248	156	17	293	6.5	e3600
21	6.3	5.4	72	259	138	165	240	123	34	198	9.6	e2600
22	5.7	6.3	63	222	138	178	203	96	40	119	11	e2000
23	5.4	9.8	52	188	135	196	154	75	54	74	13	1550
24	5.2	10	44	215	132	189	117	59	60	48	13	1310
25	5.0	16	44	370	126	169	91	47	58	66	15	1130
26	4.9	21	58	788	123	171	74	37	53	68	22	949
27	4.9	22	99	1090	115	204	69	31	62	62	29	780
28	5.0	20	137	1080	110	229	67	27	46	48	30	659
29	5.0	16	166	870	---	235	74	24	33	37	41	608
30	5.2	13	189	634	---	228	97	21	27	27	56	861
31	5.6	---	201	450	---	209	---	24	---	21	70	---
TOTAL	223.4	234.4	1560.4	10011	5424	4969	3782	3653	716.9	2791	436.7	63617
MEAN	7.21	7.81	50.3	323	194	160	126	118	23.9	90.0	14.1	2121
MAX	12	22	201	1090	356	251	248	230	62	328	70	12000
MIN	4.9	3.4	4.4	130	110	89	67	21	8.8	15	3.7	83
CFSM	.04	.05	.30	1.92	1.15	.95	.75	.70	.14	.54	.08	12.6
IN.	.05	.05	.35	2.22	1.20	1.10	.84	.81	.16	.62	.10	14.09

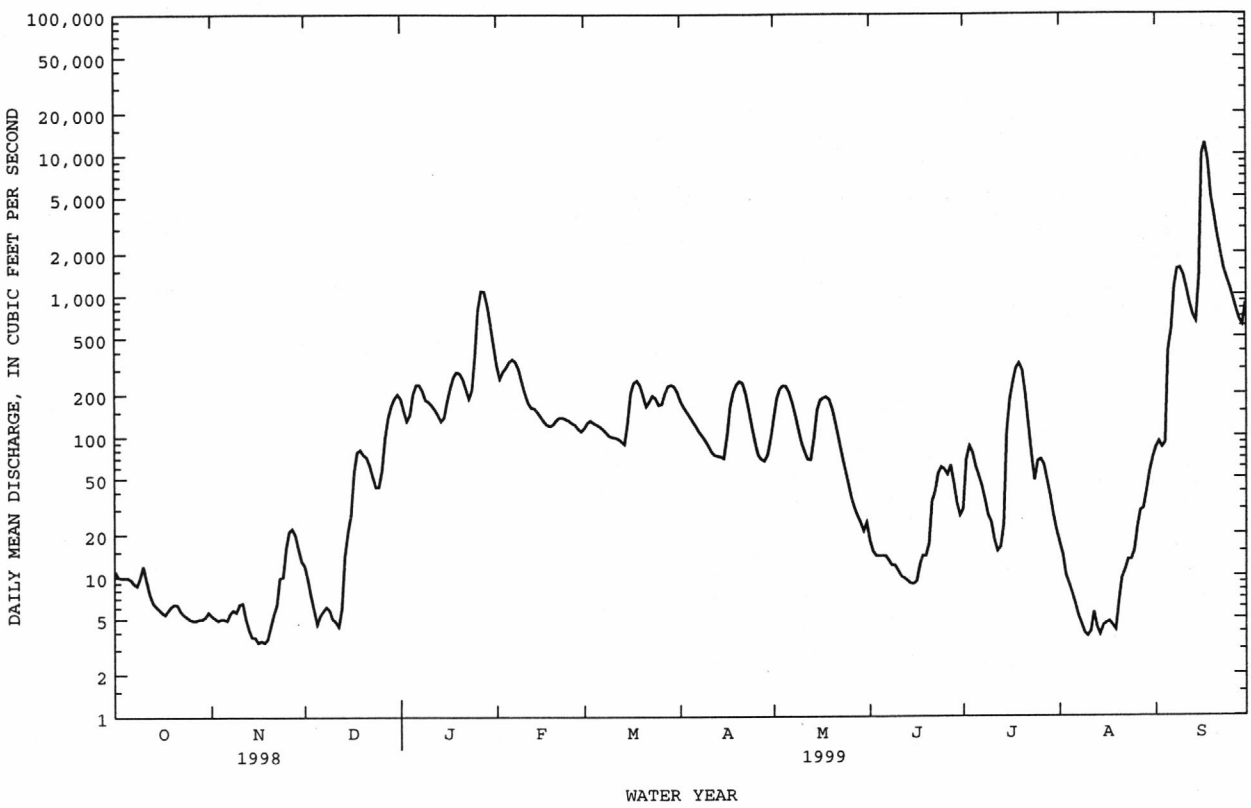
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1999, BY WATER YEAR (WY)

MEAN	96.6	87.6	167	306	335	344	213	118	124	149	172	174
MAX	864	295	551	703	1024	963	684	435	768	1381	1587	2121
(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

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1951 - 1999	
ANNUAL TOTAL	81940.0		97418.8			
ANNUAL MEAN	224		267		192	
HIGHEST ANNUAL MEAN					316	1960
LOWEST ANNUAL MEAN					79.8	1985
HIGHEST DAILY MEAN	2740	Feb 20	12000	Sep 17	12000	Sep 17 1999
LOWEST DAILY MEAN	1.7	Aug 25	3.4	Nov 16	.33	Oct 7 1993
ANNUAL SEVEN-DAY MINIMUM	2.6	Jul 3	3.6	Nov 13	.39	Oct 22 1973
INSTANTANEOUS PEAK FLOW			15000*	Sep 17	15000*	Sep 17 1999
INSTANTANEOUS PEAK STAGE			22.33*	Sep 17	22.33*	Sep 17 1999
INSTANTANEOUS LOW FLOW			3.1	Nov 16	.30*	Oct 23 1974
ANNUAL RUNOFF (CFSM)	1.34		1.59		1.14	
ANNUAL RUNOFF (INCHES)	18.14		21.57		15.51	
10 PERCENT EXCEEDS	695		334		472	
50 PERCENT EXCEEDS	52		74		80	
90 PERCENT EXCEEDS	4.4		5.2		8.1	

e Estimated.
* See REMARKS.

02092500 TRENT RIVER NEAR TRENTON, NC--Continued



02092554 TRENT RIVER AT POLLOCKSVILLE, NC

LOCATION.--Lat 35°00'38", long 77°13'10", 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 mi^2.

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

GAGE.--Water-stage recorder and acoustic velocity meter. Datum of gage is 10 ft below sea level, from topographic map. Satellite telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Maximum gage height for current water year and period of record, from floodmark.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	24	29	330	1220	182	e360	570	63	104	98	74
2	-36	14	87	178	1090	269	e320	810	98	84	-199	-193
3	153	-131	80	630	762	341	396	705	32	26	-138	100
4	75	-26	11	454	770	183	432	431	-208	97	101	-575
5	-47	-109	28	400	570	157	-43	432	.26	52	158	1430
6	-73	281	25	549	719	320	490	340	107	67	76	1550
7	191	87	51	417	618	96	289	274	90	153	-3.4	1860
8	75	71	69	428	454	219	193	323	-1.2	-72	67	1750
9	-17	27	-99	526	626	e150	283	192	-18	120	-205	1670
10	e111	45	-18	422	407	218	-141	9.3	-322	58	80	1730
11	e65	71	-20	516	555	162	308	224	46	-172	81	1730
12	-32	-61	-35	491	454	138	33	141	153	79	-61	1760
13	62	138	150	397	329	107	170	138	63	-95	-10	1750
14	-40	73	-210	358	293	194	174	-6.3	35	e60	134	1970
15	-12	77	-19	395	369	179	171	44	-77	e-10	-88	2780
16	22	36	370	495	298	446	177	436	-43	e180	-120	6970
17	106	31	246	521	239	402	e251	414	56	e470	118	8450
18	179	-144	111	626	148	448	155	362	-111	e250	21	e12600
19	53	159	209	526	37	268	267	373	-244	e200	5.6	e17500
20	-20	60	160	608	423	347	216	234	396	e154	19	e16800
21	92	-22	169	612	203	470	209	291	-10	248	-21	e12100
22	-95	8.5	109	588	263	358	379	286	-20	363	-180	e11100
23	127	125	72	559	270	462	260	254	82	153	58	8510
24	83	-69	95	550	257	450	-103	164	184	317	26	6450
25	59	44	180	758	348	265	251	5.7	152	93	90	4780
26	28	148	244	830	188	288	251	13	129	211	63	3510
27	-34	17	290	1080	256	614	-142	1.1	135	157	-4.0	2550
28	125	113	349	1040	218	e534	-69	96	186	148	34	1930
29	-8.2	91	359	921	---	e537	-567	53	94	21	-103	1550
30	3.3	44	383	1220	---	387	-21	39	5.6	99	-1060	1150
31	-34	---	413	927	---	e420	---	74	---	11	923	---
TOTAL	1178.1	1222.5	3888	18352	12384	9611	4949	7722.8	1052.66	3626	-39.8	135336
MEAN	38.0	40.8	125	592	442	310	165	249	35.1	117	-1.28	4511
MAX	191	281	413	1220	1220	614	490	810	396	470	923	17500
MIN	-95	-144	-210	178	37	96	-567	-6.3	-322	-172	-1060	-575

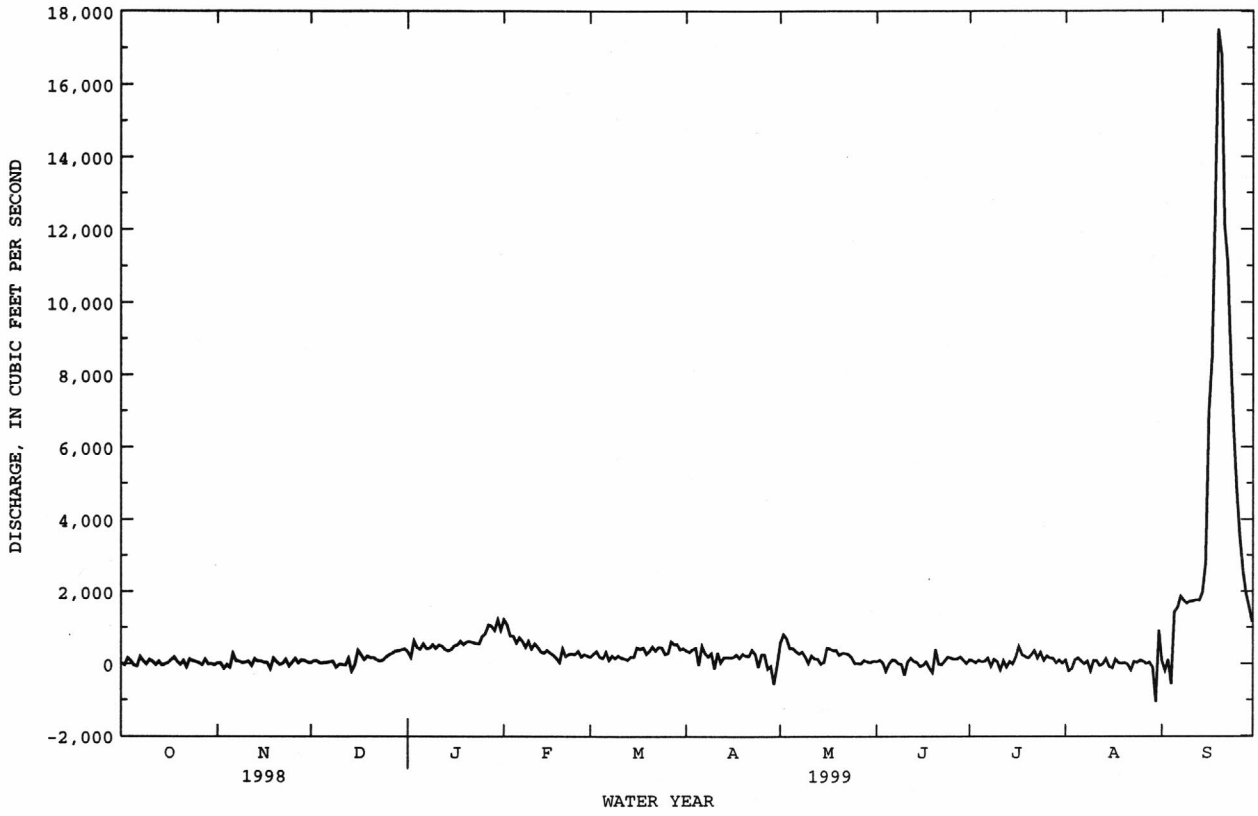
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 1999, BY WATER YEAR (WY)

MEAN	412	186	375	735	1143	594	331	233	83.6	228	179	1741
MAX	1115	330	672	888	2187	847	615	260	142	642	407	4511
(WY)	1997	1997	1997	1998	1998	1998	1998	1998	1997	1996	1996	1999
MIN	38.0	40.8	125	592	442	310	165	191	35.1	69.9	-1.28	48.3
(WY)	1999	1999	1999	1999	1999	1999	1999	1997	1999	1998	1999	1997

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1996 - 1999	
ANNUAL TOTAL	181041.9		199282.26			
ANNUAL MEAN	496		546		497	
HIGHEST ANNUAL MEAN					546	1999
LOWEST ANNUAL MEAN					417	1997
HIGHEST DAILY MEAN	3020	Feb 24	e17500	Sep 19	e17500	Sep 19 1999
LOWEST DAILY MEAN	-819	Aug 26	-1060	Sep 30	-1060	Aug 30 1999
ANNUAL SEVEN-DAY MINIMUM	-101	Aug 20	-136	Aug 24	-136	Aug 24 1999
INSTANTANEOUS PEAK FLOW			18600	Sep 19	18600	Sep 19 1999
INSTANTANEOUS PEAK STAGE			16.29*	Sep 19	16.29*	Sep 19 1999
INSTANTANEOUS LOW FLOW			-3210	Sep 4	-3560	Sep 6 1996
ANNUAL RUNOFF (INCHES)	18.20		20.04		18.26	
10 PERCENT EXCEEDS	1530		786		1310	
50 PERCENT EXCEEDS	187		153		243	
90 PERCENT EXCEEDS	-22		-41		-6.8	

e Estimated.
* See REMARKS.
Note.--Negative values indicate reverse flow.

02092554 TRENT RIVER AT POLLOCKSVILLE, NC--Continued



0209262905 NEUSE RIVER AT CHANNEL LIGHT 11

LOCATION.--Lat. 34°59'56", long. 76°56'36", Craven County, Hydrologic Unit 03020204, at U.S. Coast Guard Channel Light 11.

PERIOD OF RECORD.--Water years 1989 to 1993, June 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 to prevent possible destruction of the equipment during Hurricanes Dennis and Floyd. It was reinstalled October 6, 1999. 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. 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
SALINITY (TOP), ppt	16.1, August 20, 24, 1999	<0.1, on many days during the period
SALINITY (BOTOM), ppt	20.8, August 1, 1992	<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	5.9, May 25-31, June 8, 1999
WATER TEMPERATURE (TOP), °C	33.3, August 1, 1999	1.7, January 20, 1997
WATER TEMPERATURE (BOTTOM), °C	30.5, June 28, 1998	3.5, January 19, 1997
DISSOLVED OXYGEN (TOP), mg/L	20.0, February 18, 1992	< 1.0, June 23, 24 1991, July 11, 13, 15, 24, 27, 28, 1992, July 6, 25, 1996, July 13, 19, 29, 1998
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	16.1, August 20, 24	.5, January 27, February 7
SALINITY (BOTTOM), ppt	19.0, July 31	2.1, February 13
pH (TOP), standard units	9.9, March 17	6.5, February 4, June 8
pH (BOTTOM), standard units	9.0, March 21	5.9, May 25-31, June 8
WATER TEMPERATURE (TOP), °C	33.3, August 1	4.9, January 1, 7
WATER TEMPERATURE (BOTTOM), °C	30.1, August 14	6.6, January 2, 6
DISSOLVED OXYGEN (TOP), mg/L	16.8, March 17	1.2, November 2
DISSOLVED OXYGEN (BOTTOM), mg/L	14.5, March 2	< 1.0, on many days during the period
DISSOLVED OXYGEN, PERCENT SATURATION (TOP),%	206, July 22	13, November 2
DISSOLVED OXYGEN, PERCENT SATURATION (BOTTOM),%	195, June 10	< 10, on many days during the period

SALINITY, TOP, (PARTS PER THOUSAND), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	3.8	3.0	3.2	5.2	4.7	5.1	6.8	5.7	6.3	8.6	5.8	7.1
2	4.7	3.6	4.3	5.6	5.0	5.3	6.4	4.4	5.8	9.1	4.6	6.8
3	4.3	3.5	3.9	6.5	5.5	6.1	7.7	4.4	5.6	8.2	6.0	7.1
4	4.1	3.3	3.6	6.7	6.2	6.5	7.2	4.5	6.0	7.8	6.2	7.2
5	4.1	3.4	3.8	6.6	6.1	6.4	6.2	2.6	4.6	7.3	5.6	6.4
6	5.0	3.5	4.4	7.9	6.5	7.5	9.7	3.8	6.0	6.9	4.2	5.1
7	3.7	2.7	3.2	7.6	6.5	6.8	11.9	8.4	10.5	6.4	4.1	5.4
8	3.8	2.7	3.2	6.7	6.0	6.4	12.4	8.7	11.0	4.4	3.0	3.7
9	4.1	3.3	3.8	6.7	5.8	6.4	13.2	8.8	11.2	6.5	3.2	5.0
10	4.2	3.8	4.1	7.5	6.0	6.5	11.2	8.1	9.6	6.2	4.2	5.6
11	4.2	3.7	4.0	8.0	6.4	7.2	11.1	7.5	9.5	5.8	3.7	4.8
12	4.2	3.4	4.0	7.7	6.5	7.1	11.8	6.9	8.9	6.8	3.7	4.7
13	4.2	3.1	3.6	7.4	6.3	6.9	11.8	4.2	8.0	5.1	1.7	3.6
14	3.7	2.7	3.1	7.6	5.5	6.8	---	---	---	2.2	1.1	1.7
15	3.5	3.0	3.2	6.1	5.1	5.6	---	---	---	3.3	2.1	2.8
16	4.2	3.5	3.7	6.4	5.2	5.8	---	---	---	3.7	2.2	3.2
17	4.2	3.7	3.9	6.4	5.3	5.8	---	---	---	3.7	2.4	3.1
18	4.3	3.9	4.1	6.5	5.6	6.1	---	---	---	5.3	3.7	4.4
19	4.4	3.8	4.1	6.4	5.0	5.8	---	---	---	4.4	1.0	2.3
20	4.7	3.7	4.4	6.2	4.9	5.5	---	---	---	7.6	.7	2.3
21	5.2	3.5	4.7	7.4	5.4	6.6	---	---	---	5.3	1.7	2.7
22	5.5	4.8	5.2	7.0	6.2	6.6	---	---	---	3.5	.8	2.0
23	6.1	4.5	5.4	6.9	6.4	6.6	---	---	---	5.0	.8	2.8
24	4.8	4.2	4.4	7.3	6.3	6.7	---	---	---	3.2	1.5	2.5
25	5.3	4.0	4.2	7.3	6.4	6.8	11.1	9.2	10.2	2.6	.9	1.7
26	4.6	3.9	4.3	7.2	6.2	6.6	11.4	8.5	9.9	3.2	1.4	2.2
27	4.5	4.4	4.4	7.4	6.5	7.0	9.6	6.7	7.7	4.5	.5	1.4
28	4.5	4.0	4.3	7.3	5.4	6.3	7.4	5.1	6.4	4.3	.8	1.5
29	5.5	4.4	5.1	6.2	5.4	5.8	6.5	3.8	5.1	2.6	.7	1.5
30	5.5	4.7	5.1	6.5	5.2	5.8	9.3	3.6	6.9	2.7	1.3	1.7
31	5.4	4.5	5.1	---	---	---	9.5	7.4	8.5	3.0	1.5	2.2
MONTH	6.1	2.7	4.1	8.0	4.7	6.3	---	---	---	9.1	.5	3.7

0209262905 NEUSE RIVER AT CHANNEL LIGHT 11--Continued

SALINITY, TOP, (PARTS PER THOUSAND), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	2.3	1.3	1.7	7.9	4.2	5.3	2.4	1.9	2.1	---	---	---
2	1.6	1.0	1.3	5.8	2.1	3.7	2.5	1.5	2.0	---	---	---
3	1.5	.9	1.2	5.9	3.0	4.5	3.5	1.3	2.3	---	---	---
4	2.4	.6	1.2	7.3	3.1	5.2	2.9	.6	1.9	---	---	---
5	3.8	2.1	2.8	5.1	3.9	4.5	3.6	2.2	2.5	---	---	---
6	4.9	1.0	2.2	4.7	3.6	4.1	3.4	1.7	2.3	10.0	3.7	5.7
7	2.9	.5	1.8	5.3	3.9	4.8	2.1	.8	1.5	11.0	3.2	5.9
8	2.9	1.0	2.0	5.2	4.5	4.8	2.5	1.2	1.8	10.7	5.8	7.7
9	3.3	.9	2.3	5.3	3.8	4.6	3.3	1.1	2.0	8.0	3.0	5.0
10	2.3	.8	1.7	5.4	3.6	4.6	3.5	2.4	2.9	11.0	1.9	4.3
11	3.0	1.0	1.9	4.8	3.3	3.8	5.2	2.1	3.8	6.4	3.6	5.1
12	2.8	.8	1.8	4.9	3.8	4.3	4.2	2.4	3.0	6.5	4.0	5.4
13	3.7	1.3	2.2	5.1	4.1	4.5	5.3	2.3	3.4	6.1	4.6	5.2
14	3.2	2.1	2.6	5.0	4.0	4.6	3.2	2.1	2.6	8.6	5.5	6.7
15	2.4	1.5	1.9	6.0	3.3	4.1	4.5	2.3	3.4	10.1	6.6	8.1
16	3.5	1.6	2.4	4.3	3.2	3.5	3.9	2.2	3.1	10.4	6.9	8.7
17	5.0	1.8	3.2	4.3	2.8	3.6	4.5	3.0	3.6	9.8	6.1	8.0
18	5.1	2.1	3.2	4.9	3.0	3.8	5.4	3.0	4.0	8.6	4.5	7.0
19	5.4	3.0	3.6	4.7	2.3	3.7	3.5	2.0	2.7	7.2	3.2	4.5
20	5.6	1.9	3.7	4.1	2.8	3.6	5.4	2.8	3.9	---	---	---
21	5.0	1.9	3.5	4.2	3.1	3.6	5.1	2.4	3.7	---	---	---
22	8.2	3.6	5.1	3.9	2.3	3.2	4.9	1.8	3.8	---	---	---
23	6.4	2.2	4.6	3.3	2.4	2.9	5.6	3.2	4.4	---	---	---
24	4.4	3.4	3.7	3.9	2.0	2.5	6.6	3.4	5.0	---	---	---
25	5.2	2.7	3.3	3.7	1.9	2.9	5.9	3.8	4.7	---	---	---
26	5.5	3.4	4.5	5.5	3.1	4.4	4.1	3.0	3.5	---	---	---
27	6.7	3.5	4.4	3.8	2.8	3.1	5.3	3.3	4.2	---	---	---
28	7.6	4.0	4.7	3.8	1.7	2.9	5.7	4.8	5.2	---	---	---
29	---	---	---	3.9	.8	1.9	7.4	5.1	6.3	13.3	4.9	7.8
30	---	---	---	2.1	.8	1.5	---	---	---	10.1	5.9	8.1
31	---	---	---	2.5	1.2	1.8	---	---	---	9.8	5.9	7.4
MONTH	8.2	.5	2.8	7.9	.8	3.8	---	---	---	---	---	---

SALINITY, TOP, (PARTS PER THOUSAND), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	11.1	6.3	7.9	8.8	2.9	7.8	14.1	11.7	13.0	---	---	---
2	11.2	6.8	8.7	9.2	7.6	8.2	14.1	11.7	13.2	---	---	---
3	9.2	7.6	8.5	9.3	8.3	8.8	15.8	13.5	14.6	---	---	---
4	10.5	8.5	9.5	9.7	7.9	8.7	15.8	15.1	15.5	---	---	---
5	10.5	9.6	10.3	10.4	7.9	9.0	15.8	13.7	14.4	---	---	---
6	10.4	8.2	9.6	11.1	9.0	10.1	14.8	14.2	14.6	---	---	---
7	8.6	7.6	8.1	12.6	7.5	9.6	15.3	14.6	15.0	---	---	---
8	9.9	7.6	8.6	12.2	9.6	11.0	15.3	14.8	15.0	---	---	---
9	10.2	8.7	9.2	12.6	11.3	11.9	15.7	14.9	15.4	---	---	---
10	11.0	9.3	10.2	13.3	10.8	12.5	15.8	15.0	15.5	---	---	---
11	11.0	10.5	10.7	13.5	12.5	13.0	15.4	14.5	14.9	---	---	---
12	10.8	10.5	10.6	13.1	11.4	12.7	15.5	14.9	15.2	---	---	---
13	10.7	8.6	9.5	11.9	11.3	11.5	15.1	14.5	14.8	---	---	---
14	10.9	8.7	9.6	11.9	9.9	10.9	14.9	14.5	14.8	---	---	---
15	11.0	9.5	10.3	12.1	11.6	12.0	15.1	14.8	15.0	---	---	---
16	10.4	9.6	10.0	12.1	9.8	11.3	15.0	14.6	14.9	---	---	---
17	10.7	8.3	9.8	11.2	9.2	10.3	14.9	13.8	14.3	---	---	---
18	11.5	9.1	10.2	12.0	10.1	10.9	14.5	13.8	14.2	---	---	---
19	10.9	9.2	10.1	13.3	9.9	11.3	15.5	14.3	14.8	---	---	---
20	10.5	8.0	9.5	14.2	7.8	11.3	16.1	13.1	15.2	---	---	---
21	8.9	7.5	8.3	9.8	5.8	7.1	15.3	12.4	13.8	---	---	---
22	10.6	8.5	9.9	11.0	5.9	7.0	---	---	---	---	---	---
23	10.3	7.4	8.7	11.8	8.9	10.7	15.8	14.3	15.0	---	---	---
24	8.5	7.1	7.7	11.8	10.0	10.8	16.1	14.5	15.3	---	---	---
25	8.7	7.9	8.3	11.8	11.1	11.4	14.9	14.2	14.6	---	---	---
26	9.0	7.8	8.4	12.6	11.3	12.1	14.8	13.5	14.1	---	---	---
27	9.5	8.2	8.8	12.6	10.9	12.1	14.5	13.5	14.0	---	---	---
28	9.5	7.9	8.6	12.8	10.5	11.6	13.6	11.8	13.1	---	---	---
29	9.6	3.8	7.9	13.3	11.1	12.3	---	---	---	---	---	---
30	9.1	2.7	7.4	12.5	10.4	11.3	---	---	---	---	---	---
31	---	---	---	12.9	11.1	12.0	---	---	---	---	---	---
MONTH	11.5	2.7	9.2	14.2	2.9	10.7	---	---	---	---	---	---

0209262905 NEUSE RIVER AT CHANNEL LIGHT 11--Continued

SALINITY, BOTTOM, (PARTS PER THOUSAND), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	8.2	4.0	5.5	11.0	8.9	10.2	7.9	6.1	6.9	11.3	8.4	9.2
2	5.2	3.4	4.4	11.4	9.2	10.3	11.0	7.4	9.3	11.5	8.3	9.2
3	4.9	3.0	4.0	10.9	5.9	8.5	11.9	9.1	10.8	8.3	6.4	7.1
4	5.4	3.6	4.5	6.7	5.9	6.2	11.9	10.4	11.2	8.2	6.9	7.6
5	5.2	2.9	4.2	6.3	5.5	5.9	12.5	11.3	11.8	7.2	6.1	6.8
6	5.3	3.6	4.4	7.5	6.0	7.0	13.1	11.5	12.2	9.7	6.4	7.8
7	5.1	2.9	4.1	7.3	6.0	6.5	14.5	12.3	13.4	11.7	8.0	9.8
8	4.7	3.2	4.1	6.6	6.0	6.3	15.1	13.7	14.4	11.7	9.8	10.8
9	4.7	3.5	4.0	6.9	6.2	6.6	15.3	13.1	14.2	13.0	6.1	10.5
10	4.6	3.0	3.8	7.5	6.5	7.0	13.9	11.0	12.4	9.7	5.1	6.4
11	4.6	3.2	3.9	7.5	6.4	6.9	15.7	12.5	14.0	11.1	8.4	10.4
12	5.8	3.0	4.2	7.6	6.6	6.9	14.9	12.8	13.8	11.4	8.3	10.7
13	7.7	3.8	5.3	7.0	6.5	6.8	14.2	13.5	13.8	11.8	9.4	10.7
14	10.0	4.1	6.9	7.2	6.7	6.9	14.0	11.0	13.0	11.9	9.6	10.9
15	10.8	4.2	7.3	7.3	6.8	7.1	13.1	11.6	12.2	11.5	8.8	9.9
16	9.1	3.4	4.3	7.6	7.1	7.3	13.9	11.2	12.4	12.0	9.2	10.5
17	4.9	3.3	4.0	7.6	7.1	7.4	14.1	11.0	12.9	11.9	9.5	10.6
18	5.8	3.2	4.5	7.4	6.1	6.9	13.3	10.9	12.5	10.8	8.1	9.3
19	6.6	4.3	5.5	7.2	6.2	6.6	13.4	11.8	12.5	11.9	7.3	9.8
20	6.5	4.6	5.5	9.4	6.9	7.7	13.1	11.9	12.5	12.0	9.9	11.0
21	6.2	4.5	5.2	9.4	6.4	7.2	13.2	11.8	12.6	12.3	9.6	11.0
22	5.4	4.3	4.9	7.0	5.8	6.3	13.0	11.4	12.0	12.5	9.8	11.2
23	6.5	4.7	5.7	6.8	5.8	6.4	12.1	10.1	10.9	12.3	8.7	10.6
24	7.1	6.0	6.5	7.5	6.0	6.8	11.2	10.1	10.7	10.7	8.3	9.1
25	8.4	6.7	7.1	6.8	6.2	6.6	11.5	10.5	11.0	13.6	9.4	11.5
26	7.2	6.7	6.9	6.9	5.8	6.4	11.4	9.1	10.7	13.7	11.0	12.1
27	7.1	6.4	6.8	7.2	6.2	6.7	12.5	9.3	11.3	13.3	9.9	11.9
28	8.9	6.5	7.4	7.2	6.5	6.9	12.8	11.7	12.3	14.0	10.9	12.2
29	10.0	7.9	8.9	7.3	6.4	6.8	12.7	11.4	12.0	13.7	11.1	12.6
30	10.2	8.5	9.3	7.1	6.4	6.8	12.5	8.4	10.6	14.5	7.4	11.9
31	10.5	8.5	9.7	---	---	---	8.8	8.3	8.6	12.9	2.2	6.5
MONTH	10.8	2.9	5.6	11.4	5.5	7.1	15.7	6.1	11.9	14.5	2.2	10.0

SALINITY, BOTTOM, (PARTS PER THOUSAND), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	13.1	2.5	10.1	8.0	5.7	7.0	6.5	5.2	5.8	---	---	---
2	9.6	5.5	6.9	8.5	5.5	7.4	7.8	5.5	6.5	---	---	---
3	10.9	5.4	8.2	8.1	3.5	6.3	6.5	3.4	5.3	---	---	---
4	11.0	9.0	10.3	6.8	2.8	4.8	6.6	4.4	5.9	---	---	---
5	12.9	9.4	10.9	6.4	5.4	5.9	6.8	2.9	4.1	---	---	---
6	13.2	11.6	12.4	5.7	4.8	5.5	7.1	2.7	4.9	11.1	8.2	9.9
7	12.9	10.3	12.0	5.3	3.8	4.7	7.2	6.8	7.0	13.3	10.6	11.4
8	13.1	9.8	11.9	6.0	4.3	4.8	7.4	6.9	7.2	12.2	6.9	11.7
9	13.1	10.3	12.0	6.4	4.3	5.2	7.6	5.4	7.1	13.8	10.8	12.9
10	12.4	11.1	11.9	5.5	3.6	4.7	7.8	3.6	6.1	14.0	8.0	13.4
11	12.4	10.2	11.7	5.0	3.2	3.9	6.2	4.0	4.8	13.5	11.6	12.8
12	12.1	4.8	10.3	5.5	4.1	4.6	5.5	3.4	4.5	12.7	7.3	10.9
13	8.5	2.1	4.1	5.3	4.1	4.8	4.9	3.9	4.4	12.0	10.7	11.4
14	4.9	2.3	3.5	6.0	4.1	4.8	7.4	4.4	5.8	11.0	8.1	9.3
15	5.8	4.4	5.1	5.8	3.1	4.1	7.8	4.4	6.9	10.2	5.9	8.5
16	5.9	5.0	5.6	5.9	4.5	5.4	7.5	3.8	6.4	9.8	8.9	9.4
17	6.0	5.4	5.7	6.1	5.3	5.8	7.6	5.1	7.3	11.7	8.7	9.5
18	5.9	4.0	5.3	6.4	5.7	6.1	7.9	5.9	6.8	11.8	8.7	10.5
19	6.6	3.4	4.5	7.0	4.1	6.1	6.3	5.3	6.0	11.9	9.1	10.9
20	9.9	3.7	7.0	7.4	4.7	6.5	8.7	5.8	8.0	11.6	8.7	10.8
21	10.3	4.8	8.3	5.0	3.2	4.0	7.2	5.4	6.0	11.1	9.3	10.8
22	7.4	3.6	5.3	4.9	2.9	3.8	8.0	5.2	6.5	12.4	10.5	11.4
23	6.1	5.1	5.6	4.3	3.5	3.9	7.9	5.3	6.9	12.5	9.1	11.7
24	6.3	4.0	5.4	6.3	3.6	5.3	7.6	5.6	6.2	10.4	6.6	8.7
25	6.6	4.8	5.7	7.0	3.2	5.7	6.4	5.3	5.9	11.3	7.2	10.6
26	6.4	4.6	5.5	5.3	2.9	4.2	7.0	5.3	6.3	12.7	9.7	10.9
27	6.8	4.9	6.1	4.5	2.3	3.5	7.2	4.9	6.5	12.5	9.1	10.5
28	6.8	4.2	6.0	6.7	4.2	5.9	6.3	5.7	6.0	12.6	10.1	11.1
29	---	---	---	7.2	4.5	6.5	8.0	6.2	7.1	13.4	10.5	11.7
30	---	---	---	7.4	6.4	7.0	---	---	---	12.7	10.1	11.6
31	---	---	---	7.0	6.1	6.6	---	---	---	13.0	10.6	11.7
MONTH	13.2	2.1	7.8	8.5	2.3	5.3	---	---	---	---	---	---

0209262905 NEUSE RIVER AT CHANNEL LIGHT 11--Continued

SALINITY, BOTTOM, (PARTS PER THOUSAND), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	13.1	10.0	11.7	11.3	7.1	9.4	18.7	17.9	18.4	---	---	---
2	18.1	5.6	11.3	10.7	9.1	9.8	18.6	18.6	18.6	---	---	---
3	18.2	7.8	12.8	11.0	10.0	10.5	18.6	15.3	17.1	---	---	---
4	16.2	10.0	11.6	12.4	10.3	11.6	15.9	15.2	15.6	---	---	---
5	12.0	6.7	10.6	14.3	12.2	13.6	17.1	15.7	16.2	---	---	---
6	12.3	8.4	10.7	15.7	14.0	15.2	17.1	15.9	16.7	---	---	---
7	13.1	9.2	11.5	16.5	12.2	15.3	17.8	16.8	17.3	---	---	---
8	14.0	9.5	11.7	16.6	12.0	16.1	17.7	15.5	16.8	---	---	---
9	11.8	11.0	11.5	16.9	16.2	16.6	18.1	15.8	17.0	---	---	---
10	11.6	10.5	11.1	16.8	15.6	16.4	15.9	15.4	15.8	---	---	---
11	10.8	10.3	10.5	16.4	13.0	14.7	15.8	15.4	15.6	---	---	---
12	10.6	10.4	10.5	13.4	12.7	13.0	15.6	15.2	15.4	---	---	---
13	11.0	10.5	10.7	13.4	12.8	13.1	15.5	15.1	15.3	---	---	---
14	13.9	10.8	11.9	14.8	13.1	13.9	15.3	14.6	15.1	---	---	---
15	17.6	8.8	12.2	14.7	12.1	13.1	15.3	14.9	15.2	---	---	---
16	15.2	10.5	12.2	13.7	12.5	12.8	15.2	14.9	15.1	---	---	---
17	17.2	8.0	11.8	14.2	12.6	13.3	15.4	14.9	15.2	---	---	---
18	15.6	8.0	11.9	14.4	12.9	14.0	16.2	15.3	15.7	---	---	---
19	18.0	7.5	12.3	15.0	14.2	14.8	16.8	15.5	16.3	---	---	---
20	15.6	9.4	12.7	16.4	14.3	15.7	17.1	16.1	16.7	---	---	---
21	17.7	9.7	11.9	16.6	15.1	16.3	17.7	16.5	17.2	---	---	---
22	14.8	10.2	11.2	16.3	15.5	16.0	---	---	---	---	---	---
23	11.7	10.0	10.7	16.7	15.8	16.5	17.1	14.7	15.6	---	---	---
24	11.7	10.7	11.1	16.5	13.2	15.3	16.3	15.0	15.7	---	---	---
25	11.2	10.5	10.9	16.2	11.7	15.2	16.3	14.9	15.6	---	---	---
26	10.7	10.0	10.4	16.1	13.9	15.3	16.9	16.3	16.5	---	---	---
27	10.7	9.3	10.2	16.0	14.9	15.6	16.9	16.2	16.7	---	---	---
28	10.7	8.0	9.0	16.2	15.3	15.8	16.6	16.1	16.4	---	---	---
29	12.2	7.8	10.1	17.6	15.5	16.5	---	---	---	---	---	---
30	13.1	8.5	11.1	18.6	17.5	18.0	---	---	---	---	---	---
31	---	---	---	19.0	18.4	18.8	---	---	---	---	---	---
MONTH	18.2	5.6	11.3	19.0	7.1	14.6	---	---	---	---	---	---

PH, TOP, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	8.3	7.0	7.5	8.8	7.2	8.0	9.1	8.5	8.8	8.3	7.7	8.0
2	8.4	7.3	7.7	8.7	7.1	8.2	9.1	8.6	8.9	---	---	---
3	8.4	7.1	7.6	8.7	7.5	8.1	9.1	8.4	8.9	---	---	---
4	8.3	7.3	7.8	8.2	7.5	8.0	9.1	8.7	8.9	---	---	---
5	8.3	7.3	7.7	8.1	7.6	8.0	9.2	8.7	9.0	---	---	---
6	8.1	7.5	7.9	8.0	7.3	7.6	9.0	7.3	8.7	---	---	---
7	8.0	7.4	7.8	7.7	6.9	7.5	8.3	7.1	7.5	8.7	8.2	8.4
8	8.0	7.0	7.5	7.9	6.8	7.3	8.3	7.6	7.9	8.5	8.2	8.3
9	7.6	7.1	7.4	8.0	6.7	7.4	8.1	7.4	7.7	8.7	8.3	8.5
10	8.0	6.9	7.5	8.3	7.2	7.8	8.7	7.8	8.1	8.6	8.1	8.3
11	7.9	6.9	7.4	7.9	7.1	7.6	8.3	8.2	8.2	9.0	8.1	8.4
12	8.2	7.2	7.6	8.2	7.0	7.7	8.5	8.2	8.4	9.3	8.3	8.7
13	8.2	7.3	7.8	7.9	7.1	7.7	8.7	8.4	8.5	9.1	8.0	8.7
14	8.4	7.2	8.0	8.2	7.0	7.4	8.4	7.6	8.0	8.0	7.6	7.8
15	8.2	7.0	7.7	8.3	7.1	7.7	8.1	7.9	8.0	8.1	7.8	7.9
16	8.3	7.4	7.9	8.5	7.1	7.6	8.0	7.9	8.0	9.4	7.8	8.4
17	8.4	7.3	7.9	8.7	7.2	8.1	8.3	7.9	8.1	9.4	8.2	8.9
18	8.2	7.2	7.7	8.7	8.0	8.5	8.2	7.8	8.0	9.1	8.6	8.7
19	8.1	7.0	7.4	8.6	7.4	8.2	8.5	8.0	8.2	9.0	7.6	8.2
20	8.1	7.0	7.5	8.4	7.1	7.8	8.9	8.3	8.5	8.7	7.5	7.9
21	8.1	7.2	7.7	8.0	7.4	7.8	8.9	8.6	8.7	8.9	7.9	8.4
22	8.1	7.6	7.9	8.2	7.7	7.9	8.7	8.0	8.3	8.8	7.4	8.2
23	8.1	7.6	7.8	8.2	7.4	7.8	8.5	8.0	8.3	8.8	7.4	8.0
24	8.1	7.1	7.6	8.8	7.5	8.1	8.3	8.1	8.1	7.8	7.4	7.6
25	8.7	7.3	7.9	8.8	7.9	8.5	8.1	8.0	8.0	7.7	7.2	7.4
26	9.0	7.5	8.2	8.8	8.4	8.6	8.1	7.9	8.0	7.7	7.4	7.5
27	8.8	7.7	8.3	8.7	7.4	8.4	8.3	8.0	8.1	7.7	7.1	7.3
28	9.1	7.4	8.4	9.0	7.5	8.4	8.3	8.1	8.2	7.6	7.0	7.2
29	8.7	7.4	8.1	9.0	8.0	8.6	8.2	7.7	8.0	7.4	7.0	7.1
30	9.0	7.4	8.1	9.0	7.9	8.8	7.9	7.6	7.7	7.4	7.1	7.2
31	8.7	7.2	8.2	---	---	---	8.2	7.7	7.9	7.7	7.1	7.4
MONTH	9.1	6.9	7.8	9.0	6.7	8.0	9.2	7.1	8.2	---	---	---

0209262905 NEUSE RIVER AT CHANNEL LIGHT 11--Continued

PH, TOP, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	7.4	7.2	7.3	9.0	7.8	8.4	8.7	8.4	8.5	---	---	---
2	7.3	7.0	7.2	9.0	7.9	8.5	9.2	8.0	8.7	---	---	---
3	7.2	7.0	7.1	8.7	7.7	8.4	9.2	8.7	9.0	---	---	---
4	7.0	6.5	6.8	8.5	7.7	8.1	9.2	8.6	8.9	---	---	---
5	7.1	6.8	7.0	8.9	7.9	8.5	9.0	8.7	8.9	---	---	---
6	7.1	6.7	6.9	9.1	8.4	8.8	8.9	8.4	8.7	8.4	6.9	7.7
7	7.0	6.7	6.9	8.8	8.1	8.6	8.8	7.9	8.3	8.8	6.9	7.7
8	7.1	6.8	6.9	9.1	8.3	8.7	8.9	7.3	8.1	8.0	6.8	7.4
9	7.2	7.0	7.1	9.1	8.8	9.0	8.2	7.3	7.6	8.8	7.6	8.2
10	7.1	6.9	7.0	9.2	8.6	8.9	8.9	7.3	8.1	8.8	7.8	8.4
11	7.8	7.0	7.2	9.2	8.6	8.9	8.6	7.7	8.3	8.6	8.3	8.5
12	7.3	7.0	7.2	9.4	8.9	9.2	8.7	7.7	8.2	8.6	8.2	8.3
13	7.4	7.0	7.2	9.6	9.1	9.4	8.9	8.0	8.5	8.6	8.1	8.3
14	7.4	7.3	7.4	9.6	9.3	9.4	9.0	8.1	8.6	8.3	7.8	8.0
15	7.6	7.4	7.5	9.3	8.6	9.0	9.0	7.7	8.7	7.8	7.3	7.5
16	8.3	7.5	7.8	9.6	8.4	9.1	8.9	7.5	8.3	7.5	7.3	7.4
17	8.3	7.5	7.9	9.9	9.2	9.5	9.1	8.1	8.6	7.8	7.3	7.6
18	8.2	7.4	7.7	9.6	8.2	9.0	9.0	8.2	8.8	8.1	7.5	7.8
19	7.8	7.5	7.6	9.8	9.0	9.5	9.0	8.0	8.6	8.5	7.9	8.2
20	8.0	7.6	7.7	9.8	9.5	9.7	8.8	7.5	8.3	8.5	7.4	8.0
21	8.0	7.7	7.8	9.7	9.0	9.4	9.0	8.1	8.7	8.9	7.5	8.3
22	8.3	7.6	7.9	9.5	8.2	9.0	9.1	7.7	8.6	8.2	7.1	7.4
23	8.1	7.9	8.0	9.6	8.7	9.3	8.9	7.6	8.0	7.4	7.0	7.2
24	8.1	7.7	7.9	9.5	8.9	9.3	8.3	7.8	8.0	7.5	7.1	7.3
25	8.5	7.8	8.0	9.7	8.7	9.3	8.1	7.6	7.8	7.8	7.0	7.5
26	8.7	8.1	8.3	9.5	8.9	9.3	8.2	7.7	7.9	7.8	7.1	7.4
27	9.1	8.1	8.6	9.2	8.7	8.9	8.0	7.6	7.8	7.6	7.0	7.4
28	8.9	7.9	8.5	9.6	8.5	9.0	7.8	7.7	7.7	8.2	7.0	7.7
29	---	---	---	9.6	8.7	9.2	7.9	7.6	7.7	8.1	7.5	7.7
30	---	---	---	9.4	8.7	9.0	---	---	---	8.1	7.4	7.8
31	---	---	---	9.4	8.4	8.8	---	---	---	7.9	7.2	7.6
MONTH	9.1	6.5	7.5	9.9	7.7	9.0	---	---	---	---	---	---

PH, TOP, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	7.6	7.1	7.3	8.1	7.5	7.8	8.7	8.0	8.5	---	---	---
2	7.2	6.8	7.1	8.4	7.8	8.1	8.6	8.2	8.4	---	---	---
3	7.2	6.8	7.0	8.5	7.9	8.2	8.5	7.7	8.4	---	---	---
4	7.6	6.9	7.2	8.5	7.7	8.1	8.4	8.0	8.1	---	---	---
5	7.4	6.9	7.1	8.4	7.2	7.9	8.5	8.0	8.2	---	---	---
6	7.6	6.8	7.2	8.3	7.3	7.8	8.4	7.9	8.1	---	---	---
7	7.5	6.7	7.2	8.3	7.5	7.8	8.6	7.6	8.1	---	---	---
8	7.8	6.5	7.0	8.3	7.5	7.9	8.1	7.5	7.9	---	---	---
9	7.9	7.0	7.4	8.4	7.8	8.1	8.0	7.7	7.8	---	---	---
10	8.0	7.2	7.6	8.2	7.7	8.0	7.9	7.3	7.6	---	---	---
11	7.7	7.3	7.5	8.1	7.8	8.0	8.0	7.7	7.8	---	---	---
12	7.5	7.3	7.4	7.9	7.7	7.8	8.1	7.8	7.9	---	---	---
13	8.1	7.3	7.7	7.8	7.6	7.7	8.2	7.9	8.0	---	---	---
14	8.0	7.1	7.6	8.4	7.6	8.0	8.1	8.0	8.0	---	---	---
15	7.7	7.1	7.4	8.4	7.9	8.1	8.2	7.9	8.0	---	---	---
16	7.7	7.5	7.6	9.1	8.2	8.5	8.3	8.0	8.1	---	---	---
17	7.7	7.4	7.5	9.1	8.6	8.8	8.3	8.1	8.2	---	---	---
18	7.7	7.3	7.5	8.8	7.5	8.6	8.4	8.0	8.2	---	---	---
19	7.8	7.5	7.6	8.8	7.3	7.9	8.6	8.1	8.3	---	---	---
20	8.3	7.5	7.8	8.8	7.0	8.1	8.6	8.3	8.4	---	---	---
21	8.2	7.6	8.0	9.1	8.7	8.9	8.6	8.1	8.4	---	---	---
22	8.1	7.5	7.8	9.5	8.6	9.0	---	---	---	---	---	---
23	8.4	7.5	7.9	9.2	8.3	8.7	8.3	8.0	8.2	---	---	---
24	8.5	8.0	8.3	9.2	8.3	8.7	8.1	7.9	8.0	---	---	---
25	8.7	8.1	8.4	9.3	8.2	8.7	8.2	7.9	8.0	---	---	---
26	8.6	8.1	8.4	9.1	8.1	8.6	8.1	7.9	8.0	---	---	---
27	8.3	7.3	8.0	9.2	8.6	8.8	8.1	7.8	8.0	---	---	---
28	8.3	7.0	7.7	8.9	7.6	8.4	8.3	7.9	8.1	---	---	---
29	8.1	7.5	7.8	8.3	7.2	7.8	---	---	---	---	---	---
30	8.0	7.4	7.7	8.5	8.0	8.3	---	---	---	---	---	---
31	---	---	---	8.6	8.3	8.5	---	---	---	---	---	---
MONTH	8.7	6.5	7.6	9.5	7.0	8.2	---	---	---	---	---	---

0209262905 NEUSE RIVER AT CHANNEL LIGHT 11--Continued

PH, BOTTOM, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	7.3	6.9	7.0	7.0	6.9	6.9	8.6	7.0	7.8	7.6	7.3	7.5
2	8.2	7.3	7.7	7.0	6.9	7.0	7.3	7.1	7.2	8.1	7.4	7.8
3	8.2	7.5	7.6	7.9	6.9	7.2	7.3	6.7	7.2	7.8	7.4	7.5
4	8.1	7.3	7.6	8.3	7.7	8.0	7.3	7.2	7.3	7.8	7.5	7.7
5	8.2	7.3	7.7	8.2	7.8	8.1	7.3	7.2	7.3	7.8	7.5	7.6
6	8.2	7.7	8.1	7.9	7.4	7.6	7.3	7.1	7.2	7.9	7.2	7.5
7	8.3	7.7	7.9	7.6	7.5	7.6	7.3	7.1	7.2	7.4	7.3	7.3
8	7.9	7.3	7.7	---	---	---	7.3	7.1	7.2	7.3	7.2	7.3
9	7.7	7.3	7.5	---	---	---	7.8	7.1	7.4	7.6	7.2	7.3
10	7.9	7.4	7.6	---	---	---	7.9	7.3	7.6	7.8	7.3	7.6
11	7.9	7.3	7.6	7.8	7.2	7.7	7.9	7.0	7.3	7.7	7.4	7.6
12	7.8	7.0	7.4	7.9	7.6	7.8	8.8	7.0	8.1	7.6	7.4	7.5
13	7.3	6.9	7.1	8.0	7.7	7.8	8.5	7.6	8.1	7.4	7.2	7.3
14	7.1	6.9	7.0	7.8	7.6	7.7	8.5	7.6	8.1	7.3	7.3	7.3
15	7.1	6.8	7.0	7.7	7.5	7.6	8.7	8.4	8.5	7.3	7.2	7.2
16	7.3	6.9	7.1	7.5	7.3	7.4	8.6	8.1	8.4	7.5	7.3	7.4
17	7.3	7.0	7.1	7.4	7.2	7.3	8.6	8.1	8.3	7.5	7.3	7.3
18	7.4	6.9	7.2	8.2	7.0	7.2	8.6	8.2	8.4	7.4	7.2	7.3
19	7.1	6.9	6.9	8.1	6.9	7.5	8.3	7.9	8.2	7.4	7.2	7.2
20	8.7	6.9	7.4	7.3	7.0	7.1	8.3	7.6	7.9	7.5	7.0	7.3
21	8.4	7.1	7.7	8.0	7.2	7.6	7.8	7.5	7.7	7.0	6.9	7.0
22	8.2	7.7	7.9	8.1	7.7	7.9	8.5	7.5	8.0	7.0	6.9	6.9
23	8.5	7.7	8.2	8.2	7.9	8.0	8.7	8.2	8.5	6.9	6.8	6.8
24	8.4	7.6	8.1	8.7	7.0	7.9	8.6	8.3	8.4	6.8	6.6	6.7
25	7.7	7.3	7.5	8.8	8.4	8.6	8.3	8.1	8.2	6.9	6.8	6.8
26	7.4	7.0	7.2	8.7	8.4	8.6	8.2	8.0	8.1	6.9	6.8	6.8
27	7.2	6.8	7.0	8.7	8.1	8.5	8.1	7.8	7.9	6.8	6.7	6.8
28	6.9	6.7	6.8	8.5	8.1	8.3	7.9	7.6	7.7	6.9	6.7	6.8
29	6.9	6.7	6.9	8.4	8.0	8.2	7.7	7.5	7.6	6.9	6.8	6.8
30	6.9	6.8	6.9	8.3	7.6	8.1	7.7	7.4	7.5	6.8	6.7	6.7
31	6.9	6.7	6.9	---	---	---	7.6	7.4	7.5	7.1	6.7	6.8
MONTH	8.7	6.7	7.4	---	---	---	8.8	6.7	7.8	8.1	6.6	7.2

PH, BOTTOM, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	6.9	6.6	6.7	7.6	7.1	7.3	6.8	6.7	6.7	---	---	---
2	6.8	6.7	6.8	8.1	6.8	7.3	6.7	6.6	6.7	---	---	---
3	6.8	6.7	6.8	8.3	7.1	7.5	8.6	6.7	6.8	---	---	---
4	6.8	6.3	6.7	8.2	7.5	7.8	7.1	6.6	6.7	---	---	---
5	7.0	6.7	6.9	8.1	7.3	7.6	8.7	6.7	8.0	---	---	---
6	7.1	7.0	7.1	7.6	7.2	7.3	8.6	6.6	7.4	6.8	6.6	6.6
7	7.1	7.0	7.1	8.4	7.5	8.1	6.8	6.6	6.7	6.8	6.4	6.6
8	7.1	7.0	7.1	8.5	7.8	8.1	6.7	6.6	6.6	6.4	6.3	6.3
9	7.1	7.0	7.1	8.5	7.6	8.2	6.9	6.6	6.6	6.4	6.3	6.4
10	7.0	6.9	7.0	8.6	8.0	8.3	8.2	6.6	6.9	6.5	6.3	6.4
11	6.9	6.9	6.9	8.5	8.1	8.3	8.2	7.3	7.9	6.4	6.2	6.3
12	7.0	6.9	6.9	8.8	8.2	8.4	8.3	7.0	7.7	7.6	6.1	6.4
13	7.3	6.9	7.2	8.9	8.2	8.5	8.4	7.6	8.0	6.1	6.1	6.1
14	7.5	7.2	7.4	8.9	7.3	8.4	8.1	6.8	7.3	7.4	6.1	6.7
15	7.4	7.4	7.4	8.7	8.1	8.4	8.2	6.6	6.9	7.2	6.8	7.0
16	7.5	7.3	7.4	8.5	7.9	8.1	7.5	6.6	6.8	7.0	6.8	6.9
17	7.4	7.3	7.3	8.0	7.4	7.6	7.5	6.6	6.6	7.4	6.5	6.9
18	7.5	7.2	7.3	7.4	7.1	7.3	8.1	6.6	7.0	7.2	6.3	6.8
19	7.9	7.2	7.5	8.4	6.9	7.1	7.9	6.5	6.9	7.2	6.4	6.6
20	7.7	7.1	7.3	8.1	6.9	7.0	7.8	6.4	6.5	6.4	6.1	6.2
21	7.7	7.0	7.2	9.0	7.1	8.5	7.9	6.5	7.4	6.2	6.0	6.1
22	8.2	7.2	7.8	8.8	7.8	8.3	7.3	6.5	6.7	6.1	6.0	6.1
23	8.0	7.5	7.8	8.8	7.7	8.3	7.3	6.5	6.7	6.4	6.0	6.1
24	8.1	7.4	7.8	8.1	7.0	7.2	7.5	6.5	7.1	6.7	6.1	6.5
25	8.2	7.8	8.1	8.4	6.9	7.1	7.3	6.8	7.0	6.5	5.9	6.2
26	8.1	7.7	8.0	8.7	7.3	8.5	7.3	6.6	6.8	6.0	5.9	6.0
27	8.0	7.2	7.4	8.2	7.8	8.1	7.2	6.6	6.9	6.5	5.9	6.0
28	7.9	7.0	7.3	8.1	7.0	7.4	7.2	7.0	7.1	6.1	5.9	6.0
29	---	---	---	7.8	6.7	6.9	7.2	7.0	7.1	6.1	5.9	6.0
30	---	---	---	6.8	6.7	6.8	---	---	---	6.0	5.9	5.9
31	---	---	---	6.9	6.3	6.7	---	---	---	6.3	5.9	6.1
MONTH	8.2	6.3	7.3	9.0	6.3	7.8	---	---	---	---	---	---

0209262905 NEUSE RIVER AT CHANNEL LIGHT 11--Continued

PH, BOTTOM, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	6.6	6.2	6.4	7.9	7.0	7.5	7.9	7.8	7.8	---	---	---
2	7.1	6.3	6.6	8.1	7.0	7.4	8.0	7.9	8.0	---	---	---
3	6.7	6.5	6.6	7.6	7.1	7.3	8.3	8.0	8.2	---	---	---
4	7.4	6.4	6.7	7.3	6.8	6.9	8.2	7.9	8.0	---	---	---
5	7.2	6.6	6.9	7.0	6.9	6.9	7.9	7.3	7.7	---	---	---
6	6.9	6.4	6.7	7.1	6.9	7.0	7.5	7.1	7.2	---	---	---
7	6.5	6.2	6.4	7.6	7.0	7.1	7.3	7.0	7.1	---	---	---
8	7.3	5.9	6.3	7.5	7.1	7.2	7.3	6.9	7.1	---	---	---
9	6.8	6.3	6.5	7.3	7.2	7.2	7.7	6.9	7.3	---	---	---
10	6.6	6.1	6.4	7.2	7.1	7.2	---	---	---	---	---	---
11	---	---	---	7.9	7.1	7.5	---	---	---	---	---	---
12	---	---	---	7.8	7.5	7.7	---	---	---	---	---	---
13	---	---	---	7.7	7.3	7.5	---	---	---	---	---	---
14	---	---	---	7.5	7.2	7.3	---	---	---	---	---	---
15	6.9	6.8	6.9	8.2	7.1	7.7	---	---	---	---	---	---
16	7.4	6.8	6.9	8.1	7.2	7.8	---	---	---	---	---	---
17	7.4	6.8	7.0	7.7	6.9	7.2	---	---	---	---	---	---
18	7.3	6.8	7.1	7.0	6.9	6.9	---	---	---	---	---	---
19	7.4	7.0	7.3	7.0	6.9	7.0	---	---	---	---	---	---
20	7.4	7.0	7.2	7.5	6.9	7.2	8.1	7.5	7.7	---	---	---
21	7.4	6.9	7.0	7.4	7.3	7.3	7.5	7.4	7.5	---	---	---
22	7.7	6.8	7.3	7.3	7.2	7.3	---	---	---	---	---	---
23	7.7	6.9	7.2	7.3	7.2	7.2	8.2	7.3	7.9	---	---	---
24	7.4	6.9	7.1	7.3	7.1	7.2	8.1	7.9	8.0	---	---	---
25	7.0	6.8	6.9	7.8	7.1	7.2	8.1	7.6	7.8	---	---	---
26	7.0	6.7	6.8	7.6	7.0	7.1	8.0	7.6	7.8	---	---	---
27	7.3	6.7	6.9	7.1	7.0	7.1	8.0	7.7	7.9	---	---	---
28	8.1	6.8	7.3	7.2	7.0	7.1	7.8	7.6	7.7	---	---	---
29	8.0	6.9	7.2	7.4	7.2	7.3	---	---	---	---	---	---
30	7.8	6.8	7.1	7.7	7.4	7.6	---	---	---	---	---	---
31	---	---	---	7.8	7.7	7.7	---	---	---	---	---	---
MONTH	---	---	---	8.2	6.8	7.3	---	---	---	---	---	---

TEMPERATURE, TOP, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	27.0	25.6	26.1	19.0	17.9	18.3	16.3	15.1	15.6	7.1	4.9	6.3
2	25.8	24.6	25.1	18.5	18.0	18.2	16.2	15.1	15.6	6.7	5.6	6.1
3	24.7	23.3	24.1	18.6	17.9	18.2	16.2	15.4	15.8	8.8	6.7	8.2
4	24.9	23.8	24.4	18.3	17.0	17.7	17.2	15.4	16.2	8.5	7.7	8.2
5	24.9	24.1	24.4	17.0	15.5	16.1	18.0	15.5	16.5	7.7	6.5	7.0
6	24.1	23.4	23.8	15.5	14.2	14.8	17.9	16.2	17.0	6.5	5.0	5.6
7	24.0	23.1	23.5	14.2	13.3	13.6	16.8	15.4	16.0	6.7	4.9	5.8
8	24.0	23.3	23.7	13.8	12.1	13.0	17.0	16.3	16.6	7.8	6.1	6.9
9	23.8	23.1	23.5	13.8	12.7	13.2	16.8	15.7	16.4	8.9	7.1	8.0
10	23.1	22.4	22.7	14.3	13.3	13.7	15.7	14.9	15.2	8.5	6.7	7.8
11	23.3	21.9	22.4	15.7	14.3	15.2	15.0	13.5	14.4	7.4	6.4	6.8
12	23.1	21.9	22.5	16.2	15.1	15.4	13.7	13.0	13.4	8.4	6.3	7.3
13	23.1	22.0	22.5	15.3	14.6	15.0	13.7	13.1	13.5	8.9	7.1	7.7
14	23.0	21.7	22.4	15.1	14.4	14.7	13.6	12.6	13.3	8.3	7.5	7.8
15	22.4	21.3	21.8	15.1	14.2	14.6	12.6	12.0	12.3	9.3	8.2	8.8
16	21.6	20.9	21.3	15.4	13.9	14.7	12.6	11.7	12.2	9.8	7.9	8.7
17	21.9	20.4	20.9	16.6	15.1	15.7	12.4	11.4	11.7	9.7	8.3	8.8
18	22.2	20.6	21.2	16.0	15.5	15.7	11.4	10.4	11.0	10.6	8.9	9.8
19	22.1	20.5	21.3	15.6	15.4	15.5	10.6	9.9	10.4	11.7	9.7	10.5
20	21.6	21.2	21.4	15.7	15.3	15.5	11.9	10.6	11.0	10.8	9.6	10.3
21	21.3	20.0	20.6	15.5	14.6	15.1	11.8	11.3	11.5	12.2	10.4	11.0
22	20.0	18.5	19.3	14.6	14.2	14.4	12.5	11.7	12.0	14.1	11.6	12.5
23	18.5	16.3	17.4	15.3	13.9	14.4	12.2	11.0	11.6	13.8	12.7	13.3
24	17.3	15.6	16.5	15.8	14.5	15.0	11.0	9.9	10.4	14.4	13.7	14.0
25	17.8	15.8	16.7	15.6	14.7	15.0	9.9	8.3	9.1	14.2	12.9	13.3
26	18.4	16.6	17.4	15.4	14.9	15.1	8.7	7.4	8.2	13.2	12.2	12.6
27	18.2	16.8	17.4	14.9	14.4	14.7	7.6	6.7	7.1	13.1	11.5	12.4
28	19.8	17.2	18.0	15.4	13.4	14.3	8.0	7.1	7.6	14.2	12.4	13.2
29	18.9	17.8	18.4	15.9	13.8	14.4	8.2	7.8	7.9	13.4	12.5	12.9
30	19.6	18.0	18.7	15.1	14.2	14.7	8.6	7.8	8.1	12.5	11.9	12.3
31	19.3	18.3	18.7	---	---	---	7.8	6.4	7.1	11.9	10.5	11.1
MONTH	27.0	15.6	21.2	19.0	12.1	15.2	18.0	6.4	12.4	14.4	4.9	9.5

0209262905 NEUSE RIVER AT CHANNEL LIGHT 11--Continued

TEMPERATURE, TOP, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	10.5	10.2	10.4	9.9	9.0	9.5	15.6	14.3	15.0	---	---	---
2	11.8	10.4	11.1	11.5	9.1	10.1	18.5	15.5	16.6	---	---	---
3	12.6	11.2	11.8	11.3	9.9	10.6	18.6	16.3	17.5	---	---	---
4	12.5	11.8	12.2	11.0	9.6	10.3	19.3	17.6	18.4	---	---	---
5	12.0	11.3	11.6	10.1	9.1	9.6	19.0	17.9	18.4	---	---	---
6	12.0	9.9	11.4	10.8	9.5	10.2	18.4	17.1	17.7	18.5	15.3	16.7
7	12.4	11.4	11.9	10.6	9.9	10.4	19.8	17.5	18.5	21.9	15.4	18.5
8	12.8	11.9	12.3	10.0	8.9	9.5	21.1	17.9	19.3	20.8	16.0	18.5
9	12.8	11.5	12.2	9.4	8.3	8.7	20.5	19.1	19.8	23.5	19.6	21.0
10	13.5	12.5	13.0	8.7	8.1	8.4	20.7	19.0	19.8	23.3	18.8	21.9
11	14.5	12.2	13.4	8.9	8.0	8.4	19.5	18.2	18.8	22.8	21.6	22.1
12	14.9	13.4	14.2	8.9	7.9	8.4	19.3	18.4	18.9	22.2	21.6	21.8
13	14.2	12.2	13.1	9.2	7.9	8.7	18.4	17.4	17.8	23.8	21.4	22.4
14	12.2	9.8	11.0	9.8	8.7	9.1	18.5	16.9	17.7	23.2	21.6	22.6
15	11.5	9.1	10.2	9.9	8.8	9.5	18.4	17.2	17.8	21.6	18.5	20.3
16	11.3	9.2	10.3	10.6	8.5	9.2	19.3	18.0	18.7	18.8	18.3	18.5
17	11.8	9.7	10.8	12.6	9.1	10.2	18.9	17.2	18.0	20.0	18.2	19.0
18	12.3	11.1	11.7	12.8	9.3	10.8	17.9	16.5	17.2	21.1	19.3	20.0
19	11.9	11.4	11.7	14.5	11.2	12.5	18.5	16.5	17.4	23.1	20.1	21.4
20	11.6	10.9	11.3	13.5	12.0	12.8	18.8	16.3	17.5	23.5	20.9	21.9
21	11.3	10.0	10.5	12.9	12.1	12.5	19.9	17.2	18.3	24.3	21.7	22.7
22	10.0	8.9	9.3	13.2	12.2	12.7	20.3	18.2	19.1	23.2	20.6	21.9
23	8.9	7.8	8.1	14.2	12.0	13.2	21.3	19.1	19.9	22.9	21.0	22.0
24	8.3	7.3	7.7	15.3	13.4	14.3	20.5	19.5	20.0	23.7	22.2	22.9
25	8.0	7.1	7.5	15.9	13.9	14.8	20.0	18.7	19.5	24.7	22.3	23.4
26	8.5	7.4	7.9	14.6	12.8	13.5	20.1	18.7	19.6	25.6	22.9	23.8
27	8.9	7.5	8.2	12.8	11.3	12.1	20.4	19.6	19.9	24.8	23.0	23.7
28	9.7	8.6	9.2	12.3	11.0	11.6	19.8	18.3	19.1	26.0	22.7	24.1
29	---	---	---	15.2	11.5	12.9	18.3	16.7	17.5	26.5	23.7	24.9
30	---	---	---	14.1	12.7	13.5	---	---	---	28.1	24.7	25.9
31	---	---	---	14.8	12.6	14.0	---	---	---	27.3	24.6	25.8
MONTH	14.9	7.1	10.9	15.9	7.9	11.0	---	---	---	---	---	---

TEMPERATURE, TOP, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	26.6	24.6	25.5	27.3	26.3	26.8	33.3	29.8	31.0	---	---	---
2	25.8	24.0	25.1	28.5	26.5	27.5	31.7	30.1	30.7	---	---	---
3	25.8	24.3	25.1	29.0	27.1	28.0	30.1	28.5	29.1	---	---	---
4	26.2	24.7	25.3	30.0	27.5	28.3	28.5	27.3	27.8	---	---	---
5	25.6	24.6	25.1	31.0	26.5	28.5	29.3	26.6	27.6	---	---	---
6	29.1	24.7	26.5	30.3	26.9	28.5	29.9	26.9	28.2	---	---	---
7	29.4	26.4	27.3	29.5	27.5	28.4	30.5	27.8	28.7	---	---	---
8	28.2	24.6	26.2	29.3	27.5	28.4	29.7	28.0	28.8	---	---	---
9	30.2	25.4	27.0	29.8	27.8	28.8	28.9	27.9	28.5	---	---	---
10	28.4	26.8	27.6	29.5	27.8	28.8	28.4	27.3	27.8	---	---	---
11	27.3	26.3	26.9	29.0	27.7	28.4	29.0	27.1	28.2	---	---	---
12	26.5	25.3	25.6	27.7	26.4	27.2	29.2	28.0	28.5	---	---	---
13	27.5	24.5	25.6	26.4	25.8	26.1	29.8	28.6	29.1	---	---	---
14	27.5	25.0	26.0	27.0	25.2	26.2	30.0	29.0	29.5	---	---	---
15	26.2	25.6	25.9	26.8	26.1	26.5	29.8	28.8	29.2	---	---	---
16	26.0	25.3	25.6	28.8	26.1	27.1	30.5	28.8	29.2	---	---	---
17	25.3	24.7	25.0	29.8	27.6	28.6	30.9	28.9	29.7	---	---	---
18	24.7	23.6	24.2	29.0	27.3	28.4	32.4	28.9	30.1	---	---	---
19	23.8	22.6	23.0	29.9	26.5	28.0	31.8	29.1	30.0	---	---	---
20	23.8	22.3	22.9	31.9	26.4	28.9	30.0	28.9	29.3	---	---	---
21	24.3	22.9	23.7	31.3	29.6	30.2	31.0	28.1	29.1	---	---	---
22	24.3	23.2	23.6	31.0	28.7	29.6	---	---	---	---	---	---
23	24.3	22.7	23.4	33.1	29.0	30.3	28.8	27.8	28.4	---	---	---
24	25.0	23.5	24.2	31.8	29.3	30.2	28.3	27.6	28.0	---	---	---
25	26.2	24.0	25.3	30.9	28.5	29.5	28.3	27.6	27.9	---	---	---
26	26.5	25.4	25.9	30.5	28.4	29.5	28.5	27.3	27.7	---	---	---
27	27.3	25.7	26.4	32.8	29.9	30.6	28.7	27.5	27.9	---	---	---
28	27.2	25.1	26.2	32.9	29.8	30.7	28.6	27.2	27.9	---	---	---
29	27.3	26.4	26.8	31.8	29.0	30.4	---	---	---	---	---	---
30	26.9	26.3	26.6	32.5	29.7	30.8	---	---	---	---	---	---
31	---	---	---	32.6	30.3	31.2	---	---	---	---	---	---
MONTH	30.2	22.3	25.5	33.1	25.2	28.7	---	---	---	---	---	---

0209262905 NEUSE RIVER AT CHANNEL LIGHT 11--Continued

TEMPERATURE, BOTTOM, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	25.7	25.2	25.3	18.6	18.6	18.6	15.5	14.8	15.1	8.3	7.6	7.9
2	25.8	24.6	25.1	18.7	18.6	18.7	15.1	15.1	15.1	8.4	6.6	7.1
3	24.7	23.5	24.1	18.8	18.4	18.6	15.2	15.1	15.2	8.9	7.1	8.3
4	24.6	24.1	24.4	18.4	17.1	17.9	15.3	15.2	15.3	8.9	8.0	8.5
5	24.5	24.2	24.4	17.1	15.6	16.2	15.4	15.3	15.3	8.0	6.7	7.3
6	24.2	23.8	23.9	15.6	14.4	14.9	15.4	15.3	15.3	8.0	6.6	7.1
7	23.9	23.2	23.7	14.7	13.5	13.8	15.5	15.4	15.4	8.2	7.7	8.0
8	24.0	23.6	23.8	13.8	13.0	13.3	15.6	15.4	15.5	8.2	7.9	8.0
9	23.8	23.2	23.6	14.4	13.4	14.0	16.4	15.5	15.9	8.6	7.7	8.0
10	23.2	22.5	22.8	14.7	14.1	14.4	15.6	15.0	15.2	8.7	7.8	8.2
11	22.7	22.0	22.4	15.8	14.6	15.3	15.6	14.7	15.3	7.9	7.6	7.7
12	23.1	22.3	22.6	15.7	15.1	15.4	15.3	13.6	14.4	7.8	7.6	7.7
13	23.0	22.1	22.6	15.3	14.9	15.2	14.4	13.9	14.1	8.0	7.7	7.9
14	23.0	22.5	22.8	15.1	14.8	14.9	14.1	12.7	13.6	7.9	7.9	7.9
15	23.0	22.0	22.8	15.0	14.8	14.9	12.7	12.2	12.4	8.5	7.9	8.2
16	22.5	21.1	21.5	15.1	14.8	15.0	12.8	12.2	12.5	8.6	8.2	8.4
17	21.7	20.5	21.0	15.1	15.0	15.1	12.8	11.4	12.4	8.7	8.4	8.5
18	21.8	20.5	21.2	15.7	15.0	15.4	11.4	10.9	11.2	9.1	8.6	8.8
19	21.9	21.1	21.5	15.9	15.4	15.6	11.4	10.6	11.1	9.1	8.9	9.0
20	21.6	21.3	21.5	15.6	15.4	15.5	11.2	10.7	11.1	9.4	9.1	9.2
21	21.7	20.1	20.9	15.4	15.1	15.3	11.4	11.1	11.3	9.4	9.3	9.3
22	20.1	18.5	19.4	15.1	14.2	14.5	12.3	11.4	11.8	9.5	9.3	9.3
23	18.5	17.3	17.7	14.6	13.9	14.2	12.1	11.1	11.6	10.4	9.3	9.7
24	18.6	17.8	18.1	15.5	14.5	15.0	11.1	9.9	10.5	10.9	10.3	10.6
25	18.6	18.3	18.5	15.5	14.9	15.1	9.9	8.9	9.2	10.9	10.2	10.4
26	18.6	18.3	18.4	15.4	14.9	15.2	8.9	8.0	8.5	10.7	10.4	10.6
27	18.4	18.1	18.3	15.0	14.5	14.7	8.8	7.9	8.4	11.2	10.6	10.8
28	19.0	18.3	18.6	14.7	14.5	14.6	8.9	8.7	8.8	11.3	10.7	10.9
29	18.9	18.6	18.7	14.6	14.3	14.5	9.0	8.8	8.9	11.2	10.7	10.8
30	18.8	18.6	18.7	14.8	14.5	14.6	9.2	8.0	8.7	11.4	11.1	11.2
31	18.8	18.6	18.7	---	---	---	8.1	7.3	7.7	11.5	10.7	11.2
MONTH	25.8	17.3	21.5	18.8	13.0	15.3	16.4	7.3	12.5	11.5	6.6	8.9

TEMPERATURE, BOTTOM, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	11.4	10.7	11.2	9.6	9.2	9.3	13.5	12.9	13.2	---	---	---
2	11.5	10.9	11.2	10.2	9.3	9.5	13.6	12.6	13.1	---	---	---
3	11.5	11.3	11.4	11.4	9.4	10.2	16.3	13.2	14.1	---	---	---
4	12.9	11.4	11.5	11.1	10.1	10.5	15.9	13.5	14.5	---	---	---
5	11.5	10.6	11.0	10.4	9.8	10.0	18.5	14.4	17.1	---	---	---
6	10.8	10.7	10.7	10.6	9.8	10.1	17.8	15.0	16.3	14.6	14.4	14.5
7	11.2	10.7	10.9	10.8	10.0	10.5	15.8	15.3	15.6	14.8	14.4	14.5
8	11.3	10.9	11.0	10.1	9.1	9.6	15.8	15.5	15.6	15.3	14.5	14.8
9	11.5	10.9	11.1	9.8	8.7	9.3	17.9	15.4	16.0	15.2	14.7	14.9
10	11.6	11.3	11.3	8.8	8.3	8.6	19.9	16.7	17.9	16.1	15.1	15.5
11	12.4	11.4	11.6	8.9	8.2	8.6	19.5	17.8	18.6	17.8	15.9	16.3
12	13.6	11.8	12.1	9.0	8.2	8.7	19.2	18.2	18.6	21.3	16.5	18.3
13	14.0	12.3	13.0	9.1	8.1	8.5	18.4	17.3	17.7	18.2	17.2	17.5
14	12.3	11.0	11.4	9.9	8.6	9.1	17.8	17.0	17.4	22.3	18.2	20.7
15	11.5	11.1	11.4	10.0	9.2	9.7	18.1	17.3	17.5	21.5	18.5	20.2
16	11.4	11.0	11.1	9.4	9.1	9.3	19.1	17.5	17.8	18.7	18.3	18.4
17	11.3	11.1	11.1	9.5	9.3	9.4	18.0	17.8	17.9	20.2	18.1	18.5
18	12.0	11.2	11.4	9.8	9.5	9.6	17.8	16.6	17.2	20.7	19.3	19.6
19	12.0	11.7	11.9	11.2	9.6	9.9	17.6	17.0	17.3	20.9	19.9	20.4
20	11.8	11.1	11.4	12.0	9.7	10.3	18.0	17.0	17.3	20.0	19.8	19.9
21	11.3	10.3	11.1	12.9	11.6	12.5	18.0	17.3	17.6	20.3	19.8	19.9
22	11.0	9.1	9.6	13.2	12.4	12.7	19.2	17.4	18.0	20.2	19.7	19.9
23	9.4	8.3	9.0	13.0	12.8	12.9	20.3	18.1	18.7	22.4	19.7	20.3
24	9.0	7.8	8.4	13.1	12.4	12.6	20.3	18.5	19.6	23.4	21.7	22.7
25	8.8	7.9	8.4	14.7	12.3	12.8	19.7	18.5	19.3	23.2	22.2	22.5
26	8.7	7.9	8.2	14.4	13.0	13.7	19.7	19.2	19.4	22.4	22.0	22.1
27	9.1	8.6	9.0	13.0	11.9	12.3	20.1	19.1	19.4	23.2	22.1	22.5
28	9.8	9.0	9.3	12.1	11.8	12.0	19.7	18.2	19.0	23.3	22.7	23.0
29	---	---	---	12.5	12.0	12.2	18.2	16.6	17.4	23.3	23.1	23.1
30	---	---	---	12.3	12.0	12.1	---	---	---	23.2	23.1	23.1
31	---	---	---	13.1	12.3	12.6	---	---	---	23.2	23.1	23.1
MONTH	14.0	7.8	10.7	14.7	8.1	10.6	---	---	---	---	---	---

0209262905 NEUSE RIVER AT CHANNEL LIGHT 11--Continued

TEMPERATURE, BOTTOM, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	23.4	23.0	23.2	27.2	25.8	26.7	29.2	28.5	28.7	---	---	---
2	24.4	23.1	23.3	28.1	26.5	26.9	28.6	28.6	28.6	---	---	---
3	23.9	23.4	23.6	27.6	26.8	27.1	29.1	28.6	28.8	---	---	---
4	25.7	23.3	24.3	27.5	26.2	26.6	28.6	27.4	27.8	---	---	---
5	25.5	24.3	24.9	26.9	26.3	26.6	27.8	27.2	27.4	---	---	---
6	25.2	24.7	24.8	27.4	26.8	27.1	27.9	27.4	27.7	---	---	---
7	25.0	24.7	24.8	28.5	27.0	27.4	27.9	27.7	27.8	---	---	---
8	26.0	24.8	25.0	28.1	27.2	27.5	29.1	27.6	28.0	---	---	---
9	25.7	25.0	25.2	28.0	27.4	27.6	28.6	27.9	28.1	---	---	---
10	28.0	25.0	26.1	28.2	27.5	27.9	28.0	27.3	27.6	---	---	---
11	27.4	26.4	26.9	28.5	27.7	28.2	28.9	27.7	28.0	---	---	---
12	26.6	25.4	25.7	27.7	26.9	27.3	29.2	28.0	28.4	---	---	---
13	25.4	25.0	25.1	27.1	26.8	26.9	29.3	28.6	28.8	---	---	---
14	25.6	25.0	25.3	26.9	26.4	26.7	30.1	28.9	29.4	---	---	---
15	25.6	25.2	25.3	26.8	26.2	26.6	29.6	28.8	29.2	---	---	---
16	25.5	25.1	25.2	26.8	26.2	26.4	29.4	28.9	29.1	---	---	---
17	25.3	24.9	25.1	27.0	26.3	26.5	29.2	29.0	29.1	---	---	---
18	25.0	24.0	24.4	27.1	26.4	26.6	29.2	29.1	29.1	---	---	---
19	24.1	23.1	23.7	27.1	26.8	26.9	29.3	29.0	29.1	---	---	---
20	23.3	23.0	23.2	27.3	26.5	27.0	29.3	28.9	29.0	---	---	---
21	23.9	23.0	23.2	27.6	27.0	27.2	29.1	28.8	28.9	---	---	---
22	23.7	23.1	23.4	27.4	27.0	27.1	---	---	---	---	---	---
23	23.4	22.9	23.0	27.8	26.9	27.2	28.8	28.1	28.5	---	---	---
24	23.7	22.9	23.2	28.6	27.3	27.6	28.4	27.7	28.0	---	---	---
25	23.9	23.4	23.5	28.8	27.6	27.8	28.1	27.7	27.9	---	---	---
26	25.0	23.5	24.0	29.2	27.8	28.2	28.0	27.8	27.9	---	---	---
27	26.5	24.2	24.9	28.7	28.2	28.5	28.0	27.9	28.0	---	---	---
28	27.1	24.9	26.0	29.0	28.3	28.6	28.0	27.9	28.0	---	---	---
29	27.1	25.0	26.1	28.6	28.3	28.4	---	---	---	---	---	---
30	26.7	24.9	25.8	28.9	28.4	28.7	---	---	---	---	---	---
31	---	---	---	29.1	28.7	28.9	---	---	---	---	---	---
MONTH	28.0	22.9	24.6	29.2	25.8	27.4	---	---	---	---	---	---

OXYGEN DISSOLVED (MG/L), TOP, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	10.4	4.2	7.0	10.3	2.2	7.2	---	---	---	13.6	11.8	12.5
2	9.8	5.9	7.2	10.0	1.2	7.6	---	---	---	13.2	11.9	12.8
3	9.8	4.3	7.2	9.4	5.0	7.8	---	---	---	11.9	11.0	11.5
4	9.5	6.0	7.8	8.4	6.3	8.1	15.1	11.5	13.3	12.5	11.5	11.9
5	9.1	5.9	7.3	8.8	7.3	8.3	16.7	12.1	14.7	12.6	12.0	12.3
6	8.4	6.9	7.8	8.8	7.2	8.1	14.7	4.6	12.1	12.6	11.7	12.3
7	8.7	6.8	7.9	9.2	5.2	8.7	11.6	3.5	6.7	13.1	11.7	12.2
8	8.5	5.3	7.3	10.0	3.3	7.5	10.7	7.6	9.2	13.1	12.2	12.5
9	7.6	5.4	6.6	10.5	1.8	8.0	9.2	6.6	8.0	12.8	11.8	12.4
10	8.9	3.5	7.0	11.7	6.0	9.9	14.1	8.4	10.0	12.1	11.5	11.7
11	9.5	2.7	7.2	---	---	---	11.5	10.2	10.7	14.0	11.4	12.3
12	10.1	6.0	7.9	---	---	---	12.2	10.4	11.3	14.7	12.3	13.0
13	10.3	5.7	8.3	---	---	---	13.3	11.0	12.0	13.9	12.6	13.1
14	9.8	3.9	8.6	---	---	---	11.3	7.7	9.7	12.6	10.9	11.8
15	9.6	3.5	7.9	---	---	---	10.4	9.4	10.0	12.3	10.9	11.3
16	9.7	7.3	8.6	---	---	---	10.4	9.4	10.0	15.1	11.0	12.5
17	10.2	6.6	8.3	---	---	---	12.0	9.7	10.7	15.3	12.3	13.7
18	9.7	4.1	7.5	---	---	---	11.7	9.9	10.7	14.2	12.3	12.7
19	9.6	4.3	7.0	---	---	---	13.0	10.7	11.7	13.9	11.2	12.1
20	8.1	3.0	5.9	---	---	---	16.1	11.9	13.4	13.1	10.6	11.5
21	7.3	3.3	5.7	---	---	---	16.4	14.0	15.1	13.5	11.1	12.4
22	7.5	4.3	6.6	---	---	---	14.3	9.9	11.7	13.0	9.7	12.0
23	8.5	6.4	7.2	---	---	---	12.3	10.1	10.8	12.8	9.3	10.9
24	9.3	1.8	7.0	---	---	---	10.9	10.3	10.6	10.0	9.4	9.6
25	10.4	4.2	8.0	---	---	---	11.5	10.5	11.0	9.8	9.2	9.5
26	11.6	4.9	8.7	---	---	---	12.0	10.8	11.3	10.6	9.4	9.9
27	10.4	6.7	8.8	---	---	---	13.1	11.7	12.3	10.2	8.9	9.5
28	10.7	3.8	8.6	---	---	---	13.2	12.4	12.7	10.1	8.7	9.4
29	8.9	4.1	7.2	---	---	---	12.8	11.9	12.4	9.7	8.2	8.9
30	11.0	3.5	7.4	---	---	---	12.0	10.0	11.2	9.7	8.6	9.0
31	9.6	2.2	7.7	---	---	---	12.8	10.5	11.5	11.3	9.1	10.3
MONTH	11.6	1.8	7.5	---	---	---	---	---	---	15.3	8.2	11.5

0209262905 NEUSE RIVER AT CHANNEL LIGHT 11--Continued

OXYGEN DISSOLVED (MG/L), TOP, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	10.5	9.9	10.4	12.2	10.6	11.3	12.4	11.3	11.9	---	---	---
2	10.8	9.6	10.1	14.5	11.1	12.4	14.1	10.9	12.3	---	---	---
3	10.1	9.8	9.9	13.1	10.2	11.9	13.3	11.2	12.4	---	---	---
4	10.4	7.6	8.9	11.8	10.1	11.0	12.7	11.2	12.0	---	---	---
5	8.4	7.7	8.1	13.4	11.1	12.3	11.2	10.0	10.7	---	---	---
6	8.5	8.2	8.3	14.4	12.0	13.1	11.6	9.4	10.3	11.7	5.4	9.5
7	8.4	7.5	8.2	12.4	11.1	11.7	11.4	9.5	10.4	12.4	5.8	9.3
8	8.9	7.4	8.3	13.3	11.2	12.2	11.6	7.7	9.8	10.8	4.8	8.5
9	9.3	8.6	8.9	13.3	12.1	12.9	9.9	7.2	8.5	12.6	9.3	10.6
10	9.1	8.7	8.9	13.1	11.8	12.4	10.9	7.3	9.0	12.0	8.5	10.6
11	10.4	9.0	9.5	13.7	12.1	12.8	10.1	8.4	9.2	11.0	9.6	10.1
12	9.8	8.3	9.3	14.5	12.6	13.4	10.6	8.4	9.5	10.0	8.7	9.4
13	9.4	7.8	8.8	15.5	12.6	14.1	11.4	8.9	10.0	10.3	8.4	9.2
14	9.7	8.8	9.4	14.9	12.6	13.6	11.3	9.3	10.5	9.1	7.9	8.2
15	10.4	9.6	10.0	12.6	11.3	11.7	11.6	8.8	10.3	8.0	7.3	7.6
16	11.5	9.9	10.6	15.5	11.0	12.7	11.1	8.3	9.7	8.2	7.1	7.7
17	11.4	10.1	10.7	16.8	12.0	13.7	11.8	8.8	10.1	9.2	7.7	8.4
18	11.1	9.3	10.1	14.2	9.1	11.6	11.7	8.6	10.4	9.7	8.3	8.9
19	10.2	9.7	9.9	15.3	11.3	13.2	11.7	9.2	10.6	11.0	9.0	9.8
20	10.7	9.7	10.2	14.2	12.9	13.5	10.8	7.3	9.7	11.3	7.6	9.4
21	10.9	10.2	10.4	13.2	10.4	11.7	12.0	9.3	10.6	13.0	7.4	10.0
22	11.4	10.2	10.7	12.1	9.6	11.0	11.7	7.9	10.2	8.9	4.9	6.7
23	11.6	10.9	11.3	13.7	10.7	12.2	11.3	5.9	8.8	7.2	5.1	6.2
24	11.9	11.0	11.4	13.0	10.2	11.9	9.2	3.7	8.2	7.1	5.6	6.4
25	12.3	11.3	11.6	13.4	10.1	11.4	9.7	7.2	8.4	8.0	5.4	6.9
26	12.2	11.2	11.6	10.9	9.4	9.9	10.2	4.4	8.7	7.9	6.0	6.9
27	13.7	11.5	12.4	10.8	9.5	10.1	8.5	6.7	7.7	7.6	6.3	7.1
28	12.5	10.9	11.7	12.9	10.0	11.3	8.0	7.3	7.7	8.7	6.3	7.9
29	---	---	---	13.2	10.8	11.7	12.5	7.7	9.1	9.0	6.9	7.7
30	---	---	---	11.9	10.6	11.2	---	---	---	8.7	6.8	7.7
31	---	---	---	13.1	10.3	11.6	---	---	---	8.0	5.5	6.8
MONTH	13.7	7.4	10.0	16.8	9.1	12.1	---	---	---	---	---	---

OXYGEN DISSOLVED (MG/L), TOP, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	7.0	4.8	5.8	7.5	5.5	6.6	8.8	4.5	6.2	---	---	---
2	7.2	2.6	5.5	8.3	6.1	7.5	6.0	4.1	5.0	---	---	---
3	7.7	5.4	6.6	8.5	6.6	7.5	7.1	4.5	5.7	---	---	---
4	9.5	6.8	7.9	8.1	5.2	7.0	6.5	5.8	6.1	---	---	---
5	9.4	6.9	8.0	8.0	4.1	6.4	8.7	5.6	6.7	---	---	---
6	11.3	7.1	9.2	7.9	4.5	5.9	8.4	6.0	6.9	---	---	---
7	11.1	8.6	9.7	7.5	4.5	5.7	10.5	4.7	6.6	---	---	---
8	10.5	6.8	8.3	7.5	4.0	6.0	7.1	4.5	5.9	---	---	---
9	9.7	6.6	8.0	7.5	5.3	6.3	7.1	5.4	6.0	---	---	---
10	10.0	7.2	8.2	6.5	4.8	5.6	8.4	5.8	6.4	---	---	---
11	8.5	6.6	7.5	5.6	4.8	5.3	7.8	6.1	6.9	---	---	---
12	7.6	6.7	7.2	6.0	4.7	5.3	7.6	6.0	6.7	---	---	---
13	9.4	6.5	7.9	---	---	---	7.9	5.8	6.9	---	---	---
14	9.0	5.5	7.5	---	---	---	7.4	6.3	6.8	---	---	---
15	7.6	5.5	6.8	---	---	---	7.6	6.0	6.6	---	---	---
16	7.4	6.7	7.1	---	---	---	7.6	5.7	6.3	---	---	---
17	7.5	6.2	6.7	---	---	---	7.3	5.6	6.4	---	---	---
18	7.5	5.8	6.5	---	---	---	7.4	4.8	6.0	---	---	---
19	7.2	5.6	6.5	---	---	---	7.5	4.7	6.2	---	---	---
20	8.7	5.9	7.1	---	---	---	8.6	5.9	6.8	---	---	---
21	7.9	5.8	6.9	10.5	8.3	9.0	9.9	5.7	7.5	---	---	---
22	7.4	4.5	6.6	14.8	7.3	10.1	---	---	---	---	---	---
23	9.5	6.3	7.7	10.5	5.8	7.5	7.3	5.5	6.3	---	---	---
24	9.5	8.0	8.9	9.2	5.7	6.8	7.1	6.0	6.5	---	---	---
25	10.2	8.3	9.1	11.2	5.9	8.1	7.9	6.1	6.7	---	---	---
26	9.4	7.7	8.6	---	---	---	7.9	6.3	6.9	---	---	---
27	8.2	5.1	7.4	---	---	---	7.7	5.8	6.5	---	---	---
28	8.0	3.6	6.3	---	---	---	9.5	5.9	7.1	---	---	---
29	7.3	5.9	6.6	8.7	2.8	5.8	---	---	---	---	---	---
30	7.1	5.5	6.2	8.7	5.7	7.2	---	---	---	---	---	---
31	---	---	---	8.2	6.1	7.2	---	---	---	---	---	---
MONTH	11.3	2.6	7.4	---	---	---	---	---	---	---	---	---

0209262905 NEUSE RIVER AT CHANNEL LIGHT 11--Continued

OXYGEN DISSOLVED (MG/L), BOTTOM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	4.9	.7	.9	2.0	1.1	1.5	11.6	3.0	7.8	11.1	8.4	10.2
2	9.5	4.6	7.9	1.5	.8	1.0	6.2	4.1	5.3	---	---	---
3	9.8	7.6	8.1	9.4	.8	3.6	6.6	4.1	5.1	---	---	---
4	9.4	5.3	7.5	9.7	4.5	8.9	5.8	4.6	5.0	---	---	---
5	9.7	5.9	7.8	9.9	8.4	9.4	4.8	4.1	4.5	---	---	---
6	9.7	7.7	9.2	9.8	8.6	9.2	5.0	3.7	4.4	---	---	---
7	9.7	7.9	8.9	10.2	8.3	9.7	5.6	4.3	4.9	8.4	7.3	7.9
8	9.2	7.2	8.4	10.2	7.2	9.5	5.2	3.6	4.5	7.6	6.6	7.1
9	9.1	6.9	8.2	9.6	4.9	7.3	8.9	3.6	6.5	9.9	6.1	7.1
10	10.2	8.2	9.0	8.4	4.2	6.8	9.6	6.5	8.4	10.6	5.7	9.1
11	10.9	7.5	9.3	10.8	6.8	9.9	10.0	2.7	6.1	9.3	7.3	8.5
12	10.8	4.2	8.6	11.0	10.0	10.4	11.0	2.4	8.1	8.7	7.0	7.9
13	9.8	1.6	5.8	10.8	9.9	10.4	10.1	6.3	8.7	7.6	5.4	6.6
14	5.0	1.6	2.5	10.3	9.7	10.0	10.5	6.0	8.8	6.1	5.6	5.9
15	5.3	1.6	2.2	9.9	8.8	9.3	11.0	10.1	10.6	5.8	4.8	5.4
16	11.1	1.9	8.5	9.2	6.7	7.9	10.9	9.6	10.5	7.7	5.7	6.8
17	10.5	7.1	9.1	7.3	5.9	6.6	11.6	9.5	10.3	6.7	4.9	5.9
18	10.6	1.9	7.8	10.8	3.8	6.1	11.5	10.5	10.9	6.0	4.1	5.0
19	8.5	2.1	5.0	10.4	2.7	7.1	11.2	9.2	10.4	5.5	3.6	4.2
20	10.1	2.3	5.1	6.8	3.3	5.4	11.3	8.1	9.3	6.7	5.0	5.9
21	9.5	2.1	6.2	10.6	5.8	8.9	9.4	8.4	8.8	5.7	4.1	4.7
22	9.2	8.4	8.8	11.1	9.9	10.6	12.1	7.6	9.8	5.3	3.8	4.3
23	10.2	8.4	9.2	11.4	10.2	10.7	11.6	10.4	11.1	4.6	2.8	3.6
24	9.8	7.0	8.5	13.1	4.3	9.3	11.5	10.9	11.2	3.2	1.8	2.3
25	7.0	5.6	6.3	11.3	9.2	10.5	11.8	11.1	11.5	4.4	1.8	3.1
26	6.0	4.7	5.4	10.1	7.6	8.9	12.5	11.2	11.7	3.3	1.7	2.7
27	5.6	2.7	3.9	10.4	7.7	8.7	11.9	10.6	11.2	3.1	1.1	1.7
28	2.8	1.8	2.3	10.6	9.0	9.9	11.0	10.2	10.5	2.3	1.4	1.9
29	3.3	1.9	2.6	10.5	9.6	10.1	10.4	9.7	10.1	2.2	.8	1.7
30	2.3	1.0	1.5	10.6	7.6	9.6	11.9	8.9	10.3	1.1	.5	.7
31	2.1	.8	1.1	---	---	---	12.0	10.3	11.4	9.0	.3	5.1
MONTH	11.1	.7	6.3	13.1	.8	8.2	12.5	2.4	8.6	---	---	---

OXYGEN DISSOLVED (MG/L), BOTTOM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	8.4	.3	1.5	11.2	7.0	8.9	4.7	1.4	3.1	---	---	---
2	4.8	1.5	3.2	14.5	2.9	6.9	3.0	.2	1.1	---	---	---
3	3.5	.9	1.7	7.1	2.4	4.8	11.5	.3	2.0	---	---	---
4	9.6	.6	3.5	7.1	6.2	6.6	5.0	.1	1.7	---	---	---
5	9.4	4.4	7.6	6.5	4.8	5.8	11.4	.6	7.9	---	---	---
6	9.0	7.2	8.4	6.0	4.4	5.0	10.7	.2	5.4	4.6	2.2	3.1
7	8.3	6.9	7.6	7.3	5.4	6.9	3.3	.5	1.8	5.1	2.0	3.4
8	7.3	6.0	6.8	7.6	5.5	7.0	2.0	.1	.4	3.6	2.1	2.8
9	7.0	5.1	6.1	7.5	5.0	6.5	5.3	.1	.7	3.8	2.7	3.4
10	5.7	4.0	4.8	7.2	6.7	7.0	10.5	1.4	4.4	4.9	2.8	3.5
11	4.2	3.7	3.9	7.1	6.5	6.8	10.5	7.4	9.2	3.4	1.7	2.4
12	7.5	3.5	3.8	7.2	6.0	6.5	10.8	5.7	8.9	9.9	1.6	3.5
13	11.5	4.3	9.4	6.9	5.7	6.2	11.4	8.8	9.9	1.6	1.5	1.6
14	12.5	9.4	11.9	7.0	3.6	5.9	10.3	4.2	7.2	10.2	1.5	6.7
15	12.3	11.8	12.0	6.3	5.6	5.9	10.6	.9	4.0	10.2	8.9	9.8
16	12.2	11.0	11.6	5.8	4.9	5.2	9.3	.6	3.5	10.7	9.4	10.0
17	11.2	9.3	10.3	5.0	4.3	4.6	8.4	.1	1.3	11.7	6.7	9.5
18	12.2	9.0	9.7	4.5	3.8	4.1	10.6	.1	4.3	11.1	5.6	8.8
19	12.8	7.0	10.8	6.9	2.2	3.4	10.1	1.6	4.9	10.7	5.2	7.6
20	13.0	5.6	8.5	5.6	2.1	2.8	10.5	.1	1.0	5.2	1.9	3.6
21	12.5	4.8	6.9	7.7	3.4	6.3	10.7	.1	7.7	3.2	1.5	1.8
22	13.7	6.3	12.9	6.7	5.2	5.9	8.7	.1	3.8	2.0	1.4	1.6
23	13.7	10.9	12.8	6.3	4.0	5.4	8.7	.2	3.1	7.5	1.3	2.3
24	13.9	10.5	12.6	5.3	1.9	3.1	9.5	.7	7.1	9.3	4.0	7.7
25	13.8	11.8	13.1	5.8	1.1	2.3	9.4	5.1	7.5	8.5	2.0	5.0
26	13.7	11.4	12.5	6.4	3.9	5.8	9.2	2.7	5.0	3.5	1.4	2.0
27	12.7	6.9	9.0	5.8	5.3	5.5	9.3	3.5	6.2	9.3	1.7	4.0
28	13.3	6.1	8.6	5.6	2.8	4.3	8.6	8.0	8.3	5.6	3.2	4.3
29	---	---	---	5.5	1.9	2.5	9.3	8.1	8.7	4.8	1.5	2.8
30	---	---	---	2.7	1.6	2.1	---	---	---	1.5	1.2	1.4
31	---	---	---	6.1	1.1	2.6	---	---	---	1.3	1.3	1.3
MONTH	13.9	.3	8.3	14.5	1.1	5.2	---	---	---	---	---	---

0209262905 NEUSE RIVER AT CHANNEL LIGHT 11--Continued

OXYGEN DISSOLVED (MG/L), BOTTOM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	1.3	1.2	1.2	6.5	2.9	5.5	.0	.0	.0	---	---	---
2	3.1	.8	1.2	7.3	2.3	4.8	.0	.0	.0	---	---	---
3	3.2	.7	1.2	5.4	2.8	3.9	6.8	.0	3.2	---	---	---
4	11.5	.8	5.0	4.1	.0	.9	6.4	5.9	6.1	---	---	---
5	11.2	5.4	9.2	.8	.1	.3	6.0	1.6	4.3	---	---	---
6	10.1	5.4	8.2	.9	.1	.2	3.6	.4	1.7	---	---	---
7	6.7	3.4	5.8	4.7	.1	.7	.7	.2	.4	---	---	---
8	8.9	2.5	4.2	4.4	.0	.5	4.5	.3	.7	---	---	---
9	6.5	1.8	3.5	.8	.1	.5	6.6	.3	2.7	---	---	---
10	14.4	2.4	6.9	.8	.0	.3	6.0	4.4	5.4	---	---	---
11	13.6	10.6	12.0	5.4	.0	2.8	6.8	4.2	6.0	---	---	---
12	12.8	11.8	12.3	5.7	4.0	4.9	7.2	5.4	6.2	---	---	---
13	11.9	8.6	10.5	---	---	---	6.1	4.6	5.2	---	---	---
14	9.3	3.3	5.6	---	---	---	6.8	2.9	4.8	---	---	---
15	4.1	2.2	2.9	---	---	---	7.4	5.5	6.4	---	---	---
16	7.7	2.1	3.3	---	---	---	6.6	5.1	5.9	---	---	---
17	7.4	.6	3.7	---	---	---	6.4	4.3	5.4	---	---	---
18	7.0	.4	4.5	---	---	---	4.5	2.7	3.8	---	---	---
19	7.4	3.0	5.6	---	---	---	3.7	1.0	2.1	---	---	---
20	6.5	3.0	4.8	---	---	---	5.0	.4	1.6	---	---	---
21	6.4	1.0	2.8	1.3	.0	.2	1.4	.2	.4	---	---	---
22	8.0	.0	4.4	.1	.0	.0	---	---	---	---	---	---
23	6.8	2.5	5.1	.1	.0	.0	6.8	.5	4.8	---	---	---
24	6.4	3.2	4.5	1.5	.0	.1	6.9	4.9	6.2	---	---	---
25	4.3	2.2	3.2	4.2	.0	.2	6.5	3.7	5.1	---	---	---
26	3.2	1.7	2.3	4.7	.0	.7	4.6	3.4	3.8	---	---	---
27	5.9	1.0	2.6	.1	.0	.0	3.7	1.7	3.1	---	---	---
28	7.5	1.3	5.0	---	---	---	2.3	.7	1.6	---	---	---
29	7.1	1.7	4.1	.0	.0	.0	---	---	---	---	---	---
30	7.0	1.1	3.4	.0	.0	.0	---	---	---	---	---	---
31	---	---	---	.4	.0	.1	---	---	---	---	---	---
MONTH	14.4	.0	5.0	---	---	---	---	---	---	---	---	---

OXYGEN DISSOLVED (% OF SATURATION), TOP, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	131	54	88	114	24	79	---	---	---	116	98	106
2	123	73	90	110	13	83	---	---	---	---	---	---
3	120	53	88	104	55	86	---	---	---	---	---	---
4	116	73	96	93	71	90	160	119	140	---	---	---
5	112	73	90	92	78	88	177	129	155	---	---	---
6	103	84	94	91	73	84	161	49	130	---	---	---
7	105	81	95	93	52	87	126	38	73	110	97	101
8	102	65	87	99	33	74	118	83	101	111	101	105
9	92	65	79	104	18	80	101	72	87	114	104	108
10	106	41	83	117	60	99	150	89	105	107	97	102
11	114	32	85	---	---	---	120	106	111	120	96	104
12	121	70	93	---	---	---	123	105	114	129	103	111
13	121	67	97	---	---	---	135	113	122	120	107	112
14	116	47	100	---	---	---	113	80	98	107	92	100
15	113	41	92	---	---	---	104	95	100	107	96	99
16	113	84	99	---	---	---	103	97	99	136	94	109
17	119	75	95	---	---	---	118	99	106	136	106	121
18	113	47	87	---	---	---	113	97	104	126	112	115
19	112	50	80	---	---	---	123	103	112	126	100	110
20	93	35	68	---	---	---	156	113	129	118	94	104
21	83	38	66	---	---	---	158	136	146	127	103	114
22	84	49	74	---	---	---	140	101	116	127	92	114
23	92	68	78	---	---	---	118	101	106	124	90	105
24	98	18	73	---	---	---	104	99	101	99	92	94
25	112	44	85	---	---	---	104	99	101	95	88	92
26	126	51	94	---	---	---	106	98	102	102	91	95
27	113	72	95	---	---	---	114	101	106	97	83	90
28	119	40	93	---	---	---	114	109	111	97	84	90
29	99	46	79	---	---	---	112	103	108	92	77	85
30	124	39	82	---	---	---	104	91	99	92	81	85
31	107	24	85	---	---	---	111	94	101	104	85	95
MONTH	131	18	87	---	---	---	---	---	---	---	---	---

0209262905 NEUSE RIVER AT CHANNEL LIGHT 11--Continued

OXYGEN DISSOLVED (% OF SATURATION), TOP, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	95	90	94	113	97	105	126	113	119	---	---	---
2	98	89	93	132	100	113	151	111	128	---	---	---
3	93	89	91	120	95	110	144	116	132	---	---	---
4	98	72	83	110	94	101	138	123	130	---	---	---
5	80	72	76	122	99	111	124	108	116	---	---	---
6	79	74	77	130	109	120	125	99	110	128	57	102
7	80	71	77	116	103	108	124	102	111	144	61	103
8	85	70	79	120	101	110	129	83	108	124	51	95
9	88	81	85	119	108	114	111	80	94	150	105	122
10	89	83	86	116	104	110	123	81	101	142	97	124
11	103	87	92	121	104	111	112	92	102	131	113	120
12	96	82	92	128	109	118	117	92	105	118	102	110
13	92	77	86	139	111	125	124	96	108	124	98	110
14	89	84	87	133	113	121	123	99	113	110	94	99
15	95	86	91	113	101	105	125	95	111	95	82	89
16	107	90	97	138	97	114	123	90	106	91	79	85
17	107	92	99	155	108	124	127	95	108	105	85	94
18	104	90	96	135	81	108	127	92	112	113	94	102
19	98	92	94	150	107	128	127	98	113	131	103	114
20	101	91	96	139	123	131	118	80	105	137	90	111
21	102	94	97	127	101	112	135	101	116	159	89	120
22	103	92	97	118	92	107	132	89	113	107	58	81
23	102	97	100	136	102	119	132	66	99	86	61	74
24	104	96	99	133	102	119	105	42	94	87	68	78
25	107	97	100	140	101	116	110	82	95	100	65	85
26	109	99	103	110	94	98	116	49	98	101	73	86
27	123	101	109	103	90	96	96	75	87	95	78	88
28	111	100	107	123	93	106	88	82	86	111	79	98
29	---	---	---	128	101	113	136	85	99	115	86	98
30	---	---	---	118	101	109	---	---	---	115	86	99
31	---	---	---	130	98	115	---	---	---	105	71	86
MONTH	123	70	92	155	81	113	---	---	---	---	---	---

OXYGEN DISSOLVED (% OF SATURATION), TOP, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	91	61	74	99	69	84	134	65	91	---	---	---
2	95	33	71	112	80	100	89	60	74	---	---	---
3	98	68	84	117	86	100	102	65	82	---	---	---
4	122	85	100	111	68	94	92	80	86	---	---	---
5	120	86	100	112	55	87	125	79	94	---	---	---
6	147	89	118	108	60	81	123	82	96	---	---	---
7	145	109	124	103	62	78	154	66	93	---	---	---
8	138	86	106	105	56	83	101	64	84	---	---	---
9	133	86	106	106	74	89	100	77	85	---	---	---
10	137	96	110	90	66	79	119	81	91	---	---	---
11	115	87	99	79	67	73	113	85	98	---	---	---
12	101	86	93	82	65	72	110	85	96	---	---	---
13	123	84	102	---	---	---	115	84	101	---	---	---
14	119	72	98	---	---	---	109	91	100	---	---	---
15	100	71	88	---	---	---	112	85	96	---	---	---
16	97	86	92	---	---	---	112	82	91	---	---	---
17	96	80	86	---	---	---	106	82	94	---	---	---
18	94	73	83	---	---	---	111	69	88	---	---	---
19	89	71	81	---	---	---	114	68	91	---	---	---
20	107	73	88	---	---	---	128	85	98	---	---	---
21	99	72	87	147	118	126	144	81	107	---	---	---
22	93	57	83	206	104	140	---	---	---	---	---	---
23	119	78	95	153	82	108	104	77	90	---	---	---
24	119	99	110	133	80	96	100	84	92	---	---	---
25	132	103	116	160	84	114	112	84	94	---	---	---
26	121	99	111	---	---	---	111	87	96	---	---	---
27	108	64	95	---	---	---	109	81	91	---	---	---
28	104	45	81	---	---	---	133	82	100	---	---	---
29	94	74	85	130	39	85	---	---	---	---	---	---
30	89	69	78	129	82	105	---	---	---	---	---	---
31	---	---	---	122	89	106	---	---	---	---	---	---
MONTH	147	33	95	---	---	---	---	---	---	---	---	---

0209262905 NEUSE RIVER AT CHANNEL LIGHT 11--Continued

OXYGEN DISSOLVED (% OF SATURATION), BOTTOM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	61	9	12	22	12	16	121	31	81	98	76	91
2	120	57	97	17	9	11	65	43	55	---	---	---
3	119	91	98	102	8	38	71	42	54	---	---	---
4	116	66	92	104	47	95	61	49	54	---	---	---
5	119	71	95	102	88	98	52	44	48	---	---	---
6	117	94	111	101	87	93	54	40	47	---	---	---
7	117	95	107	100	81	95	61	47	54	75	66	71
8	110	85	101	98	70	92	57	39	49	68	60	64
9	109	83	99	93	48	71	98	39	71	88	55	64
10	121	95	106	86	41	68	103	70	90	94	51	81
11	129	89	109	113	70	104	107	30	66	83	66	76
12	129	50	101	115	103	108	116	27	86	77	63	71
13	115	18	68	112	103	108	107	67	92	69	49	59
14	60	18	29	107	100	103	107	64	91	54	51	53
15	61	19	25	102	91	96	111	102	107	52	43	49
16	128	22	98	95	69	81	110	98	106	69	52	62
17	120	81	104	76	62	68	115	98	105	61	45	54
18	121	22	89	112	40	64	113	104	107	54	37	45
19	97	24	57	108	29	74	109	91	102	51	33	38
20	117	27	59	71	35	56	109	81	91	63	47	55
21	109	25	71	110	60	92	92	84	87	53	38	44
22	103	94	98	114	102	108	121	75	98	50	35	40
23	111	92	100	117	104	108	113	103	109	43	27	34
24	107	77	93	136	44	96	110	105	107	30	17	22
25	77	63	69	116	94	107	109	104	107	42	17	30
26	67	52	60	103	79	92	112	102	107	31	17	26
27	61	29	43	107	79	89	109	99	103	30	11	17
28	31	20	24	108	92	101	102	95	98	22	13	19
29	36	21	29	107	97	102	97	90	94	22	8	17
30	25	11	17	107	77	98	107	83	94	11	5	7
31	22	9	12	---	---	---	106	92	101	83	3	47
MONTH	129	9	73	136	8	84	121	27	86	---	---	---

OXYGEN DISSOLVED (% OF SATURATION), BOTTOM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	76	2	14	100	63	79	47	14	30	---	---	---
2	45	14	30	129	26	62	30	2	11	---	---	---
3	33	8	16	67	22	44	119	3	20	---	---	---
4	91	6	34	65	58	61	52	1	18	---	---	---
5	91	43	73	61	45	54	123	6	84	---	---	---
6	88	70	81	55	41	46	114	2	57	49	23	32
7	80	68	74	68	51	64	35	5	19	54	21	36
8	70	57	66	70	51	64	22	1	4	38	22	30
9	69	50	60	68	46	59	58	1	7	41	29	36
10	57	39	47	65	60	62	118	15	48	54	30	38
11	42	37	39	63	57	60	115	81	101	38	19	27
12	73	35	37	64	54	58	119	62	97	117	18	41
13	110	41	91	63	50	55	124	94	107	18	17	17
14	115	88	111	63	33	53	111	46	78	123	17	79
15	115	110	112	58	50	54	115	10	43	117	103	113
16	114	104	109	52	45	47	103	6	38	120	105	113
17	105	87	97	46	40	42	91	1	15	137	75	107
18	115	85	91	41	36	38	114	1	46	130	64	102
19	122	66	103	65	20	32	109	17	53	128	60	89
20	120	53	80	54	20	27	114	1	11	60	22	41
21	116	47	65	75	33	61	117	1	83	37	17	20
22	123	59	116	65	51	57	97	1	42	23	16	18
23	120	98	113	62	39	53	100	2	35	91	16	27
24	121	92	110	51	19	30	108	8	81	113	49	94
25	121	104	114	59	11	23	106	57	84	105	24	62
26	119	99	109	63	38	57	103	31	57	42	18	25
27	111	60	79	56	52	53	104	40	70	114	21	49
28	120	55	76	53	28	42	97	90	92	69	40	54
29	---	---	---	53	19	24	100	89	94	60	19	35
30	---	---	---	26	16	20	---	---	---	19	15	17
31	---	---	---	60	11	26	---	---	---	17	16	16
MONTH	123	2	77	129	11	49	---	---	---	---	---	---

0209262905 NEUSE RIVER AT CHANNEL LIGHT 11--Continued

OXYGEN DISSOLVED (% OF SATURATION), BOTTOM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	16	15	16	86	34	70	0	0	0	---	---	---
2	39	10	15	98	31	64	0	0	0	---	---	---
3	41	10	15	72	38	52	109	0	47	---	---	---
4	151	10	65	56	1	13	90	83	86	---	---	---
5	146	68	120	10	1	4	84	24	61	---	---	---
6	131	71	106	12	1	3	51	6	24	---	---	---
7	89	45	76	67	1	9	11	3	5	---	---	---
8	114	34	55	62	1	8	65	4	10	---	---	---
9	84	24	46	11	1	7	93	5	38	---	---	---
10	195	32	92	12	0	4	84	62	76	---	---	---
11	182	139	159	76	0	40	97	60	85	---	---	---
12	168	153	160	78	55	68	103	77	88	---	---	---
13	154	111	136	69	42	53	88	66	75	---	---	---
14	120	43	73	56	31	44	100	43	70	---	---	---
15	54	28	39	91	24	60	107	79	92	---	---	---
16	102	28	44	85	17	69	96	74	85	---	---	---
17	97	8	49	71	2	36	93	63	78	---	---	---
18	90	6	59	29	1	10	66	39	55	---	---	---
19	92	40	72	11	0	2	55	14	31	---	---	---
20	83	41	62	43	0	4	73	5	23	---	---	---
21	83	15	37	18	0	2	20	2	6	---	---	---
22	100	0	57	1	0	0	---	---	---	---	---	---
23	85	30	63	1	0	0	97	7	69	---	---	---
24	80	40	56	21	0	1	97	69	87	---	---	---
25	53	26	39	59	0	2	92	52	72	---	---	---
26	39	21	28	67	0	10	64	48	54	---	---	---
27	75	11	32	1	0	0	53	24	44	---	---	---
28	96	15	63	11	0	1	33	10	23	---	---	---
29	91	20	52	0	0	0	---	---	---	---	---	---
30	89	12	41	0	0	0	---	---	---	---	---	---
31	---	---	---	5	0	1	---	---	---	---	---	---
MONTH	195	0	64	98	0	21	---	---	---	---	---	---

0209265810 NEUSE RIVER AT CHANNEL LIGHT 9

LOCATION.--Lat. 34°56'54", long. 76°48'36", Craven County, Hydrologic Unit 03020204, at U.S. Coast Guard Channel Light 9.

PERIOD OF RECORD.--May 1989 to July 1993, June 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 to prevent possible destruction of the equipment during Hurricanes Dennis and Floyd. It was reinstalled on October 5, 1999. 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. 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
SALINITY(TOP), ppt	18.3, August 1, 1999	0.1, January 24, April 21, 1993
SALINITY(BOTTOM), ppt	21.2, August 2, 1999	0.2 January 23, 1993, March 27, 1998
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	0.3, March 14, 1993
WATER TEMPERATURE (BOTTOM), °C	31.4, July 29, 1999	5.8, January 7, 1999
DISSOLVED OXYGEN (TOP), mg/L	20.7, April 10, 1991	< 1.0, June 15, 1990, July 3, 4 1991, July 6, 11, 12, 15-17, 19, 20, 1992
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

EXTREMES FOR CURRENT YEAR.--

CONSTITUENT	MAXIMUM RECORDED	MINIMUM RECORDED
SALINITY (TOP), ppt	18.3, August 1	2.3, January 29
SALINITY (BOTTOM), ppt	21.2, August 2	3.1, February 14
pH (TOP), standard units	10.4, April 19	6.3, February 6
pH (BOTTOM), standard units	9.3, several days during March	6.1, October 1
WATER TEMPERATURE (TOP), °C	32.2, July 22	5.6, January 7
WATER TEMPERATURE (BOTTOM), °C	31.4, July 29	5.8, January 7
DISSOLVED OXYGEN (TOP), mg/L	16.3, January 16	1.2, July 29
DISSOLVED OXYGEN (BOTTOM), mg/L	15.2, March 31	< 1.0, on several days during October, July and August
DISSOLVED OXYGEN, PERCENT SATURATION (TOP),%	159, June 13	18, July 29, August 1
DISSOLVED OXYGEN, PERCENT SATURATION (BOTTOM),%	154, March 31	< 10, on several days during July and August

SALINITY, TOP, (PARTS PER THOUSAND), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	7.6	5.7	6.3	7.8	6.6	7.1	9.2	7.7	8.3
2	---	---	---	7.9	5.9	6.6	8.2	6.7	7.2	12.0	8.6	10.1
3	---	---	---	9.4	6.6	7.5	7.8	6.4	7.0	11.4	8.6	9.5
4	7.5	5.7	6.8	7.9	7.2	7.5	7.8	6.9	7.4	9.1	8.7	8.9
5	7.4	6.1	6.9	8.1	7.0	7.5	9.2	5.9	7.1	9.2	8.4	8.8
6	---	---	---	7.4	6.0	6.8	10.3	6.5	7.9	9.4	7.1	8.6
7	---	---	---	6.9	5.9	6.4	12.3	7.1	8.8	9.2	6.9	8.2
8	7.6	6.0	6.8	7.5	5.9	6.7	13.5	8.5	11.5	9.9	6.2	7.8
9	7.4	5.7	6.4	7.9	6.4	7.3	14.8	12.3	13.7	9.5	5.7	7.4
10	6.5	5.0	5.9	7.7	6.7	7.3	13.9	12.3	13.2	8.9	6.4	7.3
11	6.3	4.7	5.4	8.8	6.9	7.7	13.7	12.1	12.9	9.1	5.8	7.4
12	6.6	4.5	5.3	8.8	6.9	7.9	13.4	12.3	12.7	8.4	6.1	7.3
13	6.8	4.5	5.4	8.9	7.3	7.9	13.3	12.6	13.0	8.3	5.9	7.1
14	5.9	4.2	4.9	8.0	6.6	7.6	13.4	12.2	13.0	8.9	5.8	7.3
15	6.5	4.1	5.1	8.0	6.1	6.9	13.1	11.3	12.0	14.4	5.8	9.2
16	6.3	4.5	5.5	8.0	6.4	7.3	13.3	9.4	11.1	9.1	6.0	7.9
17	6.3	4.9	5.6	8.4	6.7	7.4	12.9	11.1	11.8	9.0	5.5	7.0
18	6.0	4.9	5.5	8.8	6.7	7.5	12.3	11.7	11.9	11.9	5.7	8.7
19	6.0	4.5	5.2	8.7	6.9	7.7	12.2	11.9	12.1	8.6	4.5	6.3
20	7.0	4.4	5.5	7.9	6.4	7.1	12.0	11.8	11.9	9.8	3.7	7.0
21	6.4	5.5	6.0	7.2	5.9	6.6	12.1	11.5	11.9	11.6	6.6	9.2
22	6.6	5.4	6.0	7.7	6.4	7.0	12.1	11.8	12.0	12.1	6.4	9.0
23	6.3	5.3	5.7	8.0	6.7	7.2	12.1	11.7	12.0	13.0	5.9	9.6
24	6.2	5.2	5.6	8.2	6.4	7.0	11.8	11.6	11.8	13.5	6.8	9.7
25	6.5	5.3	5.7	8.3	6.7	7.5	11.8	10.3	11.0	8.6	4.8	6.2
26	6.9	5.4	5.8	8.3	7.1	7.5	10.8	9.3	9.9	9.0	4.1	5.5
27	6.8	5.6	6.0	8.0	6.9	7.5	10.4	9.2	9.6	9.6	4.5	5.8
28	6.6	5.3	5.9	7.8	6.9	7.4	10.3	9.5	9.9	8.6	3.9	5.3
29	6.9	5.9	6.3	7.5	6.7	7.1	10.1	8.6	9.4	7.4	2.3	4.6
30	7.4	6.1	6.6	9.1	6.7	7.3	10.3	8.2	8.8	7.5	4.8	5.6
31	6.7	5.8	6.2	---	---	---	9.8	7.9	8.7	9.0	5.0	6.9
MONTH	---	---	---	9.4	5.7	7.2	14.8	5.9	10.6	14.4	2.3	7.7

0209265810 NEUSE RIVER AT CHANNEL LIGHT 9--Continued

SALINITY, TOP, (PARTS PER THOUSAND), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	5.7	3.5	4.4	7.4	7.0	7.2	8.1	4.6	5.7	10.8	7.6	8.8
2	7.3	2.6	4.4	7.4	6.0	6.8	6.3	3.8	4.7	7.9	5.0	6.1
3	6.8	2.7	3.7	11.1	5.9	7.6	6.5	4.5	5.7	7.2	5.0	5.7
4	5.1	3.0	3.8	9.0	6.4	7.3	6.1	4.2	5.0	7.0	4.8	6.0
5	5.1	3.6	4.3	9.0	6.5	7.2	6.2	3.7	5.6	10.7	6.0	7.3
6	4.6	3.3	3.8	8.2	6.5	7.4	6.0	4.3	5.4	11.5	6.8	8.7
7	10.1	3.6	5.6	7.8	6.7	7.3	5.6	3.7	4.8	10.8	7.3	8.9
8	7.2	4.8	6.6	7.7	5.7	6.7	6.3	4.7	5.4	11.8	8.1	9.9
9	7.9	5.2	6.7	7.8	5.4	6.6	8.3	4.7	6.1	11.0	7.8	9.1
10	7.6	4.3	5.5	7.4	5.8	6.5	8.7	5.8	7.5	11.0	7.8	9.1
11	6.5	4.5	5.9	7.8	5.3	6.4	9.0	7.6	8.3	11.1	9.1	10.6
12	6.7	4.0	5.6	8.0	5.9	6.6	8.8	6.7	7.9	13.3	10.5	11.4
13	5.5	4.3	5.0	8.0	5.5	6.9	8.1	5.2	6.5	12.7	11.2	11.9
14	5.4	3.1	4.0	8.3	6.2	7.5	7.6	5.1	5.8	14.2	11.4	12.5
15	5.2	2.8	3.6	8.0	6.2	7.1	8.9	5.7	6.9	13.6	10.4	12.0
16	5.6	3.6	4.3	8.0	6.5	7.2	7.5	5.6	6.7	12.8	7.2	8.9
17	7.0	3.6	4.6	7.4	6.0	6.7	7.6	6.3	6.8	9.3	6.7	7.7
18	9.6	4.1	6.1	8.3	5.7	6.5	7.1	5.0	5.9	10.1	8.2	9.1
19	8.4	5.7	7.0	7.9	5.5	6.6	7.3	4.5	5.6	9.4	6.6	7.8
20	7.7	5.5	6.5	8.3	5.9	7.3	7.2	5.3	6.1	10.4	6.1	7.4
21	6.0	4.5	5.1	8.2	5.9	7.4	8.2	6.7	7.3	10.7	7.0	8.8
22	5.1	3.9	4.5	7.5	5.6	6.6	8.3	5.4	7.0	11.8	7.7	9.4
23	4.5	3.7	4.1	7.3	6.1	6.7	8.3	6.1	7.3	14.7	9.9	11.9
24	4.6	3.7	4.2	7.5	5.4	6.3	7.8	5.5	7.0	14.8	11.4	13.2
25	5.0	3.6	4.3	8.6	4.6	6.7	8.8	6.9	7.8	14.6	11.5	12.6
26	6.1	4.4	5.2	8.7	6.9	7.7	8.1	6.9	7.4	14.0	11.9	12.8
27	6.6	5.3	5.8	7.4	3.6	5.0	8.5	6.7	7.5	13.3	10.2	12.3
28	8.1	5.6	6.7	6.0	3.2	4.9	10.2	7.6	8.9	13.5	11.2	12.2
29	---	---	---	6.7	3.9	5.5	11.5	7.5	9.2	12.3	10.8	11.5
30	---	---	---	7.4	3.7	4.8	12.5	8.7	10.9	12.7	10.8	11.7
31	---	---	---	6.8	3.9	5.0	---	---	---	12.9	10.6	12.0
MONTH	10.1	2.6	5.0	11.1	3.2	6.6	12.5	3.7	6.8	14.8	4.8	9.9

SALINITY, TOP, (PARTS PER THOUSAND), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	13.1	9.4	11.8	13.7	12.6	13.2	18.3	13.4	14.3	---	---	---
2	13.5	10.8	12.2	14.0	12.9	13.7	16.7	13.4	14.4	---	---	---
3	14.0	11.4	12.9	14.2	12.8	13.4	15.9	13.5	14.4	---	---	---
4	14.2	11.5	12.9	13.5	11.8	12.6	15.8	14.1	15.2	---	---	---
5	14.6	12.5	13.5	13.3	11.2	11.9	15.3	13.7	14.4	---	---	---
6	15.6	10.8	12.9	14.1	11.1	12.2	16.3	14.1	14.7	---	---	---
7	13.2	11.3	12.4	14.4	12.6	13.6	16.5	14.7	15.4	---	---	---
8	13.9	11.7	12.7	14.8	13.2	14.1	17.5	15.3	16.0	---	---	---
9	13.7	11.4	12.6	15.0	14.2	14.4	17.1	16.4	16.6	---	---	---
10	15.3	11.1	12.7	15.3	14.1	14.9	17.0	16.5	16.8	---	---	---
11	15.8	11.8	13.0	15.4	13.8	14.7	17.1	16.8	16.9	---	---	---
12	14.2	11.9	12.9	15.5	14.9	15.2	17.1	16.8	16.9	---	---	---
13	13.2	9.9	11.7	15.5	14.5	15.2	17.0	16.9	17.0	---	---	---
14	14.2	10.8	12.3	15.9	9.4	14.7	17.3	16.9	17.0	---	---	---
15	13.7	11.6	12.7	15.4	8.9	14.6	17.5	16.9	17.2	---	---	---
16	13.8	11.3	12.3	15.7	11.0	15.0	17.5	16.7	17.1	---	---	---
17	13.5	11.0	12.2	15.2	10.1	14.2	17.4	16.6	16.8	---	---	---
18	12.6	9.8	11.3	14.1	7.5	13.3	17.7	16.6	16.8	---	---	---
19	13.8	9.9	11.8	13.6	12.2	12.8	17.5	16.8	17.1	---	---	---
20	12.3	9.5	10.8	13.4	12.2	12.9	17.5	17.1	17.3	---	---	---
21	11.8	9.7	10.9	14.3	12.3	12.8	17.4	16.9	17.1	---	---	---
22	---	---	---	14.3	11.1	12.4	17.3	16.8	17.0	---	---	---
23	11.0	9.0	9.9	14.1	9.7	11.5	17.7	17.2	17.5	---	---	---
24	11.8	11.0	11.4	16.3	12.3	14.4	18.1	17.5	17.8	---	---	---
25	11.8	10.7	11.3	16.3	13.5	14.6	18.1	16.7	17.4	---	---	---
26	13.0	10.8	11.3	14.5	13.2	13.7	17.8	16.7	17.1	---	---	---
27	12.0	10.9	11.3	13.9	13.2	13.6	17.8	17.0	17.3	---	---	---
28	12.5	10.7	11.7	15.7	7.7	13.8	17.9	16.6	17.1	---	---	---
29	12.2	11.0	11.7	17.7	8.1	14.4	---	---	---	---	---	---
30	13.0	11.8	12.6	15.6	13.9	14.7	---	---	---	---	---	---
31	---	---	---	15.8	12.8	14.1	---	---	---	---	---	---
MONTH	---	---	---	17.7	7.5	13.8	---	---	---	---	---	---

0209265810 NEUSE RIVER AT CHANNEL LIGHT 9--Continued

SALINITY, BOTTOM, (PARTS PER THOUSAND), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	10.9	5.7	9.2	14.1	5.6	8.9	13.1	7.6	10.3	13.7	7.3	11.1
2	8.8	5.7	7.3	13.8	6.6	9.7	12.6	7.5	10.2	13.2	7.8	9.9
3	9.3	6.6	7.7	13.6	6.1	8.1	13.4	7.0	9.7	12.0	7.0	9.0
4	8.6	6.4	7.6	7.3	6.3	6.8	14.1	7.2	11.9	9.9	7.6	8.1
5	8.4	6.8	7.5	7.8	5.8	6.6	16.2	9.3	13.4	9.0	7.7	8.2
6	8.9	6.9	7.9	7.0	4.7	6.0	16.4	12.5	14.7	10.9	8.1	9.0
7	9.4	5.5	7.7	9.2	4.3	6.1	17.2	11.5	15.5	9.7	8.2	8.8
8	8.6	6.5	7.6	9.7	5.3	7.0	18.0	14.3	16.3	10.6	8.0	9.3
9	8.2	5.8	6.7	10.0	6.3	7.9	17.3	12.7	15.1	12.5	6.2	10.3
10	8.7	5.5	6.3	8.9	6.2	7.3	16.7	12.2	14.5	10.6	6.7	8.3
11	9.1	5.1	7.0	9.5	7.0	8.1	15.6	11.9	14.0	10.5	6.8	8.4
12	8.9	6.1	7.6	9.6	7.3	8.1	16.5	9.9	13.7	11.2	7.4	9.3
13	8.8	4.8	7.0	9.5	7.5	8.0	16.4	11.6	14.1	12.2	9.4	11.1
14	9.0	4.8	6.9	8.1	7.0	7.7	16.5	12.1	13.9	12.4	10.7	12.0
15	9.1	5.0	6.6	8.9	6.4	7.4	14.9	9.7	13.1	12.7	8.7	10.6
16	7.9	4.9	5.6	9.6	7.3	8.1	15.0	10.1	12.5	11.3	7.4	9.1
17	7.0	5.0	5.7	11.0	7.1	8.3	14.2	10.9	12.8	12.9	8.6	10.4
18	6.4	5.4	5.7	9.6	7.3	7.8	13.6	11.8	12.7	13.1	9.4	11.1
19	8.2	5.1	6.4	9.5	7.5	8.2	16.3	11.7	12.8	11.8	6.3	10.3
20	8.7	4.6	6.3	9.4	6.9	7.6	13.5	10.3	12.6	12.9	10.0	11.7
21	8.5	5.3	6.1	9.7	5.8	7.3	13.4	11.8	12.6	13.2	11.5	12.3
22	8.6	5.2	5.9	9.3	6.3	7.6	16.5	11.8	12.7	13.5	11.3	12.5
23	6.0	4.9	5.4	9.8	5.7	7.8	13.4	11.6	12.6	13.8	11.2	12.4
24	7.3	5.0	5.9	10.2	6.8	7.8	12.9	11.7	12.3	13.0	8.0	10.7
25	9.9	5.5	7.1	9.5	7.4	8.2	12.5	10.4	11.5	12.7	7.3	9.8
26	11.9	7.3	9.2	9.5	7.5	7.9	13.1	8.6	10.5	12.4	5.5	10.0
27	12.1	5.7	9.3	8.2	7.2	7.7	13.6	8.6	11.6	12.5	6.2	10.6
28	12.8	5.7	9.2	9.6	7.2	8.0	12.9	9.2	11.5	12.5	7.3	10.3
29	10.9	5.5	7.3	10.2	7.0	8.5	13.6	8.4	11.6	13.3	3.2	9.3
30	13.2	6.0	8.2	12.3	7.7	9.8	12.6	7.4	9.2	9.2	5.1	6.7
31	13.1	5.5	7.9	---	---	---	13.5	8.7	10.7	8.9	5.6	7.5
MONTH	13.2	4.6	7.2	14.1	4.3	7.8	18.0	7.0	12.6	13.8	3.2	9.9

SALINITY, BOTTOM, (PARTS PER THOUSAND), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	7.4	4.0	5.2	8.1	7.0	7.4	11.0	5.8	7.8	12.6	8.2	10.5
2	9.8	5.6	8.4	10.0	6.9	7.4	11.1	4.9	8.0	9.2	5.3	6.5
3	10.0	4.2	7.6	11.5	7.3	9.0	11.1	5.5	6.9	11.1	5.2	6.7
4	11.1	3.8	8.4	9.9	6.6	7.7	6.9	4.3	5.7	12.5	6.6	9.6
5	9.6	4.0	6.5	9.5	6.9	8.0	8.9	5.0	5.9	15.3	8.4	12.1
6	13.5	4.8	10.7	9.5	7.2	8.3	6.2	4.6	5.6	17.2	9.6	13.4
7	13.6	6.2	11.1	8.2	6.3	7.3	9.5	4.4	6.6	---	---	---
8	11.6	6.5	7.8	7.9	5.6	6.8	10.0	5.2	6.8	---	---	---
9	10.6	6.4	7.9	7.6	6.0	6.8	11.9	5.4	8.6	---	---	---
10	9.5	6.1	8.2	7.4	6.1	6.7	9.9	5.7	8.0	---	---	---
11	7.6	5.6	6.6	8.4	5.8	6.8	9.9	8.2	8.9	---	---	---
12	10.1	5.0	7.2	9.2	6.2	7.1	9.2	7.3	8.3	---	---	---
13	7.6	4.3	5.3	9.4	6.5	8.0	9.0	5.5	6.5	---	---	---
14	6.2	3.1	4.4	8.6	6.5	7.7	10.2	5.3	7.2	11.5	10.6	11.0
15	6.9	3.3	4.9	8.0	6.3	7.2	10.8	6.1	7.9	11.9	10.0	11.1
16	9.0	5.0	6.1	8.3	6.9	7.4	8.6	6.5	7.1	11.3	7.3	8.9
17	10.1	7.1	8.8	9.2	6.1	7.2	8.1	6.5	6.9	11.8	7.7	10.0
18	10.6	6.0	8.7	9.9	6.2	7.5	7.1	5.0	6.1	10.9	7.7	8.7
19	9.6	6.1	7.8	8.6	5.7	7.4	9.8	5.9	8.0	10.8	7.4	8.9
20	8.1	5.9	6.8	10.9	6.7	7.8	11.6	6.0	8.2	12.2	7.2	9.9
21	7.5	4.5	5.8	8.4	6.8	7.7	9.2	6.3	7.5	12.8	8.7	11.7
22	7.5	4.4	5.4	8.4	5.9	6.7	9.6	5.9	7.8	13.8	10.9	12.4
23	7.7	4.1	5.8	8.6	6.7	7.6	9.1	6.9	7.9	13.9	10.8	12.5
24	6.6	3.7	4.4	9.8	6.8	8.4	9.8	7.0	8.2	13.8	10.7	12.5
25	8.3	3.7	5.7	10.7	5.8	7.9	9.8	7.3	8.3	11.7	11.0	11.4
26	8.3	4.7	5.9	9.0	6.5	7.5	8.7	6.8	7.8	11.6	11.3	11.5
27	9.4	5.6	7.2	7.8	4.5	6.2	9.0	6.8	8.0	11.7	11.1	11.4
28	10.7	7.3	8.9	8.1	3.9	5.9	10.6	8.2	9.4	12.3	10.3	11.1
29	---	---	---	9.0	5.6	7.5	12.7	7.9	10.1	12.5	10.5	11.3
30	---	---	---	9.2	4.1	7.3	13.9	9.8	12.3	13.2	10.0	11.3
31	---	---	---	10.1	5.8	7.3	---	---	---	13.4	10.9	12.1
MONTH	13.6	3.1	7.1	11.5	3.9	7.4	13.9	4.3	7.7	---	---	---

0209265810 NEUSE RIVER AT CHANNEL LIGHT 9--Continued

SALINITY, BOTTOM, (PARTS PER THOUSAND), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	14.8	10.7	13.1	14.9	13.0	13.6	20.7	16.3	19.5	---	---	---
2	14.9	11.2	13.7	14.8	13.2	14.0	21.2	14.0	15.9	---	---	---
3	14.0	11.5	12.2	15.3	13.1	13.8	16.7	13.3	14.8	---	---	---
4	13.5	11.4	12.3	14.9	12.1	13.2	15.9	14.3	15.5	---	---	---
5	13.3	12.0	12.6	14.7	11.7	13.0	17.7	14.3	15.7	---	---	---
6	12.9	12.3	12.5	16.8	12.1	13.9	17.9	14.5	16.3	---	---	---
7	12.9	12.0	12.3	15.7	13.1	14.0	17.7	15.1	16.3	---	---	---
8	13.3	12.1	12.5	16.5	13.7	14.6	18.6	15.9	16.8	---	---	---
9	13.0	12.1	12.6	17.2	14.3	14.8	17.5	16.6	16.8	---	---	---
10	14.2	12.2	12.7	15.4	14.5	15.0	16.9	16.5	16.7	---	---	---
11	14.2	12.6	13.2	15.5	13.9	14.9	17.0	16.7	16.8	---	---	---
12	13.4	12.4	13.0	15.9	15.1	15.4	16.9	16.7	16.8	---	---	---
13	13.7	11.8	12.6	16.1	15.2	15.5	16.9	16.8	16.8	---	---	---
14	15.7	12.6	13.7	16.1	14.6	15.3	17.9	16.7	17.0	---	---	---
15	15.5	12.6	14.1	16.2	14.5	15.4	17.9	16.9	17.1	---	---	---
16	15.9	12.5	14.1	15.9	15.0	15.2	18.5	16.7	17.2	---	---	---
17	15.5	12.2	13.4	16.1	14.3	15.0	18.4	16.6	17.0	---	---	---
18	13.9	10.5	12.5	16.5	13.8	14.9	18.5	16.4	16.9	---	---	---
19	15.5	10.9	13.1	14.8	12.6	13.4	18.8	16.6	17.2	---	---	---
20	14.4	10.4	12.6	14.6	12.8	13.5	18.1	17.1	17.4	---	---	---
21	14.0	11.8	12.6	15.7	12.8	14.5	19.3	16.9	17.6	---	---	---
22	---	---	---	16.3	12.8	14.6	18.4	16.9	17.1	---	---	---
23	12.8	9.3	11.1	16.4	11.5	14.6	18.6	17.1	17.5	---	---	---
24	11.7	11.1	11.4	16.9	14.3	16.3	18.0	17.5	17.7	---	---	---
25	12.3	11.3	11.7	17.1	14.3	15.3	17.9	16.7	17.4	---	---	---
26	13.7	11.1	12.5	16.2	13.6	14.3	18.4	16.9	17.5	---	---	---
27	14.6	12.0	12.9	16.6	14.1	15.2	19.0	17.2	17.7	---	---	---
28	14.7	11.5	12.7	17.8	14.9	16.0	18.8	17.1	17.7	---	---	---
29	13.4	11.7	12.4	18.6	13.5	16.1	---	---	---	---	---	---
30	13.5	12.4	13.0	17.8	14.4	16.1	---	---	---	---	---	---
31	---	---	---	20.7	14.5	16.7	---	---	---	---	---	---
MONTH	---	---	---	20.7	11.5	14.8	---	---	---	---	---	---

PH, TOP, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	8.8	7.4	8.2	8.3	7.7	8.1	8.6	7.8	8.3	---	---	---
2	8.1	7.5	7.8	8.3	7.8	8.1	8.4	8.2	8.3	---	---	---
3	8.2	7.4	7.8	8.1	7.2	7.9	8.5	7.7	8.2	---	---	---
4	8.1	7.6	7.9	8.0	7.7	7.8	8.2	7.8	8.0	---	---	---
5	8.1	7.6	7.8	7.8	7.6	7.7	8.4	7.4	8.1	---	---	---
6	7.7	7.4	7.5	7.9	7.7	7.8	8.2	7.6	8.0	---	---	---
7	7.9	7.5	7.7	8.0	7.7	7.8	---	---	---	8.4	8.1	8.2
8	7.8	7.4	7.6	8.0	7.8	7.9	---	---	---	8.6	8.3	8.4
9	7.6	7.4	7.5	8.1	7.7	7.8	---	---	---	8.5	8.3	8.4
10	7.6	7.3	7.5	8.2	7.9	8.0	---	---	---	8.4	8.0	8.2
11	8.1	7.2	7.6	8.1	7.5	7.8	---	---	---	8.5	8.1	8.2
12	8.1	7.4	7.8	8.1	7.7	7.9	---	---	---	8.5	8.1	8.3
13	8.2	7.1	7.8	8.1	7.9	8.0	---	---	---	8.6	8.3	8.4
14	8.4	7.5	8.1	8.3	8.0	8.1	---	---	---	8.6	8.2	8.4
15	8.4	7.5	8.0	8.3	7.9	8.1	---	---	---	8.5	7.8	8.2
16	8.0	7.6	7.8	8.4	7.9	8.1	---	---	---	9.0	8.3	8.5
17	7.9	7.5	7.7	8.4	7.8	8.2	---	---	---	8.9	8.2	8.5
18	8.2	7.5	7.7	8.3	8.0	8.1	---	---	---	8.7	7.6	8.3
19	7.8	7.4	7.6	8.2	8.0	8.0	---	---	---	8.6	8.0	8.3
20	8.2	7.5	7.9	8.3	7.9	8.1	---	---	---	8.6	7.7	8.3
21	8.2	7.8	8.0	8.3	7.9	8.1	---	---	---	8.4	7.3	8.1
22	8.0	7.7	7.9	8.2	7.9	8.1	---	---	---	8.9	7.2	7.9
23	8.0	7.7	7.8	8.3	7.9	8.1	---	---	---	8.6	7.6	8.0
24	8.3	7.7	8.0	8.3	7.5	8.1	---	---	---	8.1	7.5	7.8
25	8.3	7.7	8.1	8.1	7.7	8.0	---	---	---	8.4	7.8	7.9
26	8.5	7.9	8.2	8.0	7.7	7.8	---	---	---	8.5	7.7	8.1
27	8.4	8.0	8.2	7.9	7.5	7.7	---	---	---	8.5	7.8	8.2
28	8.5	8.0	8.2	8.3	7.4	7.8	---	---	---	8.1	7.5	7.8
29	8.4	7.9	8.1	8.4	7.9	8.2	---	---	---	7.9	7.3	7.6
30	8.3	7.8	8.0	8.3	7.5	8.1	---	---	---	8.4	7.6	7.9
31	8.4	7.9	8.1	---	---	---	---	---	---	8.2	7.4	7.8
MONTH	8.8	7.1	7.9	8.4	7.2	8.0	---	---	---	---	---	---

0209265810 NEUSE RIVER AT CHANNEL LIGHT 9--Continued

PH, TOP, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	8.0	7.5	7.7	8.2	7.9	8.1	9.3	7.8	8.9	8.8	8.4	8.6
2	7.7	7.2	7.4	8.7	8.0	8.2	9.6	8.7	9.1	9.1	8.7	8.8
3	7.9	7.3	7.4	8.6	7.8	8.3	9.4	8.6	9.2	9.1	8.6	8.9
4	7.4	6.4	6.9	8.2	7.7	8.0	9.5	8.3	9.1	---	---	---
5	6.7	6.5	6.6	8.6	7.9	8.3	9.4	8.7	9.0	---	---	---
6	6.5	6.3	6.4	8.6	8.3	8.5	9.3	8.5	9.0	8.3	7.7	8.0
7	7.2	6.4	6.7	8.5	8.1	8.3	9.6	8.5	9.1	8.4	7.7	8.1
8	7.5	6.7	7.1	8.6	7.9	8.3	9.3	8.3	8.8	8.2	7.6	7.8
9	8.3	6.8	7.3	8.5	8.1	8.3	9.2	8.0	8.6	8.4	7.8	8.1
10	8.4	6.9	7.5	8.5	8.1	8.2	8.7	7.7	8.3	8.2	7.7	8.0
11	8.0	7.3	7.7	8.7	7.9	8.3	8.2	7.6	8.0	8.0	7.8	7.8
12	7.5	7.0	7.2	8.8	8.4	8.7	8.9	7.6	8.2	7.8	7.3	7.5
13	7.9	7.0	7.2	9.1	8.6	8.8	8.9	8.1	8.5	7.9	7.4	7.7
14	7.5	7.1	7.2	8.9	8.4	8.7	9.3	8.4	8.8	7.8	7.5	7.6
15	8.4	7.1	7.5	8.6	8.4	8.5	9.2	7.9	8.7	7.5	7.3	7.4
16	8.3	7.3	7.7	9.0	8.3	8.6	8.8	7.9	8.4	7.7	7.3	7.5
17	8.5	7.3	7.9	9.4	8.4	8.9	8.8	7.8	8.3	8.0	7.3	7.6
18	8.3	7.0	7.8	9.2	8.6	9.0	9.2	8.1	8.6	8.1	7.3	7.7
19	8.2	7.4	7.7	9.3	8.8	9.1	10.4	8.9	9.6	8.3	7.4	7.9
20	8.2	7.5	7.8	9.2	8.9	9.0	10.2	9.3	9.8	8.1	7.6	7.8
21	7.9	7.6	7.7	9.2	8.7	8.9	9.8	8.9	9.4	8.1	7.3	7.7
22	7.9	7.3	7.6	9.1	8.6	8.9	9.9	9.0	9.5	8.2	7.4	7.8
23	8.2	7.4	7.6	9.2	8.7	9.0	9.6	8.8	9.2	7.6	6.9	7.2
24	7.9	7.3	7.6	9.3	8.7	9.1	9.5	8.7	8.9	7.4	6.9	7.1
25	8.4	7.5	7.9	9.2	8.5	8.9	9.2	8.3	8.7	7.5	7.1	7.2
26	8.3	7.8	8.0	8.7	8.3	8.5	9.4	8.6	8.8	7.7	7.1	7.3
27	8.6	8.0	8.3	8.6	8.1	8.4	8.8	8.4	8.6	7.4	7.0	7.2
28	8.4	7.8	8.2	8.9	8.1	8.5	8.6	8.3	8.4	7.3	6.8	7.1
29	---	---	---	9.1	8.0	8.7	8.7	8.2	8.3	7.3	6.8	7.0
30	---	---	---	9.2	7.9	8.9	8.5	8.3	8.4	7.2	6.7	7.0
31	---	---	---	9.2	8.2	8.8	---	---	---	7.4	6.8	7.0
MONTH	8.6	6.3	7.5	9.4	7.7	8.6	10.4	7.6	8.8	---	---	---

PH, TOP, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	7.4	6.9	7.1	8.2	7.7	7.9	8.9	8.3	8.7	---	---	---
2	7.3	6.9	7.1	8.3	7.7	8.0	9.0	8.4	8.8	---	---	---
3	7.1	6.9	7.0	8.3	7.8	8.1	9.0	8.4	8.7	---	---	---
4	7.2	7.0	7.1	8.5	8.0	8.3	8.4	8.3	8.3	---	---	---
5	7.3	7.1	7.2	8.6	8.0	8.4	8.4	8.1	8.3	---	---	---
6	7.2	7.0	7.1	8.5	8.2	8.3	8.4	8.1	8.2	---	---	---
7	7.2	7.1	7.1	8.3	8.0	8.2	8.5	7.9	8.2	---	---	---
8	7.8	6.9	7.3	8.4	8.1	8.2	8.5	7.7	8.2	---	---	---
9	7.8	7.1	7.5	8.6	8.1	8.4	8.4	7.8	8.1	---	---	---
10	7.9	7.4	7.6	8.5	8.1	8.3	8.2	7.4	8.0	---	---	---
11	7.7	7.4	7.5	8.4	8.1	8.3	8.1	7.9	8.0	---	---	---
12	7.6	7.4	7.5	8.3	8.0	8.2	8.2	7.8	8.0	---	---	---
13	7.6	7.3	7.5	8.2	7.9	8.0	8.1	8.0	8.1	---	---	---
14	8.4	7.2	7.8	8.4	7.9	8.1	8.4	7.9	8.2	---	---	---
15	7.9	7.3	7.6	8.3	7.8	8.1	8.4	7.8	8.2	---	---	---
16	7.6	7.1	7.4	8.4	7.8	8.1	8.6	8.0	8.2	---	---	---
17	7.7	7.1	7.4	8.1	7.8	7.9	8.4	8.2	8.4	---	---	---
18	7.5	7.1	7.3	8.4	7.9	8.1	8.5	8.3	8.4	---	---	---
19	7.4	6.8	7.2	8.5	8.2	8.3	8.3	7.8	8.1	---	---	---
20	7.5	6.7	7.1	8.9	8.2	8.5	8.1	7.8	7.9	---	---	---
21	8.0	7.0	7.5	8.8	8.4	8.7	8.2	7.7	7.9	---	---	---
22	---	---	---	8.8	8.3	8.6	8.1	7.9	8.0	---	---	---
23	8.3	7.6	8.0	8.7	8.2	8.6	7.9	7.8	7.9	---	---	---
24	8.2	8.0	8.1	8.7	7.5	8.2	7.9	7.7	7.8	---	---	---
25	8.3	7.6	8.0	8.6	7.5	8.0	7.9	7.7	7.8	---	---	---
26	8.2	7.5	7.9	8.3	8.0	8.2	8.0	7.6	7.8	---	---	---
27	8.1	7.6	7.8	8.3	8.0	8.1	7.9	7.7	7.8	---	---	---
28	8.1	7.6	7.8	8.4	7.8	8.2	8.0	7.4	7.8	---	---	---
29	8.2	7.7	8.0	8.8	7.8	8.5	---	---	---	---	---	---
30	8.0	7.7	7.8	8.8	8.3	8.5	---	---	---	---	---	---
31	---	---	---	8.8	8.5	8.7	---	---	---	---	---	---
MONTH	---	---	---	8.9	7.5	8.3	---	---	---	---	---	---

0209265810 NEUSE RIVER AT CHANNEL LIGHT 9--Continued

PH, BOTTOM, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	8.2	6.1	6.5	7.8	7.1	7.4	8.2	7.1	7.5	---	---	---
2	8.6	7.0	7.8	7.7	7.0	7.3	8.3	7.2	7.6	---	---	---
3	---	---	---	8.0	7.0	7.6	8.4	7.3	7.9	---	---	---
4	---	---	---	7.8	7.5	7.6	8.3	7.2	7.5	---	---	---
5	8.9	7.2	8.1	7.8	7.6	7.6	7.6	7.3	7.4	---	---	---
6	8.1	7.1	7.6	7.9	7.7	7.8	7.4	7.3	7.3	---	---	---
7	8.8	7.3	7.9	7.9	7.5	7.7	---	---	---	8.4	7.9	8.2
8	8.4	6.9	7.7	7.8	7.3	7.5	---	---	---	8.4	7.9	8.2
9	8.0	7.0	7.6	7.8	7.3	7.5	---	---	---	8.4	7.4	8.0
10	7.8	7.0	7.4	8.3	7.2	7.8	---	---	---	8.4	7.7	8.1
11	---	---	---	8.1	7.5	7.8	---	---	---	8.3	7.7	8.1
12	---	---	---	8.1	7.8	8.0	---	---	---	8.4	7.8	8.1
13	---	---	---	8.2	7.9	8.0	---	---	---	8.3	7.6	7.8
14	---	---	---	8.3	7.9	8.1	---	---	---	8.0	7.5	7.6
15	---	---	---	8.1	7.8	8.0	---	---	---	8.4	7.5	8.0
16	---	---	---	8.1	7.4	7.9	---	---	---	8.7	7.7	8.2
17	---	---	---	8.2	7.1	7.9	---	---	---	8.5	7.3	7.9
18	---	---	---	8.3	7.7	8.1	---	---	---	8.6	7.2	7.6
19	---	---	---	8.3	7.9	8.1	---	---	---	8.1	7.2	7.6
20	---	---	---	8.3	7.5	8.0	---	---	---	8.1	7.0	7.4
21	8.3	7.4	7.9	8.3	7.6	8.1	---	---	---	8.1	7.0	7.5
22	8.1	7.3	7.9	8.3	7.7	8.0	---	---	---	7.9	7.0	7.3
23	8.0	7.7	7.9	8.3	7.7	8.0	---	---	---	8.0	7.1	7.5
24	8.0	7.3	7.7	8.4	7.3	8.0	---	---	---	8.1	7.2	7.5
25	8.0	7.2	7.5	8.1	7.5	7.9	---	---	---	8.0	7.1	7.7
26	7.6	7.2	7.4	8.0	7.7	7.9	---	---	---	8.2	7.0	7.5
27	8.0	7.2	7.3	7.9	7.7	7.8	---	---	---	8.3	6.8	7.2
28	8.2	7.1	7.2	8.1	7.4	7.8	---	---	---	7.6	6.8	7.1
29	8.1	7.1	7.7	8.2	7.2	7.7	---	---	---	7.9	6.8	7.2
30	8.0	7.1	7.5	8.2	7.1	7.6	---	---	---	8.3	7.0	7.7
31	8.4	7.1	7.6	---	---	---	---	---	---	8.1	7.0	7.7
MONTH	---	---	---	8.4	7.0	7.8	---	---	---	---	---	---

PH, BOTTOM, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	8.0	6.9	7.5	8.3	7.9	8.2	8.1	6.9	7.3	7.6	7.4	7.5
2	7.1	6.8	6.8	9.0	7.1	8.3	8.3	6.9	7.2	7.5	7.3	7.4
3	7.4	6.8	7.1	9.1	8.1	8.6	8.5	6.9	7.8	7.6	7.3	7.4
4	7.4	7.1	7.2	8.8	8.2	8.5	8.6	7.1	8.0	7.5	7.2	7.3
5	7.5	7.2	7.3	9.1	8.3	8.7	8.5	7.0	8.1	7.9	7.2	7.4
6	7.2	7.1	7.2	9.2	8.2	8.7	8.4	7.4	8.1	7.6	7.2	7.3
7	7.6	7.1	7.2	9.1	8.6	8.9	8.4	6.9	7.4	---	---	---
8	7.9	7.1	7.5	9.2	8.4	8.8	8.4	7.0	7.6	---	---	---
9	8.3	7.0	7.5	9.0	8.4	8.8	8.5	6.9	7.4	---	---	---
10	7.8	7.1	7.3	8.8	8.5	8.6	8.2	7.2	7.8	---	---	---
11	8.3	7.1	7.8	9.1	8.2	8.7	7.8	7.0	7.6	---	---	---
12	8.3	6.9	7.3	9.3	8.7	9.0	8.3	7.3	7.7	---	---	---
13	8.1	7.3	7.5	9.3	8.3	8.9	8.2	7.5	7.9	7.9	7.0	7.5
14	7.7	7.4	7.5	9.3	8.8	9.1	8.3	7.2	7.7	7.8	7.5	7.6
15	7.8	7.3	7.6	9.1	8.7	8.8	8.3	7.4	7.8	7.5	7.3	7.4
16	7.8	7.3	7.5	9.3	8.4	8.7	8.1	7.3	7.8	7.7	7.1	7.4
17	7.4	7.2	7.3	9.3	7.8	8.8	8.1	7.4	7.8	7.3	7.0	7.1
18	8.0	7.2	7.4	9.3	8.0	8.8	8.4	7.7	8.0	8.0	6.8	7.4
19	8.2	7.2	7.6	9.3	8.2	8.9	8.1	7.2	7.6	7.7	6.7	7.0
20	8.2	7.4	7.8	9.3	7.4	8.9	8.2	7.2	7.7	7.5	6.7	7.1
21	8.1	7.3	7.8	9.1	7.9	8.7	8.1	7.4	7.7	7.6	6.6	6.9
22	8.0	7.3	7.7	9.2	7.7	8.8	7.9	7.2	7.6	7.2	6.6	6.8
23	8.1	7.3	7.6	8.9	7.5	8.4	8.1	7.3	7.7	7.1	6.5	6.8
24	8.1	7.4	7.8	8.6	7.0	7.5	7.8	7.2	7.6	7.4	6.8	7.1
25	8.2	7.4	7.9	9.0	7.1	8.2	7.6	7.3	7.5	7.5	7.0	7.2
26	8.3	7.6	8.1	8.7	8.2	8.4	7.5	7.1	7.3	7.4	6.9	7.1
27	8.4	7.3	8.0	8.4	7.4	8.0	7.6	7.2	7.4	7.5	6.9	7.2
28	8.2	7.3	7.7	8.7	7.4	8.1	7.5	7.4	7.4	7.3	6.7	7.0
29	---	---	---	8.4	7.2	7.6	7.6	7.3	7.4	7.3	6.7	7.0
30	---	---	---	9.0	7.1	7.7	7.6	7.4	7.5	7.3	6.8	7.1
31	---	---	---	8.5	6.7	7.5	---	---	---	7.2	6.8	6.9
MONTH	8.4	6.8	7.5	9.3	6.7	8.5	8.6	6.9	7.6	---	---	---

0209265810 NEUSE RIVER AT CHANNEL LIGHT 9--Continued

PH, BOTTOM, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	7.2	6.6	6.8	8.1	7.3	7.8	8.6	8.0	8.1	---	---	---
2	7.1	6.6	6.7	8.3	7.4	7.9	9.1	8.2	8.7	---	---	---
3	7.3	6.6	7.1	8.3	7.6	8.0	9.2	8.1	8.7	---	---	---
4	7.5	6.8	7.2	8.4	7.6	8.1	8.4	8.1	8.3	---	---	---
5	7.3	7.0	7.2	8.4	7.6	8.2	8.3	7.9	8.1	---	---	---
6	7.2	6.8	7.0	8.4	7.7	8.1	8.3	7.6	8.0	---	---	---
7	7.2	6.8	7.0	8.4	7.9	8.2	8.3	7.6	8.0	---	---	---
8	7.7	6.9	7.2	8.4	7.7	8.2	8.4	7.5	7.9	---	---	---
9	7.7	7.1	7.3	8.6	7.7	8.3	8.4	7.7	8.0	---	---	---
10	7.6	7.1	7.4	8.5	8.1	8.3	8.2	7.6	8.0	---	---	---
11	7.6	7.3	7.4	8.4	8.1	8.2	8.2	7.9	8.2	---	---	---
12	7.5	7.3	7.4	8.2	8.0	8.1	8.4	8.0	8.2	---	---	---
13	7.5	7.1	7.2	8.1	7.9	8.0	8.3	8.0	8.2	---	---	---
14	7.8	7.0	7.3	8.3	7.7	8.0	8.5	7.6	8.2	---	---	---
15	7.8	7.1	7.4	8.3	7.4	7.8	8.5	8.0	8.3	---	---	---
16	7.7	7.1	7.3	8.3	7.5	8.1	8.5	7.9	8.3	---	---	---
17	7.8	7.2	7.6	8.1	7.3	7.8	8.7	8.0	8.4	---	---	---
18	7.8	7.3	7.6	8.1	7.3	7.7	8.7	7.9	8.5	---	---	---
19	7.8	7.3	7.6	8.3	7.8	8.1	8.5	7.8	8.4	---	---	---
20	7.8	7.3	7.5	8.6	8.0	8.2	8.4	8.0	8.2	---	---	---
21	8.4	7.3	7.7	8.5	7.7	8.1	8.6	7.7	8.2	---	---	---
22	---	---	---	8.5	7.5	8.0	8.5	7.8	8.3	---	---	---
23	8.2	7.3	7.7	8.6	7.5	8.0	8.2	7.7	8.1	---	---	---
24	8.2	7.8	8.1	8.3	7.3	7.6	8.1	7.8	8.0	---	---	---
25	8.1	7.0	7.5	8.4	7.5	7.8	8.1	7.7	7.9	---	---	---
26	7.7	7.0	7.3	8.3	7.6	8.1	7.9	7.4	7.7	---	---	---
27	7.8	7.3	7.5	8.1	7.5	7.8	7.9	7.3	7.7	---	---	---
28	7.8	7.3	7.6	8.2	7.3	7.8	7.9	7.2	7.6	---	---	---
29	8.1	7.5	7.9	8.5	7.4	8.0	---	---	---	---	---	---
30	8.0	7.6	7.8	8.4	8.0	8.2	---	---	---	---	---	---
31	---	---	---	8.7	7.8	8.3	---	---	---	---	---	---
MONTH	---	---	---	8.7	7.3	8.0	---	---	---	---	---	---

TEMPERATURE, TOP, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	27.3	25.7	26.1	18.8	17.8	18.3	16.4	15.1	15.7	7.3	6.0	6.6
2	25.8	24.1	24.9	18.4	17.7	18.1	16.2	15.4	15.9	7.4	5.9	6.6
3	24.2	22.9	23.8	18.8	17.8	18.2	16.2	15.2	15.6	9.3	7.1	8.2
4	24.5	23.5	24.0	18.4	17.2	17.9	16.7	15.5	16.0	8.6	7.6	8.1
5	24.5	23.9	24.1	17.2	15.2	16.3	16.7	15.8	16.3	7.6	6.7	7.2
6	23.9	23.5	23.7	15.7	12.7	14.6	17.4	16.3	16.8	7.0	5.9	6.3
7	23.9	23.1	23.5	13.8	12.7	13.3	18.1	16.1	17.1	6.7	5.6	6.2
8	23.8	23.1	23.5	13.6	12.1	13.0	17.5	16.5	17.0	7.5	6.3	6.8
9	23.7	23.1	23.4	13.7	12.7	13.4	16.9	15.5	16.4	8.3	6.8	7.6
10	23.1	22.5	22.8	14.8	13.4	13.9	15.7	14.8	15.2	8.4	7.2	7.7
11	23.1	21.9	22.5	16.2	14.5	15.3	15.4	14.3	14.8	7.4	6.4	7.0
12	22.8	21.7	22.3	16.0	15.1	15.4	14.3	13.5	13.9	7.5	6.6	7.2
13	23.4	21.7	22.2	15.1	14.5	14.8	14.3	13.7	14.1	8.0	7.1	7.5
14	22.8	21.8	22.3	14.9	14.3	14.5	14.0	12.7	13.5	8.0	7.4	7.6
15	22.9	21.4	22.0	14.9	14.1	14.4	12.7	11.9	12.3	9.2	7.3	8.3
16	22.3	21.1	21.6	15.2	13.9	14.6	12.5	11.7	12.2	9.0	8.0	8.4
17	21.5	20.5	21.1	16.5	14.6	15.6	12.6	11.7	12.1	9.6	8.2	8.8
18	22.3	20.9	21.4	16.0	15.1	15.5	11.7	10.4	11.2	10.5	8.4	9.4
19	22.1	21.0	21.6	15.4	14.9	15.1	11.3	10.7	11.0	10.6	9.5	10.0
20	21.7	21.1	21.5	15.6	14.9	15.3	11.9	11.0	11.5	10.5	9.3	10.1
21	21.2	20.3	20.7	15.5	14.8	15.3	12.2	11.6	11.9	10.8	9.4	9.9
22	20.3	17.4	19.3	14.9	14.1	14.5	13.4	11.8	12.4	13.1	9.4	10.5
23	18.2	16.3	17.3	15.1	13.8	14.4	12.8	10.9	11.7	12.9	10.1	11.2
24	17.9	16.1	17.1	15.6	14.5	15.0	10.9	9.7	10.4	13.1	10.6	12.1
25	18.6	16.6	17.3	15.2	14.4	14.8	10.0	8.2	9.0	13.8	12.3	13.1
26	18.7	16.4	17.5	15.7	14.7	15.0	8.6	7.3	7.9	12.8	11.7	12.4
27	18.2	16.9	17.5	15.0	14.0	14.6	7.9	6.6	7.3	12.8	11.7	12.2
28	18.9	17.5	18.1	15.3	14.1	14.6	8.0	7.4	7.7	13.3	11.9	12.7
29	18.9	18.0	18.5	15.5	14.1	14.6	8.1	7.7	7.9	13.7	12.3	13.1
30	19.4	17.7	18.5	15.4	14.6	14.9	8.1	7.3	7.8	12.3	11.5	12.1
31	19.3	18.4	18.7	---	---	---	7.7	6.7	7.2	11.7	10.2	10.8
MONTH	27.3	16.1	21.3	18.8	12.1	15.2	18.1	6.6	12.6	13.8	5.6	9.2

0209265810 NEUSE RIVER AT CHANNEL LIGHT 9--Continued

TEMPERATURE, TOP, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	10.5	9.9	10.2	9.9	8.9	9.4	15.1	12.9	14.4	15.0	14.1	14.6
2	12.2	10.4	11.2	11.4	9.1	9.7	17.9	14.8	15.7	14.2	13.5	13.8
3	12.2	11.1	11.5	11.5	9.6	10.3	17.2	15.3	16.4	14.3	13.4	13.8
4	12.3	11.3	11.8	10.5	8.4	9.9	18.1	16.1	17.2	16.3	14.0	15.0
5	11.8	11.1	11.4	10.1	9.3	9.7	18.3	17.0	17.4	16.8	14.5	15.8
6	11.8	10.7	11.4	10.9	9.4	10.0	17.4	16.3	16.8	17.5	15.2	16.4
7	12.5	11.3	11.7	10.9	10.0	10.5	19.4	16.6	17.6	20.0	16.2	18.0
8	12.8	11.8	12.3	10.0	9.1	9.6	20.5	17.6	18.4	19.9	17.9	18.8
9	13.1	11.7	12.3	9.5	8.7	8.9	19.8	17.8	18.8	21.9	19.2	20.4
10	13.9	12.2	12.9	8.9	8.4	8.6	19.4	18.1	18.6	22.1	19.9	21.1
11	13.8	12.6	13.1	9.1	8.1	8.6	18.2	17.6	17.8	21.5	20.3	21.0
12	14.4	12.6	13.4	9.1	8.2	8.7	18.6	17.6	18.1	21.1	19.9	20.5
13	14.0	12.5	13.2	9.2	8.1	8.7	18.0	17.1	17.5	23.0	20.3	21.4
14	12.5	9.5	11.3	9.8	8.7	9.1	18.1	16.7	17.3	22.0	21.4	21.5
15	11.1	9.7	10.5	10.2	9.2	9.6	18.2	16.8	17.5	21.4	19.5	20.3
16	11.4	9.8	10.7	11.1	8.7	9.4	19.7	17.9	18.4	19.7	18.8	19.3
17	12.0	10.5	11.1	11.4	9.1	10.1	18.6	17.3	17.8	20.5	18.5	19.4
18	12.3	11.1	11.8	12.1	10.1	10.9	17.7	16.0	17.2	21.4	19.0	20.2
19	11.9	11.3	11.7	12.7	11.0	11.6	17.8	16.1	17.2	22.5	20.1	21.2
20	11.6	10.9	11.2	12.4	11.0	11.7	18.5	16.6	17.4	22.5	20.8	21.8
21	11.3	10.1	10.6	12.4	11.5	11.9	18.2	17.0	17.6	23.3	21.2	21.9
22	10.2	7.7	9.1	12.9	11.8	12.3	20.0	17.8	18.5	23.5	21.7	22.5
23	8.8	7.8	8.2	13.8	11.9	12.8	20.6	18.6	19.5	23.5	21.3	22.2
24	8.0	6.8	7.4	14.9	13.3	13.9	20.3	19.0	19.4	23.0	21.2	22.1
25	7.9	6.8	7.3	14.7	13.5	14.2	19.5	18.2	18.8	24.5	22.3	22.9
26	8.2	7.1	7.7	13.6	12.1	12.9	19.5	18.7	19.1	24.3	22.3	23.0
27	8.9	7.6	8.1	12.4	11.3	11.8	19.8	19.1	19.4	24.0	22.6	23.3
28	9.7	8.6	9.1	12.4	10.8	11.7	19.2	17.8	18.5	24.4	22.8	23.6
29	---	---	---	13.8	11.5	12.4	18.0	15.9	17.0	25.8	23.5	24.3
30	---	---	---	14.3	12.0	13.3	16.3	14.5	15.4	25.9	23.8	24.6
31	---	---	---	14.7	13.3	13.9	---	---	---	26.3	24.2	25.0
MONTH	14.4	6.8	10.8	14.9	8.1	10.8	20.6	12.9	17.7	26.3	13.4	20.3

TEMPERATURE, TOP, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	26.2	24.3	25.2	28.1	26.0	26.7	31.9	30.1	30.8	---	---	---
2	26.3	24.7	25.2	28.4	26.4	27.1	31.4	30.3	30.7	---	---	---
3	26.0	24.3	24.9	29.3	26.8	27.6	30.5	29.1	29.6	---	---	---
4	26.0	24.7	25.2	29.9	27.3	28.3	29.1	27.5	28.2	---	---	---
5	25.7	24.1	25.0	31.2	28.0	29.2	28.7	27.0	27.8	---	---	---
6	27.2	24.9	26.0	30.6	28.4	29.4	29.7	27.3	28.0	---	---	---
7	27.3	25.4	26.1	29.6	28.5	29.1	29.9	28.2	28.7	---	---	---
8	27.9	25.3	26.3	29.8	28.4	28.9	29.9	28.2	28.9	---	---	---
9	28.7	25.6	26.8	29.9	28.4	29.1	28.7	27.8	28.4	---	---	---
10	28.5	26.3	27.1	30.6	28.6	29.3	28.3	27.1	27.9	---	---	---
11	27.3	26.0	26.7	29.7	27.9	28.8	29.3	27.5	28.1	---	---	---
12	26.4	24.8	25.6	28.0	26.8	27.5	29.0	27.6	28.3	---	---	---
13	26.0	24.5	25.1	27.3	25.8	26.9	29.2	28.0	28.7	---	---	---
14	27.2	24.7	25.7	27.4	26.0	26.9	29.7	28.9	29.2	---	---	---
15	26.5	25.6	26.0	27.2	26.5	26.9	29.2	28.3	28.7	---	---	---
16	26.3	25.6	26.0	28.3	26.4	27.2	30.3	28.2	28.8	---	---	---
17	25.6	25.1	25.3	28.7	26.8	27.5	30.2	28.6	29.1	---	---	---
18	25.1	24.0	24.4	28.8	27.6	28.2	30.1	28.9	29.4	---	---	---
19	24.1	22.4	23.1	29.6	27.8	28.7	31.1	29.0	29.7	---	---	---
20	23.6	22.1	23.0	30.6	28.3	29.2	30.4	29.2	29.5	---	---	---
21	24.5	23.3	23.8	30.5	29.1	30.0	30.6	28.3	29.3	---	---	---
22	---	---	---	32.2	29.5	30.3	29.8	28.7	29.3	---	---	---
23	23.7	22.5	23.2	31.7	29.6	30.5	28.8	28.1	28.5	---	---	---
24	24.4	23.4	23.9	31.4	28.3	30.0	28.5	27.8	28.1	---	---	---
25	25.8	23.9	24.7	30.4	28.3	29.1	28.5	27.7	28.1	---	---	---
26	25.7	24.8	25.1	30.3	29.0	29.6	28.6	27.7	28.1	---	---	---
27	27.1	25.0	25.7	30.2	29.6	29.9	28.5	27.8	28.1	---	---	---
28	26.7	25.5	26.0	31.2	29.5	30.0	28.8	27.7	28.1	---	---	---
29	27.6	25.9	26.5	31.9	29.3	30.6	---	---	---	---	---	---
30	27.0	25.9	26.2	32.0	29.8	30.6	---	---	---	---	---	---
31	---	---	---	32.0	30.0	30.8	---	---	---	---	---	---
MONTH	---	---	---	32.2	25.8	28.8	---	---	---	---	---	---

0209265810 NEUSE RIVER AT CHANNEL LIGHT 9--Continued

TEMPERATURE, BOTTOM, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	25.9	25.0	25.3	18.8	18.1	18.5	15.6	14.9	15.2	8.6	6.2	7.9
2	25.9	24.2	24.9	18.5	18.3	18.5	16.0	15.1	15.5	7.5	6.1	6.8
3	24.9	23.0	23.9	18.7	17.9	18.4	16.3	15.1	15.5	9.2	7.2	8.3
4	24.5	23.7	24.1	18.4	17.2	17.9	15.7	15.1	15.4	8.6	7.7	8.2
5	24.4	23.9	24.1	17.2	15.4	16.4	15.6	15.1	15.2	8.2	7.1	7.4
6	23.9	23.5	23.7	15.7	12.7	14.6	15.6	15.1	15.2	7.9	6.1	6.9
7	23.7	22.8	23.3	14.9	12.7	13.8	16.3	15.2	15.4	7.3	5.8	6.3
8	23.8	23.1	23.5	14.6	12.9	13.9	16.8	15.4	15.6	7.1	6.4	6.8
9	23.7	23.2	23.5	14.5	13.6	14.1	16.8	15.5	16.1	8.1	6.8	7.3
10	23.3	22.5	22.8	14.7	13.5	14.0	15.6	14.9	15.2	8.4	7.4	7.7
11	23.0	22.1	22.8	16.2	14.4	15.3	15.4	14.3	14.9	7.8	6.4	7.0
12	23.0	22.5	22.8	15.9	15.1	15.4	14.9	13.6	13.9	7.4	6.8	7.2
13	22.8	21.8	22.4	15.2	14.5	14.9	14.3	13.9	14.1	7.6	7.2	7.4
14	22.9	22.2	22.5	14.8	14.3	14.5	14.0	12.7	13.5	7.4	7.2	7.3
15	22.9	21.7	22.4	14.7	14.3	14.5	12.7	11.6	12.2	8.9	7.2	8.2
16	22.5	21.5	21.8	14.9	14.5	14.8	12.6	11.6	12.3	8.8	8.0	8.3
17	22.1	20.6	21.2	16.2	14.7	15.3	12.7	11.7	12.1	8.8	8.1	8.3
18	21.8	20.9	21.2	15.8	15.2	15.5	11.7	10.7	11.2	10.1	8.1	8.7
19	22.4	21.2	21.7	15.4	14.9	15.1	11.3	10.7	11.0	9.9	9.0	9.4
20	21.7	21.3	21.6	15.6	15.0	15.3	11.8	11.2	11.4	9.7	8.7	9.2
21	21.4	20.3	20.9	15.5	15.2	15.3	11.9	11.4	11.6	9.4	8.7	9.1
22	21.1	17.4	19.5	15.2	14.2	14.6	13.1	11.7	12.3	9.7	8.9	9.1
23	18.3	16.4	17.3	15.0	14.0	14.4	12.8	10.9	11.7	11.8	8.9	9.8
24	18.6	16.3	17.5	15.5	14.5	15.0	10.9	9.7	10.4	12.9	9.3	11.4
25	18.8	16.9	17.9	15.2	14.8	15.0	10.0	8.3	9.0	12.9	10.7	11.9
26	18.6	17.9	18.3	15.5	14.9	15.1	9.1	7.5	8.2	12.5	10.8	11.5
27	18.6	17.8	18.3	15.0	14.1	14.7	8.8	7.4	8.2	12.3	10.8	11.4
28	18.6	17.7	18.4	15.1	14.2	14.7	8.7	7.8	8.3	12.1	10.8	11.5
29	18.8	18.1	18.4	14.9	14.4	14.7	8.8	8.0	8.4	13.4	10.9	11.9
30	18.6	17.9	18.4	15.1	14.7	14.9	8.3	7.9	8.1	12.3	11.5	12.1
31	19.3	18.4	18.6	---	---	---	8.5	7.4	8.0	11.8	10.2	10.9
MONTH	25.9	16.3	21.4	18.8	12.7	15.3	16.8	7.4	12.4	13.4	5.8	8.9

TEMPERATURE, BOTTOM, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	11.0	9.7	10.2	9.9	8.9	9.4	14.8	12.0	13.2	14.8	13.9	14.4
2	11.4	10.8	11.2	9.8	9.0	9.3	16.2	12.4	13.7	14.3	13.6	13.9
3	11.4	10.3	10.9	10.8	8.8	9.8	16.9	13.2	15.2	14.4	13.5	13.9
4	12.1	10.3	10.9	10.4	8.3	9.9	17.7	15.2	16.5	14.4	13.7	14.0
5	11.7	10.8	11.1	10.0	9.4	9.8	18.0	14.8	17.2	15.0	13.9	14.2
6	11.2	10.5	10.8	10.7	9.6	10.1	17.2	16.2	16.7	15.8	13.9	14.3
7	12.0	10.6	11.0	11.0	10.0	10.5	17.5	15.3	16.2	---	---	---
8	12.7	11.0	12.1	10.2	9.0	9.6	19.0	16.0	17.1	---	---	---
9	12.5	11.5	12.0	9.7	8.8	9.0	19.7	15.8	17.4	---	---	---
10	12.6	11.7	12.0	9.0	8.4	8.7	19.4	17.8	18.5	---	---	---
11	13.7	12.2	12.8	9.0	8.3	8.7	18.1	17.4	17.8	---	---	---
12	14.1	11.7	12.9	9.1	8.4	8.7	18.6	17.7	18.1	---	---	---
13	14.0	11.7	13.0	9.6	8.2	8.8	18.1	17.1	17.6	---	---	---
14	12.5	10.2	11.6	9.7	8.7	9.1	17.8	16.9	17.4	21.9	21.3	21.5
15	11.8	10.3	11.1	10.0	9.4	9.6	18.2	17.1	17.5	21.4	19.5	20.3
16	11.5	10.8	11.1	10.9	8.8	9.2	19.5	17.9	18.4	19.6	18.8	19.3
17	11.3	10.9	11.1	10.7	9.1	9.6	18.5	17.3	17.8	19.3	18.8	19.1
18	12.3	10.9	11.3	11.9	9.6	10.4	17.8	16.3	17.2	21.2	19.1	19.8
19	11.9	11.3	11.6	11.9	10.6	11.1	17.5	17.1	17.3	21.6	19.3	20.2
20	11.4	10.9	11.2	12.2	9.7	11.4	18.4	17.2	17.5	21.2	20.1	20.8
21	11.3	10.2	10.7	12.4	11.1	11.7	18.2	17.1	17.6	21.7	20.2	20.6
22	10.9	8.8	9.7	12.9	11.6	12.2	20.0	17.5	18.2	22.2	20.3	20.8
23	9.9	8.2	9.3	13.0	11.8	12.2	20.6	18.6	19.4	22.2	20.3	21.2
24	8.8	6.8	7.6	13.2	11.8	12.2	20.2	19.0	19.4	23.2	20.8	22.0
25	8.5	6.9	7.7	14.4	11.8	13.3	19.5	18.3	18.9	23.8	22.2	22.7
26	8.2	7.6	7.8	13.6	12.2	12.9	19.4	18.8	19.1	23.5	22.2	22.7
27	8.4	7.8	8.1	12.4	11.3	11.9	19.7	19.2	19.4	24.0	22.5	23.2
28	9.4	8.1	8.6	12.1	11.0	11.6	19.3	17.8	18.5	23.9	22.8	23.2
29	---	---	---	12.2	11.3	11.6	17.9	15.6	17.0	24.1	22.9	23.5
30	---	---	---	14.0	11.6	12.4	16.0	14.6	15.4	25.4	23.3	23.9
31	---	---	---	14.2	12.0	13.1	---	---	---	24.6	23.5	24.1
MONTH	14.1	6.8	10.7	14.4	8.2	10.6	20.6	12.0	17.4	---	---	---

0209265810 NEUSE RIVER AT CHANNEL LIGHT 9--Continued

TEMPERATURE, BOTTOM, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	24.5	23.1	23.9	27.6	25.4	26.5	30.5	28.8	29.4	---	---	---
2	25.0	23.1	23.9	27.5	26.1	26.9	30.8	28.6	30.3	---	---	---
3	25.9	23.8	24.7	28.3	26.9	27.4	30.5	29.1	29.6	---	---	---
4	25.9	24.8	25.2	28.9	27.3	27.9	29.1	27.5	28.3	---	---	---
5	25.7	24.3	25.1	29.5	27.4	28.4	28.1	27.3	27.8	---	---	---
6	26.1	24.8	25.2	30.1	28.1	29.0	28.6	27.4	27.9	---	---	---
7	26.2	24.7	25.6	29.4	28.6	29.0	29.1	27.7	28.3	---	---	---
8	26.5	25.2	25.8	29.3	28.2	28.7	29.3	27.7	28.5	---	---	---
9	27.3	25.4	26.1	29.7	28.3	29.0	28.7	27.8	28.3	---	---	---
10	27.5	26.2	26.9	30.2	28.5	29.2	28.3	27.0	27.8	---	---	---
11	27.1	26.0	26.6	29.7	27.9	28.7	28.9	27.5	27.9	---	---	---
12	26.5	24.7	25.5	28.0	26.7	27.5	28.7	27.6	28.1	---	---	---
13	25.7	24.4	24.9	27.6	26.4	26.9	29.1	28.0	28.5	---	---	---
14	26.1	24.7	25.2	27.3	26.4	27.0	29.3	28.1	28.9	---	---	---
15	26.3	24.8	25.5	27.1	26.8	27.0	29.0	28.2	28.5	---	---	---
16	26.1	24.9	25.5	28.0	26.4	27.0	29.0	28.1	28.5	---	---	---
17	25.6	25.0	25.3	28.0	26.9	27.3	29.5	28.5	28.8	---	---	---
18	25.0	24.0	24.5	28.5	27.0	27.7	29.7	28.5	29.1	---	---	---
19	24.0	22.4	23.0	29.1	27.7	28.2	30.5	29.0	29.5	---	---	---
20	23.5	21.8	22.9	29.8	28.1	28.6	29.8	29.1	29.4	---	---	---
21	24.4	23.3	23.7	30.4	28.1	28.7	30.4	28.5	29.2	---	---	---
22	---	---	---	30.6	28.2	29.2	29.6	28.8	29.1	---	---	---
23	23.7	22.5	23.3	30.3	28.2	29.3	28.8	28.1	28.5	---	---	---
24	24.4	23.4	23.9	29.6	28.1	28.6	28.4	27.8	28.1	---	---	---
25	24.9	23.5	24.0	29.7	28.4	28.9	28.5	27.6	28.0	---	---	---
26	25.2	23.6	24.3	30.2	28.9	29.4	28.4	27.8	28.0	---	---	---
27	25.8	24.2	24.8	29.7	28.9	29.3	28.4	27.8	28.1	---	---	---
28	26.4	24.7	25.6	29.9	29.0	29.5	28.3	27.6	27.9	---	---	---
29	26.8	25.8	26.3	31.4	28.9	29.9	---	---	---	---	---	---
30	26.6	25.8	26.2	30.4	29.5	29.9	---	---	---	---	---	---
31	---	---	---	30.6	28.5	29.9	---	---	---	---	---	---
MONTH	---	---	---	31.4	25.4	28.4	---	---	---	---	---	---

OXYGEN DISSOLVED (MG/L), TOP, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	11.1	4.7	8.3	11.5	8.7	10.2	13.9	10.8	12.7	12.9	11.5	12.3
2	8.5	5.7	7.2	11.3	9.0	10.2	13.6	12.4	13.0	12.9	11.9	12.3
3	9.2	5.7	7.6	10.6	6.7	9.8	13.9	9.3	11.6	12.2	11.7	12.0
4	8.8	6.6	7.8	10.1	9.2	9.5	10.7	9.1	9.6	12.6	11.9	12.2
5	9.0	6.7	7.8	10.2	9.1	9.8	11.3	7.7	10.0	12.9	12.2	12.5
6	7.8	6.6	7.3	10.9	9.9	10.5	10.0	8.0	9.2	13.2	11.8	12.6
7	8.7	7.0	7.9	11.5	10.5	10.9	9.7	7.0	8.6	14.3	12.4	13.2
8	8.6	7.0	7.7	11.4	10.5	10.8	9.0	5.9	7.9	14.9	13.3	14.0
9	7.9	7.1	7.6	11.3	9.6	10.5	8.0	6.1	7.3	14.4	12.9	13.8
10	8.9	6.7	7.7	11.6	10.4	11.0	8.6	7.5	8.1	13.5	11.6	12.8
11	10.8	7.1	8.7	10.8	8.6	10.0	8.6	7.4	8.3	13.8	11.9	12.8
12	11.2	7.2	9.6	10.9	9.6	10.3	8.9	8.3	8.6	14.0	12.7	13.3
13	11.8	5.7	9.5	11.2	10.1	10.6	9.1	7.7	8.4	14.3	12.7	13.4
14	11.9	7.6	10.5	12.2	10.7	11.1	9.1	8.3	8.7	14.1	12.1	13.0
15	12.6	7.9	10.2	12.1	10.4	11.3	9.8	8.8	9.3	13.5	9.6	11.8
16	10.4	8.8	9.6	12.4	10.3	11.4	9.5	8.8	9.2	16.3	11.8	12.6
17	10.5	8.7	9.4	13.2	9.8	11.7	10.2	8.6	9.3	14.0	11.2	12.4
18	12.1	7.8	9.4	12.5	11.0	11.7	10.0	9.2	9.5	12.6	8.6	10.9
19	10.0	8.2	9.2	11.7	10.9	11.2	9.8	9.2	9.5	12.1	10.3	11.0
20	10.1	6.9	8.9	12.7	10.4	11.4	10.3	9.3	9.8	12.0	8.4	10.9
21	9.5	7.6	8.5	12.1	10.8	11.5	10.4	9.3	9.9	11.7	6.6	10.1
22	9.3	8.4	8.8	12.1	10.8	11.5	10.1	9.3	9.7	15.7	6.5	9.9
23	10.5	8.8	9.6	12.8	10.8	11.7	9.9	9.5	9.7	12.0	9.0	10.3
24	11.6	9.1	10.4	13.0	9.2	12.0	9.9	9.5	9.8	11.1	8.4	9.7
25	12.2	9.3	11.1	11.9	9.7	11.2	10.9	9.8	10.3	11.9	9.8	10.3
26	13.2	10.4	11.8	11.5	10.3	10.9	11.2	10.5	10.8	12.6	9.7	11.2
27	12.5	10.6	11.6	11.4	9.2	10.6	12.1	10.6	11.4	11.9	9.9	10.9
28	12.8	10.4	11.5	13.1	9.8	10.9	11.9	11.2	11.5	11.1	8.7	10.0
29	11.8	10.2	10.8	13.4	11.3	12.4	12.9	11.3	12.0	10.9	9.3	10.1
30	11.7	9.6	10.6	13.1	10.4	12.1	12.4	11.6	12.0	12.2	10.0	10.7
31	12.1	9.4	10.5	---	---	---	12.4	11.6	11.8	11.4	8.6	10.3
MONTH	13.2	4.7	9.3	13.4	6.7	11.0	13.9	5.9	9.9	16.3	6.5	11.7

0209265810 NEUSE RIVER AT CHANNEL LIGHT 9--Continued

OXYGEN DISSOLVED (MG/L), TOP, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	11.5	10.3	10.8	11.9	11.1	11.5	12.4	8.1	11.0	10.9	9.9	10.5
2	10.6	6.6	9.8	13.6	11.2	12.2	13.4	10.0	11.2	11.0	10.5	10.7
3	11.4	9.8	10.4	13.5	10.7	12.0	12.7	10.1	11.3	11.1	10.1	10.6
4	11.6	9.3	10.2	12.4	10.7	11.5	11.7	8.8	10.6	11.8	10.2	11.1
5	10.8	10.3	10.5	13.4	11.3	12.3	10.9	9.1	9.9	11.5	10.1	11.0
6	10.5	9.1	9.9	---	---	---	11.3	8.8	9.9	10.4	9.0	9.8
7	10.6	9.3	10.2	---	---	---	11.8	8.9	10.1	10.3	8.8	9.5
8	11.0	9.9	10.3	---	---	---	11.1	8.7	9.8	9.4	8.3	8.9
9	14.7	10.0	11.5	---	---	---	11.5	8.8	9.8	10.0	8.8	9.3
10	15.0	10.6	12.1	---	---	---	9.9	8.1	9.3	9.8	8.7	9.3
11	13.1	11.1	12.5	---	---	---	9.3	7.1	8.8	9.1	8.6	8.9
12	11.9	10.5	11.3	---	---	---	11.5	7.8	9.7	8.7	6.7	8.0
13	11.9	10.8	11.2	---	---	---	11.2	9.5	10.2	9.5	7.2	8.6
14	11.9	10.8	11.4	---	---	---	12.5	9.5	10.6	9.4	8.2	8.5
15	14.4	11.0	12.1	---	---	---	11.6	8.9	10.5	9.2	7.9	8.5
16	14.1	12.0	12.9	---	---	---	10.9	8.9	9.9	10.3	8.7	9.6
17	14.2	10.4	12.8	---	---	---	10.7	8.5	9.8	11.4	9.4	10.4
18	13.7	8.7	12.0	---	---	---	11.5	9.6	10.5	11.8	9.7	10.7
19	13.5	10.8	11.9	---	---	---	11.5	9.4	10.6	12.3	9.6	11.1
20	12.9	11.5	12.2	---	---	---	11.5	9.5	10.6	11.9	9.9	10.9
21	12.5	12.0	12.2	---	---	---	10.8	8.3	10.0	12.1	9.4	10.9
22	13.9	12.1	12.6	---	---	---	11.0	9.2	10.1	12.3	9.4	10.9
23	14.3	12.6	13.3	---	---	---	10.4	8.6	9.4	10.1	6.1	8.5
24	13.9	12.6	13.3	---	---	---	10.0	8.9	9.5	9.0	6.3	7.9
25	14.3	12.9	13.4	---	---	---	9.7	8.0	9.0	9.9	6.8	8.4
26	13.1	12.3	12.7	---	---	---	9.2	8.2	8.7	10.3	7.0	8.1
27	13.3	12.2	12.6	---	---	---	9.7	7.6	8.9	9.5	6.6	8.1
28	12.2	10.8	11.7	---	---	---	9.5	8.9	9.3	9.6	5.6	8.1
29	---	---	---	---	---	---	10.3	8.7	9.7	9.8	6.2	8.2
30	---	---	---	---	---	---	10.5	9.8	10.3	9.3	4.6	7.7
31	---	---	---	13.1	5.2	9.1	---	---	---	9.5	5.3	7.4
MONTH	15.0	6.6	11.7	---	---	---	13.4	7.1	10.0	12.3	4.6	9.4

OXYGEN DISSOLVED (MG/L), TOP, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	8.2	5.8	7.1	7.6	5.3	6.5	6.3	1.3	5.2	---	---	---
2	6.7	3.8	5.5	8.0	5.7	6.9	6.0	2.9	5.0	---	---	---
3	4.9	3.2	4.1	8.2	6.2	7.4	6.9	4.7	5.7	---	---	---
4	---	---	---	8.5	6.7	7.7	6.9	5.7	6.2	---	---	---
5	---	---	---	8.7	6.3	7.6	7.4	5.4	6.2	---	---	---
6	---	---	---	8.2	6.3	7.3	7.5	4.4	6.1	---	---	---
7	---	---	---	7.6	4.7	6.6	7.9	3.9	6.1	---	---	---
8	---	---	---	8.1	6.0	6.8	7.9	2.6	5.8	---	---	---
9	8.6	5.7	7.0	8.9	5.6	7.2	7.6	4.3	6.1	---	---	---
10	8.4	6.7	7.3	7.6	5.8	6.5	7.7	5.4	6.6	---	---	---
11	7.7	6.9	7.2	7.2	5.8	6.3	7.8	6.2	7.0	---	---	---
12	7.6	7.0	7.3	7.4	5.9	6.5	7.7	5.5	6.5	---	---	---
13	12.4	7.2	10.8	---	---	---	7.2	5.6	6.3	---	---	---
14	10.7	6.3	8.9	---	---	---	7.8	4.8	6.5	---	---	---
15	8.6	6.5	7.7	---	---	---	7.9	3.9	6.0	---	---	---
16	8.4	6.6	7.7	---	---	---	8.3	4.6	6.2	---	---	---
17	8.6	6.7	7.8	---	---	---	7.7	5.7	6.7	---	---	---
18	8.8	7.2	7.9	---	---	---	7.8	5.2	6.9	---	---	---
19	8.5	6.5	8.0	---	---	---	8.3	4.1	5.9	---	---	---
20	9.4	6.1	7.8	---	---	---	6.6	4.1	5.1	---	---	---
21	10.1	7.7	8.9	8.3	6.3	7.6	8.3	4.2	6.0	---	---	---
22	---	---	---	9.3	6.2	7.7	8.1	6.2	7.2	---	---	---
23	9.0	6.9	7.9	8.5	5.3	7.5	7.1	5.8	6.4	---	---	---
24	8.4	7.4	7.9	8.3	2.5	5.8	7.3	5.5	6.4	---	---	---
25	8.9	5.0	7.6	9.2	2.9	5.7	7.3	5.6	6.4	---	---	---
26	7.8	5.0	6.5	7.6	6.3	6.8	7.2	4.3	6.4	---	---	---
27	7.3	5.4	6.2	---	---	---	6.8	4.5	5.9	---	---	---
28	7.1	5.3	6.3	---	---	---	7.8	2.9	5.8	---	---	---
29	7.3	6.0	6.5	7.4	1.2	5.6	---	---	---	---	---	---
30	6.8	5.4	6.0	6.4	4.3	5.3	---	---	---	---	---	---
31	---	---	---	6.5	4.4	5.5	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

0209265810 NEUSE RIVER AT CHANNEL LIGHT 9--Continued

OXYGEN DISSOLVED (MG/L), BOTTOM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	7.3	.8	1.9	9.1	2.0	6.1	9.4	6.6	8.0	---	---	---
2	8.3	4.2	6.8	9.0	2.4	6.1	9.3	6.7	8.0	---	---	---
3	8.1	4.5	6.8	10.3	2.5	7.5	12.4	5.1	7.2	---	---	---
4	8.8	2.5	6.9	9.3	7.8	8.8	11.7	4.2	6.7	---	---	---
5	8.9	6.6	7.8	9.7	8.5	9.2	8.3	5.4	6.3	---	---	---
6	8.0	6.9	7.6	10.5	9.2	9.8	6.4	4.9	5.7	---	---	---
7	8.6	6.2	7.8	10.5	8.2	9.5	7.8	4.8	5.6	14.4	11.6	13.4
8	8.3	3.8	7.1	10.3	6.7	8.9	9.0	4.7	5.8	14.3	11.1	13.1
9	7.9	3.6	6.5	10.3	7.1	8.5	---	---	---	13.8	8.3	11.7
10	7.3	4.3	6.2	11.7	6.6	9.7	---	---	---	13.8	10.3	12.5
11	8.0	4.4	5.8	10.5	8.1	9.6	---	---	---	13.2	10.1	12.4
12	8.4	3.3	5.3	10.7	9.6	10.2	---	---	---	14.0	10.4	12.4
13	9.6	3.4	6.2	10.8	10.0	10.4	---	---	---	13.5	9.2	11.0
14	9.9	2.3	6.2	10.8	9.6	10.3	---	---	---	12.0	9.4	10.2
15	9.3	2.0	6.3	10.1	8.9	9.7	---	---	---	13.9	9.6	12.0
16	9.8	4.7	8.4	9.9	7.4	9.3	---	---	---	14.8	10.4	12.8
17	9.9	4.3	8.4	10.7	5.8	9.2	---	---	---	13.7	8.8	11.3
18	8.8	1.2	7.3	10.0	7.9	8.9	---	---	---	14.1	8.1	10.0
19	8.5	.8	3.4	8.4	7.6	8.0	---	---	---	11.6	8.0	9.8
20	9.1	1.5	6.3	8.6	7.3	7.9	---	---	---	11.0	5.9	8.8
21	9.3	4.7	7.8	7.9	7.0	7.4	---	---	---	10.7	5.8	8.7
22	9.1	4.3	8.4	7.9	6.8	7.5	---	---	---	10.0	5.9	7.9
23	9.9	8.5	9.1	7.8	7.2	7.4	---	---	---	10.7	6.7	8.6
24	9.7	5.5	8.4	8.9	6.3	7.5	---	---	---	10.7	7.1	9.2
25	9.8	3.4	7.1	8.9	7.7	8.2	---	---	---	10.7	5.9	9.5
26	8.0	4.3	5.8	8.3	7.7	8.0	---	---	---	11.3	5.4	8.5
27	9.7	3.6	5.4	7.9	7.5	7.7	---	---	---	11.9	4.3	7.2
28	10.4	2.5	4.7	7.8	7.2	7.6	---	---	---	9.8	3.8	7.0
29	10.1	3.6	7.8	8.0	6.8	7.5	---	---	---	10.7	4.7	7.7
30	9.5	2.8	6.9	9.1	6.7	7.7	---	---	---	12.4	7.4	10.2
31	11.3	2.2	6.9	---	---	---	---	---	---	11.8	6.8	10.3
MONTH	11.3	.8	6.7	11.7	2.0	8.5	---	---	---	---	---	---

OXYGEN DISSOLVED (MG/L), BOTTOM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	11.9	6.0	10.5	12.3	10.5	11.7	14.1	9.1	11.3	---	---	---
2	9.0	3.0	5.1	12.8	8.1	11.5	---	---	---	---	---	---
3	9.7	4.6	8.2	12.4	9.0	11.0	---	---	---	---	---	---
4	10.0	7.0	8.3	12.7	10.8	11.6	---	---	---	---	---	---
5	9.8	7.3	9.0	13.3	9.9	11.7	---	---	---	11.3	6.8	8.7
6	9.2	5.4	6.6	13.2	9.9	11.6	---	---	---	9.7	6.7	8.2
7	9.6	5.7	7.1	13.1	11.3	12.3	---	---	---	---	---	---
8	11.1	6.4	9.5	14.0	11.4	12.6	---	---	---	---	---	---
9	12.3	5.3	9.4	13.1	10.8	12.5	---	---	---	---	---	---
10	10.7	7.0	8.6	12.9	11.2	12.2	---	---	---	---	---	---
11	12.1	7.9	10.5	13.9	10.4	12.4	---	---	---	---	---	---
12	12.0	4.4	8.7	14.2	11.7	13.1	---	---	---	---	---	---
13	11.5	9.5	10.1	13.7	9.9	12.3	---	---	---	8.6	4.2	7.1
14	10.6	8.5	9.6	13.4	10.9	12.3	---	---	---	8.4	7.4	7.8
15	9.1	8.0	8.6	11.4	10.6	10.9	---	---	---	8.1	6.7	7.5
16	9.8	7.1	8.2	13.6	9.5	10.7	---	---	---	8.8	6.6	7.9
17	9.2	7.0	7.8	12.4	7.6	10.8	---	---	---	8.1	5.9	7.1
18	11.5	7.3	8.7	12.0	8.3	10.5	---	---	---	10.3	5.4	8.3
19	11.7	7.8	9.9	11.4	7.6	9.7	---	---	---	9.1	4.0	6.5
20	11.2	8.2	10.1	12.9	5.8	9.8	---	---	---	8.6	3.8	6.9
21	11.3	8.3	10.8	9.8	6.1	8.2	---	---	---	9.1	3.4	5.3
22	10.9	8.2	10.0	8.9	4.6	7.7	---	---	---	7.6	2.5	4.7
23	11.1	8.3	9.3	10.1	5.8	8.1	---	---	---	7.3	3.6	5.4
24	12.1	9.4	10.9	10.4	4.0	6.3	---	---	---	8.3	5.3	7.0
25	12.2	8.6	10.8	11.5	4.6	8.7	---	---	---	8.0	5.9	7.4
26	12.0	9.6	11.5	10.2	8.6	9.4	---	---	---	8.0	6.0	7.0
27	12.1	8.1	10.6	9.5	7.2	8.6	---	---	---	8.5	5.5	7.5
28	12.1	8.3	10.0	10.7	7.2	9.3	---	---	---	8.3	2.5	6.7
29	---	---	---	11.7	6.9	8.5	---	---	---	8.2	2.2	6.2
30	---	---	---	12.8	6.6	8.9	---	---	---	8.6	2.6	6.4
31	---	---	---	15.2	6.0	11.0	---	---	---	7.3	2.6	5.3
MONTH	12.3	3.0	9.2	15.2	4.0	10.5	---	---	---	---	---	---

0209265810 NEUSE RIVER AT CHANNEL LIGHT 9--Continued

OXYGEN DISSOLVED (MG/L), BOTTOM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	8.3	1.4	3.7	7.2	2.2	5.5	5.1	.0	.6	---	---	---
2	7.9	1.4	3.4	7.8	3.0	6.3	6.6	.0	3.8	---	---	---
3	8.3	2.6	6.8	8.1	4.4	6.9	6.8	3.9	5.7	---	---	---
4	8.7	3.8	7.6	8.5	4.7	7.3	6.3	4.5	5.8	---	---	---
5	8.0	5.4	7.3	7.8	4.3	6.9	6.3	3.6	5.1	---	---	---
6	8.1	3.7	6.7	7.9	3.8	6.1	6.8	2.4	5.0	---	---	---
7	7.5	2.3	5.9	6.9	4.2	6.0	6.4	2.5	4.7	---	---	---
8	8.4	3.2	5.8	6.7	2.6	5.7	6.6	2.0	4.4	---	---	---
9	8.0	4.5	6.3	7.8	2.4	6.0	---	---	---	---	---	---
10	7.6	5.1	6.6	6.7	5.1	5.9	---	---	---	---	---	---
11	7.1	5.6	6.5	7.4	3.2	5.9	8.0	4.9	6.7	---	---	---
12	6.7	5.8	6.1	7.5	5.6	6.4	8.2	5.7	6.7	---	---	---
13	6.2	4.2	5.3	---	---	---	7.3	4.3	6.6	---	---	---
14	9.1	3.7	6.1	---	---	---	8.5	1.9	5.9	---	---	---
15	8.9	3.9	6.7	---	---	---	7.9	4.2	6.2	---	---	---
16	8.3	3.1	5.7	---	---	---	7.2	2.6	5.9	---	---	---
17	9.0	3.7	7.4	---	---	---	7.1	2.7	5.9	---	---	---
18	9.4	4.4	7.6	---	---	---	7.4	2.3	6.2	---	---	---
19	8.8	5.5	8.0	---	---	---	6.0	1.8	4.8	---	---	---
20	8.8	5.2	6.9	---	---	---	5.5	2.8	4.3	---	---	---
21	10.6	5.5	7.9	7.1	2.9	5.0	7.7	.6	4.6	---	---	---
22	---	---	---	7.2	1.7	4.6	7.6	3.2	6.2	---	---	---
23	8.3	4.6	6.6	8.0	1.5	4.7	6.6	2.6	5.9	---	---	---
24	8.3	6.7	7.7	6.2	1.2	2.6	7.2	5.4	6.2	---	---	---
25	7.7	2.6	5.5	7.2	2.3	4.4	6.9	5.0	6.0	---	---	---
26	6.4	1.6	4.1	7.0	3.4	5.9	6.2	1.8	5.0	---	---	---
27	6.6	3.3	4.9	5.9	3.4	4.6	5.5	.6	4.3	---	---	---
28	7.1	3.2	5.4	---	---	---	5.3	.7	3.4	---	---	---
29	7.6	4.6	6.1	7.2	.4	3.6	---	---	---	---	---	---
30	6.4	5.2	5.7	5.3	1.9	3.5	---	---	---	---	---	---
31	---	---	---	5.7	.1	3.1	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

OXYGEN DISSOLVED (% OF SATURATION), TOP, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	143	60	106	127	95	111	148	114	134	109	99	104
2	106	72	90	123	98	111	144	131	138	108	103	105
3	115	70	94	118	73	107	145	98	122	107	104	106
4	111	82	96	110	100	104	115	95	102	110	103	106
5	109	83	96	106	98	103	120	83	107	110	104	107
6	95	81	89	112	104	107	106	86	98	113	102	107
7	107	86	96	113	106	109	107	76	94	122	105	112
8	107	86	95	114	104	108	98	63	86	130	114	120
9	98	87	93	114	97	106	87	67	80	128	113	121
10	106	81	93	120	107	111	92	81	86	119	103	112
11	129	85	104	113	90	104	90	79	87	121	105	110
12	133	86	113	114	101	108	92	85	89	122	109	115
13	141	69	113	116	105	110	93	79	86	126	111	117
14	142	90	124	127	110	114	91	85	88	123	106	114
15	149	94	120	124	108	115	96	88	92	118	88	106
16	123	103	113	130	106	118	92	86	90	148	106	113
17	122	101	109	139	102	123	101	85	91	128	100	112
18	143	91	110	132	116	123	96	88	90	116	79	101
19	117	95	107	123	114	117	94	88	91	112	94	101
20	117	81	104	132	109	120	100	88	94	112	78	101
21	110	89	98	126	112	119	101	89	96	111	62	95
22	103	95	99	124	111	118	100	90	95	157	61	94
23	112	96	103	133	111	121	97	91	93	116	86	100
24	125	98	111	136	96	124	93	89	91	110	83	96
25	132	100	120	124	102	117	96	91	93	119	97	102
26	145	112	128	120	108	114	98	93	95	121	94	108
27	137	117	125	119	96	110	105	93	99	116	97	106
28	140	115	126	137	99	113	104	98	100	108	85	98
29	130	113	119	140	116	128	113	99	105	108	91	99
30	130	105	116	137	107	125	108	100	104	118	96	103
31	135	103	116	---	---	---	105	99	101	108	83	97
MONTH	149	60	107	140	73	114	148	63	97	157	61	106

0209265810 NEUSE RIVER AT CHANNEL LIGHT 9--Continued

OXYGEN DISSOLVED (% OF SATURATION), TOP, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	106	95	99	109	102	105	125	81	112	110	101	107
2	100	63	91	130	102	112	145	102	116	109	103	106
3	109	93	97	126	100	112	135	105	120	111	101	105
4	109	87	97	116	98	107	127	92	113	121	102	112
5	101	97	99	125	103	114	118	98	106	150	108	116
6	98	85	93	---	---	---	121	93	105	113	95	105
7	102	91	97	---	---	---	130	94	108	117	96	106
8	108	96	100	---	---	---	124	94	107	110	93	101
9	145	97	112	---	---	---	129	96	108	118	101	108
10	150	103	119	---	---	---	111	88	102	117	102	110
11	129	109	123	---	---	---	101	78	96	110	102	106
12	116	106	111	---	---	---	127	84	105	104	80	95
13	116	106	109	---	---	---	120	102	110	117	85	104
14	113	101	106	---	---	---	135	103	113	114	99	104
15	132	100	111	---	---	---	125	97	113	108	95	101
16	131	111	119	---	---	---	120	96	108	118	103	110
17	134	97	119	---	---	---	114	91	105	132	105	118
18	130	83	114	---	---	---	123	101	111	140	111	125
19	128	104	114	---	---	---	122	97	112	147	113	130
20	121	109	115	---	---	---	123	100	113	143	118	129
21	116	111	113	---	---	---	115	88	107	145	113	132
22	121	109	113	---	---	---	119	100	109	151	115	133
23	125	111	117	---	---	---	117	94	104	123	75	105
24	119	109	115	---	---	---	109	99	104	112	78	98
25	124	112	116	---	---	---	106	86	97	125	84	105
26	116	108	111	---	---	---	101	89	94	131	87	101
27	118	108	112	---	---	---	106	82	97	120	83	102
28	110	97	106	---	---	---	104	96	100	121	71	101
29	---	---	---	---	---	---	109	93	102	126	79	105
30	---	---	---	---	---	---	109	103	107	119	58	99
31	---	---	---	132	52	92	---	---	---	125	67	95
MONTH	150	63	109	---	---	---	145	78	107	151	58	109

OXYGEN DISSOLVED (% OF SATURATION), TOP, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	106	74	91	107	69	89	93	18	77	---	---	---
2	88	50	71	111	77	96	89	43	74	---	---	---
3	63	41	53	116	85	103	100	69	83	---	---	---
4	---	---	---	121	92	107	97	82	86	---	---	---
5	---	---	---	125	88	107	101	74	85	---	---	---
6	---	---	---	115	87	102	105	60	83	---	---	---
7	---	---	---	107	67	93	111	51	83	---	---	---
8	---	---	---	114	84	95	109	32	78	---	---	---
9	118	75	94	127	79	102	103	56	81	---	---	---
10	115	89	99	111	82	93	111	76	93	---	---	---
11	103	91	96	102	82	89	115	89	100	---	---	---
12	98	92	94	103	82	90	114	78	94	---	---	---
13	159	94	139	---	---	---	104	81	92	---	---	---
14	139	83	117	---	---	---	115	72	96	---	---	---
15	114	86	102	---	---	---	114	57	87	---	---	---
16	111	87	101	---	---	---	121	66	90	---	---	---
17	112	87	101	---	---	---	112	83	97	---	---	---
18	111	92	100	---	---	---	114	77	100	---	---	---
19	106	82	100	---	---	---	126	60	87	---	---	---
20	119	76	97	---	---	---	98	60	75	---	---	---
21	129	96	112	120	89	110	124	62	88	---	---	---
22	---	---	---	138	89	112	119	91	104	---	---	---
23	114	86	98	124	77	107	102	82	92	---	---	---
24	108	94	101	122	35	83	105	78	90	---	---	---
25	115	64	98	134	40	81	104	80	90	---	---	---
26	102	65	85	110	90	98	104	61	91	---	---	---
27	98	69	82	---	---	---	98	65	84	---	---	---
28	94	70	83	---	---	---	113	42	84	---	---	---
29	98	80	87	110	18	83	---	---	---	---	---	---
30	91	73	80	95	64	79	---	---	---	---	---	---
31	---	---	---	100	64	81	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

0209265810 NEUSE RIVER AT CHANNEL LIGHT 9--Continued

OXYGEN DISSOLVED (% OF SATURATION), BOTTOM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	93	10	24	101	22	68	100	70	85	---	---	---
2	103	54	86	100	27	69	99	72	86	---	---	---
3	103	57	85	114	28	83	132	55	77	---	---	---
4	112	33	88	102	86	97	124	45	72	---	---	---
5	113	85	99	102	92	98	88	59	68	---	---	---
6	102	88	96	107	95	100	70	54	62	---	---	---
7	108	78	97	106	86	96	85	53	62	123	103	115
8	106	49	90	103	67	90	101	52	65	124	98	114
9	99	46	82	103	74	87	---	---	---	121	76	104
10	90	55	77	120	69	99	---	---	---	122	92	111
11	99	56	72	111	84	101	---	---	---	114	91	108
12	104	43	66	113	101	107	---	---	---	122	93	109
13	116	44	77	113	104	108	---	---	---	121	84	99
14	120	31	78	112	100	106	---	---	---	107	85	91
15	115	29	80	104	92	100	---	---	---	127	86	108
16	119	61	103	103	78	97	---	---	---	134	95	115
17	120	55	103	113	63	97	---	---	---	125	81	103
18	107	18	89	105	84	93	---	---	---	130	74	92
19	104	14	45	89	79	84	---	---	---	106	74	91
20	110	22	76	90	77	83	---	---	---	103	55	82
21	107	56	91	83	73	78	---	---	---	100	54	82
22	101	50	94	82	72	78	---	---	---	95	56	75
23	105	93	98	81	74	77	---	---	---	106	64	82
24	105	61	91	93	66	78	---	---	---	107	67	90
25	104	38	78	94	81	86	---	---	---	106	57	93
26	88	49	65	87	81	83	---	---	---	110	53	83
27	106	41	61	83	78	81	---	---	---	117	43	71
28	113	27	52	81	75	79	---	---	---	95	38	69
29	111	40	86	83	71	78	---	---	---	104	46	76
30	105	33	78	96	71	81	---	---	---	119	72	99
31	126	24	77	---	---	---	---	---	---	112	66	98
MONTH	126	10	80	120	22	89	---	---	---	---	---	---

OXYGEN DISSOLVED (% OF SATURATION), BOTTOM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	111	57	97	107	92	102	146	92	114	---	---	---
2	85	29	48	117	75	103	---	---	---	---	---	---
3	92	44	77	117	83	103	---	---	---	---	---	---
4	95	67	79	119	99	108	---	---	---	---	---	---
5	93	70	85	122	92	107	---	---	---	121	78	102
6	86	52	64	124	93	108	---	---	---	110	71	87
7	93	54	68	123	106	115	---	---	---	---	---	---
8	107	62	92	127	103	114	---	---	---	---	---	---
9	119	51	91	117	98	112	---	---	---	---	---	---
10	104	67	83	114	99	108	---	---	---	---	---	---
11	118	76	102	124	92	110	---	---	---	---	---	---
12	118	42	84	125	104	115	---	---	---	---	---	---
13	111	90	97	123	88	110	---	---	---	106	49	85
14	99	79	88	119	99	109	---	---	---	104	89	94
15	82	73	78	103	94	97	---	---	---	94	80	89
16	89	65	75	126	84	95	---	---	---	102	77	91
17	85	65	72	113	67	96	---	---	---	92	68	81
18	108	67	80	112	74	95	---	---	---	121	62	95
19	108	73	92	107	69	89	---	---	---	109	46	76
20	103	74	92	121	52	91	---	---	---	102	44	82
21	103	75	97	93	55	76	---	---	---	109	40	62
22	96	74	88	83	40	71	---	---	---	93	30	57
23	94	72	81	94	53	75	---	---	---	89	42	66
24	101	81	91	99	35	58	---	---	---	105	63	85
25	102	73	90	112	41	83	---	---	---	100	73	91
26	102	82	97	99	83	90	---	---	---	99	73	86
27	102	68	90	89	64	78	---	---	---	107	66	93
28	105	70	86	96	65	83	---	---	---	103	31	83
29	---	---	---	108	61	77	---	---	---	103	27	77
30	---	---	---	119	60	82	---	---	---	109	32	80
31	---	---	---	154	54	108	---	---	---	92	33	67
MONTH	119	29	84	154	35	96	---	---	---	---	---	---

0209265810 NEUSE RIVER AT CHANNEL LIGHT 9--Continued

OXYGEN DISSOLVED (% OF SATURATION), BOTTOM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	105	17	46	100	30	76	76	0	9	---	---	---
2	101	18	43	108	42	87	98	0	56	---	---	---
3	107	33	87	113	61	96	100	57	83	---	---	---
4	114	48	98	119	66	101	90	63	82	---	---	---
5	103	70	93	109	59	96	87	51	72	---	---	---
6	106	46	86	111	54	86	96	33	71	---	---	---
7	98	30	77	100	59	85	90	34	66	---	---	---
8	110	42	76	95	36	80	95	27	62	---	---	---
9	108	61	83	112	34	85	---	---	---	---	---	---
10	104	69	90	96	72	83	---	---	---	---	---	---
11	97	78	89	104	44	83	117	70	96	---	---	---
12	88	78	82	102	76	88	118	81	97	---	---	---
13	81	56	70	---	---	---	107	63	95	---	---	---
14	121	49	81	---	---	---	125	28	86	---	---	---
15	119	50	88	---	---	---	115	62	89	---	---	---
16	111	41	76	---	---	---	104	37	85	---	---	---
17	117	49	97	---	---	---	105	39	86	---	---	---
18	118	57	98	---	---	---	108	34	89	---	---	---
19	110	71	101	---	---	---	87	26	70	---	---	---
20	110	67	88	---	---	---	82	41	62	---	---	---
21	136	69	101	102	42	72	114	8	67	---	---	---
22	---	---	---	104	25	67	111	46	91	---	---	---
23	105	58	83	116	23	67	95	38	84	---	---	---
24	107	85	98	89	18	38	103	76	88	---	---	---
25	97	33	70	104	33	63	98	70	85	---	---	---
26	83	20	53	100	49	84	89	26	71	---	---	---
27	87	44	63	84	48	66	79	9	62	---	---	---
28	95	42	71	---	---	---	76	10	49	---	---	---
29	101	61	82	108	5	54	---	---	---	---	---	---
30	86	69	77	79	28	52	---	---	---	---	---	---
31	---	---	---	85	0	47	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

02093000 NEW RIVER NEAR GUM BRANCH, NC

LOCATION.--Lat 34°50'56", long 77°31'11", Onslow County, Hydrologic Unit 03030001, on right bank 5 ft downstream of Secondary Road 1314, 0.7 mi downstream of Jenkins Swamp, 1.8 mi southwest of Gum Branch, and 3.8 mi southeast of Richlands.

DRAINAGE AREA.--94 mi^2.

PERIOD OF RECORD.--August 1949 to September 1973. July 1987 to current year.

GAGE.--Water-stage recorder. Datum of gage is sea level (levels by U.S. Army Corps of Engineers). Aug. 19, 1949, to Mar. 22, 1950, nonrecording gage and Mar. 23, 1950, to Mar. 25, 1969, water-stage recorder at site 0.2 mi upstream at 2.52 ft. Mar. 26, 1969, to Sept. 1973 water-stage recorder at present site and datum. Satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges and those below 20 ft^3/s, which are poor. Maximum discharge for current water year and period of record from rating curve extended above 3,000 ft^3/s by logarithmic plotting. Minimum discharge for period of record also occurred Oct. 3, 4, 1993. Low flows affected by tide.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of 1908 reached a stage of about 18 ft at former site and datum, from information by local resident.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	16	16	77	97	91	83	136	14	51	12	51
2	30	16	16	e74	134	80	94	150	14	38	10	45
3	28	17	15	e90	181	71	85	120	12	29	9.6	37
4	28	17	16	e100	153	74	77	95	11	24	11	50
5	28	16	15	e110	139	65	71	77	11	21	10	300
6	27	16	14	e88	119	60	64	65	11	20	9.9	500
7	27	16	14	83	106	58	60	58	9.9	18	10	488
8	26	16	13	77	96	55	57	51	9.7	17	14	415
9	27	15	14	133	87	54	54	44	8.8	17	15	322
10	27	13	14	201	81	59	53	38	8.4	16	15	567
11	24	15	13	163	76	57	51	34	7.4	15	17	576
12	22	15	13	128	77	56	63	32	9.7	17	20	335
13	22	14	24	109	96	52	62	38	11	21	20	183
14	22	15	40	98	83	54	57	113	12	44	22	215
15	21	18	29	158	74	163	54	119	12	49	21	711
16	19	20	78	223	70	135	73	94	16	48	17	10100
17	18	21	87	171	67	106	69	70	49	31	15	7370
18	18	20	50	144	72	88	58	57	33	24	14	3040
19	18	18	37	141	77	76	52	49	21	19	12	1680
20	17	30	33	121	85	69	49	42	77	17	12	1110
21	17	26	29	107	78	84	49	36	77	14	28	854
22	16	20	27	99	70	134	47	31	51	13	28	846
23	16	19	24	93	64	112	38	28	41	13	26	755
24	16	18	23	204	62	95	35	26	35	14	21	560
25	15	17	41	471	61	84	32	23	30	15	18	415
26	15	20	80	438	60	150	28	21	28	15	15	338
27	15	27	115	265	58	175	33	19	39	17	32	318
28	15	21	103	176	60	151	34	18	31	16	28	362
29	15	19	130	142	---	126	45	16	27	14	27	400
30	15	17	107	120	---	105	62	15	25	13	51	354
31	16	---	82	105	---	90	---	14	---	13	61	---
TOTAL	654	548	1312	4709	2483	2829	1689	1729	741.9	693	621.5	33297
MEAN	21.1	18.3	42.3	152	88.7	91.3	56.3	55.8	24.7	22.4	20.0	1110
MAX	34	30	130	471	181	175	94	150	77	51	61	10100
MIN	15	13	13	74	58	52	28	14	7.4	13	9.6	37
CFSM	.22	.19	.45	1.62	.94	.97	.60	.59	.26	.24	.21	11.8
IN.	.26	.22	.52	1.86	.98	1.12	.67	.68	.29	.27	.25	13.18

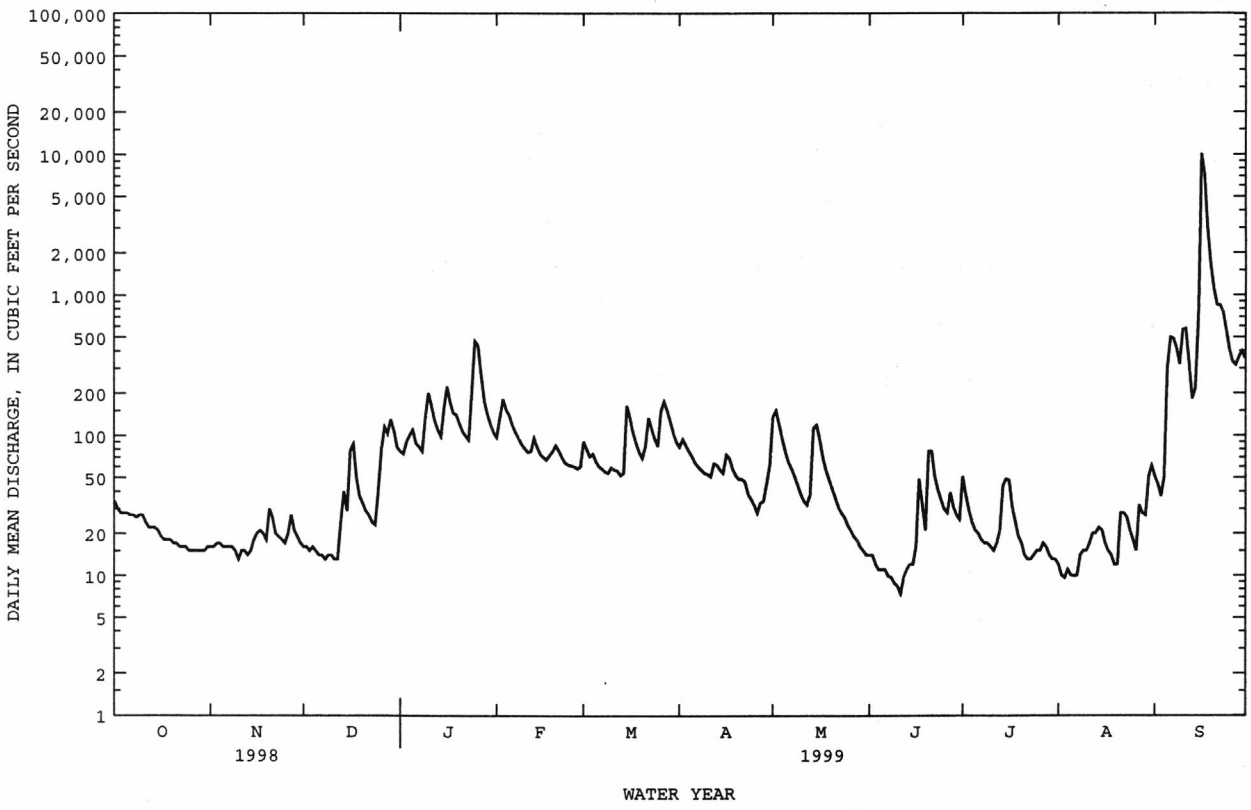
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 1999,@ BY WATER YEAR (WY)

MEAN	74.5	61.8	93.1	159	181	180	114	69.6	90.8	117	110	126
MAX	553	190	277	374	584	418	377	188	423	717	734	1110
(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

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1949 - 1999@	
ANNUAL TOTAL	54601		51306.4			
ANNUAL MEAN	150		141		115	
HIGHEST ANNUAL MEAN					208	1972
LOWEST ANNUAL MEAN					59.9	1953
HIGHEST DAILY MEAN	2100	Aug 28	10100	Sep 16	10100	Sep 16 1999
LOWEST DAILY MEAN	13	Jul 10	7.4	Jun 11	1.9	Oct 6 1954
ANNUAL SEVEN-DAY MINIMUM	14	Dec 6	9.3	Jun 6	2.0	Oct 4 1954
INSTANTANEOUS PEAK FLOW			15000*	Sep 16	15000*	Sep 16 1999
INSTANTANEOUS PEAK STAGE			25.12	Sep 16	25.12	Sep 16 1999
INSTANTANEOUS LOW FLOW			6.4	Jun 11	1.8*	Oct 7 1954
ANNUAL RUNOFF (CFSM)	1.59		1.50		1.22	
ANNUAL RUNOFF (INCHES)	21.61		20.30		16.61	
10 PERCENT EXCEEDS	364		166		248	
50 PERCENT EXCEEDS	45		38		52	
90 PERCENT EXCEEDS	15		14		12	

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

02093000 NEW RIVER NEAR GUM BRANCH, NC--Continued



LAKES AND RESERVOIRS IN SOUTH ATLANTIC SLOPE BASIN

02067800; 02067820 TALBOTT AND TOWNES RESERVOIRS

These two reservoirs on the Dan River are operated as a unit for storage of water for Pinnacles hydroelectric plant.

TALBOTT DAM

LOCATION.--Lat 36°40'36", long 80°23'51", Patrick County, Va, Hydrologic Unit 03010103, 4.5 mi northeast of Kibler.

DRAINAGE AREA.--20.2 mi^2.

TOWNES DAM

LOCATION.--Lat 36°41'11", long 80°25'49", Patrick County, Va, Hydrologic Unit 03010103, 4 mi north of Kibler.

DRAINAGE AREA.--32.9 mi^2.

PERIOD OF RECORD.--February 1939 to December 1945 and January 1948 to September 1960 (combined monthend contents only published in WSP 1723), October 1960 to current year.

REMARKS.--Total capacity of Talbott Reservoir is 350,000,000 ft^3 and Townes Reservoir is 60,000,000 ft^3. Filling was started in Talbott Reservoir Feb. 13, 1939, and in Townes Reservoir several months earlier. Records furnished by city of Danville, Virginia. (See station 02068500.)

02077280 HYCO LAKE

LOCATION.--Lat 36°30'28", long 79°02'48", Person County, Hydrologic Unit 03010104, at outlet control structure 0.4 mi northwest of dam on Hyco River, 1.1 mi southwest of McGehees Mill, and 8 mi northwest of Roxboro.

DRAINAGE AREA.--189 mi^2.

PERIOD OF RECORD.--October 1964 to current year. Prior to October 1970, published as "Roxboro Steam-Electric Generating Plant Lake."

GAGE.--Water-stage recorder and tape gage. Prior to Feb. 11, 1965, staff gage at upstream end of outlet control structure. Datum of gage is 399.79 ft above sea level (levels by Carolina Power and Light Co.).

REMARKS.--Lake, used for cooling water at the Roxboro Steam-Electric Generating Plant of Carolina Power and Light Co., first began to fill Sept. 19, 1964, and first reached spillway elevation (9.97 ft gage height) Mar. 19, 1965. Total capacity at top of spillway is 3,288,000,000 ft^3. Lake cannot be drawn below -0.03 ft (bottom of gated flume).

02079964 LAKE GASTON

LOCATION.--Lat 36°30'04", long 77°48'43", Halifax County, Hydrologic Unit 03010106, at Gaston Dam on Roanoke River, 0.2 mi upstream from Black Gut Creek, and 2.7 mi northwest of Thelma.

DRAINAGE AREA.--8,339 mi^2.

PERIOD OF RECORD.--October 1962 to current year.

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

REMARKS.--Lake, used mainly for hydroelectric power development, was first filled Oct.13-15, 1962, and has a total capacity of 22,434,000,000 ft^3. Usable capacity at top of spillway gates, 20,127,000,000 ft^3, is between elevations 165 and 203 ft. Capacity reserved for flood control, 2,788,000 ft^3, is between elevations 200 and 203 ft. Storage for power generation, 10,673,000,000 ft^3, is between elevations 185 and 200 ft.

COOPERATION.--Records furnished by Virginia Electric and Power Co. (See station 02080500.)

02080100 ROANOKE RAPIDS LAKE

LOCATION.--Lat 36°29'10", long 77°39'31", Halifax County, Hydrologic Unit 03010107, at Roanoke Rapids Dam on Roanoke River, 1.5 mi upstream from bridge on State Highway 48, and 2.2 mi north of Roanoke Rapids.

DRAINAGE AREA.--8,371 mi^2.

PERIOD OF RECORD.--June 1955 to September 1960 (monthend contents only published in WSP 1723), October 1960 to current year.

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

REMARKS.--Lake, used for hydroelectric power development, was put in operation June 25, 1955, and has a total capacity of 3,360,220,000 ft^3 at elevation 132.0 ft (normal high water). Usable capacity is 3,515,290,000 ft^3 at 132.75 ft (top of gates).

COOPERATION.--Records furnished by Virginia Electric and Power Co. (See station 02080500.)

02087182 FALLS LAKE

LOCATION.--Lat 35°56'00", long 78°35'00", Wake County, Hydrologic Unit 03020201, at Falls Dam on Neuse River at Falls, 10 mi north of Raleigh, and 235 mi upstream from mouth.

DRAINAGE AREA.--770 mi^2.

PERIOD OF RECORD.--February 1979 to current year.

GAGE.--Datum of gage is sea level.

REMARKS.--Lake is used for flood control, water supply, low-flow augmentation, and recreation. Temporary filling began May 1981 for water supply for city of Raleigh during drought conditions. Jan. 13, 1983, gates closed and normal pool elevation of 250.1 ft was reached Dec. 7, 1983. (See station 02087183.) Total capacity of reservoir is 4,998,074,400 ft^3 at elevation of 250.1 ft.

COOPERATION.--Records furnished by Corps of Engineers. (See station 02087183.)

LAKES AND RESERVOIRS IN SOUTH ATLANTIC SLOPE BASIN--Continued

OTHER RESERVOIRS

The following smaller reservoirs in the South Atlantic Slope basin are described below. Records of contents are not published herein.

02077229 LAKE ROXBORO

LOCATION.--Lat 79°08'26", long 36°20'55", Caswell County, Hydrologic Unit 03010104, on South Hyco Creek near Roseville.

DRAINAGE AREa.--23.2 mi^2.

REMARKS.--Lake is part of Roxboro's municipal water supply. Total capacity is 380,991,000 ft^3. Dam was completed and filled April 1978. (See station 02077250.)

02077302 ROXBORO STEAM-ELECTRIC GENERATING PLANT AFTERBAY RESERVOIR

LOCATION.--Lat 36°31'51", long 78°59'50", Person County, Hydrologic Unit 03010104, on Hyco River near McGehees Mill.

DRAINAGE AREA.--196 mi^2.

REMARKS.--Lake is used as a cooling-water reservoir for Carolina Power and Light Co. powerplant. Total capacity is approximately 522,720,000 ft^3 with a surface area of about 650 acres at a normal elevation of 385 ft above sea level. Dam completed May 30, 1974, and filling began Apr. 26, 1974. Water in reservoir first reached normal water-level elevation, 385 ft, on Aug. 22, 1974.

02077665 MAYO STEAM-ELECTRIC GENERATING PLANT LAKE.

LOCATION--Lat 36°32'15", long 78°52'30", Person County, Hydrologic Unit 03010104, on Mayo Creek near Bethel Hill.

DRAINAGE AREA.-- 52.2 mi^2.

REMARKS.--Lake is used as cooling-water reservoir for Carolina Power and Light Co. powerplant. Total capacity is 3,831,000,000 ft^3 with a surface area of 2,800 acres at a normal elevation of 434 ft above sea level. Dam was completed and filling began Aug. 1, 1980. Water in reservoir first reached normal water-level elevation of 434 ft on April 16, 1983. (See station 02077660.)

02086490 LAKE MICHIE

LOCATION.--Lat 36°09'02", long 79°49'49", Durham County, Hydrologic Unit 03020201, at Durham municipal dam on Flat River, 3 mi southeast of Bahama, and 5 mi upstream from confluence with Eno River.

DRAINAGE AREA.--170 mi^2, approximately.

PERIOD OF RECORD.--October 1962 to April 1975.

REMARKS.--Lake, used for municipal water supply, began filling in May 1926 and reached spillway elevation Dec. 26, 1926. Total capacity, 618,000,000 ft^3, is between 300.0 and 341.0 ft gage datum (crest of spillway). (See station 02087000.)

02087339 LAKE JOHNSON

LOCATION.--Lat 35°45'44", long 78°42'17", Wake County, Hydrologic Unit 03020201, on Walnut Creek near Raleigh.

DRAINAGE AREA.--7.05 mi^2.

REMARKS.--Lake is part of Raleigh's municipal water supply. Total capacity is 98,900,000 ft^3. Dam was completed in 1923 and spillway raised to its present elevation in 1951. (See station 02087500.)

02087344 LAKE RALEIGH

LOCATION.--Lat 35°45'56", long 78°40'38", Wake County, Hydrologic Unit 03020201, on Walnut Creek near Raleigh.

DRAINAGE AREA.--12.3 mi^2.

REMARKS.--Lake is part of Raleigh's municipal water supply. Total capacity is 13,400,000 ft^3. Dam was completed in 1914 and raised to its present elevation in 1919. (See station 02087500.)

02087588 LAKE WHEELER

LOCATION.--Lat 35°41'30", long 78°41'31", Wake County, Hydrologic Unit 03020201, on Swift Creek near Raleigh.

DRAINAGE AREA.-- 38 mi^2, approximately.

REMARKs.--Lake is part of Raleigh's municipal water supply. Total capacity is 267,400,000 ft^3. Dam was completed and filling began in 1956. (See station 02087500.)

02087701 LAKE BENSON

LOCATION.--Lat 35°39'44", long 78°36'42", Wake County, Hydrologic Unit 03020201, on Swift Creek near Garner.

DRAINAGE AREA.--67 mi^2, approximately.

REMARKS.--Lake is part of Raleigh's municipal water supply. Total capacity is 133,700,000 ft^3. Lake, formerly known as Rand's Mill, acquired by city of Raleigh in 1927 and spillway raised to its present elevation in 1954. (See station 02087500.)

02090370 BUCKHORN RESERVOIR

LOCATION.--Lat 35°41'22", long 78°07'33", Wilson County, Hydrologic Unit 03020203, on Contentnea Creek near Lucama.

DRAINAGE AREA.--155 mi^2.

REMARKS.--Lake is part of Wilson's municipal water supply. Total capacity is 133,680,000 ft^3. Dam was completed Nov. 12, 1976, and reservoir filled Dec. 1, 1976. (See station 02090380.)

LAKE AND RESERVOIRS IN SOUTH ATLANTIC SLOPE BASIN--Continued

MONTHEND ELEVATION AND CONTENTS AT 2400 HOURS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	Elevation (feet)	Contents (million cubic feet)	Change in contents (million cubic feet)	Gage Height (feet)	Contents (million cubic feet)	Change in contents (million cubic feet)
		02067800 & 02067820 Talbott & Townes Reservoir			02077280 Hyco Lake	
Sept. 30		221.00	--	8.94	3,120	--
Oct. 31		226.00	+5	8.55	3,056	-64
Nov. 30		242.00	+16	8.30	3,014	-42
Dec. 31		238.00	-4	9.49	3,210	+196
CAL YR 1998		--	+84		--	-171
Jan. 31		278.00	+40	10.60	3,386	+176
Feb. 28		286.00	+8	10.56	3,380	-6
Mar. 31		284.00	-2	10.56	3,380	0
Apr. 30		283.00	-1	11.31	3,505	+125
May 31		340.00	+57	10.21	3,326	-179
June 30		311.00	-29	9.81	3,262	-64
July 31		270.00	-41	9.44	3,202	-60
Aug. 31		239.00	-31	8.67	3,075	-127
Sept. 30		329.00	+90	10.93	3,437	+362
WTR YR 1999		--	+180		--	+317

Date	Elevation (feet)	Contents (million cubic feet)	Change in contents (million cubic feet)	Elevation (feet)	Contents (million cubic feet)	Change in contents (million cubic feet)
		02079964 Lake Gaston			02080100 Roanoke Rapids Lake	
Sept. 30	199.57	19,228	--	131.4	3,234	--
Oct. 31	199.60	19,254	+26	129.5	2,879	-355
Nov. 30	199.62	19,271	+17	130.5	3,062	+183
Dec. 31	199.70	19,341	+70	130.4	3,044	-18
CAL YR 1998		--	-121		--	+91
Jan. 31	198.88	18,621	-720	131.5	3,252	+208
Feb. 28	199.60	19,254	+633	129.5	2,879	-373
Mar. 31	199.90	19,514	+260	130.8	3,122	+243
Apr. 30	199.39	19,070	-444	130.6	3,082	-40
May 31	199.28	18,975	-95	130.1	2,990	-92
June 30	199.44	19,114	+139	129.6	2,898	-92
July 31	199.64	19,289	+175	129.9	2,953	+55
Aug. 31	199.50	19,166	-123	128.8	2,760	-193
Sept. 30	199.12	18,835	-331	129.7	2,916	+156
WTR YR 1999		--	-393		--	+318

LAKE AND RESERVOIRS IN SOUTH ATLANTIC SLOPE BASIN--Continued

MONTHEND ELEVATION AND CONTENTS AT 2400 HOURS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	Elevation (feet)	Contents (million cubic feet)	Change in contents (million cubic feet)
		02087182 Falls Lake	
Sept. 30	248.40	3,989	--
Oct. 31	247.06	3,463	-526
Nov. 30	246.27	3,185	-278
Dec. 31	247.38	3,585	+400
CAL YR 1998		--	-1,054
Jan. 31	251.51	5,491	+1,906
Feb. 28	250.29	4,857	-634
Mar. 31	251.03	5,232	+375
Apr. 30	251.84	5,670	+438
May 31	250.68	5,054	-616
June 30	249.95	4,686	-368
July 31	248.51	4,035	-651
Aug. 31	247.90	3,784	-251
Sept. 30	264.25	14,613	+10,829
WTR YR 1999		--	+10,624

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 1998

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†, 1993-99	9-16-99	12.49	2,010

†Operated as a continuous-record gaging station.

MEASUREMENTS AT MISCELLANEOUS SITES

These measurements and others collected for special reasons are called measurements at miscellaneous sites. Measurements of streamflow at points other than gaging stations or partial-record stations are given in the following table.

Station Number and Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)
DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1999, IN ATLANTIC SLOPE BASINS						
ROANOKE RIVER BASIN						
02077348 Marlowe Creek	Dan River	Lat 36°29'03", long 78°58'47", Person County, Hydrologic Unit 03010104, at bridge on Secondary Road 1322, downstream of Fishing Branch, and 1.2 mi west of Woodsdale.	17.8	1970, 1974, 1976, 1978, 1980-98	10-6-98 3-18-99 7-21-99 8-13-99	3.30 18.9 5.18 2.49
02079264 Nutbush Creek	Roanoke River	Lat 36°22'10", long 78°24'31", Vance County, Hydrologic Unit 03010102, at bridge on Secondary Road 1317, 0.1 mi upstream from Buggs Island Reservoir, and 3 mi north of Henderson.	6.0	1970, 1974, 1976, 1978-98	1-14-99 6-2-99	5.88 3.59
02079717 Smith Creek	Roanoke River	Lat 36°32'27", long 78°11'43", Warren County, Hydrologic Unit 03010106, at bridge on U.S. Highway 1, 0.3 mi downstream of Blue Mud Creek, and 0.1 mi west of Paschall.	52.9	1954, 1961-63, 1966, 1976, 1979-98	3-1-99 6-2-99	35.2 6.23
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, 1997-98	1-14-99 6-3-99	12.8 0.86
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	1997-98	1-20-99 6-3-99	126 14.5
NEUSE RIVER BASIN						
02087251 Crabtree Creek	Neuse River	Lat 35°50'15", long 78°46'52", Wake County, Hydrologic Unit 03020201, at bridge on Secondary Road 1795, 0.3 mi downstream from Hayleys Branch, and 3.5 mi north of Cary.	52.2	1983-91, 1997-98	12-11-98 3-2-99 5-24-99	2.78 44.2 12.3
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, 1997-98	11-4-98 3-18-99 6-3-99 7-27-99	0.48 0.65 0.94 0.28

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY MISCELLANEOUS SAMPLING SITES

The following miscellaneous sites were sampled during the 1999 water year for the U.S. Environmental Protection Agency to provide monitoring data on pesticide concentrations in raw and treated drinking water. Water-quality miscellaneous sampling sites are particular locations where chemical-quality, biological or sediment data are collected once or more frequently, but not on a regular basis, to provide better information for the special project.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	PROP-CHLOR, WATER, DISS, REC (UG/L) (04024)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	BRO-MACIL, WATER, DISS, REC (UG/L) (04029)	SI-CLOATE, WATER, DISS, REC (UG/L) (04031)
0208250400		TAR R RESERVOIR AT DAM NR LANGLEY CROSSROADS, NC (LAT 35 53 55N LONG 077 53 07W)									
APR 1999											
28...	1245	80	6.0	19.0	764	6.2	67	<.0070	<.0020	<.0807	<.05
MAY											
11...	1022	69	6.2	21.0	764	6.9	77	<.0070	<.0020	<.0807	<.05
25...	1053	73	6.4	23.0	758	6.4	75	<.0070	<.0020	--	<.02
JUN											
08...	0955	71	6.4	26.5	760	5.5	69	<.0070	<.0020	<.0807	<.05
21...	1230	77	6.2	23.0	--	4.9	--	<.0070	<.0020	<.0807	<.05
JUL											
06...	1145	81	6.0	29.0	758	3.7	48	<.0070	<.0020	<.0807	<.05
20...	1040	85	6.1	28.5	759	5.5	71	<.0070	<.0020	--	--
AUG											
04...	1215	94	5.7	28.3	758	2.3	30	<.0070	<.0020	--	--
SEP											
21...	1245	39	5.1	22.5	754	4.1	48	<.0070	<.0020	--	--
DEC											
14...	1235	82	5.0	14.0	755	9.5	93	<.0070	<.0020	--	--
0208250410		TAR RIVER BELOW DAM NEAR LANGLEY CROSSROADS, NC (LAT 35 53 59N LONG 077 53 04W)									
APR 1999											
28...	1530	78	6.4	18.4	764	9.0	96	<.0070	<.0020	<.0807	<.05
355355077530700		TAR R RESERVOIR FINISHED WATER SUPPLY (LAT 35 53 55N LONG 077 53 07W)									
APR 1999											
28...	1246	151	6.8	19.5	764	9.6	104	<.0070	<.0020	<.0807	<.05
MAY											
11...	1028	160	6.8	21.0	764	16.4	184	<.0070	<.0020	--	<.02
25...	1152	176	7.8	23.0	758	17.1	201	<.0070	<.0020	--	<.02
JUN											
08...	1105	169	6.7	25.5	760	15.6	191	<.0070	<.0020	<.0807	<.05
21...	1240	182	8.0	23.0	--	16.1	--	<.0070	<.0020	<.0807	<.05
JUL											
06...	1005	172	6.8	29.5	758	15.2	201	<.0070	<.0020	<.0807	<.05
20...	1145	175	7.2	28.5	759	15.7	203	<.0070	<.0020	--	--
AUG											
04...	1225	188	6.4	28.7	758	15.2	198	<.0070	<.0020	--	--
SEP											
21...	1410	178	6.9	20.5	754	8.6	97	<.0070	<.0020	--	--
DEC											
14...	1240	173	7.2	11.5	755	9.6	89	<.0070	<.0020	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	TER-BACIL, WATER, DISS, REC (UG/L) (04032)	DIPHEN-AMID, WATER, DISS, REC (UG/L) (04033)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	DEISO-PROPYL ATRAZIN WATER, DISS, REC (UG/L) (04038)	DEETHYL DEISO-PROPYL ATRAZIN DISS, REC (UG/L) (04039)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	FONOFOS WATER DISS REC (UG/L) (04095)	ALPHA BHC DIS-SOLVED (UG/L) (34253)	P,P' DDE DISSOLV (UG/L) (34653)
0208250400 TAR R RESERVOIR AT DAM NR LANGLEY CROSSROADS, NC (LAT 35 53 55N LONG 077 53 07W)											
APR 1999											
28...	<.10	<.06	.0087	E.0103	<.0737	<.06	E.0029	<.0040	<.0030	<.0020	<.0060
MAY											
11...	<.10	<.06	.0222	E.0090	<.0737	<.06	E.0050	<.0040	<.0030	<.0020	<.0060
25...	--	--	.0153	E.0130	--	--	E.0068	<.0040	<.0030	<.0020	<.0060
JUN											
08...	<.10	<.06	.0160	E.0133	<.0737	<.06	E.0064	<.0040	<.0030	<.0020	<.0060
21...	<.10	<.06	.0122	E.0116	<.0737	E.00	E.0067	<.0040	<.0030	<.0020	<.0060
JUL											
06...	<.10	<.06	.0135	E.0104	<.0737	<.06	E.0074	<.0040	<.0030	<.0020	<.0060
20...	--	--	.0124	E.0081	--	--	E.0099	<.0040	<.0030	<.0020	<.0060
AUG											
04...	--	--	.0091	E.0145	--	--	E.0048	<.0040	<.0030	<.0020	<.0060
SEP											
21...	--	--	<.0050	E.0066	--	--	E.0022	<.0040	<.0030	<.0020	<.0060
DEC											
14...	--	--	<.0050	E.0042	--	--	E.0048	<.0040	<.0030	<.0020	<.0060
0208250410 TAR RIVER BELOW DAM NEAR LANGLEY CROSSROADS, NC (LAT 35 53 59N LONG 077 53 04W)											
APR 1999											
28...	<.10	<.06	.0084	E.0110	<.0737	<.06	E.0034	<.0040	<.0030	<.0020	<.0060
355355077530700 TAR R RESERVOIR FINISHED WATER SUPPLY (LAT 35 53 55N LONG 077 53 07W)											
APR 1999											
28...	<.10	<.06	.0078	E.0102	<.0737	<.06	E.0033	<.0040	<.0030	<.0020	<.0060
MAY											
11...	--	--	.0183	E.0070	--	--	E.0066	<.0040	<.0030	<.0020	<.0060
25...	--	--	.0082	E.0135	--	--	E.0093	<.0040	<.0030	<.0020	<.0060
JUN											
08...	<.10	<.06	.0088	E.0088	<.0737	E.00	E.0069	<.0040	<.0030	<.0020	<.0060
21...	<.10	<.06	.0128	E.0102	<.0737	<.06	E.0069	<.0040	<.0030	<.0020	<.0060
JUL											
06...	<.10	<.06	<.0100	E.0076	<.0737	<.06	E.0071	<.0040	<.0030	<.0020	<.0060
20...	--	--	.0093	E.0073	--	--	E.0084	<.0040	<.0030	<.0020	<.0060
AUG											
04...	--	--	.0088	E.0133	--	--	E.0057	<.0040	<.0030	<.0020	<.0060
SEP											
21...	--	--	E.0041	E.0073	--	--	<.0020	<.0040	<.0030	<.0020	<.0060
DEC											
14...	--	--	<.0050	E.0067	--	--	E.0050	<.0040	<.0030	<.0020	<.0060

DATE	DICAMBA WATER, FLTRD, GF 0.7U REC (UG/L) (38442)	MCPA, WATER, FLTRD, GF 0.7U REC (UG/L) (38482)	MCPB, WATER, FLTRD, GF 0.7U REC (UG/L) (38487)	METHIO-CARB, WATER, FLTRD, GF 0.7U REC (UG/L) (38501)	PRO-POXUR, WATER, FLTRD, GF 0.7U REC (UG/L) (38538)	BENTA-ZON, WATER, FLTRD, GF 0.7U REC (UG/L) (38711)	2,4-DB WATER, FLTRD, GF 0.7U REC (UG/L) (38746)	FLUO-METURON WATER, FLTRD, GF 0.7U REC (UG/L) (38811)	OXAMYL, WATER, FLTRD, GF 0.7U REC (UG/L) (38866)	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)	LINDANE DIS-SOLVED (UG/L) (39341)
0208250400 TAR R RESERVOIR AT DAM NR LANGLEY CROSSROADS, NC (LAT 35 53 55N LONG 077 53 07W)											
APR 1999											
28...	<.0960	<.0585	<.0625	<.0795	<.0594	<.0193	<.0538	<.0617	<.0160	<.0040	<.004
MAY											
11...	<.0960	<.0585	<.0625	<.0795	<.0594	<.0193	<.0538	<.0617	<.0160	<.0040	<.004
25...	--	--	--	--	--	--	--	--	--	<.0040	<.004
JUN											
08...	<.0960	<.0585	<.0625	<.0795	<.0594	E.0585	<.0538	E.0023	<.0160	<.0040	<.004
21...	<.0960	<.0585	<.0625	<.0795	<.0594	E.0456	<.0538	E.0074	<.0160	<.0040	<.004
JUL											
06...	<.0960	<.0585	<.0625	<.0795	<.0594	E.0143	<.0538	<.0617	<.0160	<.0040	<.004
20...	--	--	--	--	--	--	--	--	--	<.0040	<.004
AUG											
04...	--	--	--	--	--	--	--	--	--	<.0040	<.004
SEP											
21...	--	--	--	--	--	--	--	--	--	<.0040	<.004
DEC											
14...	--	--	--	--	--	--	--	--	--	<.0040	<.004
0208250410 TAR RIVER BELOW DAM NEAR LANGLEY CROSSROADS, NC (LAT 35 53 59N LONG 077 53 04W)											
APR 1999											
28...	<.0960	<.0585	<.0625	<.0795	<.0594	<.0193	<.0538	<.0617	<.0160	<.0040	<.004
355355077530700 TAR R RESERVOIR FINISHED WATER SUPPLY (LAT 35 53 55N LONG 077 53 07W)											
APR 1999											
28...	<.0960	<.0585	<.0625	<.0795	<.0594	<.0193	<.0538	<.0617	<.0160	<.0040	<.004
MAY											
11...	--	--	--	--	--	--	--	--	--	<.0040	<.004
25...	--	--	--	--	--	--	--	--	--	<.0040	<.004
JUN											
08...	<.0960	<.0585	<.0625	<.0795	<.0594	<.0193	<.0538	<.0617	<.0160	<.0040	<.004
21...	<.0960	<.0585	<.0625	<.0795	<.0594	<.0193	<.0538	<.0617	<.0160	<.0040	<.004
JUL											
06...	<.0960	<.0585	<.0625	<.0795	<.0594	<.0193	<.0538	<.0617	<.0160	<.0040	<.004
20...	--	--	--	--	--	--	--	--	--	<.0040	<.004
AUG											
04...	--	--	--	--	--	--	--	--	--	<.0040	<.004
SEP											
21...	--	--	--	--	--	--	--	--	--	<.0040	<.004
DEC											
14...	--	--	--	--	--	--	--	--	--	<.0040	<.004

DATE	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	METO-LACHLOR WATER DISSOLV (UG/L) (39415)	MALA-THION, DIS-SOLVED (UG/L) (39532)	PARA-THION, DIS-SOLVED (UG/L) (39542)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)	2,4-D, DIS-SOLVED (UG/L) (39732)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)	TRI-CLOPYR, WATER, FLTRD, GF 0.7U REC (UG/L) (49235)	PRO-PHAM, WATER, FLTRD, GF 0.7U REC (UG/L) (49236)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)
0208250400 TAR R RESERVOIR AT DAM NR LANGLEY CROSSROADS, NC (LAT 35 53 55N LONG 077 53 07W)											
APR 1999											
28...	<.001	.009	<.005	<.004	<.002	.010	<.077	<.002	<.101	<.0717	<.0020
MAY											
11...	<.001	.019	<.005	<.004	.004	.043	<.077	<.002	<.101	<.0717	<.0020
25...	<.001	.046	<.005	<.004	.012	.038	--	<.002	--	--	<.0020
JUN											
08...	<.001	.043	<.005	<.004	.011	.041	<.077	<.002	<.101	<.0717	<.0020
21...	<.001	.030	<.005	<.004	<.002	.034	<.077	<.002	<.101	<.0717	<.0020
JUL											
06...	<.001	.030	<.005	<.004	<.002	.022	<.077	<.002	<.101	<.0717	<.0020
20...	<.001	.021	<.005	<.004	<.002	.018	--	<.002	--	--	<.0020
AUG											
04...	<.001	.016	<.005	<.004	E.003	.013	--	<.002	--	--	<.0020
SEP											
21...	<.001	.005	<.005	<.004	E.004	.005	--	<.002	--	--	<.0020
DEC											
14...	<.001	<.002	<.005	<.004	<.002	<.001	--	<.002	--	--	<.0020
0208250410 TAR RIVER BELOW DAM NEAR LANGLEY CROSSROADS, NC (LAT 35 53 59N LONG 077 53 04W)											
APR 1999											
28...	<.001	.009	<.005	<.004	<.002	.011	<.077	<.002	<.101	<.0717	<.0020
355355077530700 TAR R RESERVOIR FINISHED WATER SUPPLY (LAT 35 53 55N LONG 077 53 07W)											
APR 1999											
28...	<.001	.006	<.005	<.004	<.002	.010	E.034	<.002	<.101	<.0717	<.0020
MAY											
11...	<.001	.012	<.005	<.004	<.002	.034	--	<.002	--	--	<.0020
25...	<.001	.016	<.005	<.004	<.002	.023	--	<.002	--	--	<.0020
JUN											
08...	<.050	.016	<.005	<.004	<.002	.025	<.077	<.002	<.101	<.0717	<.0020
21...	<.001	.014	<.005	<.004	<.002	.022	<.077	<.002	<.101	<.0717	<.0020
JUL											
06...	<.001	.016	<.005	<.004	<.002	.015	<.077	<.002	<.101	<.0717	<.0020
20...	<.001	.012	<.005	<.004	<.002	.014	--	<.002	--	--	<.0020
AUG											
04...	<.001	.010	<.005	<.004	<.002	.010	--	<.002	--	--	<.0020
SEP											
21...	<.001	.006	<.005	<.004	<.002	.004	--	<.002	--	--	<.0020
DEC											
14...	<.001	<.002	<.005	<.004	<.002	<.001	--	<.002	--	--	<.0020

DATE	PIC-LORAM, WATER, FLTRD, GF 0.7U REC (UG/L) (49291)	ORY-ZALIN, WATER, FLTRD, GF 0.7U REC (UG/L) (49292)	NORFLUR AZON, WATER, FLTRD, GF 0.7U REC (UG/L) (49293)	NEB-URON, WATER, FLTRD, GF 0.7U REC (UG/L) (49294)	METH-OMYL, WATER, FLTRD, GF 0.7U REC (UG/L) (49296)	FEN-URON, WATER, FLTRD, GF 0.7U REC (UG/L) (49297)	DIURON, WATER, FLTRD, GF 0.7U REC (UG/L) (49300)	DINOSEB WATER, FLTRD, GF 0.7U REC (UG/L) (49301)	DICHLOR PROP, WATER, FLTRD, GF 0.7U REC (UG/L) (49302)	DACTHAL MONO-ACID, WAT,FLT GF 0.7U REC (UG/L) (49304)	CLOPYR-ALID, WATER, FLTRD, GF 0.7U REC (UG/L) (49305)
0208250400 TAR R RESERVOIR AT DAM NR LANGLEY CROSSROADS, NC (LAT 35 53 55N LONG 077 53 07W)											
APR 1999											
28...	<.0712	<.0711	<.0774	<.0747	<.0768	<.0735	<.0793	<.0429	<.0500	<.0722	<.0411
MAY											
11...	<.0712	<.0711	<.0774	<.0747	<.0768	<.0735	<.0793	<.0429	<.0500	<.0722	<.0411
25...	--	--	--	--	--	--	--	--	--	--	--
JUN											
08...	.0749	<.0711	<.0774	<.0747	<.0768	<.0735	<.0793	<.0429	<.0500	<.0722	<.0411
21...	<.0712	<.0711	<.0774	<.0747	<.0768	<.0735	<.0793	<.0429	<.0500	<.0722	<.0411
JUL											
06...	<.0712	<.0711	<.0774	<.0747	<.0768	<.0735	<.0793	<.0429	<.0500	<.0722	<.0411
20...	--	--	--	--	--	--	--	--	--	--	--
AUG											
04...	--	--	--	--	--	--	--	--	--	--	--
SEP											
21...	--	--	--	--	--	--	--	--	--	--	--
DEC											
14...	--	--	--	--	--	--	--	--	--	--	--
0208250410 TAR RIVER BELOW DAM NEAR LANGLEY CROSSROADS, NC (LAT 35 53 59N LONG 077 53 04W)											
APR 1999											
28...	<.0712	<.0711	<.0774	<.0747	<.0768	<.0735	<.0793	<.0429	<.0500	<.0722	<.0411
355355077530700 TAR R RESERVOIR FINISHED WATER SUPPLY (LAT 35 53 55N LONG 077 53 07W)											
APR 1999											
28...	<.0712	<.0711	<.0774	<.0747	<.0768	<.0735	<.0793	<.0429	<.0500	<.0722	<.0411
MAY											
11...	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--
JUN											
08...	<.0712	<.0711	<.0774	E.0019	<.0768	<.0735	<.0793	<.0429	<.0500	<.0722	<.0411
21...	<.0712	<.0711	<.0774	<.0747	<.0768	<.0735	<.0793	<.0429	<.0500	<.0722	<.0411
JUL											
06...	<.0712	<.0711	<.0774	<.0747	<.0768	<.0735	<.0793	<.0429	<.0500	<.0722	<.0411
20...	--	--	--	--	--	--	--	--	--	--	--
AUG											
04...	--	--	--	--	--	--	--	--	--	--	--
SEP											
21...	--	--	--	--	--	--	--	--	--	--	--
DEC											
14...	--	--	--	--	--	--	--	--	--	--	--

DATE	CHLORO-THALO-NIL, WAT,FLT GF 0.7U REC (UG/L) (49306)	3HYDRXY CARBO-FURAN WAT,FLT GF 0.7U REC (UG/L) (49308)	CARBO-FURAN, WATER, FLTRD, GF 0.7U REC (UG/L) (49309)	CAR-BARYL, WATER, FLTRD, GF 0.7U REC (UG/L) (49310)	BRO-MOXYNIL WATER, FLTRD, GF 0.7U REC (UG/L) (49311)	ALDI-CARB, WATER, FLTRD, GF 0.7U REC (UG/L) (49312)	ALDI-CARB SULFONE WAT,FLT GF 0.7U REC (UG/L) (49313)	ALDICA-RB SUL-FOXIDE, WAT,FLT GF 0.7U REC (UG/L) (49314)	ACIFL-UORFEN WATER, FLTRD, GF 0.7U REC (UG/L) (49315)	3-KETO CARBO-FURAN WATER FLTRD REC (UG/L) (50295)	BENDIO-CARB, WATER FLTRD REC (UG/L) (50299)
0208250400 TAR R RESERVOIR AT DAM NR LANGLEY CROSSROADS, NC (LAT 35 53 55N LONG 077 53 07W)											
APR 1999											
28...	<.0485	<.0623	<.0566	<.0628	<.0572	<.0815	<.160	<.0271	<.0622	<.072	<.061
MAY											
11...	<.0485	<.0623	<.0566	<.0628	<.0572	<.0815	<.160	<.0271	<.0622	<.072	<.061
25...	--	--	--	--	--	--	--	--	--	--	--
JUN											
08...	<.0485	<.0623	<.0566	<.0628	<.0572	<.0815	<.160	<.0271	<.0622	<.072	<.061
21...	<.0485	<.0623	<.0566	<.0628	<.0572	<.0815	<.160	<.0271	<.0622	<.072	<.061
JUL											
06...	<.0485	<.0623	<.0566	<.0628	<.0572	<.0815	<.160	<.0271	<.0622	<.072	<.061
20...	--	--	--	--	--	--	--	--	--	--	--
AUG											
04...	--	--	--	--	--	--	--	--	--	--	--
SEP											
21...	--	--	--	--	--	--	--	--	--	--	--
DEC											
14...	--	--	--	--	--	--	--	--	--	--	--
0208250410 TAR RIVER BELOW DAM NEAR LANGLEY CROSSROADS, NC (LAT 35 53 59N LONG 077 53 04W)											
APR 1999											
28...	<.0485	<.0623	<.0566	<.0628	<.0572	<.0815	<.160	<.0271	<.0622	<.072	<.061
355355077530700 TAR R RESERVOIR FINISHED WATER SUPPLY (LAT 35 53 55N LONG 077 53 07W)											
APR 1999											
28...	<.0485	<.0623	<.0566	<.0628	<.0572	<.0815	<.160	<.0271	<.0622	<.072	<.061
MAY											
11...	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--
JUN											
08...	<.0485	E.0094	<.0566	<.0628	<.0572	<.0815	<.160	<.0271	<.0622	<.072	<.061
21...	<.0485	<.0623	<.0566	<.0628	<.0572	<.0815	<.160	<.0271	<.0622	<.072	<.061
JUL											
06...	<.0485	<.0623	<.0566	<.0628	<.0572	<.0815	<.160	<.0271	<.0622	<.072	<.061
20...	--	--	--	--	--	--	--	--	--	--	--
AUG											
04...	--	--	--	--	--	--	--	--	--	--	--
SEP											
21...	--	--	--	--	--	--	--	--	--	--	--
DEC											
14...	--	--	--	--	--	--	--	--	--	--	--

DATE	BENOMYL WATER FLTRD REC (UG/L) (50300)	CAF-FEINE, WATER FLTRD REC (UG/L) (50305)	CHLORI-MURON, WATER FLTRD REC (UG/L) (50306)	SULFO-MET-RURON METHYL WTR FLT REC (UG/L) (50337)	HYDROXY ATRA-ZINE WATER FLTRD REC (UG/L) (50355)	IMAZ-AQUIN WATER FLTRD REC (UG/L) (50356)	METAL-AXYL WATER FLTRD REC (UG/L) (50359)	NICOSUL FURON WATER FLTRD REC (UG/L) (50364)	TER-BUTOL WATER FLTRD REC (UG/L) (50368)	IMAZE-THAPYR WATER FLTRD REC (UG/L) (50407)	OXAMYL OXIME WATER FLTRD REC (UG/L) (50410)
0208250400 TAR R RESERVOIR AT DAM NR LANGLEY CROSSROADS, NC (LAT 35 53 55N LONG 077 53 07W)											
APR 1999											
28...	<.022	E.015	<.037	<.039	<.193	<.103	<.057	<.065	<.093	<.088	<.064
MAY											
11...	<.022	<.080	<.037	<.039	E.011	<.103	<.057	<.065	--	<.088	<.064
25...	--	--	--	--	--	--	--	--	--	--	--
JUN											
08...	<.022	<.080	<.037	<.039	E.027	<.103	<.057	<.065	--	<.088	<.064
21...	<.022	E.031	<.037	<.039	E.087	<.103	<.057	<.065	--	<.088	<.064
JUL											
06...	<.022	<.080	<.037	<.039	E.058	<.103	<.057	<.065	--	<.088	<.064
20...	--	--	--	--	--	--	--	--	--	--	--
AUG											
04...	--	--	--	--	--	--	--	--	--	--	--
SEP											
21...	--	--	--	--	--	--	--	--	--	--	--
DEC											
14...	--	--	--	--	--	--	--	--	--	--	--
0208250410 TAR RIVER BELOW DAM NEAR LANGLEY CROSSROADS, NC (LAT 35 53 59N LONG 077 53 04W)											
APR 1999											
28...	<.022	E.014	<.037	<.039	E.015	<.103	<.057	<.065	<.093	<.088	<.064
355355077530700 TAR R RESERVOIR FINISHED WATER SUPPLY (LAT 35 53 55N LONG 077 53 07W)											
APR 1999											
28...	<.022	<.080	<.037	<.039	E.048	<.103	<.057	<.065	<.093	<.088	<.064
MAY											
11...	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--
JUN											
08...	<.022	<.080	<.037	<.039	E.048	<.103	E.002	<.065	--	<.088	<.064
21...	<.022	<.080	<.037	<.039	E.071	<.103	<.057	<.065	--	<.088	<.064
JUL											
06...	<.022	E.031	<.037	<.039	E.057	<.103	<.057	<.065	--	<.088	<.064
20...	--	--	--	--	--	--	--	--	--	--	--
AUG											
04...	--	--	--	--	--	--	--	--	--	--	--
SEP											
21...	--	--	--	--	--	--	--	--	--	--	--
DEC											
14...	--	--	--	--	--	--	--	--	--	--	--

DATE	2,4-D METHYL ESTER, WATER FLTRD REC (UG/L) (50470)	PROP-ICONA-ZOLE , WATER FLTRD REC (UG/L) (50471)	TRI-BENURON METHYL WATER FLTRD (UG/L) (61159)	CHLOR-AMBEN, METHYL ESTER WATER FLTRD (UG/L) (61188)	UREA 3(4-CHLOR OPHENYL METHYL WAT FLT REC (UG/L) (61692)	BEN-SUL-FURON METHYL WAT FLT REC (UG/L) (61693)	FLUMET-SULAM WATER FLTRD REC (UG/L) (61694)	IMID-ACLOP-RID WATER FLTRD REC (UG/L) (61695)	METH-OMYL OXIME WATER FLTRD REC (UG/L) (61696)	MET-SUL-FURON METHYL WAT FLT REC (UG/L) (61697)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630)
0208250400 TAR R RESERVOIR AT DAM NR LANGLEY CROSSROADS, NC (LAT 35 53 55N LONG 077 53 07W)											
APR 1999											
28...	<.086	<.064	<.07	<.11	<.0915	<.0482	<.0866	<.106	<.0102	<.114	<.004
MAY											
11...	<.086	<.064	<.07	<.11	<.0915	<.0482	<.0866	<.106	<.0102	<.114	<.004
25...	--	--	--	--	--	--	--	--	--	--	<.004
JUN											
08...	<.086	<.064	<.07	<.11	<.0915	<.0482	<.0866	<.106	<.0102	<.114	<.004
21...	<.086	<.064	<.07	<.11	<.0915	<.0482	<.0866	<.106	<.0102	<.114	<.004
JUL											
06...	<.086	<.064	<.07	<.11	<.0915	<.0482	<.0866	<.106	<.0102	<.114	<.004
20...	--	--	--	--	--	--	--	--	--	--	<.004
AUG											
04...	--	--	--	--	--	--	--	--	--	--	<.004
SEP											
21...	--	--	--	--	--	--	--	--	--	--	<.004
DEC											
14...	--	--	--	--	--	--	--	--	--	--	<.004
0208250410 TAR RIVER BELOW DAM NEAR LANGLEY CROSSROADS, NC (LAT 35 53 59N LONG 077 53 04W)											
APR 1999											
28...	<.086	<.064	<.07	<.11	<.0915	<.0482	<.0866	<.106	<.0102	<.114	<.004
355355077530700 TAR R RESERVOIR FINISHED WATER SUPPLY (LAT 35 53 55N LONG 077 53 07W)											
APR 1999											
28...	<.086	<.064	<.07	<.11	<.0915	<.0482	<.0866	<.106	<.0102	<.114	<.004
MAY											
11...	--	--	--	--	--	--	--	--	--	--	<.004
25...	--	--	--	--	--	--	--	--	--	--	<.004
JUN											
08...	<.086	<.064	<.07	<.11	<.0915	<.0482	<.0866	<.106	<.0102	<.114	<.004
21...	<.086	<.064	<.07	<.11	<.0915	<.0482	<.0866	<.106	<.0102	<.114	<.004
JUL											
06...	<.086	<.064	<.07	<.11	<.0915	<.0482	<.0866	<.106	<.0102	<.114	<.004
20...	--	--	--	--	--	--	--	--	--	--	<.004
AUG											
04...	--	--	--	--	--	--	--	--	--	--	<.004
SEP											
21...	--	--	--	--	--	--	--	--	--	--	<.004
DEC											
14...	--	--	--	--	--	--	--	--	--	--	<.004

DATE	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	METHYL PARA-THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)
0208250400 TAR R RESERVOIR AT DAM NR LANGLEY CROSSROADS, NC (LAT 35 53 55N LONG 077 53 07W)											
APR 1999											
28...	<.0030	<.0020	<.0040	<.0020	<.0070	<.0020	<.0060	<.0020	<.0040	<.0767	<.0040
MAY											
11...	<.0030	<.0020	<.0040	<.0020	<.0070	<.0020	<.0060	<.0020	<.0040	.0114	<.0040
25...	<.0030	<.0020	<.0040	<.0020	<.0070	<.0020	<.0060	<.0020	<.0040	<.0100	<.0040
JUN											
08...	<.0030	<.0020	<.0040	<.0020	<.0070	<.0020	<.0060	<.0020	<.0040	<.0100	<.0040
21...	<.0030	<.0020	<.0040	<.0020	<.0070	<.0020	<.0060	<.0020	<.0040	<.0100	<.0040
JUL											
06...	<.0030	<.0020	<.0040	<.0020	<.0070	<.0020	<.0060	<.0020	<.0040	<.0100	<.0040
20...	<.0030	<.0020	<.0040	<.0020	<.0070	<.0020	<.0060	<.0020	<.0040	<.0100	<.0040
AUG											
04...	<.0030	<.0020	<.0040	<.0020	<.0070	<.0020	<.0060	<.0020	<.0040	<.0100	<.0040
SEP											
21...	<.0030	<.0020	<.0040	<.0020	<.0070	<.0020	<.0060	<.0020	<.0040	<.0100	<.0040
DEC											
14...	<.0030	<.0020	<.0040	<.0020	<.0070	<.0020	<.0060	<.0020	<.0040	<.0100	<.0040
0208250410 TAR RIVER BELOW DAM NEAR LANGLEY CROSSROADS, NC (LAT 35 53 59N LONG 077 53 04W)											
APR 1999											
28...	<.0030	<.0020	<.0040	<.0020	<.0070	<.0020	<.0060	<.0020	<.0040	<.0767	<.0040
355355077530700 TAR R RESERVOIR FINISHED WATER SUPPLY (LAT 35 53 55N LONG 077 53 07W)											
APR 1999											
28...	<.0030	<.0020	<.0040	<.0020	<.0070	<.0020	<.0060	<.0020	<.0040	<.0767	<.0040
MAY											
11...	<.0030	<.0020	<.0040	<.0020	<.0070	<.0020	<.0060	<.0020	<.0040	<.0100	<.0040
25...	<.0030	<.0020	<.0040	<.0020	<.0070	<.0020	<.0060	<.0020	<.0040	<.0100	<.0040
JUN											
08...	<.0030	<.0020	<.0040	<.0020	<.0070	<.0020	<.0060	<.0020	<.0040	<.0100	<.0040
21...	<.0030	<.0020	<.0040	<.0020	<.0070	<.0020	<.0060	<.0020	<.0040	<.0100	<.0040
JUL											
06...	<.0030	<.0020	<.0040	<.0020	<.0070	<.0020	<.0060	<.0020	<.0040	<.0100	<.0040
20...	<.0030	<.0020	<.0040	<.0020	<.0070	<.0020	<.0060	<.0020	<.0040	<.0100	<.0040
AUG											
04...	<.0030	<.0020	<.0040	<.0020	<.0070	<.0020	<.0060	<.0020	<.0040	<.0100	<.0040
SEP											
21...	<.0030	<.0020	<.0040	<.0020	<.0070	<.0020	<.0060	<.0020	<.0040	<.0100	<.0040
DEC											
14...	<.0030	<.0020	<.0040	<.0020	<.0070	<.0020	<.0060	<.0020	<.0040	<.0100	<.0040

DATE	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)
0208250400 TAR R RESERVOIR AT DAM NR LANGLEY CROSSROADS, NC (LAT 35 53 55N LONG 077 53 07W)											
APR 1999											
28...	<.0030	<.0020	<.0030	<.0130	<.0030	<.0170	<.0010	<.0040	<.0030	<.0020	<.0020
MAY											
11...	<.0030	<.0020	<.0030	<.0130	<.0030	<.0170	<.0010	<.0040	E.0039	<.0020	<.0020
25...	<.0030	<.0020	<.0030	<.0130	<.0030	<.0170	<.0010	<.0040	<.0030	<.0020	<.0020
JUN											
08...	<.0030	<.0020	<.0030	<.0130	<.0030	<.0170	<.0010	<.0040	<.0030	<.0020	<.0020
21...	<.0030	<.0020	<.0030	<.0130	<.0030	<.0170	<.0010	<.0040	<.0030	<.0020	<.0020
JUL											
06...	<.0030	<.0020	<.0030	<.0130	<.0030	<.0170	<.0010	<.0040	<.0030	<.0020	<.0020
20...	<.0030	<.0020	<.0030	<.0130	<.0030	<.0170	<.0010	<.0040	<.0030	<.0020	<.0020
AUG											
04...	<.0030	<.0020	<.0030	<.0130	<.0030	<.0170	<.0010	<.0040	<.0030	<.0020	<.0020
SEP											
21...	<.0030	<.0020	<.0030	<.0130	<.0030	<.0170	<.0010	<.0040	<.0030	<.0020	<.0020
DEC											
14...	<.0030	<.0020	<.0030	<.0130	<.0030	<.0170	<.0010	<.0040	<.0030	<.0020	<.0020
0208250410 TAR RIVER BELOW DAM NEAR LANGLEY CROSSROADS, NC (LAT 35 53 59N LONG 077 53 04W)											
APR 1999											
28...	<.0030	<.0020	<.0030	<.0130	<.0030	<.0170	<.0010	<.0040	<.0030	<.0020	<.0020
355355077530700 TAR R RESERVOIR FINISHED WATER SUPPLY (LAT 35 53 55N LONG 077 53 07W)											
APR 1999											
28...	<.0030	<.0020	<.0030	<.0130	<.0030	<.0170	<.0010	<.0040	<.0030	<.0020	<.0020
MAY											
11...	<.0030	<.0020	<.0030	<.0130	<.0030	<.0170	<.0010	<.0040	<.0030	<.0020	<.0020
25...	<.0030	<.0020	<.0030	<.0130	<.0030	<.0170	<.0010	<.0040	<.0030	<.0020	<.0020
JUN											
08...	<.0030	<.0020	<.0030	<.0130	<.0030	<.0170	<.0010	<.0040	<.0030	<.0020	<.0020
21...	<.0030	<.0020	<.0030	<.0130	<.0030	<.0170	<.0010	<.0040	<.0030	<.0020	<.0020
JUL											
06...	<.0030	<.0020	<.0030	<.0130	<.0030	<.0170	<.0010	<.0040	<.0030	<.0020	<.0020
20...	<.0030	<.0020	<.0030	<.0130	<.0030	<.0170	<.0010	<.0040	<.0030	<.0020	<.0020
AUG											
04...	<.0030	<.0020	<.0030	<.0130	<.0030	<.0170	<.0010	<.0040	<.0030	<.0020	<.0020
SEP											
21...	<.0030	<.0020	<.0030	<.0130	<.0030	<.0170	<.0010	<.0040	<.0030	<.0020	<.0020
DEC											
14...	<.0030	<.0020	<.0030	<.0130	<.0030	<.0170	<.0010	<.0040	<.0030	<.0020	E.0020

DATE	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	BARBAN SURROG-ATE WTR FLT SCD 2060, 9060 RE PERCENT (90640)	DIAZ-INON D10 SRG WAT FLT 0.7 U GF, REC PERCENT (91063)	TERBUTH YLAZINE SURROGT WAT FLT 0.7 U GF, REC PERCENT (91064)	HCH ALPHA D6 SRG WAT FLT 0.7 U GF, REC PERCENT (91065)	2,4,5-T SURROG WATER FLTRD REC PERCENT (99958)	(PERCEN CAF-FEINE-C13 SURROG, WAT FLT REC (99959)
0208250400 TAR R RESERVOIR AT DAM NR LANGLEY CROSSROADS, NC (LAT 35 53 55N LONG 077 53 07W)											
APR 1999											
28...	<.0040	<.0030	<.0130	<.0010	<.0050	6.00	66.6	79.2	71.5	46.0	29.0
MAY											
11...	<.0040	<.0030	<.0130	<.0010	<.0050	4.00	90.6	99.4	90.0	10.0	E138
25...	<.0040	<.0030	<.0130	<.0010	<.0050	--	101	--	104	--	--
JUN											
08...	<.0040	<.0030	<.0130	<.0010	<.0050	37.0	117	--	112	36.0	51.0
21...	<.0040	<.0030	<.0130	<.0010	<.0050	E87.0	82.0	--	103	72.0	E86.0
JUL											
06...	<.0040	<.0030	<.0130	<.0010	<.0050	50.0	107	--	105	55.0	67.0
20...	<.0040	<.0030	<.0130	<.0010	<.0050	--	117	--	111	--	--
AUG											
04...	<.0040	<.0030	<.0130	<.0010	<.0050	--	107	--	102	--	--
SEP											
21...	<.0040	<.0030	<.0130	<.0010	<.0050	--	115	--	107	--	--
DEC											
14...	<.0040	<.0030	<.0130	<.0010	<.0050	--	113	--	105	--	--
0208250410 TAR RIVER BELOW DAM NEAR LANGLEY CROSSROADS, NC (LAT 35 53 59N LONG 077 53 04W)											
APR 1999											
28...	<.0040	<.0030	<.0130	<.0010	<.0050	15.0	67.8	81.1	74.4	37.0	25.0
355355077530700 TAR R RESERVOIR FINISHED WATER SUPPLY (LAT 35 53 55N LONG 077 53 07W)											
APR 1999											
28...	<.0040	<.0030	<.0130	<.0010	<.0050	113	.000	82.1	77.2	110	107
MAY											
11...	<.0040	<.0030	<.0130	<.0010	<.0050	--	.000	93.7	88.1	--	--
25...	<.0040	<.0030	<.0130	<.0010	<.0050	--	.000	--	98.4	--	--
JUN											
08...	<.0040	<.0030	<.0130	<.0010	<.0050	81.0	.000	--	91.8	63.0	80.0
21...	<.0040	<.0030	<.0130	<.0010	<.0050	E146	.000	--	84.7	86.0	E108
JUL											
06...	<.0040	<.0030	<.0130	<.0010	<.0050	69.0	.000	--	106	55.0	74.0
20...	<.0040	<.0030	--	<.0010	<.0050	--	.000	--	117	--	--
AUG											
04...	<.0040	<.0030	<.0130	<.0010	<.0050	--	.000	--	98.6	--	--
SEP											
21...	<.0040	<.0030	<.0130	<.0010	<.0050	--	.000	--	109	--	--
DEC											
14...	<.0040	<.0030	<.0130	<.0010	<.0050	--	.000	--	113	--	--



President Clinton's helicopter flying over the flooded area near Princeville, N.C., September 1999.

Page

A

Access to USGS water data 29
Accuracy of the Records 23
Afterbay Reservoir at Dam near McGhees Mill 154
Ahoskie Creek at Ahoskie 138
Ahoskie, Ahoskie Creek at 138
Albemarle and Chesapeake Canal near Princess Anne, VA 54
Analyses of Samples at Water-Quality Miscellaneous Sites 544

B

Bahama, Flat River at 370
Bahama, Lake Michie near 375
Bahama, Little River Reservoir at dam near 359
Bahama, Mountain Creek near 352
Bear Creek at Mays Store 432
Bell Island, Currituck Sound at 80
Benson, Lake 539
Bethel Hill, Mayo Creek near 160
Bethel, Conetoe Creek near 292
Big Swash Transect (Site #1) 178
Big Swash Transect (Site #2) 180
Big Swash Transect (Site #3) 182
Broadneck Transect (Site #1) 200
Broadneck Transect (Site #2) 202
Broadneck Transect (Site #3) 204
Buckhorn Reservoir 442, 446, 539

C

Cashie River near Windsor 250
Cashie River at Sans Souci Ferry 252
Chicod Creek near Simpson 298
Clayton, Middle Creek near 424
Clayton, Neuse River near 414
Coinjock, Intercoastal Waterway at 94
Conetoe Creek near Bethel 292
Conine Creek at US Highway 17 near Williamston 220
Contentnea Creek at Hookerton 446
Contentnea Creek near Lucama 442
Cow Creek Transect (Site #1) 242
Cow Creek Transect (Site #2) 244
Cow Creek Transect (Site #3) 246
Cow Creek Transect (Site #4) 248
Crabtree Creek at Anderson Drive at Raleigh 396
Crabtree Creek at Ebenezer Church Road near Raleigh 392
Crabtree Creek at Highway 70 at Raleigh 394
Crabtree Creek at Old Wake Forest Road at Raleigh 398
Crabtree Creek at US 1 at Raleigh 400
Currituck Sound at Bell Island 80
Currituck Sound at Poplar Branch 106
Currituck Sound near Point Harbor 120

D

Dan River near Francisco 140
Dan River near Wentworth 144
Data Collection and Computation 20
Data Presentation 20
Definition of terms 30
Devils Gut Transect (Site #1) 222
Devils Gut Transect (Site #2) 224
Devils Gut Transect (Site #3) 226
Discharge at Partial-Record Stations and Miscellaneous Sites 542
Downstream Order System 19
Drainage Ditch to Tributary to Sandy Run near Lizzie 460
Durham Creek at Edward 538
Durham, Eno River near 344

E

Eden, Smith River at 146
Edward, Durham Creek at 538
Efland, Sevenmile Creek near 338
Enfield, Fishing Creek near 206
Eno River at Hillsborough 340
Eno River near Durham 344
Explanation of records 18

F

Fairntosh, Little River below Little River Tributary 366
Fairntosh, Little River Tributary at 361
Falls, Falls Lake above Dam near 386
Falls Lake 386, 390, 414, 418, 428, 434, 538
Falls Lake above Dam near Falls 386
Falls Lake, change in contents 541
Falls, Neuse River near 390
Farmville, Middle Swamp near 466
Fishing Creek near Enfield 206
Flat River at Bahama 370
Flat River Tributary near Willardville 378
Fort Barnwell, Neuse River at 474
Francisco, Dan River near 140

G

Gaston, Lake 162, 538
Goldsboro, Neuse River near 428
Grabtown, Roanoke River above Secondary Road 1100 near 206
Greenville, Tar River at 294
Gum Branch, New River near 536

H

Halifax, Roanoke River at 164
Hamilton, Roanoke River at 198
Hamilton, Roanoke River near 216
Hillardston, Swift Creek at 282
Hills Ferry, Roanoke River near 184
Hillsborough, Eno River at 340
Hoke, Van Swamp near 336
Hookerton, Contentnea Creek at 446
Hyco Creek near Leasburg 148
Hyco Lake 538

Page

Hyco Lake at Dam near Roxboro 152
Hyco Lake, change in contents 540
Hyco River below Afterbay Dam near McGehees Mill 156
Hydrologic Bench-Mark Network 18

I

Identifying Estimated Daily Discharge 23
Intercoastal Waterway at Coinjock 94

J

Jamesville, Roanoke River at 230
John H. Kerr Reservoir 162
Johnson, Lake 539

K

Kinston, Neuse River at 434

L

Lake Benson 539
Lake Gaston 162, 538
Lake Gaston, change in contents 540
Lake Johnson 539
Lake Michie 539
Lake Michie near Bahama 375
Lake Raleigh 539
Lake Roxboro 539
Lake Wheeler 422, 539
Lake, Falls 386, 390, 414, 418 428, 434, 538
Lake, Hyco 540
Lake, Mayo Steam-Electric Generating Plant 539
Lake, Philpott 162
Lake, Roanoke Rapids 162, 538
Lake, Smith Mountain 162
Latitude-longitude system 19
Leasburg, Hyco Creek near 148
Little Contentnea Creek near Willow Green 470
Little Fishing Creek near White Oak 284
Little River below Little River Tributary at Fairntosh 366
Little River near Orange Factory 348
Little River near Princeton 426
Little River Reservoir at dam near Bahama 359
Little River Tributary at Fairntosh 361
Lizzie, Drainage Ditch to Tributary to Sandy Run near 460
Lizzie, Unnamed Tributary to Sandy Run at SR1335 near 453
Lizzie, Unnamed Tributary to Sandy Run near 454
Lizzie, Weather Station near 463
Louisburg, Tar River at US 401 at 272
Lucama, Contentnea Creek near 442

M

Marsh Creek near New Hope 406
Mayo Creek near Bethel Hill 160

Page

Mayo River near Price 142
Mayo Steam Electric Generating Plant 160
Mayo Steam-Electric Generating Plant Lake 539
Mays Store, Bear Creek at 432
McCullars Crossroads, Swift Creek near 422
McGehees Mill, Afterbay Reservoir at Dam near 154
McGehees Mill, Hyco River below Afterbay dam near 156
Measurements at miscellaneous sites 543
Michie, Lake 539
Middle Creek near Clayton 424
Middle Swamp near Farmville 466
Mountain Creek near Bahama 352

N

Nahunta Swamp near Shine 444
National Atmospheric Deposition Program/National Trends Network 18
National Stream Quality Accounting Network 18
National Water-Quality Assessment Program 18
Neuse River at Channel Light 9 519
Neuse River at Channel Light 11 502
Neuse River at Kinston 434
Neuse River at New Bern 480
Neuse River at Smithfield 418
Neuse River near Clayton 414
Neuse River near Falls 390
Neuse River near Fort Barnwell 474
Neuse River near Goldsboro 428
New Bern, Neuse River at 480
New Hope, Marsh Creek near 406
New River near Gum Branch 536

O

Oak City, Roanoke River near 186
Orange Factory, Little River near 348
Other Records Available 24

P

Pamlico River at Light 5 312
Pamlico River at Light 3 324
Pamlico River at Washington 300
Pasquotank River near South Mills 134
Philpott Lake 146, 162
Pigeon House Creek at Cameron Village at Raleigh 404
Plymouth, Roanoke River at 254
Point Harbor, Currituck Sound near 120
Pollocksville, Trent River at 500
Poplar Branch, Currituck Sound at 106
Potecasi Creek near Union 136
Price, Mayo River near 142
Princess Anne, Albemarle and Chesapeake Canal near 54
Princeton, Little River near 426
Pungo, West Neck Creek at Indian River Road at 68

Page

R

Raleigh, Crabtree Creek at Anderson Drive at 396
Raleigh, Crabtree Creek at Ebenezer Chruch Road near 392
Raleigh, Crabtree Creek at Highway 70 at 394
Raleigh, Crabtree Creek at Old Wake Forest Rd at 398
Raleigh, Crabtree Creek at US 1 at 400
Raleigh, Pigeon House Creek at Cameron Village at 404
Raleigh, Rocky Branch below Pullen Drive at 408
Raleigh, Walnut Creek at Sunnybrook Drive at 410
Raleigh, Lake 539
Records of Precipitation 24
Records of Stage and Water Discharge 19
Records of Surface Water Quality 24
Remark Codes 28
Reservoir, Buckhorn 442, 446, 539
Reservoir, John H. Kerr 162
Reservoir, Roxboro Steam-Electric Generating Plant Afterbay 539
Reservoir, Talbott 140, 144, 538
Reservoir, Townes 140, 144, 538
Reservoirs, Talbott and Townes 538
Roanoke Rapids Lake 162, 538
Roanoke Rapids Lake, change in contents 540
Roanoke Rapids, Roanoke River at 162
Roanoke River above Secondary Road 1100 near Grabtown 206
Roanoke River at Halifax 164
Roanoke River at Hamilton 198
Roanoke River at Jamesville 230
Roanoke River at NC 45 near Westover 256
Roanoke River at Plymouth 254
Roanoke River at Roanoke Rapids 162
Roanoke River at Williamston 218
Roanoke River near Hamilton 216
Roanoke River near Hills Ferry 184
Roanoke River near Oak City 186
Roanoke River near Scotland Neck 176
Roanoke River near Woodard 228
Rocky Branch below Pullen Drive at Raleigh 408
Rocky Mount, Tar River at NC 97 280
Rocky Mount, Tar River below Tar River Reservoir near 276
Roxboro, Hyco Lake Dam near 152
Roxboro Steam-Electric Generating Plant Afterbay Reservoir 156, 539
Roxboro, Lake 539

S

Sans Souci Ferry, Cashie River at 252
Scotland Neck, Roanoke River near 176
Sevenmile Creek near Efland 338
Shine, Nahunta Swamp near 444
Simpson, Chicod Creek near 298
Smith Mountain Lake 162
Smith River at Eden 146
Smithfield, Neuse River at 418
South Mills, Pasquotank River near 134
Special networks and programs 18
Station Identification Numbers 18
Streets Ferry, Swift Creek at NC Hwy 43 near 478
Swift Creek at Hilliardston 282
Swift Creek at NC Hwy 43 near Streets Ferry 478
Swift Creek near McCullars Crossroads 422

T

Talbott Reservoir 140, 144, 538
Talbott Reservoir, change in contents 540
Tar River at Greenville 294
Tar River at NC 97 at Rocky Mount 280
Tar River at Tarboro 288
Tar River at US 401 at Louisburg 272
Tar River below Tar River Reservoir near Rocky Mount 276
Tar River near Tar River 268
Tar River, Tar River near 268
Tarboro, Tar River at 288
Townes Reservoir 140, 144, 538
Townes Reservoir, change in contents 540
Trent River at Pollocksville 500
Trent River near Trenton 498
Trenton, Trent River near 498

U

Union, Potecasi Creek near 136
Unnamed Tributary to Sandy Run at SR1335 near Lizzie 453
Unnamed Tributary to Sandy Run near Lizzie 454

V

Van Swamp near Hoke 336

W

Washington, Pamlico River at 300
Walnut Creek at Sunnybrook Drive at Raleigh 410
Weather Station near Lizzie 463
Wentworth, Dan River near 144
West Neck Creek at Indian River Road at Pungo 68
Westover, Roanoke River at NC 45 near 256
Wheeler, Lake 422, 539
White Oak, Little Fishing Creek near 284
Willardville, Flat River Tributary near 378
Williamston, Conine Creek at U.S. Highway 17 near 220
Williamston, Roanoke River at 218
Willow Green, Little Contentnea Creek near 470
Windsor, Cashie River near 250
Woodard, Roanoke River near 228

☆U.S. GOVERNMENT PRINTING OFFICE:2000-546-059/20052

CONVERSION FACTORS AND VERTICAL DATUM

Multiply	By	To obtain
	Length	
inch (in.)	2.54×10^{1}	millimeter
	2.54×10^{-2}	meter
foot (ft)	3.048×10^{-1}	meter
mile (mi)	1.609×10^{0}	kilometer
	Area	
acre	4.047×10^{3}	square meter
	4.047×10^{-1}	square hectometer
	4.047×10^{-3}	square kilometer
square mile (mi^2)	2.590×10^{0}	square kilometer
	Volume	
gallon (gal)	3.785×10^{0}	liter
	3.785×10^{0}	cubic decimeter
	3.785×10^{-3}	cubic meter
million gallons (Mgal)	3.785×10^{3}	cubic meter
	3.785×10^{-3}	cubic hectometer
cubic foot (ft^3)	2.832×10^{1}	cubic decimeter
	2.832×10^{-2}	cubic meter
cubic-foot-per-second day [(ft^3/s) d]	2.447×10^{3}	cubic meter
	2.447×10^{-3}	cubic hectometer
acre-foot (acre-ft)	1.233×10^{3}	cubic meter
	1.233×10^{-3}	cubic hectometer
	1.233×10^{-6}	cubic kilometer
	Flow	
cubic foot per second (ft^3/s)	2.832×10^{1}	liter per second
	2.832×10^{1}	cubic decimeter per second
	2.832×10^{-2}	cubic meter per second
gallon per minute (gal/min)	6.309×10^{-2}	liter per second
	6.309×10^{-2}	cubic decimeter per second
	6.309×10^{-5}	cubic meter per second
million gallons per day (Mgal/d)	4.381×10^{1}	cubic decimeter per second
	4.381×10^{-2}	cubic meter per second
	Mass	
ton (short)	9.072×10^{-1}	megagram or metric ton

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

USGS LIBRARY - RESTON
3 1818 00453546 2

U.S. DEPARTMENT OF THE INTERIOR
U.S. Geological Survey
3916 Sunset Ridge Road
Raleigh, NC 27607

Printed on recycled paper