

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

Water Resources Data North Carolina Water Year 2003

Volume 1B
Surface-Water Records



Water-Data Report NC-03-1B

Water Resources Data North Carolina Water Year 2003

Volume 1B. Surface-Water Records

By B.C. Ragland, R.G. Barker, and J.B. Robinson

Water-Data Report NC-03-1B



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
U.S. Geological Survey**

U.S. Department of the Interior

Gale A. Norton, Secretary

U.S. Geological Survey

Charles G. Groat, Director

2004

U.S. Geological Survey
3916 Sunset Ridge Road
Raleigh, NC 27607
(919) 571-4000

Information about the USGS, North Carolina District is available on the Internet at <http://nc.water.usgs.gov/>

Information about all USGS reports and products is available by calling 1-888-ASK-USGS or on the Internet via the World Wide Web at <http://www.usgs.gov/>

Additional earth science information is available by accessing the USGS home page at <http://www.usgs.gov/>

Suggested citation:

Ragland, B.C., Barker, R.G., and Robinson, J.B., 2004, Water Resources Data, North Carolina, Water Year 2003, Volume 1B—Surface-Water Records: U.S. Geological Survey Water-Data Report NC-03-1B, 773 p.

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	Kay E. Hedrick	Dana L. Robison
Russell G. Barker	Brad A. Huffman	Eric S. Rudisill
Pamilee L. Breton	Leigh M. Huling	Eric M. Sadorf
William S. Caldwell	Philip S. Jen	Kathleen M. Sarver
William M. Cappleman	Robert M. Kearns	Nicole D. Scheman
Kirsten M. Cassingham	Joshua Manzer	Jared M. Sholar
Michelle Cienek	James I. Marlowe	Douglas G. Smith
Sean D. Egen	Gary L. McCulloch, Jr.	P. Shawn Spivey
Jason M. Fine	Cassandra Pfeifle	Erik C. Staub
Ronald G. Garrett	Terry L. Middleton	Bruce C. Steiner
Elise Giddings	Jeffrey P. Moss	Jack M. Tankard
Mary L. Giorgino	Carolyn J. Oblinger	Ramona J. Traynor
Stephen L. Harden	Michael D. Penley	Bentley T. Walton
Douglas A. Harned	Ryan B. Rasmussen	John C. Weaver
Jason K. Harrell	Jeanne C. Robbins	Wendi S. Young
William F. Hazell	Jerald B. Robinson	

Pamilee L. Breton edited much of the text, tables, and graphs of this report. Pamilee L. Breton, Kay E. Hedrick, and Ramona J. Traynor assembled the report.

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

REPORT DOCUMENTATION PAGEForm 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 March 29, 2004	3. REPORT TYPE AND DATES COVERED Annual Data - Oct. 1, 2002 through Sept. 30, 2003	
4. TITLE AND SUBTITLE Water Resources Data, North Carolina, Water Year 2003 Volume 1B. Surface-Water Data			5. FUNDING NUMBERS	
6. AUTHOR(S) B.C. Ragland, R.G. Barker, and J.B. Robinson				
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-03-1B	
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-03-1B	
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 2003 water year for North Carolina consist of discharge records for 214 gaging stations; stage only records for 50 gaging stations; stage and contents for 62 lakes and reservoirs; water quality for 72 gaging stations and 12 miscellaneous sites; continuous water quality for 58 sites; and continuous precipitation at 121 sites. Additional water data were collected at 53 sites not involved in the systematic data-collection program and are published as miscellaneous measurements. Data contained in this volume include discharge records for 62 gaging stations; stage and contents for 17 lakes and reservoirs; stage only for 26 gaging stations; water quality for 36 gaging stations and continuous water quality for 32 sites; continuous precipitation at 8 sites; and miscellaneous measurements for 6 stations not involved in the systematic data-collection program. The collection of water-resources data in North Carolina is part of the National Water-Data System operated by the U.S. Geological Survey in cooperation with State, municipal, and Federal agencies.				
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 773	
			16. PRICE CODE	
17. SECURITY CLASSIFICATION OF REPORT UNCLASSIFIED	18. SECURITY CLASSIFICATION OF THIS PAGE UNCLASSIFIED	19. SECURITY CLASSIFICATION OF ABSTRACT UNCLASSIFIED	20. LIMITATION OF ABSTRACT	

CONTENTS

	Page
Preface	iii
List of surface-water stations, in downstream order, for which records are published in this volume	vii
List of discontinued surface-water discharge stations	xiii
Introduction	1
Cooperation	2
Summary of water-resources conditions	3
Precipitation	3
Surface water	3
Downstream order and station number	13
Numbering system for wells and miscellaneous sites	13
Special networks and programs	15
Explanation of stage- and water-discharge records	16
Data collection and computation	16
Data presentation	17
Station manuscript	18
Peak discharge greater than base discharge	19
Data table of daily mean values	19
Statistics of monthly mean data	19
Summary statistics	19
Identifying estimated daily discharge	21
Accuracy of field data and computed results	22
Other data records available	22
Explanation of precipitation records	22
Data collection and computation	22
Data presentation	23
Explanation of water-quality records	23
Collection and examination of data	23
Water analysis	23
Surface-water-quality records	24
Classification of records	24
Accuracy of the records	24
Arrangement of records	25
On-site measurements and sample collection	25
Water temperature	25
Sediment	26
Laboratory measurements	26
Data presentation	26
Remark codes	28
Water-quality control data	28
Blank samples	28
Reference samples	29
Replicate samples	29
Spike samples	30
Explanation of ground-water-level records	30
Site identification numbers	30
Data collection and computation	30

	Page
Data presentation	31
Water-level tables	32
Hydrographs	32
Ground-water-quality data	32
Data collection and computation	32
Laboratory measurements	32
Access to USGS Water Data	33
References	33
Definition of terms	34
Techniques of Water-Resources Investigations	49
Station records, surface water	65
Lakes and reservoirs in the South Atlantic Slope Basin	652
Lakes and reservoirs in the Ohio River Basin	754
Discharge at partial-record stations and miscellaneous sites	759
Water-quality data--Miscellaneous station analyses	766
Index	768

ILLUSTRATIONS

	Page
Figure 1. Locations of selected long-term index stations for collecting precipitation and discharge in North Carolina	5
2. Monthly precipitation for the 2003 water year and mean monthly precipitation for the period 1971-2000 at index stations	6
3. Monthly streamflow in North Carolina during October 2002-March 2003	7
4. Monthly streamflow in North Carolina during April-September 2003	8
5. Daily mean discharge for the 2003 water year and median daily mean discharge for 1971-2000 water years for Black River near Tomahawk	9
6. Daily mean discharge for the 2003 water year and median daily mean discharge for 1971-2000 water years for Rocky River near Norwood,	10
7. Daily mean discharge for the 2003 water year and median daily mean discharge for 1971-2000 water years for Lumber River at Boardman	11
8. Daily mean discharge for the 2003 water year and median daily mean discharge for 1971-2000 water years for French Broad River at Asheville	12
9. System for numbering wells and miscellaneous sites	14
10. Locations of gaging stations in western North Carolina	54
11. Locations of gaging stations in eastern North Carolina	55
12. Locations of water-quality stations in western North Carolina	56
13. Locations of water-quality stations in eastern North Carolina	57
14. Locations of gaging stations in and around Mecklenburg County, North Carolina	58
15. Locations of gaging stations in Alamance, Chatham, Durham, Guilford, Orange, and Randolph Counties in North Carolina	59
16. Locations of gaging stations in and around Wake County, North Carolina	60
17. Locations of water-quality sites in Alamance, Chatham, Durham, Guilford, Orange, and Randolph Counties in North Carolina	61
18. Locations of water-quality sites in and around Wake County, North Carolina	62
19. Locations of water-quality stations in Greene County, North Carolina	63
20. Locations of water-quality stations in the Newfound Creek watershed, Buncombe County, North Carolina	64

SURFACE-WATER STATION, 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	
CAPE FEAR RIVER BASIN	
Haw River (head of Cape Fear River):	
Reedy Fork near Oak Ridge (d,p)	02093800 65-67
Brush Creek at Fleming Road at Greensboro(d)	0209387778 68-69
Horse Pen Creek at US 220 near Greensboro(d,p).....	0209399200 70-72
Reedy Fork near Gibsonville (d).....	02094500 73-74
South Buffalo Creek near Pomona (d,p)	02094659 75-77
South Buffalo Creek at US 220 at Greensboro (d,p).....	02094770 78-80
Ryan Creek below US 220 at Greensboro (d,p).....	02094775 81-83
South Buffalo Creek near Greensboro (d,p).....	02095000 84-86
North Buffalo Creek at Greensboro (g,t,c).....	0209517912 87-94
North Buffalo Creek at Westover Terrace at Greensboro (d,p).....	02095181 95-97
North Buffalo Creek at Church Street at Greensboro (d,p).....	02095271 98-100
North Buffalo Creek near Greensboro (d,p).....	02095500 101-103
Buffalo Creek at Secondary Road 2819 near McLeansville (d,p).....	0209553650 104-106
Service Creek above Dry Creek at Burlington (g,t,c)	0209647280 107-114
Dry Creek above Service Creek at Burlington (g,t,c)	0209647295 115-122
Haw River at Haw River (d)	02096500 123-124
Branch Creek below NC 54 near Graham (g,t,c).....	0209651815 125-132
Rock Creek Tributary at Stoney Creek Golf Course near Sedalia (g,t,c).....	0209665940 133-140
Rock Creek above Rock Creek Tributary near Whitsett (g,t,c).....	0209665990 141-148
Little Alamance Creek at Secondary Road 2309 near Graham (g,t,c).....	0209679804 149-156
Cane Creek near Orange Grove (d,c,s)	02096846 157-160
Cane Creek Reservoir at dam near White Cross (c)	0209684980 161-163
Brooks Creek at Eddie Perry Road near Bynum (g,t,c).....	0209695780 164-171
Haw River near Bynum (d,c,s).....	02096960 172-177
Pokeberry Creek near Pittsboro (g,t,c).....	0209697900 178-185
Jordan Lake, Haw River arm, above B. Everett Jordan dam (c).....	0209719700 186-188
New Hope Creek (head of New Hope River) near Blands (d)	02097314 189-190
Bolin Creek above Franklin Street near Chapel Hill (g,t,c)	02097355 191-197
Bolin Creek at US 15-501 near Chapel Hill (g,t,c)	0209737400 198-203
Northeast Creek at Secondary Road 1100 near Genlee (d,c,s).....	0209741955 204-206
Morgan Creek near White Cross (d,g,t,c,s)	02097464 207-220
University Lake at intakes near Chapel Hill (c)	0209749990 221-223
Wilson Creek at Mouth near Chapel Hill (g,t,c).....	0209750881 224-231
Morgan Creek near Chapel Hill (d).....	02097517 232-233
Jordan Lake at buoy 12 at Farrington (c).....	0209768310 234-236
White Oak Creek at Green Level (d,c,s)	0209782520 237-240
Jordan Lake above U.S. Highway 64 near Wilsonville (c).....	0209799150 241-243
Jordan Lake at Bells Landing near Griffins Crossroads (c).....	0209801100 244-246
B. Everett Jordan Lake at Dam near Moncure (g)	02098197 247-248
Haw River below B. Everett Jordan Dam near Moncure (g,p).....	02098198 249-251
Deep River:	
East Fork Deep River near High Point (d).....	02099000 252-253
Bull Run at NC 29-70 near Jamestown (g,t,c).....	02099238 254-261
Richland Creek near Archdale (g,t,c)	02099480 262-268
Deep River near Randleman (d).....	02099500 269-270
Hasketts Creek below Penwood Branch near Asheboro (g,t,c).....	02100294 271-278
Deep River at Ramseur (d).....	02100500 279-280

	Page
SOUTH ATLANTIC SLOPE BASIN--Continued	
CAPE FEAR RIVER BASIN--Continued	
Vestal Creek near Asheboro (g,t,c).....	02100634 281-288
Rocky River near Crutchfield Crossroads (d).....	0210166029 289-290
Tick Creek near Mount Vernon Springs (d).....	02101800 291-292
Deep River at Moncure (d,c,s).....	02102000 293-297
Cape Fear River at State Highway 42 near Brickhaven (c,s).....	0210215985 298-299
Buckhorn Creek near Corinth (d).....	02102192 300-301
Cape Fear River at Lillington (d).....	02102500 302-303
Lower Little River near Lobelia (g).....	02102897 304-305
Flat Creek near Inverness (d,p).....	02102908 306-308
Little River at Manchester (d).....	02103000 309-312
Cape Fear River at Fayetteville (g).....	02104000 313-314
Rockfish Creek at Raeford (d).....	02104220 315-316
Cape Fear River at William O. Huske Lock near Tarheel (d,k,h,t,o).....	02105500 317-330
Cape Fear River at Lock 1 near Kelly (d,p).....	02105769 331-333
Hood Creek near Leland (d).....	02105900 334-335
Black River near Tomahawk (d).....	02106500 336-337
Northeast Cape Fear River:	
Northeast Cape Fear River near Chinquapin (d).....	02108000 338-339
Northeast Cape Fear River near Burgaw (e).....	02108566 340-341
WACCAMAW RIVER BASIN	
Waccamaw River at Freeland (d).....	02109500 342-343
PEE DEE RIVER BASIN	
Yadkin River:	
Yadkin River (head of Pee Dee River) at Patterson (d,p).....	02111000 344-346
Triplett Raingage (p).....	361210081333001 347
Elk Creek at Elkville (d,p).....	02111180 348-350
W. Kerr Scott Reservoir at Dam near Wilkesboro (g,p).....	02111391 351-353
Wilbar Raingage (p).....	361554081191701 354
Reddies River at North Wilkesboro (d).....	02111500 355-356
Yadkin River at Wilkesboro (d).....	02112000 357-358
Roaring River near Roaring River (d,p).....	02112120 359-361
Yadkin River at Elkin (d).....	02112250 362-363
Mitchell River near State Road (d).....	02112360 364-365
Fisher River near Copeland (d,p).....	02113000 366-368
Ararat River at Ararat (d,p).....	02113850 369-371
Little Yadkin River at Dalton (d).....	02114450 372-373
Yadkin River at Enon (d,p).....	02115360 374-376
Bowen Branch near Mouth at Winston-Salem (g,t,c).....	0211583580 377-383
Yadkin River at Yadkin College (d,p).....	02116500 384-386
South Yadkin River near Mocksville (d,p).....	02118000 387-389
Hunting Creek near Harmony (d).....	02118500 390-391
Second Creek near Barber (d,p).....	02120780 392-394
Abbotts Creek at Lexington (d).....	02121500 395-396
High Rock Lake (p).....	02122400 397
Tuckertown Reservoir (p).....	02122699 398
Uwharrie River:	
Dutchmans Creek near Uwharrie (d).....	02123567 399-400
Rocky River:	
Mallard Creek below Stony Creek near Harrisburg (d).....	0212414900 401-402
Coddle Creek at Secondary Road 1612 near Davidson (d).....	0212419274 403-404
Reedy Creek at SR 2803 near Charlotte (d).....	0212427947 405-406
Rocky River above Irish Buffalo Creek near Rocky River (d).....	0212433550 407-408
Clear Creek at Secondary Road 3181 near Mint Hill (d).....	0212466000 409-410
Goose Creek at Fairview (d,t,k,h,o,s).....	02124692 411-423

	Page
SOUTH ATLANTIC SLOPE BASIN--Continued	
PEE DEE RIVER BASIN--Continued	
Rocky River near Stanfield (d).....	02124742 424-425
Big Bear Creek near Richfield (d).....	02125000 426-427
Rocky River near Norwood (d).....	02126000 428-429
Little River near Star (d).....	02128000 430-431
Pee Dee River near Rockingham (d).....	02129000 432-433
Little Pee Dee River:	
Big Shoe Heel Creek near Laurinburg (d).....	02132320 434-435
Drowning Creek (head of Lumber River) near Hoffman (d).....	02133500 436-437
Lumber River near Maxton (d).....	02133624 438-439
Lumber River at Lumberton (d).....	02134170 440-441
Big Swamp near Tar Heel (d).....	02134480 442-443
Lumber River at Boardman (d).....	02134500 444-445
CRN01 (p).....	351812080445545 446
CRN16 (p).....	351540080430045 447
CRN23 (p).....	351302080412701 448
CRN26 (p).....	352432080473745 449
CRN29 (p).....	351218080331345 450
CRN30 (p).....	351455080374445 451
CRN32 (p).....	351028080385545 452
CRN33 (p).....	352000080414645 453
CRN36 (p).....	352921080473245 454
CRN39 (p).....	350634080405245 455
CRN44 (p).....	352718080484345 456
CRN46 (p).....	352135080462045 457
CRN63 (p).....	352623080434145 458
CRN65 (p).....	351536080410645 459
CRN67 (p).....	350857080383245 460
CRN68 (p).....	351145080371945 461
Statesville Precipitation (p).....	354822080521501 462
NC-193 Precipitation (p).....	354057080362601 463
SANTEE RIVER BASIN	
Catawba River:	
Catawba River (head of Santee River) near Pleasant Gardens (d,p).....	02137727 464-466
Linville River near Nebo (d).....	02138500 467-468
Catawba River at Calvin (d).....	0213903612 469-470
Johns River at Arneys Store (d).....	02140991 471-472
Lower Little River near All Healing Springs(d,p).....	02142000 473-475
Norwood Creek near Troutman (d).....	0214253830 476-477
CRN24 (p).....	02142651 478
McDowell Creek near Charlotte (d,p,s).....	0214266000 479-483
CRN25 (p).....	0214266075 484
CRN35 (p).....	0214267600 485
Killian Creek near Mariposa (d).....	0214269560 486-487
Long Creek near Paw Creek (d,p).....	02142900 488-490
Long Creek near Rhyne (d).....	0214291555 491-492
Paw Creek at Wilkinson Boulevard near Charlotte (d).....	0214295600 493-494
Beaverdam Creek above Windy Gap Road near Shopton (d).....	0214297160 495-496
South Fork Catawba River:	
Henry Fork (head of South Fork Catawba River) near Henry River (d).....	02143000 497-498
Jacob Fork at Ramsey (d,p).....	02143040 499-501
Indian Creek near Laboratory (d).....	02143500 502-503
Long Creek near Bessemer City (d,p).....	02144000 504-506

	Page
SOUTH ATLANTIC SLOPE BASIN--Continued	
SANTEE RIVER BASIN--Continued	
South Fork Catawba River at Lowell (d).....	02145000 507-508
CRN03 (p).....	0214620760 509
Stewart Creek at State Street at Charlotte (d).....	0214627970 510-511
Stewart Creek at West Morehead Street at Charlotte (d).....	02146285 512-517
Irwin Creek near Charlotte (d,t,k).....	02146300 518-521
Taggart Creek at West Boulevard near Charlotte (d).....	02146315 522-523
Sugar Creek:	
Coffey Creek near Charlotte (d).....	02146348 524-525
CRN28 (p).....	0214635212 526
Sugar Creek at NC51 nr Pineville (d).....	02146381 527-528
Little Sugar Creek:	
Little Sugar Creek at Medical Center Drive at Charlotte (d,t,k).....	02146409 529-535
Briar Creek near Charlotte (d,t,k).....	0214642825 536-552
Briar Creek below Edwards Branch near Charlotte (g).....	0214643860 553-554
Briar Creek above Colony Road at Charlotte (d,t,k).....	0214645022 555-561
Little Hope Creek at Seneca Place at Charlotte (d).....	02146470 562-563
Little Sugar Creek at Archdale Drive at Charlotte (d,t,k).....	02146507 564-570
Little Sugar Creek at Highway 51 at Pineville (d).....	02146530 571-572
McAlpine Creek:	
McAlpine Creek at State Road 3150 near Idlewild (d).....	0214655255 573-574
Campbell Creek near Charlotte (d).....	02146562 575-576
Irvin's Creek at SR3168 near Charlotte (d).....	0214657975 577-578
McAlpine Creek at Sardis Road near Charlotte (d,p).....	02146600 579-581
Four Mile Creek near Pineville (d).....	02146670 582-583
McMullen Creek at Sharon View Road near Charlotte (d).....	02146700 584-585
McAlpine Creek below McMullen Creek near Pineville (d,p).....	02146750 586-588
Steele Creek at State Road 1441 near Pineville (d).....	0214678175 589-590
Twelve Mile Creek near Waxhaw (d,p).....	02146900 591-593
Waxhaw Creek at Secondary Road 1103 near Jackson (d).....	02147126 594-597
Broad River:	
Cove Creek near Lake Lure (d).....	02149000 598-599
Second Broad River near Logan (d,p).....	02150495 600-602
Broad River near Boiling Springs (d).....	02151500 603-604
First Broad River near Casar (d).....	02152100 605-606
CRN02 (p).....	351954080493445 607
CRN04 (p).....	351132080562345 608
CRN05 (p).....	351642080533445 609
CRN07 (p).....	350351080454145 610
CRN08 (p).....	350314080484945 611
CRN09 (p).....	351414080463245 612
CRN11 (p).....	351331080525945 613
CRN12 (p).....	350823080505345 614
CRN13 (p).....	350947080524945 615
CRN14 (p).....	351553080562645 616
CRN15 (p).....	351320080502645 617
CRN17 (p).....	351023080435745 618
CRN19 (p).....	351132080504145 619
CRN20 (p).....	351032080475245 620
CRN21 (p).....	350842080572801 621
CRN22 (p).....	350623080583801 622
CRN27 (p).....	351604080470845 623
CRN31 (p).....	350110080502045 624
CRN34 (p).....	352555080574445 625
CRN37 (p).....	351247080592745 626
CRN38 (p).....	350200081020345 627

	Page
SOUTH ATLANTIC SLOPE BASIN--Continued	
SANTEE RIVER BASIN--Continued	
CRN40 (p).....	628
CRN42 (p).....	629
CRN43 (p).....	630
CRN45 (p).....	631
CRN47 (p).....	632
CRN48 (p).....	633
CRN49 (p).....	634
CRN50 (p).....	635
CRN51 (p).....	636
CRN52 (p).....	637
CRN53 (p).....	638
CRN54 (p).....	639
CRN55 (p).....	640
CRN56 (p).....	641
CRN57 (p).....	642
CRN58 (p).....	643
CRN59 (p).....	644
CRN60 (p).....	645
CRN61 (p).....	646
CRN62 (p).....	647
CRN64 (p).....	648
CRN66 (p).....	649
CRN69 (p).....	650
CRN70 (p).....	651
OHIO RIVER BASIN	
KANAWHA RIVER BASIN	
South Fork New River (head of Kanawha River) near Jefferson (d).....	661-662
TENNESSEE RIVER BASIN	
French Broad River (head of Tennessee River) at Rosman (d).....	663-664
Cathays Creek near Brevard (d).....	665-666
Davidson River near Brevard (d).....	667-668
French Broad River at Blantyre (d).....	669-670
Mills River:	
Mills River near Mills River (d).....	671-672
French Broad River near Fletcher (d).....	673-674
Bent Creek at Bent Creek Gap Road near Glen Bald (d).....	675-676
Swannanoa River:	
North Fork Swannanoa River near Walkertown (d).....	677-678
Beetree Creek near Swannanoa (d).....	679-680
Swannanoa River at Biltmore (d).....	681-682
French Broad River at Asheville (d,p).....	683-685
Newfound Creek near Alexander (d).....	686-687
Ivy River near Marshall (d).....	688-689
French Broad River at Marshall (d).....	690-691
Pigeon River:	
West Fork Pigeon River above Lake Logan near Hazelwood (d).....	692-693
Lake Logan at Dam near Hazelwood (g,p).....	694-696
West Fork Pigeon River near Retreat (d).....	697-698
West Fork Pigeon River at Bethel (d).....	699-700
Unnamed Trib to Pisgah Creek at Flat Laurel Gap (d).....	701-702
East Fork Pigeon River near Canton (d,p).....	703-705

	Page
OHIO RIVER BASIN--Continued	
TENNESSEE RIVER BASIN--Continued	
Pigeon River near Canton (d)	03456991 706-707
Pigeon River near Hepco (d)	03459500 708-709
Cataloochee Creek near Cataloochee (d,c).....	03460000 710-712
Pigeon River below Power Plant near Waterville (d,t,o).....	03460795 713-718
Nolichucky River:	
South Toe River near Celo (d).....	03463300 719-720
Watauga River:	
Watauga River near Sugar Grove (d).....	03479000 721-722
Little Tennessee River:	
Little Tennessee River at Riverside (s)	0349998425 723
Little Tennessee River near Prentiss (d)	03500000 724-725
Cartoogechaye Creek near Franklin (d,s).....	03500240 726-728
Cullasaja River at Secondary Road 1620 near Highlands (d)	0350056050 729-730
Cullasaja River at Secondary Road 1653 near Franklin (s).....	0350116510 731
Little Tennessee River at Needmore (d,p)	03503000 732-734
Nantahala River near Rainbow Springs (d).....	03504000 735-736
Tuckasegee River:	
Oconaluftee River at Birdtown (d).....	03512000 737-738
Tuckasegee River at Bryson City (d,p).....	03513000 739-741
Cheoah River near Bearpen Gap near Topoco (d,t).....	0351706800 742-745
Cheoah River near Topoco (g)	0351751500 746-747
Hiwassee River:	
Brasstown Creek near Brasstown (d)	03548330 748-749
Hiwassee River above Murphy (d)	03548500 750-751
Valley River at Tomotla (d)	03550000 752-753

DISCONTINUED SURFACE-WATER DISCHARGE STATIONS

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

Station number	Station name	Drainage area (mi ²)	Period of record
Chowan River Basin			
02053400	Ahoskie Creek near Rich Square, NC	3.70	1964-73
02053450	Ahoskie Creek at Mintons Store, NC	24.0	1964-73
02053510	Ahoskie Creek tributary at Poortown, NC	2.60	1963-73
Roanoke River Basin			
02068000	Dan River near Asbury, NC	71.4	1924-26
02069000	Dan River at Pine Hall, NC	501	1924-26
			1986-91
02071500	Dan River at Leaksville, NC	1,150	1929-49
02074218	Dan River near Mayfield, NC	1,778	1976-84
02075160	Moon Creek near Yanceyville, NC	29.90	1961-74
			1988-89
02077230	South Hyco Creek near Hesters Store, NC	29.9	1964-67
02077240	Double Creek near Roseville, NC	7.47	1964-75
			1977-82
02077250	South Hyco Creek near Roseville, NC	56.5	1966-80
02077300	Hyco River at McGehees Mill, NC	191	1964-73
02077660	Mayo Creek near Woodsdale, NC	52.7	1975-77
Pamlico River Basin			
02081800	Cedar Creek near Louisburg, NC	47.8	1956-75
02082000	Tar River near Nashville, NC	701	1928-71
02082500	Sapony Creek near Nashville, NC	64.8	1950-70
02082610	Tar River near Rocky Mount, NC	930	1971-73
0208273070	Devils Cradle Creek at NC 39 near Kearney, NC	2.89	1984-85
02082731	Devils Cradle Creek nr Alert, NC	13.4	1993-97
02083800	Conetoe Creek near Bethel, NC	78.1	1956-02
02083833	Pete Mitchell Swamp at Sr1409 nr Penny Hill, NC	11.0	1993-97
02084070	Green Mill Run at Arlington Boulevard at Greenville, NC	9.10	1980-85
02084164	Juniper Branch near Simpson, NC	7.5	1975-86
0208423100	Flat Swamp at SR 1157 near Robersonville, NC	21.3	1986-88
02084317	Black Swamp near Batts Crossroads, NC	1.02	1982
02084500	Herring Run near Washington, NC	9.59	1950-80
02084556	North Lake Canal above Pungo Lake near Wenona, NC	.29	1976-80
02084558	Albemarle Canal near Swindell, NC	68.0	1977-81
0208463120	Outflow Ditch from Jennett Sedge at Buxton, NC	Indeterminate	1994-95
Neuse River Basin			
02084903	Sevenmile Creek tributary at SR 1120 near Buckhorn, NC	1.34	1981-82
02084904	Sevenmile Creek tributary at I-85 near Miles, NC	.004	1981-82
02084905	Sevenmile Creek tributary at SR 1144 near Miles, NC	1.57	1981-82
02084908	Sevenmile Creek tributary at I-85 near Efland, NC	.29	1981-82
02085220	Little River near Orange Factory, NC	80.4	1962-87
02086000	Dial Creek near Bahama, NC	4.76	1925-71
			1989-91
0208650112	Flat River tributary near Willardsville, NC	1.14	1988-90
02086624	Knap of Reeds Creek near Butner, NC	43.0	1982-95
02086849	Ellerbee Creek nr Gorman, NC	21.9	1982-89
			1991-95
02087000	Neuse River near Northside, NC	535	1927-80
0208700780	Little Lick Creek above Secondary Road 1814 near Oak Grove, NC	10.1	1982-95

DISCONTINUED SURFACE-WATER DISCHARGE STATIONS--Continued

Station number	Station name	Drainage area (mi ²)	Period of record
Neuse River Basin--Continued			
0208705200	Smith Creek at Grissom, NC	6.2	1984-85
0208721055	Perry Creek at SR 2012 near Millbrook, NC	2.43	1986-89
0208732810	Marsh Creek at SR 2030 at Millbrook, NC	1.44	1986-89
02087570	Neuse River at Smithfield, NC	1,206	1959-90
02088315	Beaverdam Creek near Grantham, NC	5.01	1978-82
02088470	Little River near Kenly, NC	191	1964-89
02088682	Big Ditch at Retha Street at Goldsboro, NC	2.17	1980-84
02089216	Daileys Creek near Liddell, NC	3.80	1978-81
02089222	Bear Creek near Parkstown, NC	4.27	1978-82
02090500	Contentnea Creek near Wilson, NC	236	1930-54
02090512	Hominy Swamp at Phillips Street at Wilson, NC	8.20	1978-85
0209096970	Moccasin Run near Patetown, NC	1.89	1988-98
02090625	Turner Swamp near Eureka, NC	2.1	1968-87
02091700	Little Contentnea Creek near Farmville, NC	93.3	1956-87
0209173192	Drainage Ditch to Tributary to Sandy Run near Lizzie, NC	0.02	1999-02
0209173200	Sandy Run near Lizzie, NC	29.0	1999-00
02091737	Little Contentnea Creek near Willow Green, NC	145	1999-02
02091960	Creeping Swamp near Calico, NC	9.80	1971-77
02091970	Creeping Swamp near Vanceboro, NC	27.0	1971-85
02092000	Swift Creek near Vanceboro, NC	182	1950-89
02092020	Palmetto Swamp near Vanceboro, NC	24.0	1971-76
0209257120	W. P. Brice Creek below SR 1101 near Riverdale, NC	11.2	1986-91
Hewletts Creek Basin			
02093229	Hewletts Creek at SR 102 near Wilmington, NC	1.98	1977-90
Cape Fear River Basin			
0209330990	Brooks Lake tributary near Browns Summit, NC	.06	1985-90
0209331325	Candy Creek at SR 2700 near Monticello, NC	1.10	1985-90
02093500	Haw River near Benaja, NC	168	1928-71
02094000	Horsepen Creek at Battle Ground, NC	15.9	1925-31 1934-59
02094412	Reedy Fork near Browns Summit, NC	125	1999-01
02095000	South Buffalo Creek near Greensboro, NC	33.6	1928-58
0209509100	South Buffalo Creek at SR 2821 at McLeansville, NC	43.5	1986-88
02095500	North Buffalo Creek near Greensboro, NC	37.1	1929-90
0209555450	Buffalo Creek at SR 2719 near Osceola, NC	97.4	1986-87
0209560800	Reedy Fork Creek at NC 61 near Osceola, NC	243	1986-88
02096000	Stony Creek near Burlington, NC	44.2	1952-59
02096700	Big Alamance Creek near Elon College, NC	116	1957-80
02096842	Cane Creek 0.1mile above SR 1126 near Buckhorn, NC	.64	1979-81
02096850	Cane Creek near Teer, NC	33.7	1959-73
02097000	Haw River near Pittsboro, NC	1,310	1928-73
02097243	Third Fork Creek at Durham, NC	1.68	1968-73
0209736050	Battle Branch near Chapel Hill, NC	0.42	1996-01
02097500	Morgan Creek near Chapel Hill, NC	30.1	1923-32
0209782150	New Hope River tributary at SR 1716 near Farrington, NC	2.05	1986-88
02098000	New Hope River near Pittsboro, NC	285	1949-73
02098500	West Fork Deep River near High Point, NC	32.1	1923-26 1928-58
02100000	Muddy Creek near Archdale, NC	16.7	1934-41
02101000	Bear Creek at Robbins, NC	134	1939-71
0210106600	Deep River nr Glendon, NC	859	1993-96
0210108450	Suck Creek tributary near Zion Grove, NC	.67	1986-88
02103000	Little River at Manchester, NC	348	1938-50

DISCONTINUED SURFACE-WATER DISCHARGE STATIONS--Continued

Station number	Station name	Drainage area (mi ²)	Period of record
Cape Fear River Basin--Continued			
02103500	Little River at Linden, NC	459	1928-71
02104000	Cape Fear River at Fayetteville, NC	4,395	1889-1903 1928-40
02104387	Buckhead Creek near Owens, NC	2.62	1976-80
02104500	Rockfish Creek near Hope Mills, NC	292	1929-31 1939-54
02105524	Ellis Creek tributary at SR 1325 near White Oak, NC	1.81	1979-81
02106000	Little Coharie Creek near Roseboro, NC	92.8	1950-92
02106681	Black River near Dunn, NC	48.3	1976-77
02107000	South River near Parkersburg, NC	379	1951-86
02107500	Colly Creek near Kelly, NC	103	1950-71
02107600	Northeast Cape Fear River near Seven Springs, NC	47.5	1958-75
0210782005	Nahunga Creek at SR 1301 near Warsaw, NC	8.30	1983-90
0210783230	Herrings Marsh Run near Summerlins Crossroads, NC	2.25	1991-99
0210783240	Herrings Marsh Run Tributary near Summerlins Crossroads, NC	1.49	1991-00
0210783273	Herrings Marsh Run Tributary at Red Hill, NC	1.14	1991-97
0210783276	Herrings Marsh Run below SR 1306 at Red Hill, NC	9.11	1991-99
0210789100	Grove Creek at Kenansville, NC	22.6	1983-90
0210797940	Limestone Creek at NC 24 near Hadley, NC	1.61	1986-88
02108500	Rockfish Creek near Wallace, NC	69.3	1955-81
02108548	Little Rockfish Creek at Wallace, NC	7.8	1976-92
Pee Dee River Basin			
02112500	Fisher River near Dobson, NC	109	1920-32
02113500	Yadkin River at Siloam, NC	1,226	1976-87
02115500	Forbush Creek near Yadkinville, NC	22.1	1940-71
02115750	Muddy Creek near Lewisville, NC	82.8	1964-70
02115800	Silas Creek near Clemmons, NC	11.8	1964-70
02115842	Tar Branch tributary at First Street at Winston-Salem, NC	.04	1979-82
02115850	Salem Creek at Winston-Salem, NC	51.3	1964-70
02115854	Salem Creek tributary at Hawthorne Road, Winston-Salem, NC	.50	1979-82
02115856	Salem Creek near Atwood, NC	65.6	1971-82
02115860	Muddy Creek near Muddy Creek, NC	186	1964-79 1988-91
02115900	South Fork Muddy Creek near Clemmons, NC	42.9	1964-79 1988-91
02117030	Humpy Creek near Fork, NC	1.05	1968-83
02117500	Rocky Creek at Turnersburg, NC	101	1940-71
02119000	South Yadkin River at Cooleemee, NC	569	1928-65
02119400	Third Creek near Stony Point, NC	4.84	1956-69
02120500	Third Creek at Cleveland, NC	87.4	1940-71
02121000	Yadkin River near Salisbury, NC	3,450	1895-1927
02121180	North Potts Creek at Linwood, NC	9.62	1980-90
02121493	Leonard Creek near Bethesda, NC	5.16	1978-81
02122500	Yadkin River at High Rock, NC	4,000	1919-27
02123000	Uwharrie River near Trinity, NC	11.3	1934-41
02123500	Uwharrie River near Eldorado, NC	342	1938-71
0212429930	Wiberly Branch near Wilgrove, NC	0.35	1984-93
0212429960	Reedy Creek Tributary No. 2 below Wiberly Branch near Mint Hill, NC	1.00	1988-93
02124471	Dutch Buffalo Creek at NC 49 near Mount Pleasant, NC	45.1	1985-87
02125500	Richardson Creek near Marshville, NC	170	1940-44
02125557	Gourdvine Creek at SR 1715 near Olive Branch, NC	8.75	1978-82
02125696	Lane Creek at SR 2115 near Trinity, NC	3.98	1969-79
02125699	Wicker Branch at SR 1940 near Trinity, NC	5.83	1978-82
02125816	Lane's Creek near Marshville, NC	87.8	1985-87
02126500	Little Brown Creek near Polkton, NC	13.5	1935-41

DISCONTINUED SURFACE-WATER DISCHARGE STATIONS--Continued

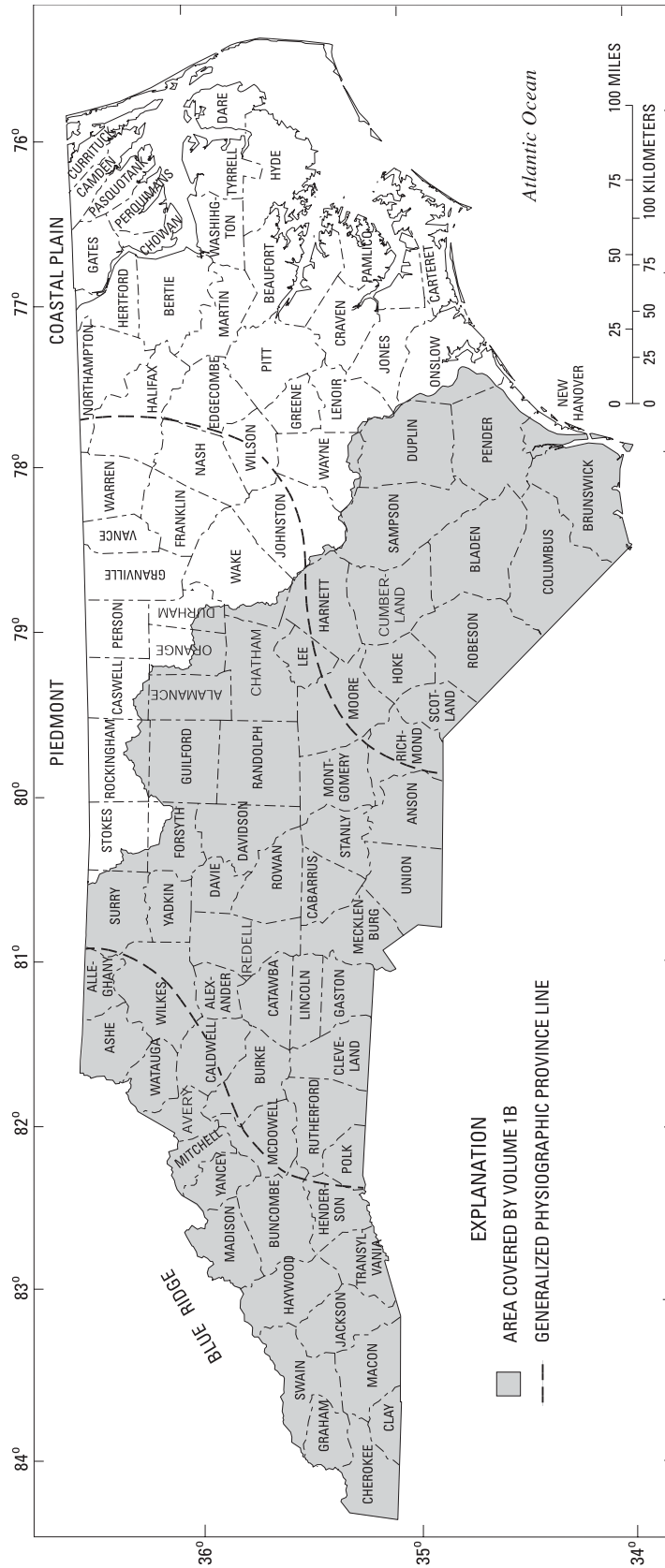
Station number	Station name	Drainage area (mi ²)	Period of record
Pee Dee River Basin--Continued			
02127000	Brown Creek near Polkton, NC	110	1937-71
02127500	Pee Dee River near Ansonville, NC	6,330	1938-42
02129500	North Fork Jones Creek near Wadesboro, NC	9.43	1935-41
0213228795	Jordan Creek near Silver Hill, NC	0.36	1983-93
Santee River Basin			
02137000	Mill Creek at Old Fort, NC	20.7	1960-75
02138000	Catawba River near Marion, NC	172	1941-81
0213875850	High Shoals Creek near Dysartsville, NC	2.38	1986-88
02139200	Bailey Fork near Morganton, NC	7.86	1966-70
02139650	East Prong near Morganton, NC	8.94	1966-74
0214042720	North Harper Creek near Kawana, NC	1.25	1986-88
02141150	Lower Creek at Mulberry Street at Lenoir, NC	31.8	1966-78
02141245	Lower Creek at SR1501 near Morganton, NC	89.5	1993-94
0214183365	Upper Little River at SR1740 near Petra Mills, NC	33.9	1993-94
0214192500	Middle Little River at Moretz Dam near Bethlehem, NC	46.1	1993-94
02142500	Catawba River at Catawba, NC	1,535	1896-99 1935-62
02142600	Mountain Creek near Terrell, NC	42.4	1957-62
02142651	McDowell Creek at Westmoreland Road near Cornelius, NC	2.35	1994-97
0214266075	Gar Creek at Secondary Road 2120 near Oakdale, NC	2.67	1994-97
0214399575	Long Creek Tributary at Headwaters near Bessemer City, NC	0.16	1993-01
0214399580	Long Creek Tributary below Headwaters near Bessemer City, NC	0.22	1993-01
0214620760	Irwin Creek at Starita Road at Charlotte, NC	4.40	1989-94
0214620805	Irwin Creek Tributary below Starita Road at Charlotte, NC	0.02	1994-98
0214635212	Unnamed Tributary to Sugar Creek at Crompton Street near Charlotte, NC	0.06	1995-98
0214643840	Edwards Branch Tributary Storm Drain at Charlotte, NC	0.02	1994-98
02146450	Briar Creek at Sharon Road, Charlotte, NC	18.5	1962-73
02146500	Little Sugar Creek near Charlotte, NC	41.0	1924-78
0214650690	Little Sugar Creek Tributary at Rose Valley Drive near Charlotte, NC	0.12	1993-98
02146579	Irvin's Creek at Lebanon Road near Mint Hill, NC	5.27	1983-90
0214666925	Four Mile Creek Tributary near Providence, NC	0.27	1994-98
0214669980	McMullen Creek Tributary near Charlotte, NC	0.13	1993-98
0214677974	Steele Creek above Secondary Road 1344 near Shopton, NC	3.57	1990-98
0214678230	Walker Branch at SR1123 near Pine Harbor, NC	4.52	1991-94
02148500	Broad River near Chimney Rock, NC	97.0	1927-58
02149702	Green River near Saluda, NC	104	1972-75
02150000	Green River near Mill Spring, NC	174	1940-54
02151000	Second Broad River at Cliffside, NC	220	1925-97
02152000	Sandy Run Creek near Boiling Springs, NC	67.0	1925-28
02152500	First Broad River near Lawndale, NC	200	1940-71
02152610	Sugar Branch near Boiling Springs, NC	1.42	1968-87
Kanawha River Basin			
03161500	South Fork New River near Crumpler, NC	325	1908-16
03162500	North Fork New River at Crumpler, NC	277	1908-16 1928-58
Tennessee River Basin			
03439500	French Broad at Calvert, NC	103	1924-55
03440500	Davidson River near Davidson River, NC	31.0	1904-09
03441440	Little River above High Falls near Cedar Mountain, NC	26.8	1963-90
03441500	Little River near Penrose, NC	41.4	1942-55
03442000	Crab Creek near Penrose, NC	10.9	1942-55

DISCONTINUED SURFACE-WATER DISCHARGE STATIONS--Continued

Station number	Station name	Drainage area (mi ²)	Period of record
Tennessee River Basin--Continued			
03444000	Boylston Creek near Horseshoe, NC	14.8	1942-55
03444500	South Fork Mills River at the Pink Beds, NC	9.99	1926-49
			1965-73
03445000	South Fork Mills River near Sitton, NC	40.0	1904-09
			1925-26
03445500	North Fork Mills River at Pinkbed, NC	23.1	1904-09
03446500	Clear Creek near Hendersonville, NC	42.2	1945-55
03447000	Mud Creek at Naples, NC	109	1938-55
03447500	Cane Creek at Fletcher, NC	63.1	1942-58
03448000	French Broad River at Bent Creek, NC	676	1933-86
03448500	Hominy Creek at Candler, NC	79.8	1942-77
03448960	North Fork Swannanoa River below Burnett Reservoir near Black Mountain, NC	22.1	1976-77
03449000	North Fork Swannanoa River near Black Mountain, NC	23.8	1926-58
03449500	Swannanoa River at Swannanoa, NC	58.8	1907-09
			1926-31
0345092550	Ross Creek at Beaucatcher Road at Asheville, NC	2.46	1986-89
0345112600	Nasty Branch at Asheville, NC	1.19	1986-89
03451510	Reed Creek above Barnard Avenue at Asheville, NC	2.13	1986-89
03452000	Sandymush Creek near Alexander, NC	79.5	1942-55
03452001	Sandymush Creek 1.1 mile above mouth near Alexander, NC	79.5	1975-77
03454000	Big Laurel Creek near Stackhouse, NC	126	1934-71
03454500	French Broad River at Hot Springs, NC	1,567	1934-49
03456000	West Fork Pigeon River below Lake Logan near Waynesville, NC	55.3	1954-80
03457000	Pigeon River at Canton, NC	133	1907-09
			1928-83
03457500	Allen Creek near Hazelwood, NC	14.4	1949-72
03458500	Pigeon River near Crabtree, NC	243	1920-29
03459000	Jonathan Creek near Cove Creek, NC	65.3	1930-72
03460500	Pigeon River near Mount Sterling, NC	460	1924-30
03462000	North Toe River at Altapass, NC	104	1938-57
03462500	North Toe River above Spruce Pine, NC	111	1934-38
03463500	South Toe River at Newdale, NC	60.8	1934-52
03464000	Cane River near Sioux, NC	157	1934-71
03464500	Nolichucky River at Poplar, NC	608	1925-55
03480500	Elk River near Banner Elk, NC	17.8	1934-40
03481000	Elk River near Elk Park, NC	42.0	1934-55
03500500	Cullasaja River at Highlands, NC	14.9	1931-71
03501000	Cullasaja River at Cullasaja, NC	86.5	1907-09
			1921-71
03501500	Little Tennessee River at Franklin, NC	295	1909-10
			1921-25
03502000	Little Tennessee River at Iotla, NC	323	1929-45
03502500	Little Tennessee River at Etna, NC	374	1926-29
03503500	Little Tennessee River at Almond, NC	451	1912-17
03505500	Nantahala River at Nantahala, NC	144	1942-81
03506500	Nantahala River at Almond, NC	174	1912-17
			1920-43
03507000	Little Tennessee River at Judson, NC	664	1912-44
03508000	Tuckasegee River at Tuckasegee, NC	143	1934-76
03508136	Caney Fork near Cowarts, NC	32.0	1975-76
03508910	Scott Creek at Willets-Ochre Hill, NC	22.4	1993-95
03509000	Scott Creek above Sylva, NC	51.0	1941-75
			1993-95
03509500	Scott Creek at Sylva, NC	55.0	1928-41
03510500	Tuckasegee River at Dillsboro, NC	347	1933-81
03511000	Oconaluftee River at Cherokee, NC	131	1921-49
03513500	Noland Creek near Bryson City, NC	13.8	1935-71

DISCONTINUED SURFACE-WATER DISCHARGE STATIONS--Continued

Station number	Station name	Drainage area (mi ²)	Period of record
Tennessee River Basin--Continued			
03514000	Hazel Creek at Proctor, NC	44.4	1942-52
03515000	Little Tennessee River at Fontana Dam, NC	1,571	1938-55
03516000	Snowbird Creek near Robbinsville, NC	42.0	1942-52
03517000	Cheoah River at Johnson, NC	177	1912-18 1920-26
03517500	Cheoah River at Tapoco, NC	215	1924-27
03546000	Shooting Creek near Hayesville, NC	37.6	1922-24 1942-45 1946-55
03547000	Hiwassee River below Chatuge Dam near Hayesville, NC	190	1942-74
03548000	Hiwassee River below Hayesville, NC	252	1934-
4503554000	Nottely River near Ranger, NC	272	1901-05 1914-17 1919-29 1932-45
03555000	Hiwassee River at Hiwassee Dam, NC	968	1934-43



INTRODUCTION

Water-resources data for the 2003 water year for North Carolina consist of records of stage, discharge, water quality for streams; stage and contents for lakes and reservoirs; precipitation; and ground-water levels and water quality of ground water. This volume contains discharge records for 62 gaging stations; stage and contents for 17 lakes and reservoirs; stage for 26 gaging stations; water quality for 36 gaging stations and continuous water quality for 32 sites; and continuous precipitation at 8 sites. Additional water data were collected at 6 sites not involved in the systematic data-collection program and are published as miscellaneous measurements in this report. The collection of water-resources data in North Carolina is a part of the National Water-Data System operated by the U.S. Geological Survey in cooperation with State, municipal, and Federal agencies.

Stream-discharge records, and contents and stage for lakes or reservoirs were first published in a series of U.S. Geological Survey water-supply papers entitled, "Surface Water Supply of the United States." Through September 30, 1960, these water-supply papers were published annually; beginning in 1961, these water-supply papers were published every 5 years through 1970. Records of chemical quality, water temperature, and suspended sediment were published from 1941 to 1970 in an annual series of water-supply papers entitled, "Quality of Surface Waters of the United States." Water-supply papers can be found in the libraries of principal cities and universities throughout the United States or can be purchased from the U.S. Geological Survey, Branch of Information Services, Denver Federal Center, Box 25286, Denver, Colorado 80225-0425.

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

Publication of streamflow and water-quality data, beginning with the 1971 water year, and ground-water data, beginning with the 1975 water year, currently is limited to reports on a State-by-State basis. Beginning with the 1975 water year, these Survey reports carry an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this report is identified as "U.S. Geological Survey Water-Data Report NC-03-1B." Water-data reports are for sale by the National Technical Information Service, U.S. Department of Commerce, Springfield, Virginia 22161. Beginning with the 2001 water year, water-data reports are available online at <http://nc.water.usgs.gov/reports/WDR/>.

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

COOPERATION

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

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

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

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

The following organizations aided in collecting records:

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

SUMMARY OF WATER-RESOURCES CONDITIONS

Precipitation

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

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

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

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

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

Surface Water

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

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

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

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

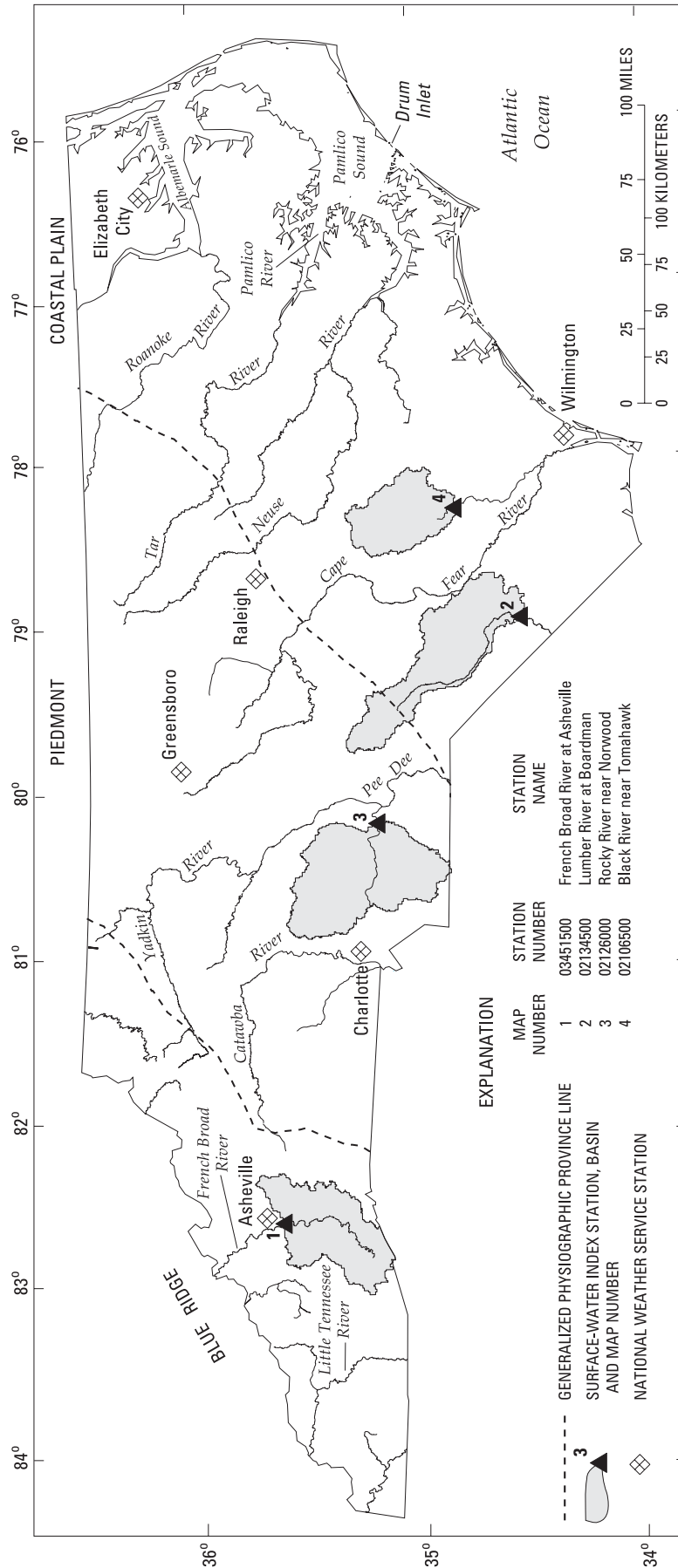


Figure 1.--Locations of selected long-term index stations for collecting precipitation and discharge in North Carolina.

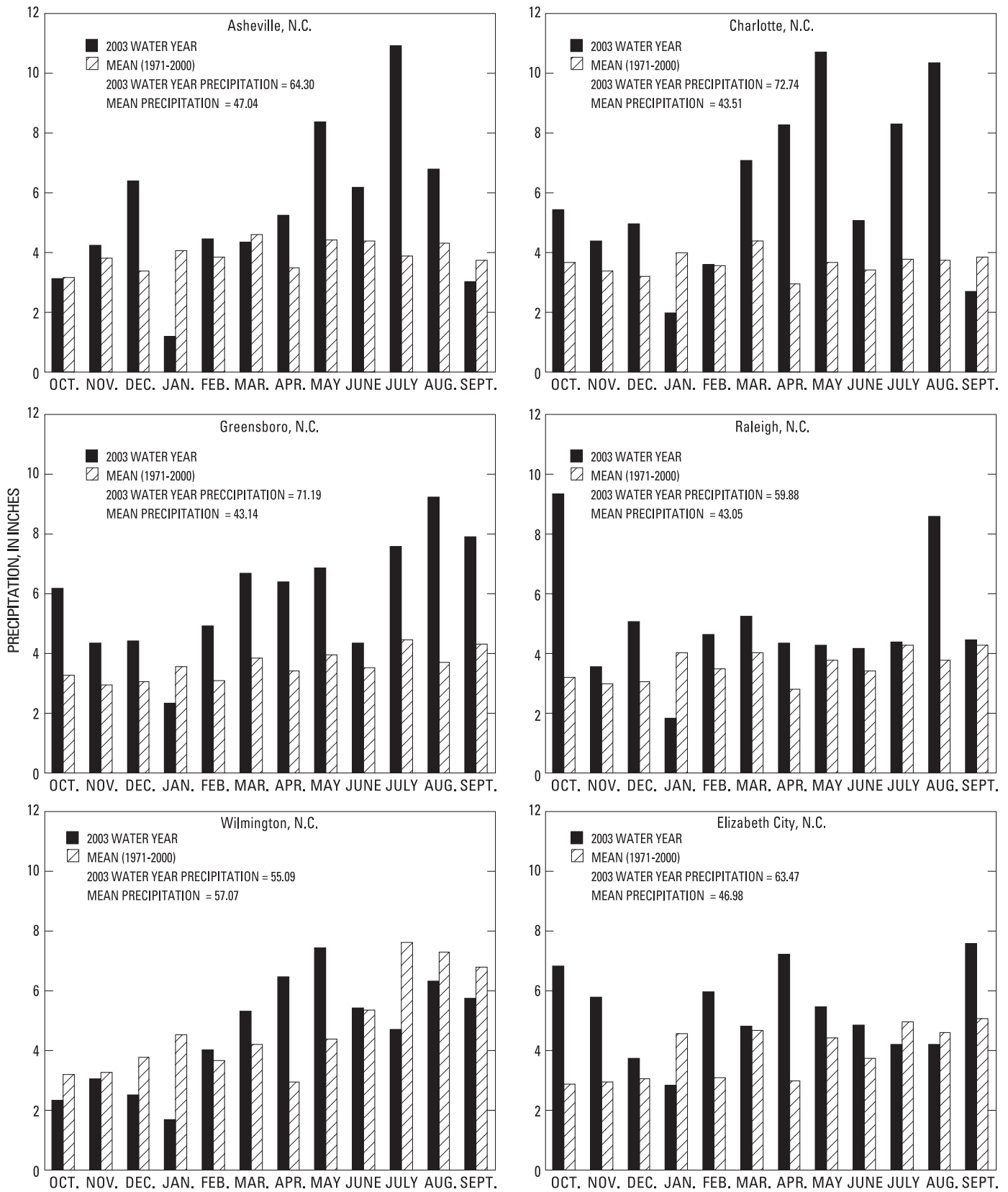
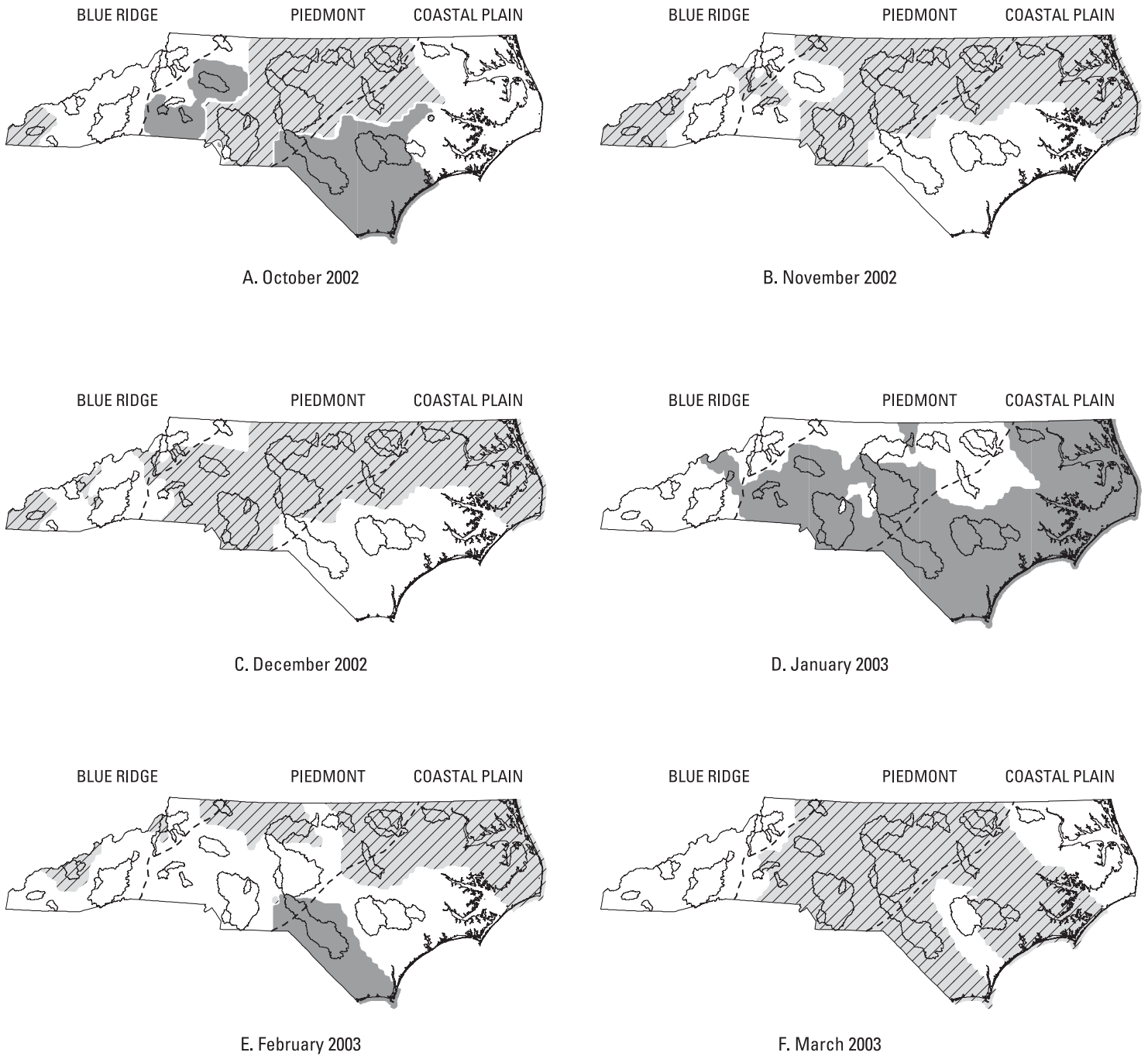


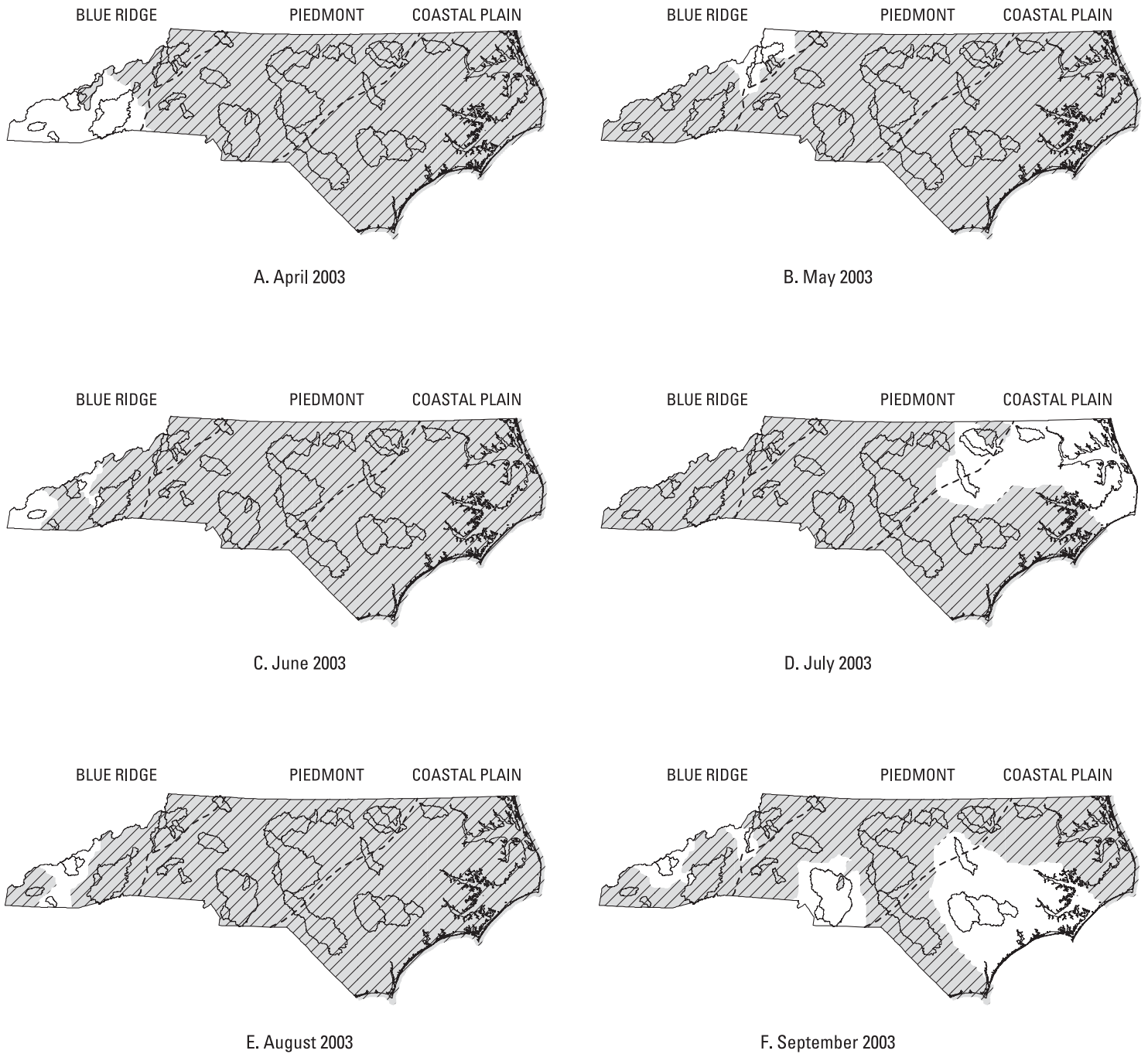
Figure 2.--Monthly precipitation for the 2003 water year and mean monthly precipitation for the period 1971-2000 at index stations (data from National Oceanic and Atmospheric Administration reports).



EXPLANATION

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

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



EXPLANATION






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

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

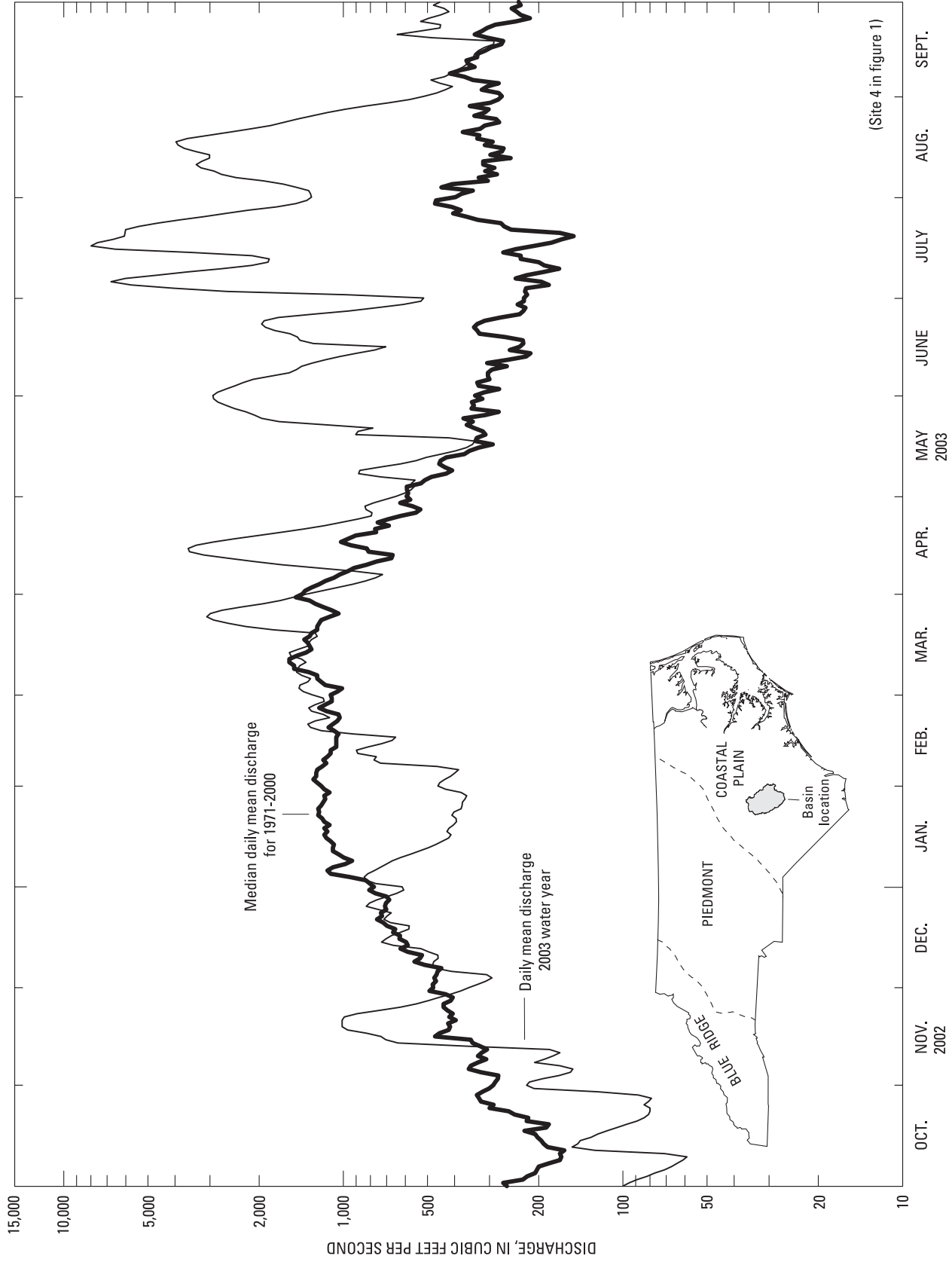


Figure 5.--Daily mean discharge for the 2003 water year and median daily mean discharge for 1971-2000 water years for Black River near Tomahawk (02106500).

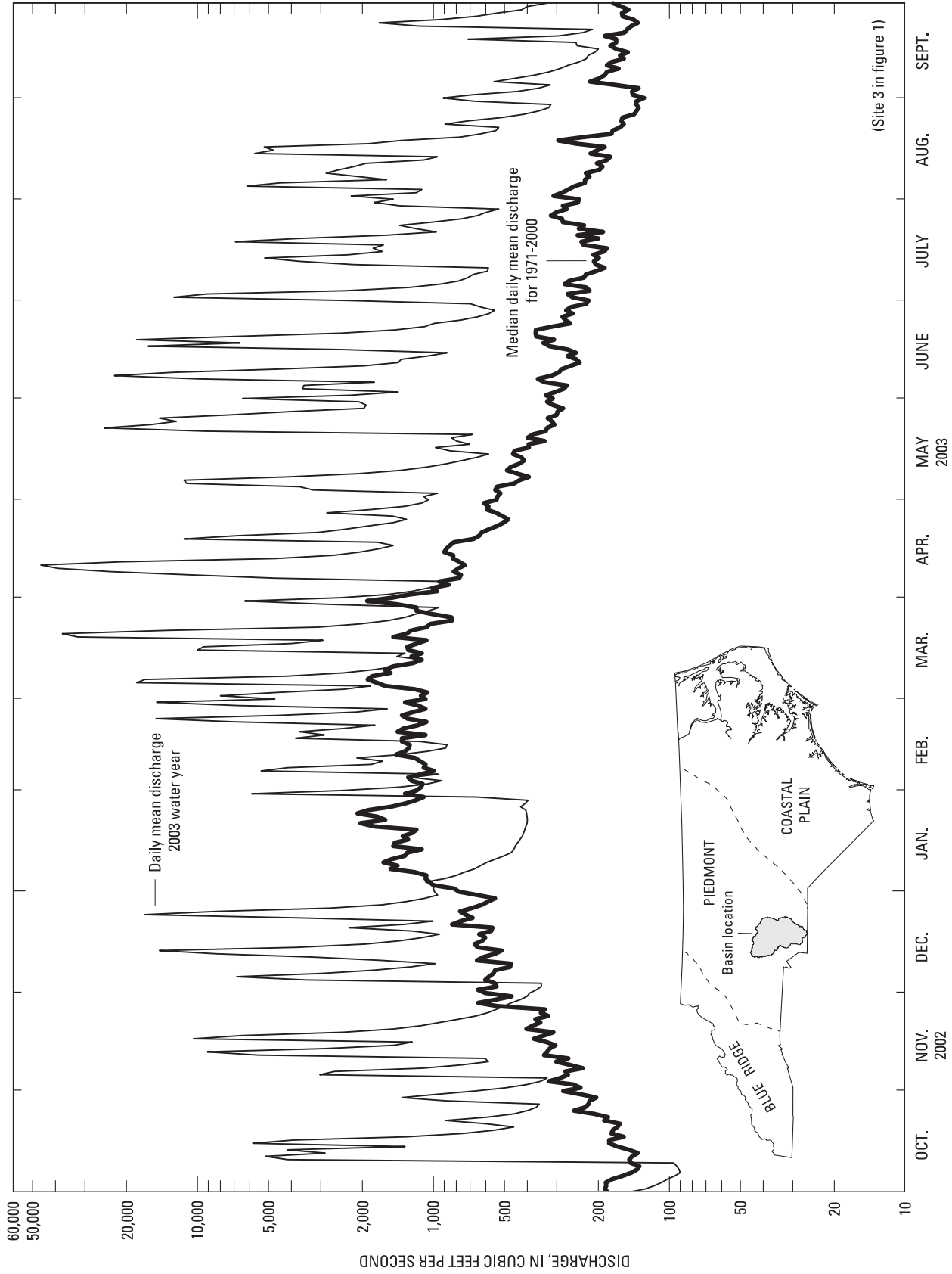
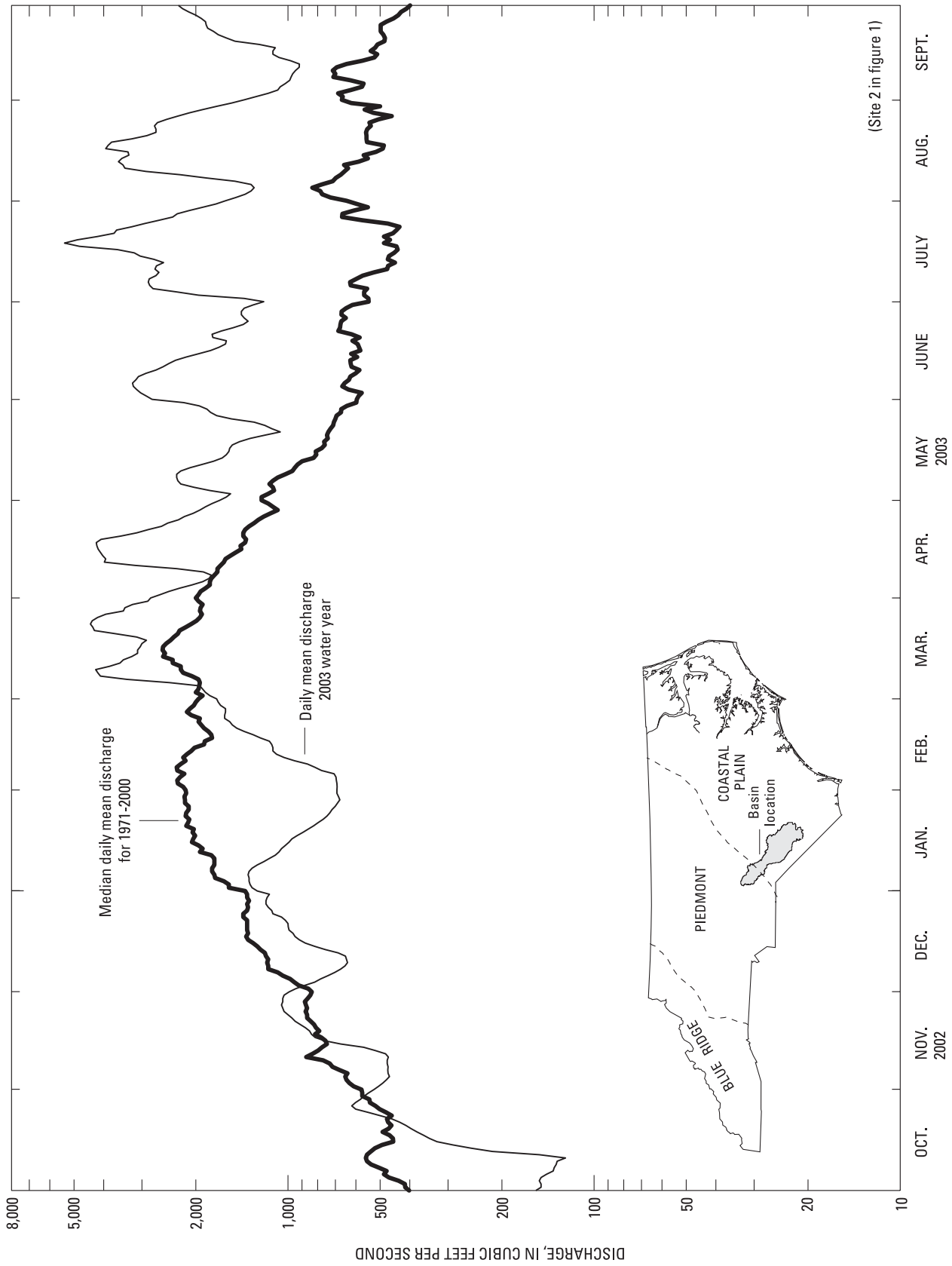


Figure 6.--Daily mean discharge for the 2003 water year and median daily mean discharge for 1971-2000 water years for Rocky River near Norwood (02126000).



(Site 2 in figure 1)

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

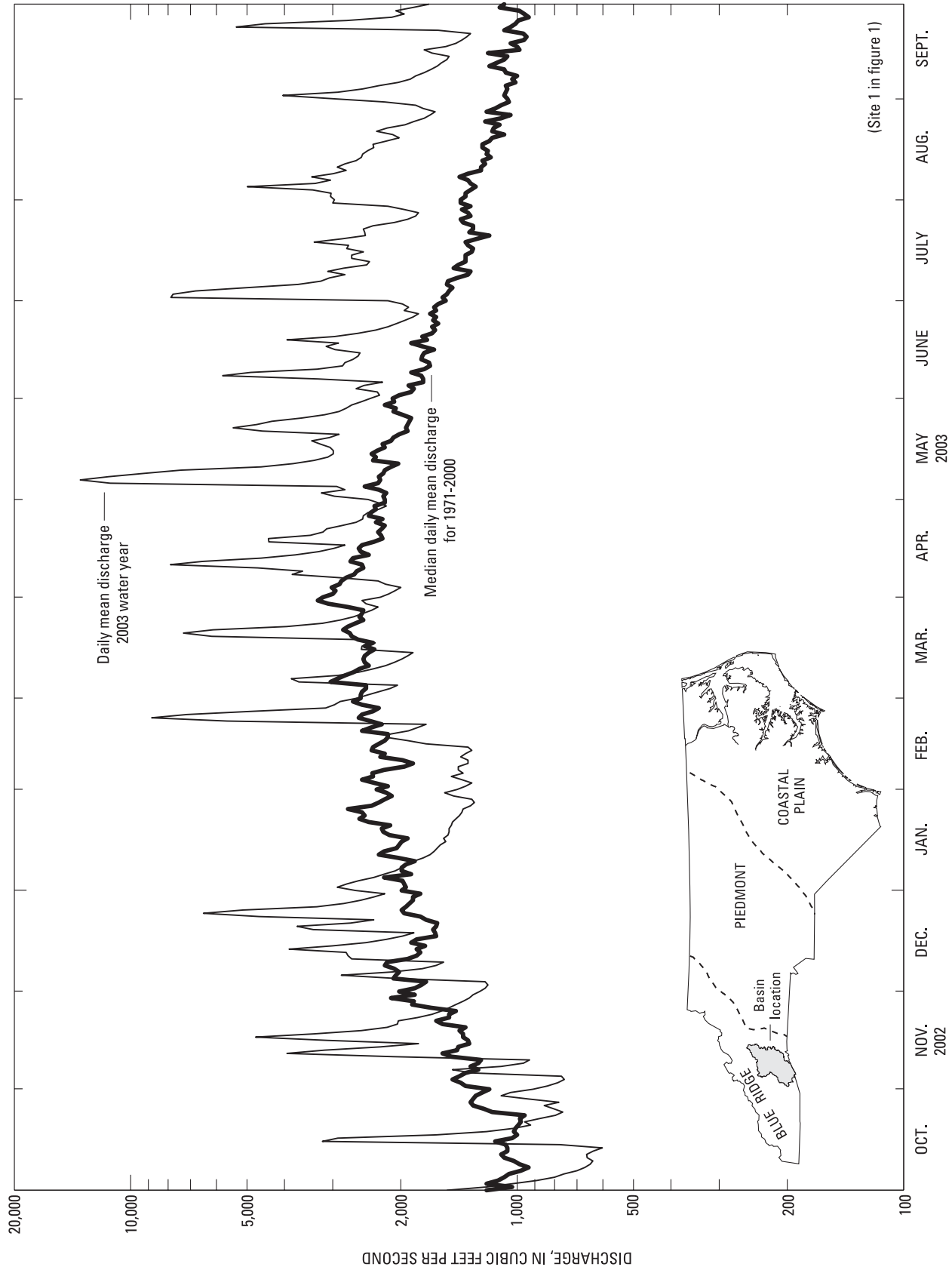


Figure 8.--Daily mean discharge for the 2003 water year and median daily mean discharge for 1971-2000 water years for French Broad River at Asheville (03451500).

DOWNSTREAM ORDER AND STATION NUMBER

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

As an added means of identification, each hydrologic station and partial-record station has been assigned a station number. These station numbers are in the same downstream order used in this report. In assigning a station number, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list composed of both types of stations. Gaps are consecutive. The complete 8-digit (or 10-digit) number for each station such as 09004100, which appears just to the left of the station name, includes a 2-digit part number "09" plus the 6-digit (or 8-digit) downstream order number "004100." In areas of high station density, an additional two digits may be added to the station identification number to yield a 10-digit number. The stations are numbered in downstream order as described above between stations of consecutive 8-digit numbers.

NUMBERING SYSTEM FOR WELLS AND MISCELLANEOUS SITES

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

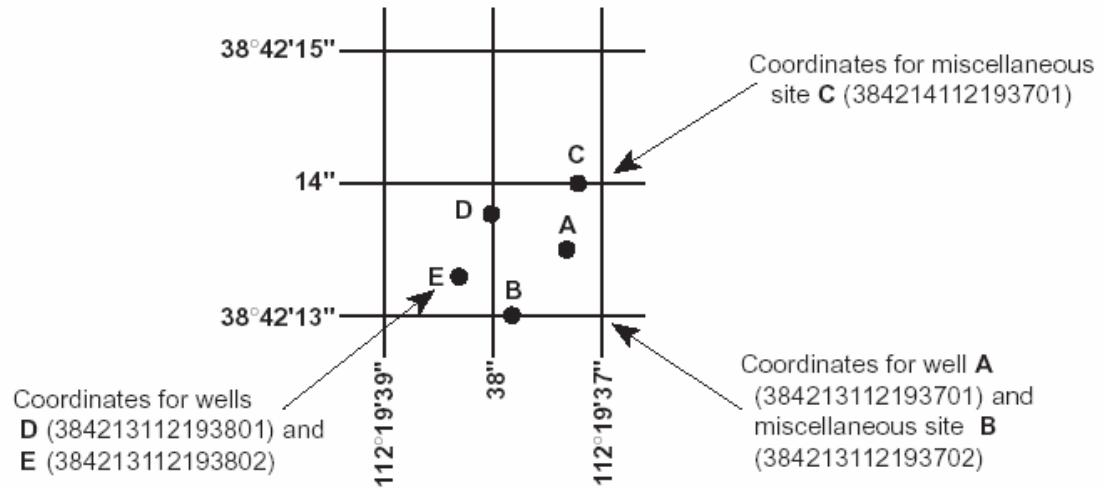


Figure 9. System for numbering wells and miscellaneous sites (latitude and longitude).

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

SPECIAL NETWORKS AND PROGRAMS

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

National Stream-Quality Accounting Network (NASQAN) is a network of sites used to monitor the water quality of large rivers within the Nation's largest river basins. From 1995 through 1999, a network of approximately 40 stations was operated in the Mississippi, Columbia, Colorado, and Rio Grande River basins. For the period 2000 through 2004, sampling was reduced to a few index stations on the Colorado and Columbia Rivers so that a network of 5 stations could be implemented on the Yukon River. Samples are collected with sufficient frequency that the flux of a wide range of constituents can be estimated. The objective of NASQAN is to characterize the water quality of these large rivers by measuring concentration and mass transport of a wide range of dissolved and suspended constituents, including nutrients, major ions, dissolved and sediment-bound heavy metals, common pesticides, and inorganic and organic forms of carbon. This information will be used (1) to describe the long-term trends and changes in concentration and transport of these constituents; (2) to test findings of the National Water-Quality Assessment (NAWQA) Program; (3) to characterize processes unique to large-river systems such as storage and remobilization of sediments and associated contaminants; and (4) to refine existing estimates of off-continent transport of water, sediment, and chemicals for assessing human effects on the world's oceans and for determining global cycles of carbon, nutrients, and other chemicals. Additional information about the NASQAN Program may be accessed from <http://water.usgs.gov/nasqan/>.

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

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

Assessment activities are being conducted in 42 study units (major watersheds and aquifer systems) that represent a wide range of environmental settings nationwide and that account for a large percentage of the Nation's water use. A wide array of chemical constituents is measured in ground water, surface water, streambed sediments, and fish tissues. The coordinated application of comparative hydrologic studies at a

wide range of spatial and temporal scales will provide information for water-resources managers to use in making decisions and a foundation for aggregation and comparison of findings to address water-quality issues of regional and national interest.

Communication and coordination between USGS personnel and other local, State, and Federal interests are critical components of the NAWQA Program. Each study unit has a local liaison committee consisting of representatives from key Federal, State, and local water-resources agencies, Indian nations, and universities in the study unit. Liaison committees typically meet semiannually to discuss their information needs, monitoring plans and progress, desired information products, and opportunities to collaborate efforts among the agencies. Additional information about the NAWQA Program may be accessed from <http://water.usgs.gov/nawqa/>.

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

EXPLANATION OF STAGE- AND WATER-DISCHARGE RECORDS

Data Collection and Computation

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

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

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

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

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

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

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

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

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

Data Presentation

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

Station Manuscript

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

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

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

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

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

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

REMARKS.—All periods of estimated daily discharge either will be identified by date in this paragraph of the station description for water-discharge stations or flagged in the daily discharge table. (See section titled Identifying Estimated Daily Discharge.) Information is presented relative to the accuracy of the records, to special methods of computation, and to conditions that affect natural flow at the station. In addition, information may be presented pertaining to average discharge data for the period of record; to extremes data for the period of record and the current year; and, possibly, to other pertinent items. For reservoir stations, information is given on the dam forming the reservoir, the capacity, the outlet works and spillway, and the purpose and use of the reservoir.

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

EXTREMES OUTSIDE PERIOD OF RECORD.—Information here documents major floods or unusually low flows that occurred outside the stated period of record. The information may or may not have been obtained by the USGS.

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

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

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

Peak Discharge Greater than Base Discharge

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

Data Table of Daily Mean Values

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

Statistics of Monthly Mean Data

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

Summary Statistics

A table titled SUMMARY STATISTICS follows the statistics of monthly mean data tabulation. This table consists of four columns with the first column containing the line headings of the statistics being

reported. The table provides a statistical summary of yearly, daily, and instantaneous flows, not only for the current water year but also for the previous calendar year and for a designated period, as appropriate. The designated period selected, WATER YEARS __-__, will consist of all of the station records within the specified water years, including complete months of record for partial water years, and may coincide with the period of record for the station. The water years for which the statistics are computed are consecutive, unless a break in the station record is indicated in the manuscript. All of the calculations for the statistical characteristics designated ANNUAL (see line headings below), except for the ANNUAL 7-DAY MINIMUM statistic, are calculated for the designated period using complete water years. The other statistical characteristics may be calculated using partial water years.

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

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

ANNUAL TOTAL.—The sum of the daily mean values of discharge for the year.

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

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

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

HIGHEST DAILY MEAN.—The maximum daily mean discharge for the year or for the designated period.

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

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

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

MAXIMUM PEAK STAGE.—The maximum instantaneous peak stage occurring for the water year or designated period. Occasionally the maximum stage for a year may occur at midnight at the beginning or end of the year, on a recession from or rise toward a higher peak in the adjoining year. In this case, the maximum peak stage is given in the table and the maximum stage may be reported in the REMARKS paragraph in the manuscript or in a footnote. If the dates of occurrence of the maximum peak stage and maximum peak flow are different, the REMARKS paragraph in the manuscript or a footnote may be used to provide further information.

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

ANNUAL RUNOFF.—Indicates the total quantity of water in runoff for a drainage area for the year. Data reports may use any of the following units of measurement in presenting annual runoff data:

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

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

Inches (INCHES) indicate the depth to which the drainage area would be covered if all of the runoff for a given time period were uniformly distributed on it.

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

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

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

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

Identifying Estimated Daily Discharge

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

Accuracy of Field Data and Computed Results

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

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

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

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

Other Data Records Available

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

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

EXPLANATION OF PRECIPITATION RECORDS

Data Collection and Computation

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

Data Presentation

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

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

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

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

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

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

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

EXPLANATION OF WATER-QUALITY RECORDS

Collection and Examination of Data

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

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

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

Water Analysis

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

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

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

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

SURFACE-WATER-QUALITY RECORDS

Records of surface-water quality ordinarily are obtained at or near stream-gaging stations because discharge data is useful in the interpretation of surface-water quality. Records of surface-water quality in this report involve a variety of types of data and measurement frequencies.

Classification of Records

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

A careful distinction needs to be made between *continuous records* as used in this report and *continuous recordings* that refer to a continuous graph or a series of discrete values recorded at short intervals. Some records of water quality, such as temperature and specific conductance, may be obtained through continuous recordings; however, because of costs, most data are obtained only monthly or less frequently.

Accuracy of the Records

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

Rating classifications for continuous water-quality records

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

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

Rating classifications for continuous water-quality records

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

Measured physical property	Rating			
	Excellent	Good	Fair	Poor
Specific conductance	≤ ±3%	> ±3 to 10%	> ±10 to 15%	> ±15%
Dissolved oxygen	≤ ±0.3 mg/L	> ±0.3 to 0.5 mg/L	> ±0.5 to 0.8 mg/L	> ±0.8 mg/L
pH	≤ ±0.2 unit	> ±0.2 to 0.5 unit	> ±0.5 to 0.8 unit	> ±0.8 unit
Turbidity	≤ ±5%	> ±5 to 10%	> ±10 to 15%	> ±15%

Arrangement of Records

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

On-Site Measurements and Sample Collection

In obtaining water-quality data, a major concern is assuring that the data obtained represent the naturally occurring quality of the water. To ensure this, certain measurements, such as water temperature, pH, and dissolved oxygen, must be made on site when the samples are taken. To assure that measurements made in the laboratory also represent the naturally occurring water, carefully prescribed procedures must be followed in collecting the samples, in treating the samples to prevent changes in quality pending analysis, and in shipping the samples to the laboratory. Procedures for on-site measurements and for collecting, treating, and shipping samples are given in TWRI's Book 1, Chapter D2; Book 3, Chapters A1, A3, and A4; and Book 9, Chapters A1-A9. These TWRI's are listed in this report. Also, detailed information on collecting, treating, and shipping samples can be obtained from the USGS District office (see address that is shown on the back of title page in this report).

Water Temperature

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

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

Sediment

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

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

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

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

Laboratory Measurements

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

Data Presentation

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

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

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

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

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

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

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

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

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

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

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

Remark Codes

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

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

Water-Quality Control Data

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

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

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

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

Blank Samples

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

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

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

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

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

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

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

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

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

Reference Samples

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

Replicate Samples

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

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

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

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

Spike Samples

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

EXPLANATION OF GROUND-WATER-LEVEL RECORDS

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

Site Identification Numbers

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

Data Collection and Computation

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

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

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

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

Data Presentation

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

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

The following comments clarify information presented in these various headings.

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

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

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

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

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

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

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

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

Water-Level Tables

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

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

Hydrographs

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

GROUND-WATER-QUALITY DATA

Data Collection and Computation

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

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

Laboratory Measurements

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

ACCESS TO USGS WATER DATA

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

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

REFERENCES

- Coble, R.W., Strickland, A.G., and Bailey, M.C., 1989, Ground-water level data for North Carolina, 1987: U.S. Geological Survey Open-File Report 89-68, 152 p.
- Eimers, J.L., Lyke, W.L., and Brockman, A.R., 1990, Simulation of ground-water flow in aquifers in Cretaceous rocks in the central Coastal Plain, North Carolina: U.S. Geological Survey Water-Resources Investigations Report 89-4153, 101 p.
- Strickland, A.G., 1995, Water-level conditions in the upper Cape Fear aquifer, 1992-94, in parts of Bladen and Robeson Counties, North Carolina: U.S. Geological Survey Water-Resources Investigations Report 95-4129, 1 sheet.
- Strickland, A.G., 1999, Water-level conditions in the upper Cape Fear aquifer, 1994-98, in parts of Bladen and Robeson Counties, North Carolina: U.S. Geological Survey Water-Resources Investigations Report 99-4127, 1 sheet.
- Strickland, A.G., Coble, R.W., Edwards, L.A., and Pope, B.F., 1992, Ground-water level data for North Carolina, 1988-90: U.S. Geological Survey Open-File Report 92-57, 167 p.
- Walters, D.A., 1997, Estimated water use, by county, in North Carolina, 1995: U.S. Geological Survey Open-File Report 97-559, 102 p.
- Winner, M.D., Jr., 1981, An observation-well network concept as applied to North Carolina: U.S. Geological Survey Water-Resources Investigations Report 81-13, 59 p.
- Winner, M.D., Jr., and Coble, R.W., 1996, Hydrogeologic framework of the North Carolina Coastal Plain Aquifer System: U.S. Geological Survey Professional Paper 1404-I, 106 p. + 24 pl.

DEFINITION OF TERMS

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

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

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

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

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

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

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

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

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

low-flow frequency analyses use a climatic year (April 1–March 31), which tends to prevent the low-flow period from being artificially split between adjacent years. The date shown in the summary statistics table is the initial date of the 7-day period. (This value should not be confused with the 7-day, 10-year low-flow statistic.)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Bottom material (See “Bed material”)

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

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

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

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

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

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

Cells/volume refers to the number of cells of any organism that is counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per

sample volume, and generally are reported as cells or units per milliliter (mL) or liter (L).

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

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

Chemical oxygen demand (COD) is a measure of the chemically oxidizable material in the water and furnishes an approximation of the amount of organic and reducing material present. The determined value may correlate with BOD or with carbonaceous organic pollution from sewage or industrial wastes. [See also “Biochemical oxygen demand (BOD)”]

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Dry mass refers to the mass of residue present after drying in an oven at 105 °C, until the mass remains unchanged. This mass represents the total organic matter, ash and sediment, in the sample. Dry-mass values are expressed in the same units as ash mass. (See also “Ash mass,” “Biomass,” and “Wet mass”)

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

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

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

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

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

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

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

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

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

Fecal coliform bacteria are present in the intestines or feces of warmblooded animals. They often are used as indicators of the sanitary quality of the water. In the laboratory, they are defined as all organisms that produce blue colonies within 24 hours when incubated at 44.5 °C plus or minus 0.2 °C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample. (See also “Bacteria”)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Horizontal datum (See “Datum”)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Milligrams per liter (MG/L, mg/L) is a unit for expressing the concentration of chemical constituents in water as the mass (milligrams) of constituent per unit volume (liter) of water. Concentration of suspended sediment also is expressed in milligrams per liter and is based on the mass of dry sediment per liter of water-sediment mixture.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per area habitat, usually square meter (m²), acre, or hectare. Periphyton, benthic organisms, and macrophytes are expressed in these terms.

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

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

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

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

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

Particle-size classification, as used in this report, agrees with the recommendation made by the American Geophysical Union Subcommittee on Sediment Terminology. The classification is as follows:

Classification	Size (mm)	Method of analysis
Clay	>0.00024 - 0.004	Sedimentation
Silt	>0.004 - 0.062	Sedimentation
Sand	>0.062 - 2.0	Sedimentation/sieve
Gravel	>2.0 - 64.0	Sieve
Cobble	>64 - 256	Manual measurement
Boulder	>256	Manual measurement

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Return period (See “Recurrence interval”)

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

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

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

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

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

Sediment is solid material that originates mostly from disintegrated rocks; when transported by, suspended in, or deposited from water, it is referred to as “fluvial sediment.” Sediment includes chemical and biochemical precipitates and decomposed organic material, such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are affected by environmental and land-use factors. Some major factors are topography, soil characteristics, land cover, and depth and intensity of precipitation.

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

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

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

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

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

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

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

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

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

Stage (See “Gage height”)

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

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

Substrate is the physical surface upon which an organism lives.

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

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

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

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

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

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

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

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

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 foot above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L). The analytical technique uses the mass of all of the sediment and the net weight of the water-sediment mixture in a sample to compute the suspended-sediment concentration. (See also “Sediment” and “Suspended sediment”)

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

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

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

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

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

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

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

Kingdom:	Animal
Phylum:	Arthropoda
Class:	Insecta
Order:	Ephemeroptera
Family:	Ephemeridae
Genus:	<i>Hexagenia</i>
Species:	<i>Hexagenia limbata</i>

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

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

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

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

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

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

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

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

Total in bottom material is the amount of a given constituent in a representative sample of bottom material. This

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

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

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

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

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

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

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

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

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

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

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

Vertical datum (See “Datum”)

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

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

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

Water year in USGS reports dealing with surface-water supply is the 12-month period October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the

12 months. Thus, the year ending September 30, 2002, is called the “2002 water year.”

Watershed (See “Drainage basin”)

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

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

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

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

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

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

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

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

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

Book 1. Collection of Water Data by Direct Measurement

Section D. Water Quality

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, chap. D1. 1975. 65 p.

1–D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents*, by W.W. Wood: USGS–TWRI book 1, chap. D2. 1976. 24 p.

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, chap. D1. 1974. 116 p.

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

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, chap. E1. 1971. 126 p.

2–E2. *Borehole geophysics applied to ground-water investigations*, by W.S. Keys: USGS–TWRI book 2, chap. E2. 1990. 150 p.

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, chap. F1. 1989. 97 p.

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, chap. A1. 1967. 30 p.
- 3–A2. *Measurement of peak discharge by the slope-area method*, by Tate Dalrymple and M.A. Benson: USGS–TWRI book 3, chap. A2. 1967. 12 p.
- 3–A3. *Measurement of peak discharge at culverts by indirect methods*, by G.L. Bodhaine: USGS–TWRI book 3, chap. A3. 1968. 60 p.
- 3–A4. *Measurement of peak discharge at width contractions by indirect methods*, by H.F. Matthai: USGS–TWRI book 3, chap. A4. 1967. 44 p.
- 3–A5. *Measurement of peak discharge at dams by indirect methods*, by Harry Hulsing: USGS–TWRI book 3, chap. A5. 1967. 29 p.
- 3–A6. *General procedure for gaging streams*, by R.W. Carter and Jacob Davidian: USGS–TWRI book 3, chap. A6. 1968. 13 p.
- 3–A7. *Stage measurement at gaging stations*, by T.J. Buchanan and W.P. Somers: USGS–TWRI book 3, chap. A7. 1968. 28 p.
- 3–A8. *Discharge measurements at gaging stations*, by T.J. Buchanan and W.P. Somers: USGS–TWRI book 3, chap. A8. 1969. 65 p.
- 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, chap. A9. 1989. 27 p.
- 3–A10. *Discharge ratings at gaging stations*, by E.J. Kennedy: USGS–TWRI book 3, chap. A10. 1984. 59 p.
- 3–A11. *Measurement of discharge by the moving-boat method*, by G.F. Smoot and C.E. Novak: USGS–TWRI book 3, chap. A11. 1969. 22 p.
- 3–A12. *Fluorometric procedures for dye tracing*, Revised, by J.F. Wilson, Jr., E.D. Cobb, and F.A. Kilpatrick: USGS–TWRI book 3, chap. A12. 1986. 34 p.
- 3–A13. *Computation of continuous records of streamflow*, by E.J. Kennedy: USGS–TWRI book 3, chap. A13. 1983. 53 p.
- 3–A14. *Use of flumes in measuring discharge*, by F.A. Kilpatrick and V.R. Schneider: USGS–TWRI book 3, chap. A14. 1983. 46 p.
- 3–A15. *Computation of water-surface profiles in open channels*, by Jacob Davidian: USGS–TWRI book 3, chap. A15. 1984. 48 p.
- 3–A16. *Measurement of discharge using tracers*, by F.A. Kilpatrick and E.D. Cobb: USGS–TWRI book 3, chap. A16. 1985. 52 p.
- 3–A17. *Acoustic velocity meter systems*, by Antonius Laenen: USGS–TWRI book 3, chap. A17. 1985. 38 p.
- 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, chap. A18. 1989. 52 p.
- 3–A19. *Levels at streamflow gaging stations*, by E.J. Kennedy: USGS–TWRI book 3, chap. A19. 1990. 31 p.
- 3–A20. *Simulation of soluble waste transport and buildup in surface waters using tracers*, by F.A. Kilpatrick: USGS–TWRI book 3, chap. A20. 1993. 38 p.
- 3–A21. *Stream-gaging cableways*, by C. Russell Wagner: USGS–TWRI book 3, chap. A21. 1995. 56 p.

Section B. Ground-Water Techniques

- 3–B1. *Aquifer-test design, observation, and data analysis*, by R.W. Stallman: USGS–TWRI book 3, chap. B1. 1971. 26 p.
- 3–B2. *Introduction to ground-water hydraulics, a programed text for self-instruction*, by G.D. Bennett: USGS–TWRI book 3, chap. B2. 1976. 172 p.
- 3–B3. *Type curves for selected problems of flow to wells in confined aquifers*, by J.E. Reed: USGS–TWRI book 3, chap. B3. 1980. 106 p.
- 3–B4. *Regression modeling of ground-water flow*, by R.L. Cooley and R.L. Naff: USGS–TWRI book 3, chap. B4. 1990. 232 p.

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, chap. B4. 1993. 8 p.

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, chap. B5. 1987. 15 p.

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, chap. B6. 1987. 28 p.

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, chap. B7. 1992. 190 p.

3–B8. *System and boundary conceptualization in ground-water flow simulation*, by T.E. Reilly: USGS–TWRI book 3, chap. B8. 2001. 29 p.

Section C. Sedimentation and Erosion Techniques

3–C1. *Fluvial sediment concepts*, by H.P. Guy: USGS–TWRI book 3, chap. C1. 1970. 55 p.

3–C2. *Field methods for measurement of fluvial sediment*, by T.K. Edwards and G.D. Glysson: USGS–TWRI book 3, chap. C2. 1999. 89 p.

3–C3. *Computation of fluvial-sediment discharge*, by George Porterfield: USGS–TWRI book 3, chap. C3. 1972. 66 p.

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, chap. A1. 1968. 39 p.

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

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

Section B. Surface Water

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

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

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

Section D. Interrelated Phases of the Hydrologic Cycle

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

Book 5. Laboratory Analysis

Section A. Water Analysis

5–A1. *Methods for determination of inorganic substances in water and fluvial sediments*, by M.J. Fishman and L.C. Friedman, editors: USGS–TWRI book 5, chap. A1. 1989. 545 p.

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

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

52 Publications on Techniques of Water Resources Investigations—Continued

5–A4. *Methods for collection and analysis of aquatic biological and microbiological samples*, by L.J. Britton and P.E. Greeson, editors: USGS–TWRI book 5, chap. A4. 1989. 363 p.

5–A5. *Methods for determination of radioactive substances in water and fluvial sediments*, by L.L. Thatcher, V.J. Janzer, and K.W. Edwards: USGS–TWRI book 5, chap. A5. 1977. 95 p.

5–A6. *Quality assurance practices for the chemical and biological analyses of water and fluvial sediments*, by L.C. Friedman and D.E. Erdmann: USGS–TWRI book 5, chap. A6. 1982. 181 p.

Section C. Sediment Analysis

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

Book 6. Modeling Techniques

Section A. Ground Water

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

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

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

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

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

6–A6. *A coupled surface-water and ground-water flow model (MODBRANCH) for simulation of stream-aquifer interaction*, by Eric D. Swain and Eliezer J. Wexler: USGS–TWRI book 6, chap. A6. 1996. 125 p.

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

Book 7. Automated Data Processing and Computations

Section C. Computer Programs

7–C1. *Finite difference model for aquifer simulation in two dimensions with results of numerical experiments*, by P.C. Trescott, G.F. Pinder, and S.P. Larson: USGS–TWRI book 7, chap. C1. 1976. 116 p.

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

7–C3. *A model for simulation of flow in singular and interconnected channels*, by R.W. Schaffranek, R.A. Baltzer, and D.E. Goldberg: USGS–TWRI book 7, chap. C3. 1981. 110 p.

Book 8. Instrumentation

Section A. Instruments for Measurement of Water Level

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

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

Section B. Instruments for Measurement of Discharge

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

Book 9. Handbooks for Water-Resources Investigations

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

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

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

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

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

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

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

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

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

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

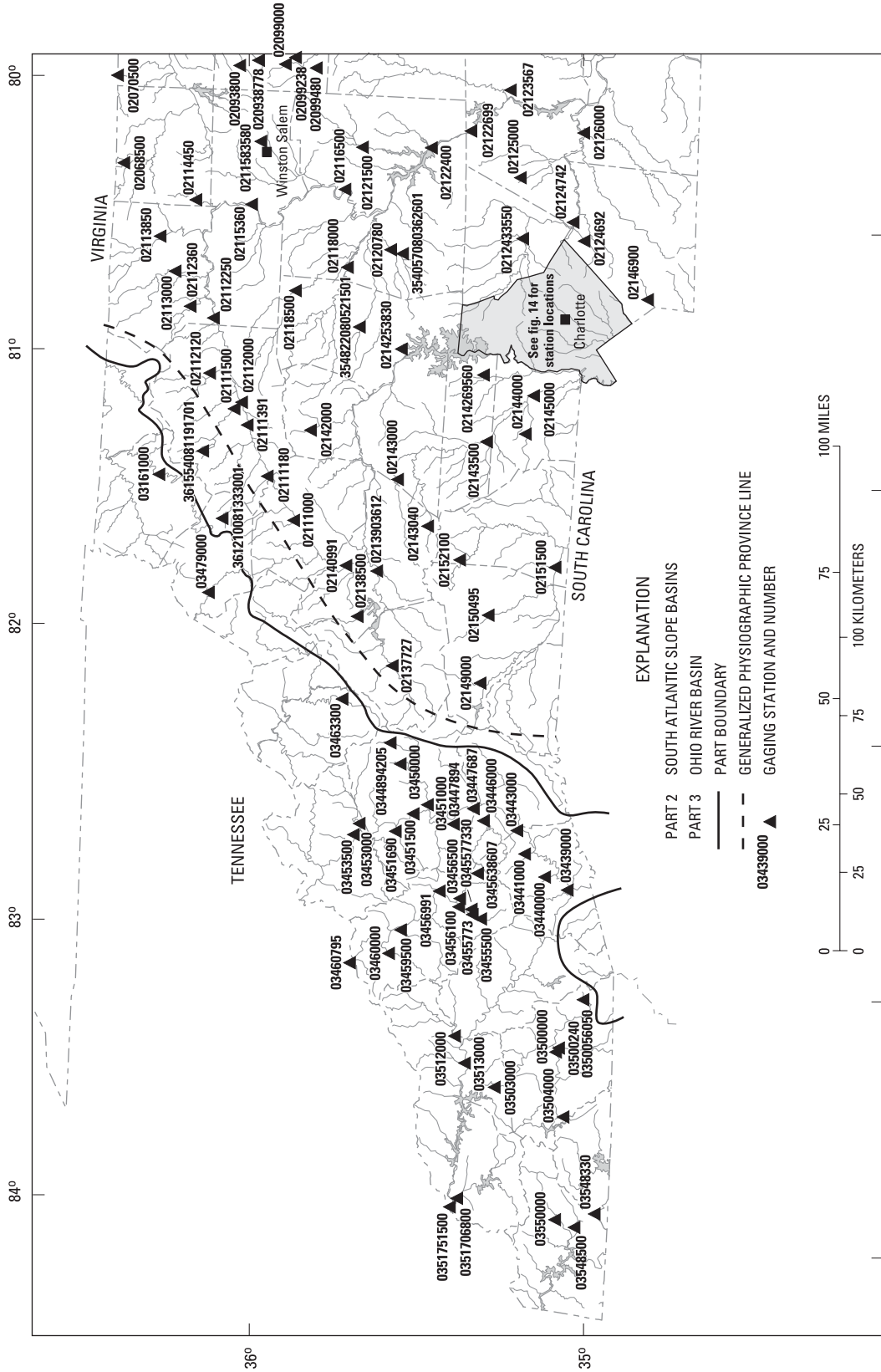


Figure 10.--Locations of gaging stations in western North Carolina.

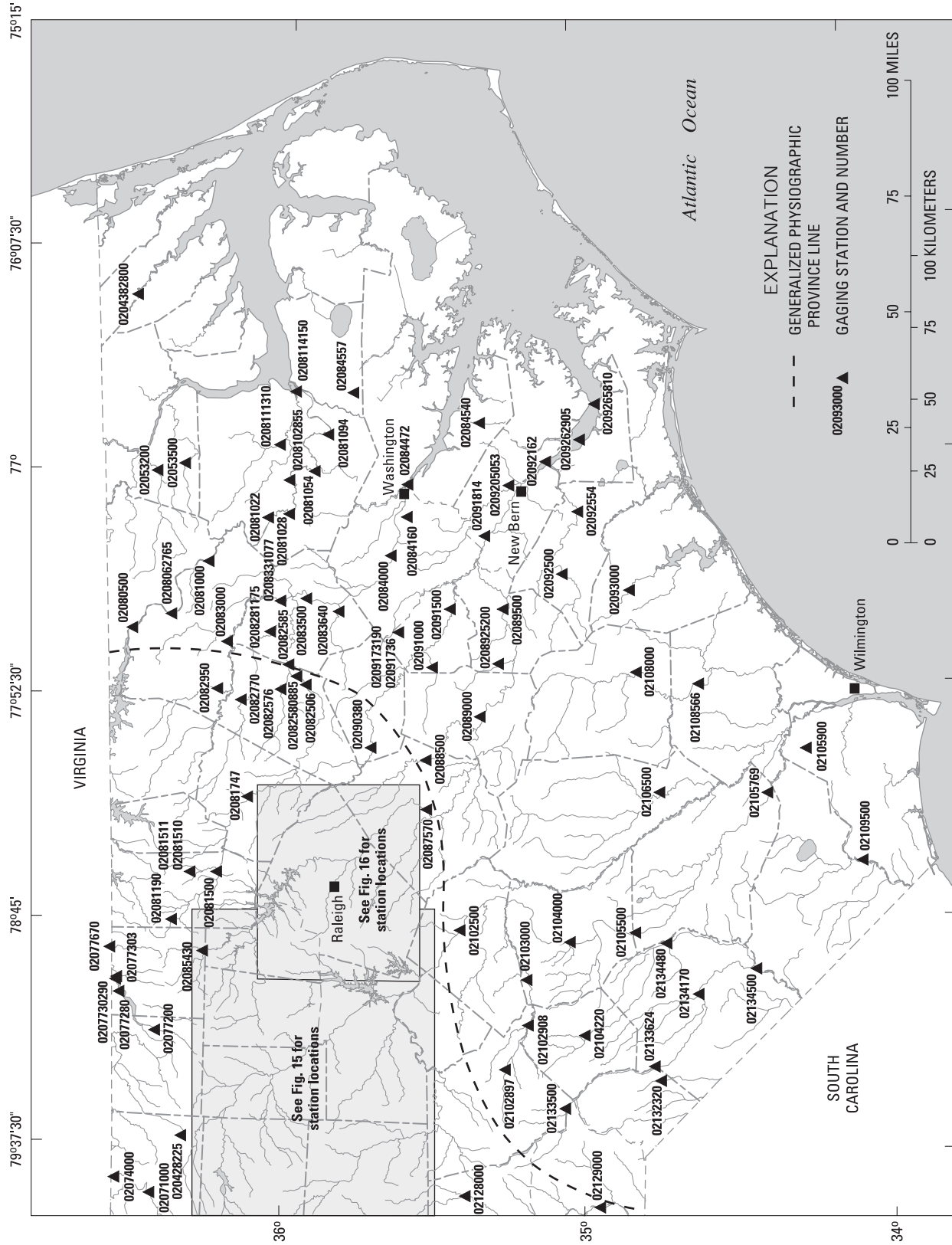


Figure 11.--Locations of gaging stations in eastern North Carolina.

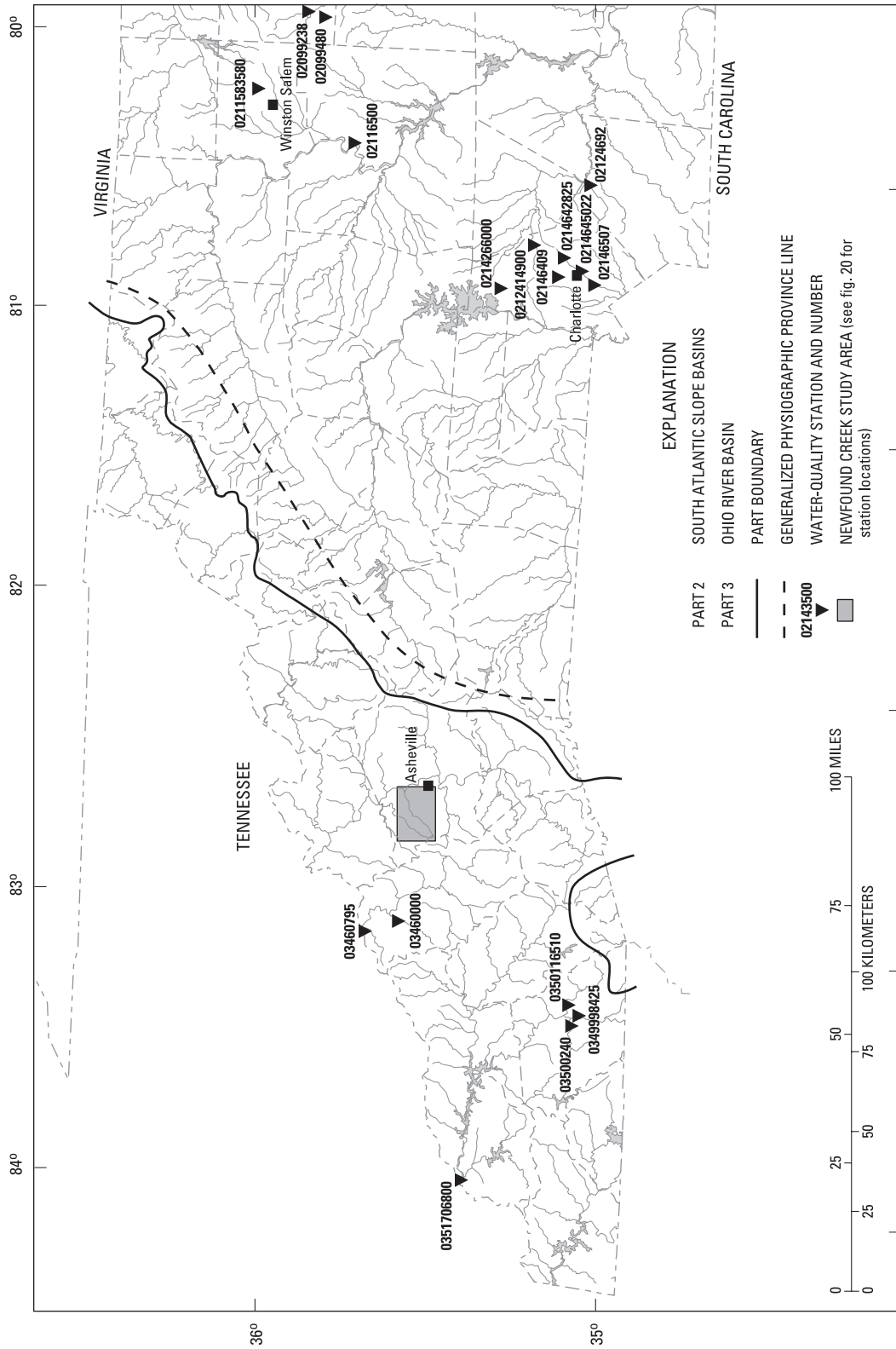


Figure 12.--Locations of water-quality stations in western North Carolina.

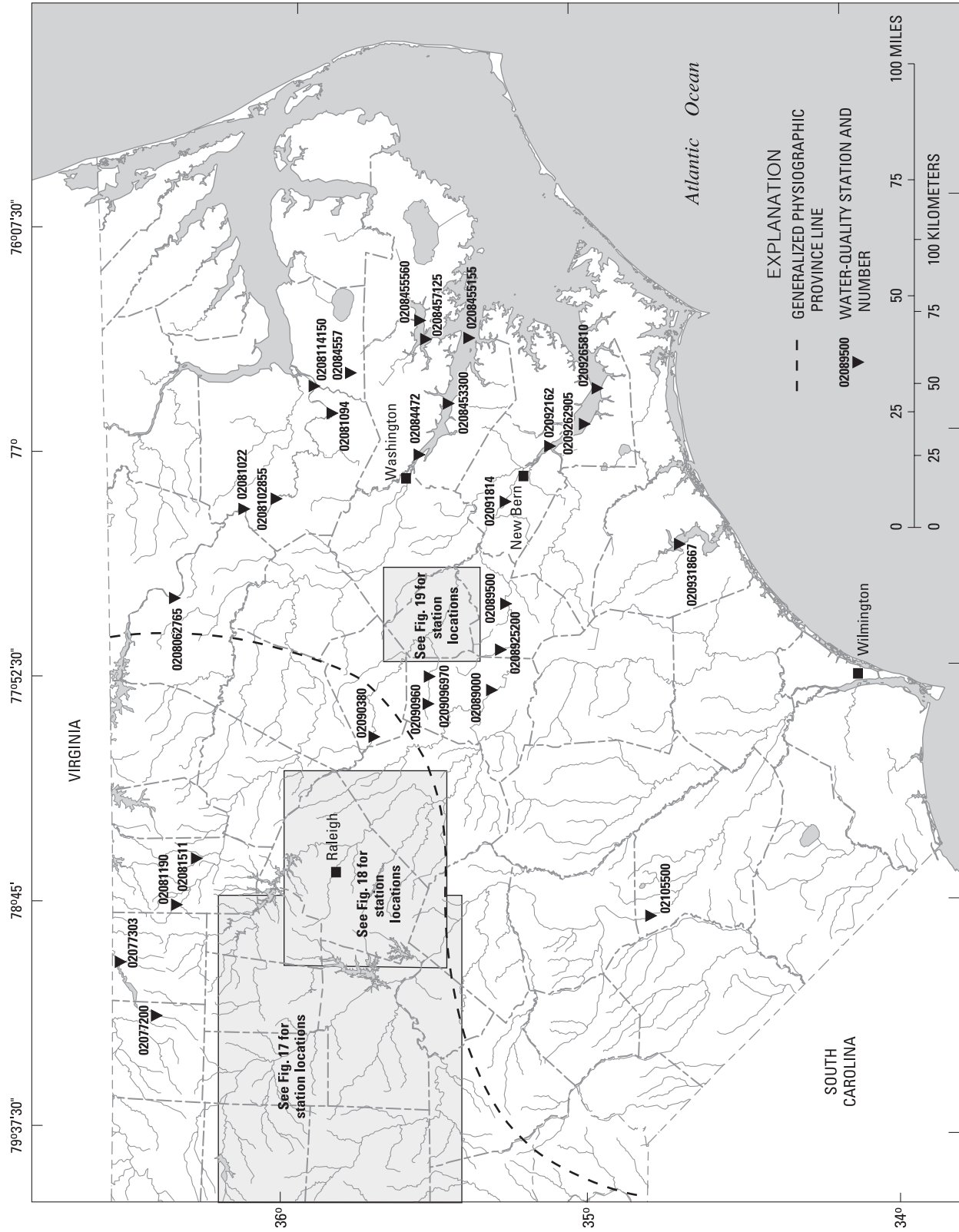


Figure 13.--Locations of water-quality stations in eastern North Carolina.

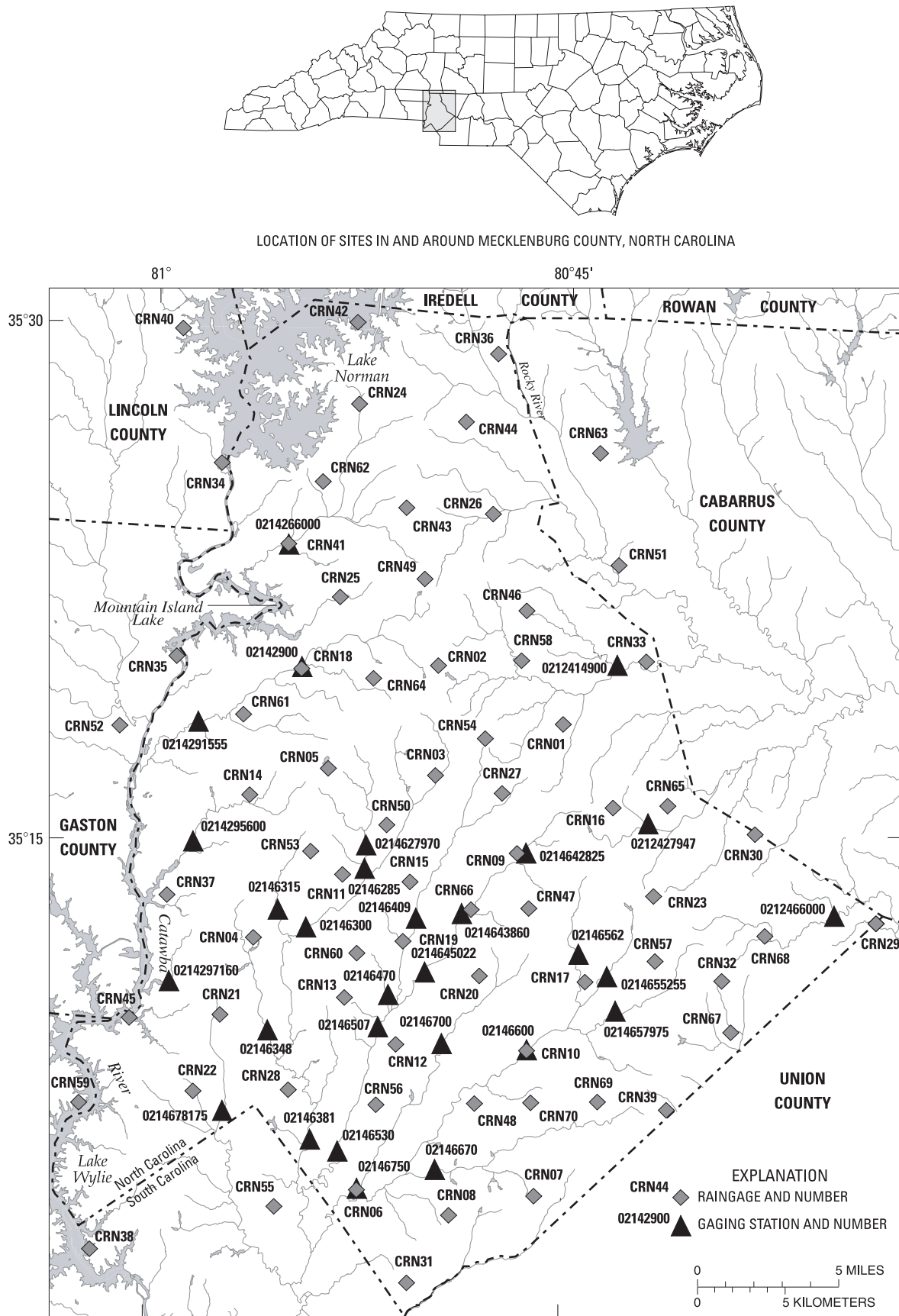
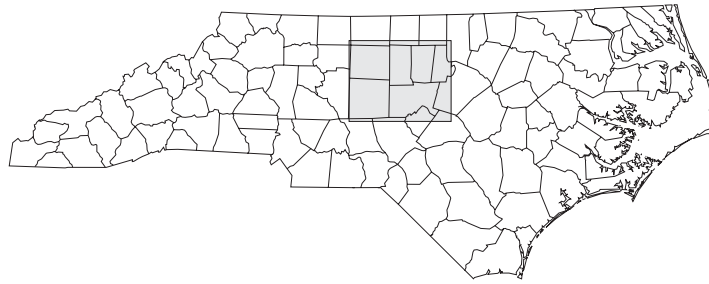


Figure 14.--Locations of gaging stations in and around Mecklenburg County, North Carolina.



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

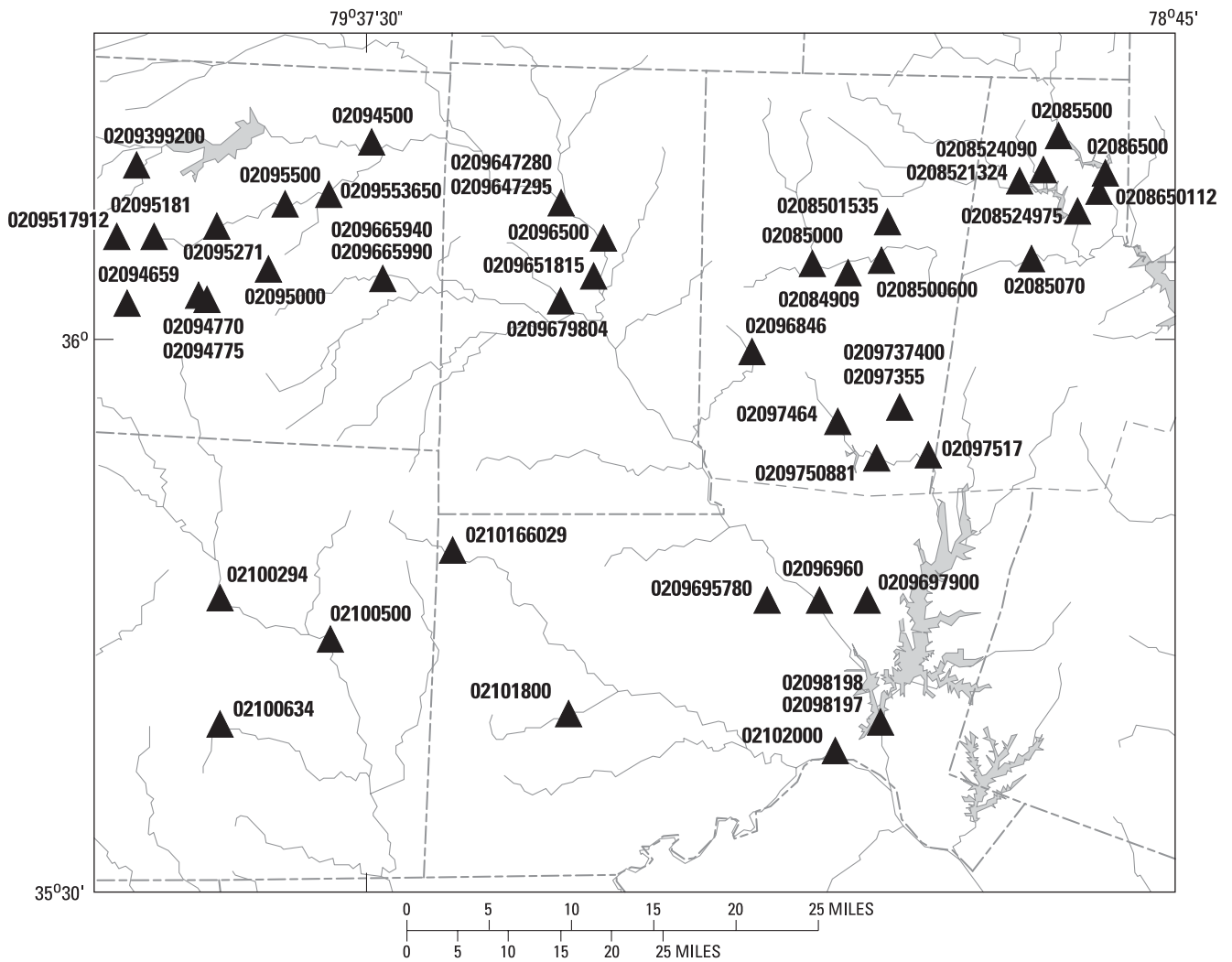
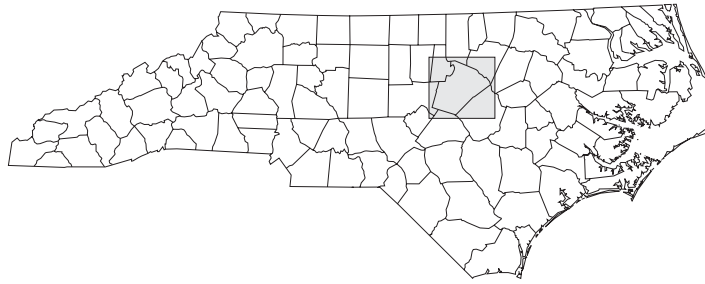


Figure 15.--Locations of gaging stations in Alamance, Chatham, Durham, Guilford, Orange, and Randolph Counties in North Carolina.



LOCATION OF SITES IN AND AROUND WAKE COUNTY, NORTH CAROLINA

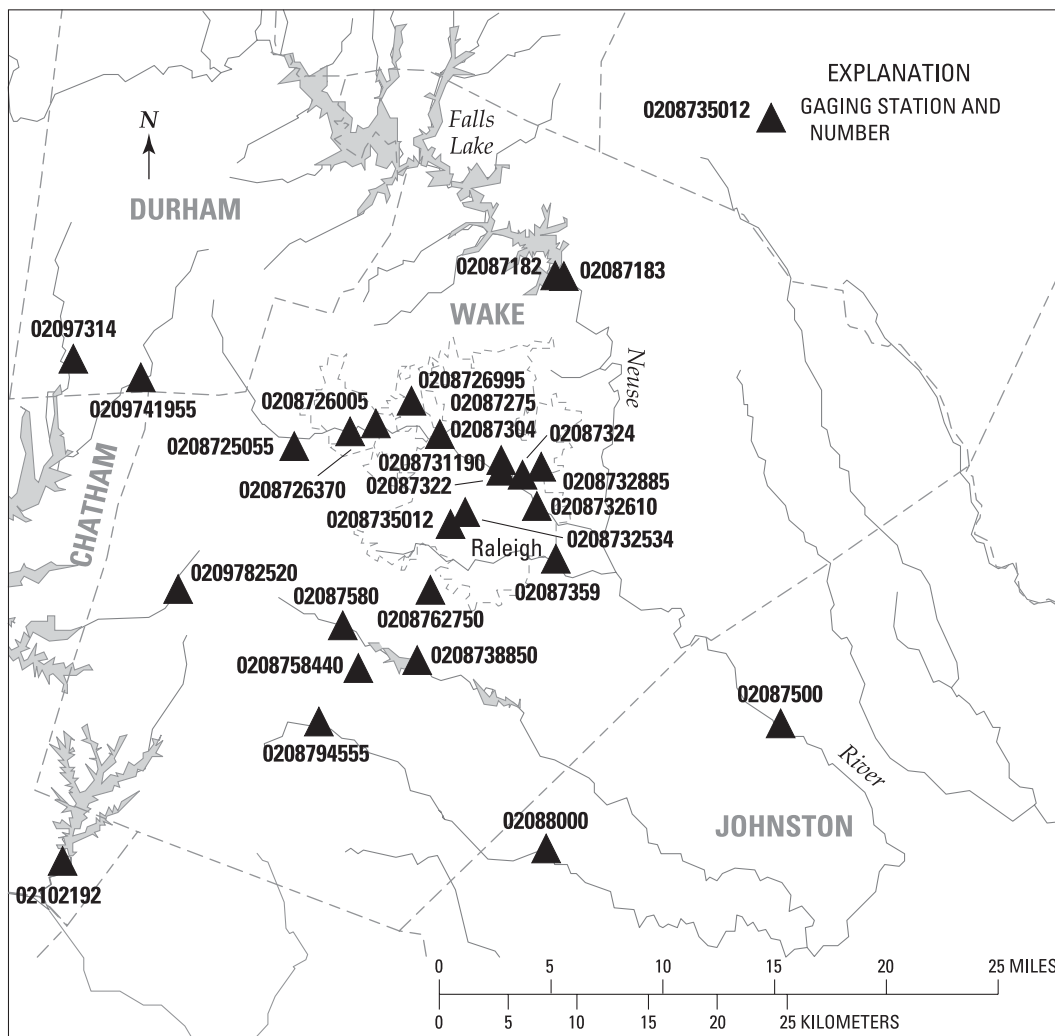
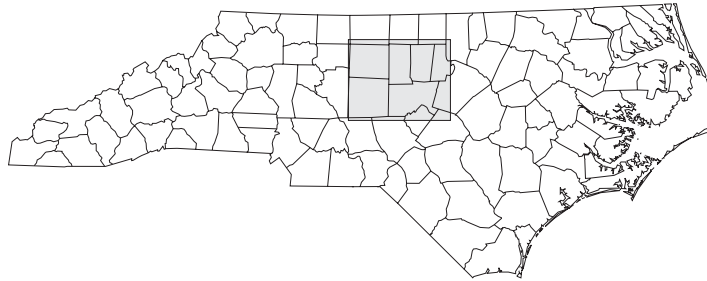


Figure 16.--Locations of gaging stations in and around Wake County, North Carolina.



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

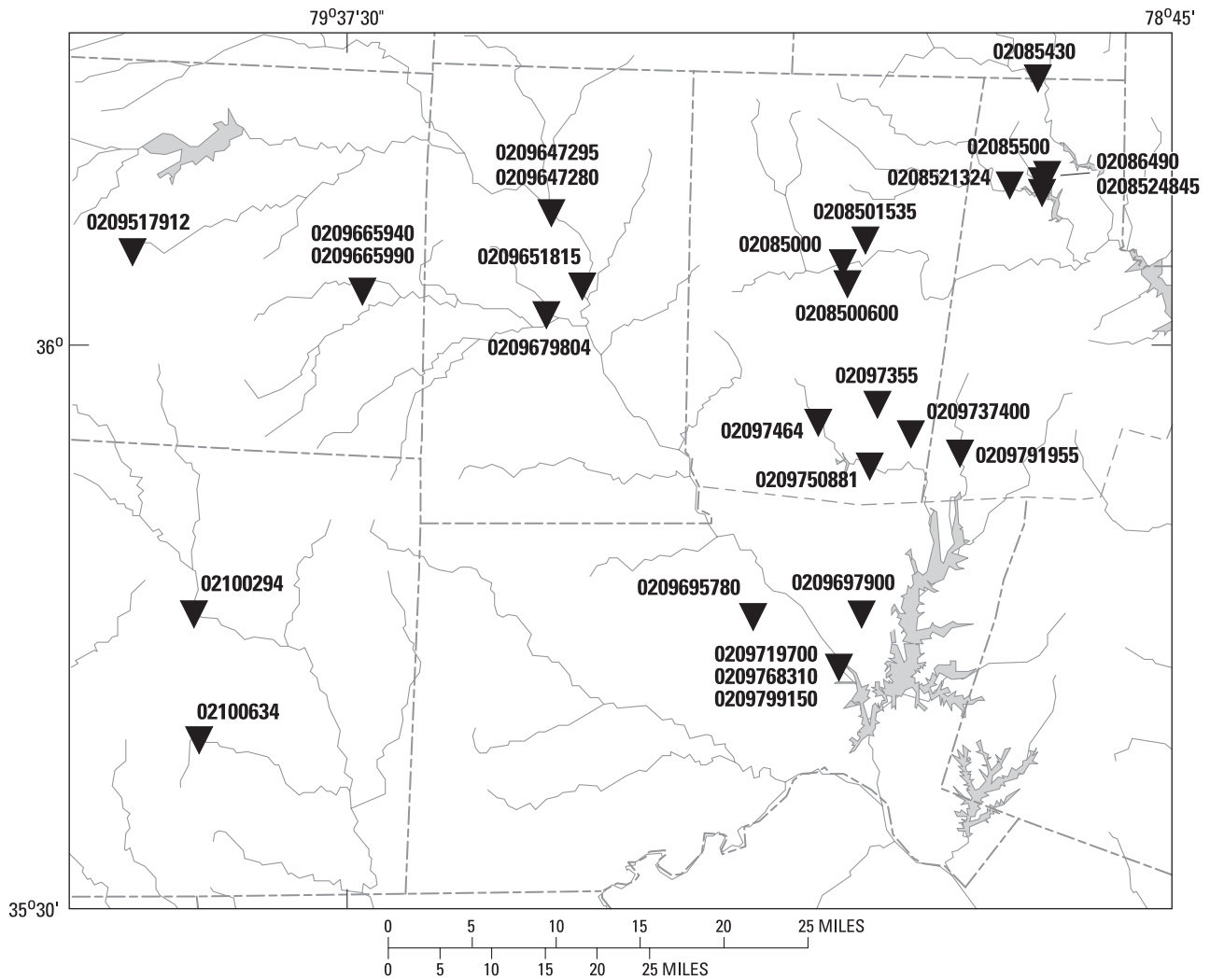
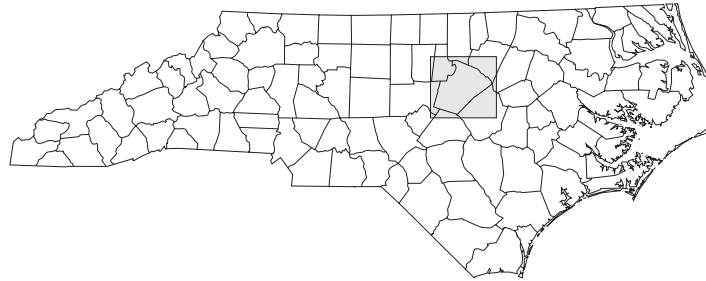


Figure 17.--Locations of water-quality sites in Alamance, Chatham, Durham, Guilford, Orange, and Randolph Counties in North Carolina.



LOCATION OF SITES IN AND AROUND WAKE COUNTY, NORTH CAROLINA

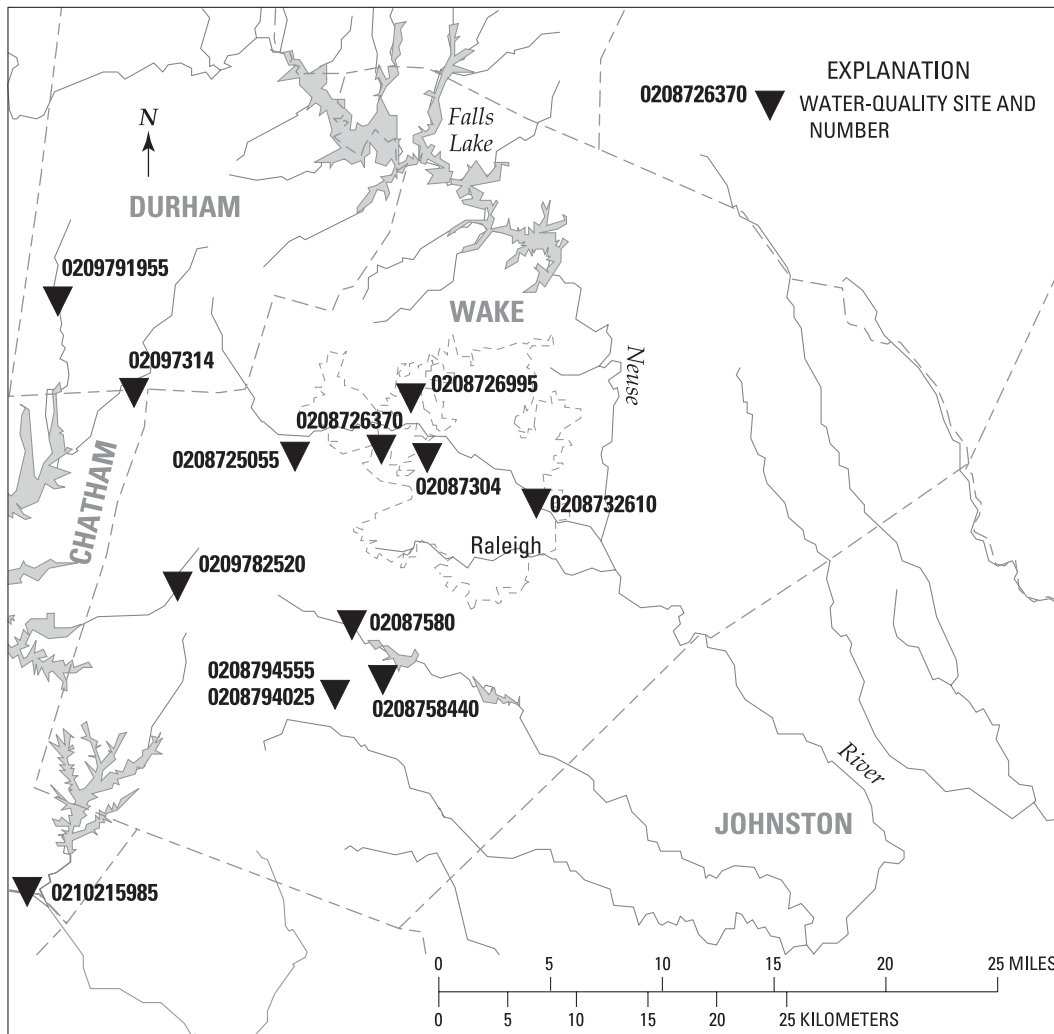
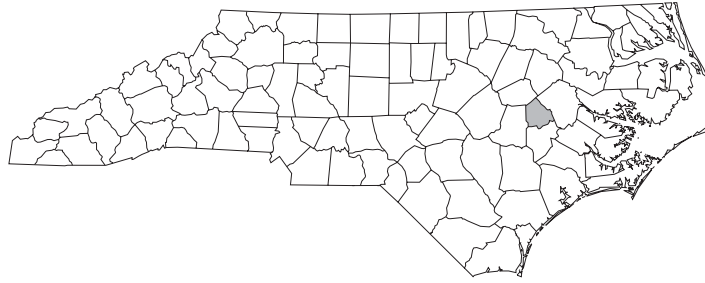


Figure 18.--Locations of water-quality sites in and around Wake County, North Carolina.



LOCATION OF SITES IN GREENE COUNTY, NORTH CAROLINA

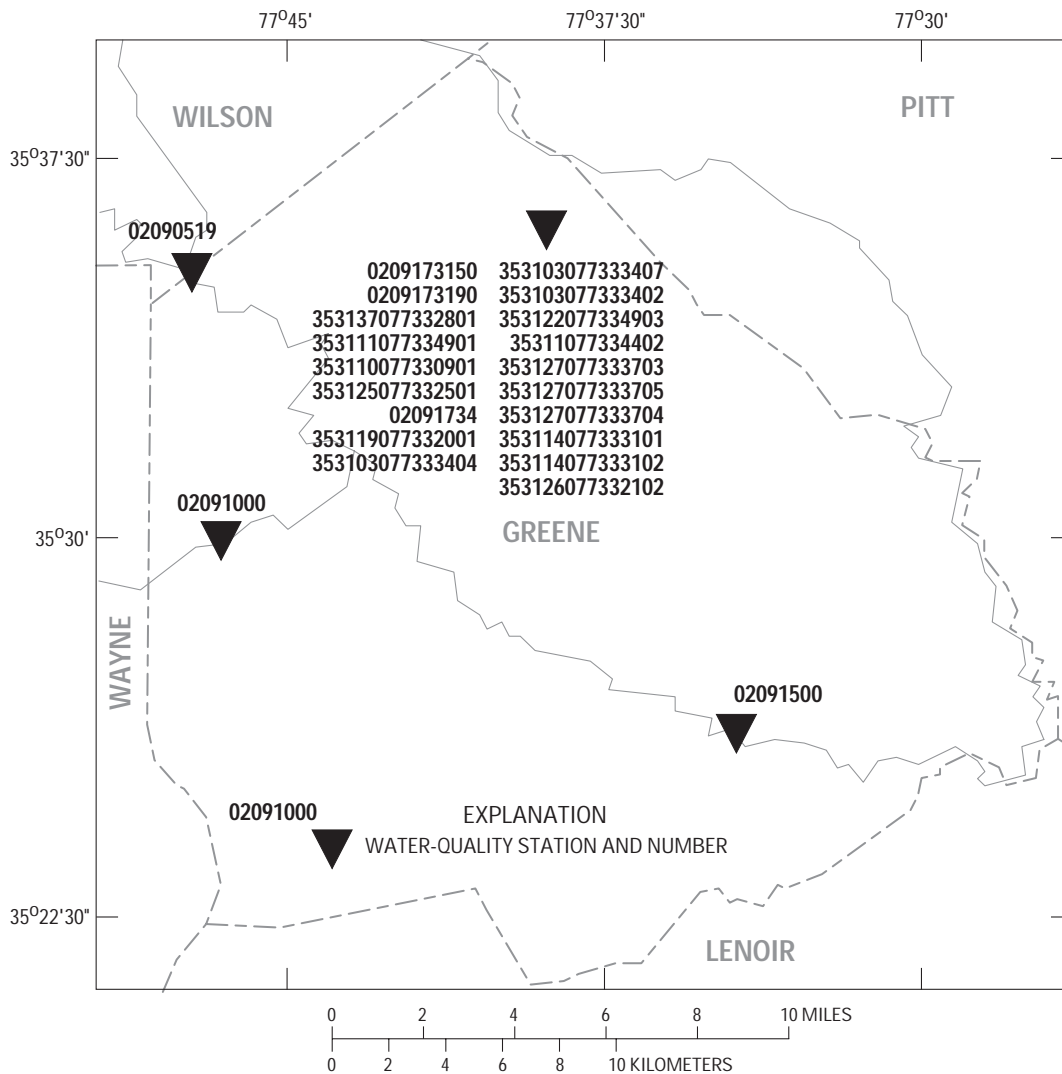
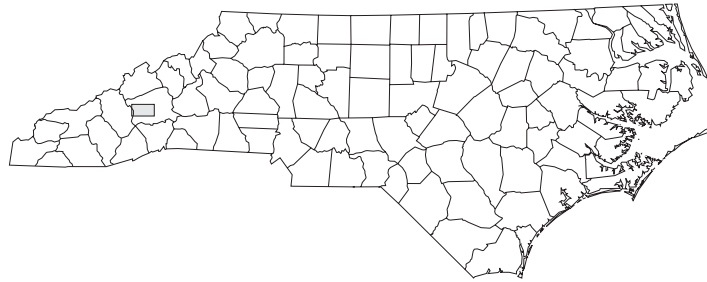


Figure 19.--Locations of water-quality stations in Greene County, North Carolina.



LOCATION OF NEWFOUND CREEK STUDY AREA BUNCOMBE COUNTY, NORTH CAROLINA

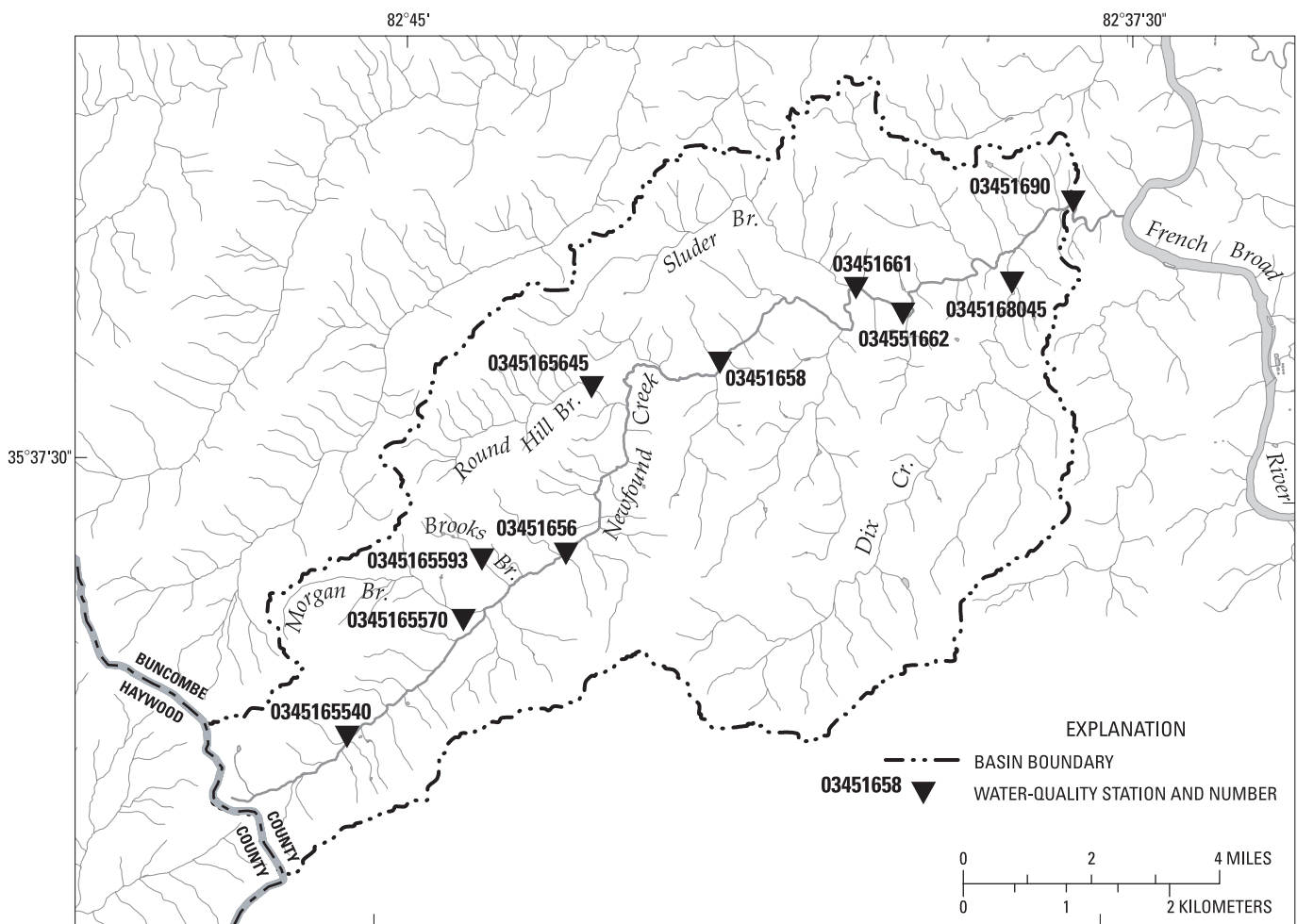


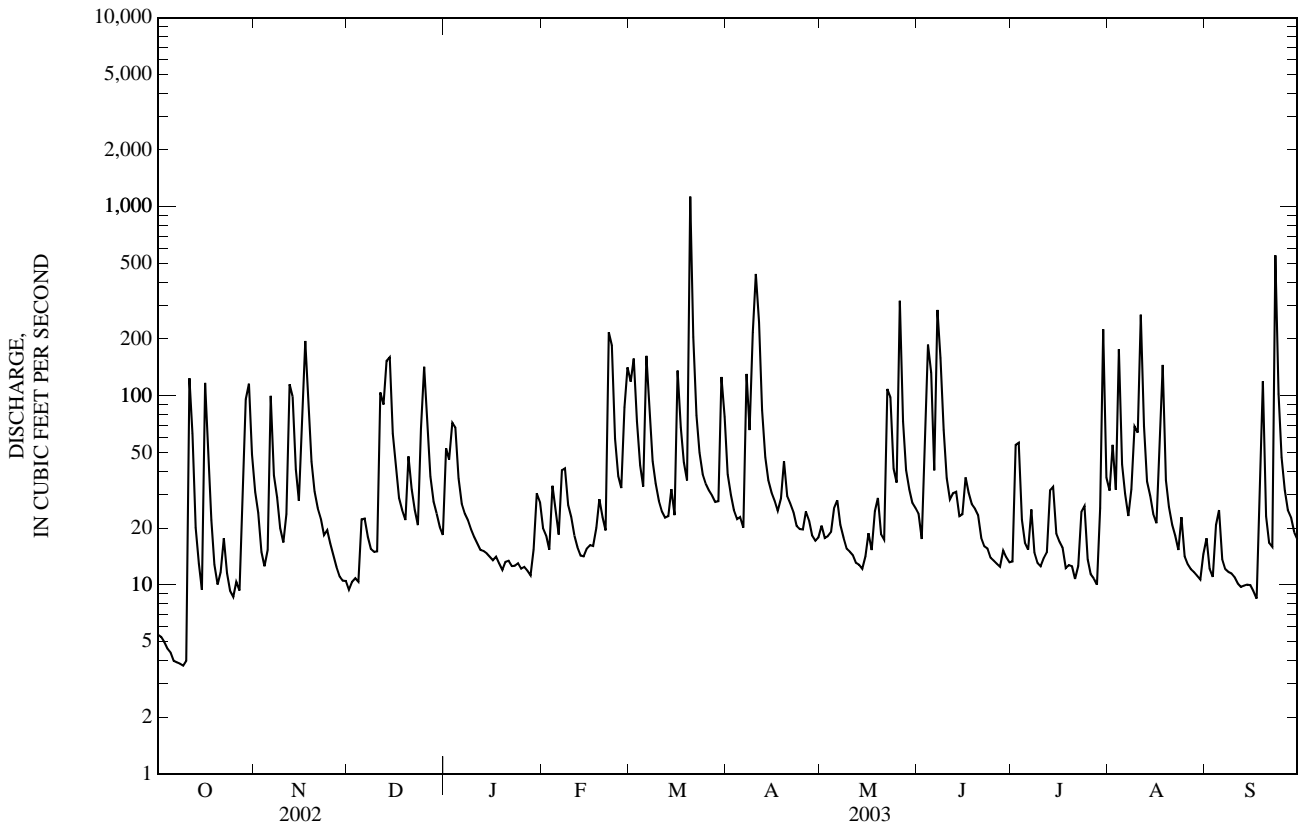
Figure 20. Locations of water-quality stations in the Newfound Creek watershed, Buncombe County, North Carolina.

CAPE FEAR RIVER BASIN

02093800 REEDY FORK NEAR OAK RIDGE, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1956 - 2003	
ANNUAL TOTAL	5,802.11		16,362.6		24.1	
ANNUAL MEAN	15.9		44.8		8.39	
HIGHEST ANNUAL MEAN					44.8	2003
LOWEST ANNUAL MEAN					8.39	2002
HIGHEST DAILY MEAN	195	Nov 17	1,130	Mar 20	1,250	Jul 28, 1984
LOWEST DAILY MEAN	0.61	Aug 14	3.7	Oct 9	0.61	Aug 14, 2002
ANNUAL SEVEN-DAY MINIMUM	0.70	Aug 9	4.1	Oct 4	0.70	Aug 9, 2002
MAXIMUM PEAK FLOW			2,460	Mar 20	3,950*	Oct 10, 1959
MAXIMUM PEAK STAGE			11.90	Mar 20	12.41	Sep 22, 1979
INSTANTANEOUS LOW FLOW			3.7*	Oct 6	0.50*	Aug 13, 2002
ANNUAL RUNOFF (CFSM)	0.77		2.18		1.17	
ANNUAL RUNOFF (INCHES)	10.48		29.55		15.87	
10 PERCENT EXCEEDS	35		101		39	
50 PERCENT EXCEEDS	8.9		23		14	
90 PERCENT EXCEEDS	1.3		11		6.8	

e Estimated.
 * See REMARKS.



02093800 REEDY FORK NEAR OAK RIDGE, NC—Continued

PRECIPITATION RECORDS

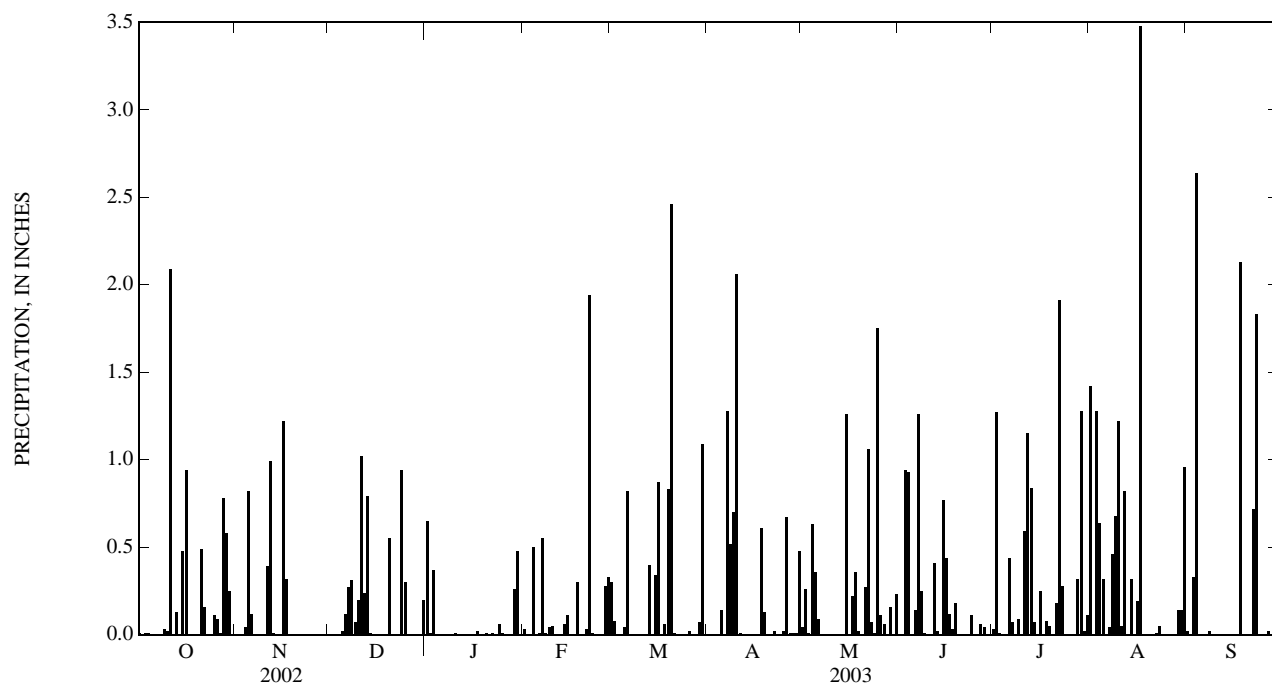
PERIOD OF RECORD.--November 1999 to current year. Records for November 1999 to September 2000 are unpublished and available in the USGS District Office in Raleigh, NC.

GAGE.--Tipping-bucket raingage and data collection platform. Satellite telemetry at station.

REMARKS.--Precipitation data collected during freezing periods may not be accurately reflected in daily record; consequently, winter record is poor.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

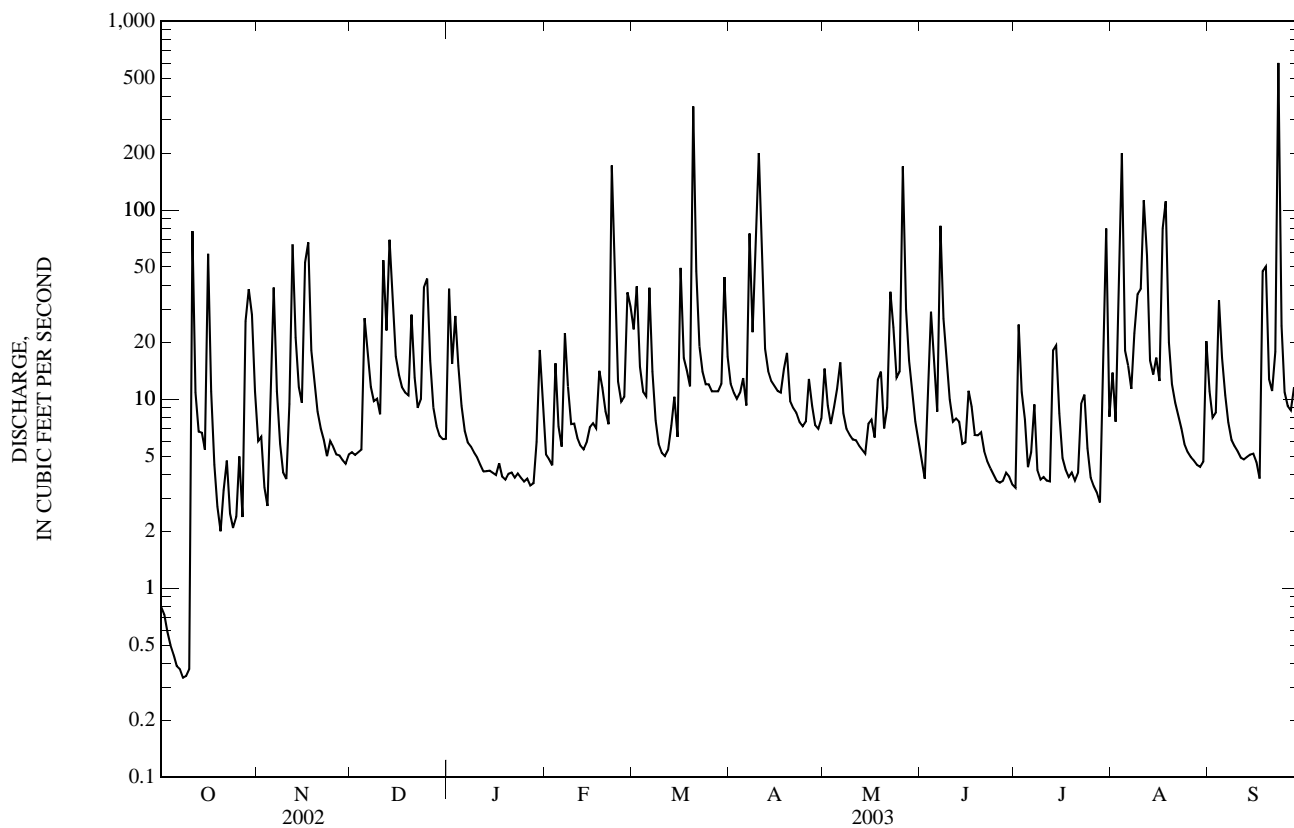
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.01	0.00	0.00	0.65	0.03	0.30	0.00	0.04	0.00	0.03	1.42	0.02
2	0.00	0.00	0.00	0.01	0.00	0.08	0.00	0.26	0.00	1.27	0.00	0.00
3	0.01	0.00	0.00	0.37	0.00	0.00	0.00	0.01	0.94	0.01	1.28	0.33
4	0.01	0.04	0.00	0.00	0.50	0.00	0.00	0.63	0.93	0.00	0.64	2.64
5	0.00	0.82	0.02	0.00	0.00	0.04	0.14	0.36	0.00	0.00	0.32	0.00
6	0.00	0.12	0.12	0.00	0.01	0.82	0.00	0.09	0.14	0.44	0.00	0.00
7	0.00	0.00	0.27	0.00	0.55	0.00	1.28	0.00	1.26	0.07	0.04	0.00
8	0.00	0.00	0.31	0.00	0.01	0.00	0.52	0.00	0.25	0.00	0.46	0.02
9	0.03	0.00	0.07	0.00	0.04	0.00	0.70	0.00	0.01	0.09	0.68	0.00
10	0.02	0.00	0.20	0.01	0.05	0.00	2.06	0.00	0.00	0.00	1.22	0.00
11	2.09	0.39	1.02	0.00	0.00	0.00	0.01	0.00	0.00	0.59	0.05	0.00
12	0.00	0.99	0.24	0.00	0.00	0.00	0.00	0.00	0.41	1.15	0.82	0.00
13	0.13	0.01	0.79	0.00	0.00	0.40	0.00	0.00	0.02	0.84	0.00	0.00
14	0.00	0.00	0.01	0.00	0.06	0.00	0.00	0.00	0.00	0.07	0.32	0.00
15	0.48	0.00	0.00	0.00	0.00	0.11	0.34	0.00	1.26	0.77	0.00	0.00
16	0.94	1.22	0.00	0.00	0.00	0.87	0.00	0.00	0.44	0.25	0.19	0.00
17	0.00	0.32	0.00	0.02	0.00	0.00	0.00	0.22	0.12	0.00	3.48	0.00
18	0.00	0.00	0.00	0.00	0.30	0.06	0.61	0.36	0.03	0.08	0.00	2.13
19	0.00	0.00	0.00	0.00	0.00	0.83	0.13	0.02	0.18	0.05	0.00	0.00
20	0.00	0.00	0.55	0.01	0.00	2.46	0.00	0.00	0.00	0.00	0.00	0.00
21	0.49	0.00	0.00	0.00	0.03	0.01	0.00	0.27	0.00	0.18	0.00	0.00
22	0.16	0.00	0.00	0.01	1.94	0.00	0.02	1.06	0.00	1.91	0.01	0.72
23	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.07	0.00	0.28	0.05	1.83
24	0.00	0.00	0.94	0.06	0.00	0.00	0.00	0.01	0.11	0.00	0.00	0.00
25	0.11	0.00	0.30	0.01	0.00	0.00	0.02	1.75	0.00	0.00	0.00	0.00
26	0.09	0.00	0.00	0.00	0.00	0.02	0.67	0.11	0.00	0.00	0.00	0.00
27	0.01	0.00	0.00	0.00	0.28	0.00	0.01	0.06	0.06	0.00	0.00	0.02
28	0.78	0.00	0.00	0.00	0.33	0.00	0.01	0.00	0.04	0.32	0.00	0.00
29	0.58	0.00	0.00	0.26	---	0.07	0.01	0.16	0.00	1.28	0.14	0.00
30	0.25	0.00	0.00	0.48	---	1.09	0.48	0.00	0.00	0.02	0.14	0.11
31	0.00	---	0.20	0.00	---	0.00	---	0.23	---	0.11	0.96	---
TOTAL	6.19	3.91	5.04	1.89	4.25	7.39	6.67	6.97	5.71	9.04	12.22	7.82



0209387778 BRUSH CREEK AT FLEMING ROAD AT GREENSBORO, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1999 - 2003	
ANNUAL TOTAL	2,372.54		6,592.07			
ANNUAL MEAN	6.50		18.1		9.27	
HIGHEST ANNUAL MEAN					18.1	2003
LOWEST ANNUAL MEAN					3.78	2002
HIGHEST DAILY MEAN	77	Oct 11	600	Sep 23	600	Sep 23, 2003
LOWEST DAILY MEAN	0.22	Sep 12	0.34	Oct 8	0.22	Sep 12, 2002
ANNUAL SEVEN-DAY MINIMUM	0.29	Jun 19	0.39	Oct 4	0.29	Jun 19, 2002
MAXIMUM PEAK FLOW			NOT DETERMINED		NOT DETERMINED	
MAXIMUM PEAK STAGE			9.57	Sep 23	9.57	Sep 23, 2003
INSTANTANEOUS LOW FLOW			0.31*	Oct 8	0.19*	Jun 22, 2002
ANNUAL RUNOFF (CFSM)	0.88		2.44		1.25	
ANNUAL RUNOFF (INCHES)	11.91		33.09		17.00	
10 PERCENT EXCEEDS	14		37		18	
50 PERCENT EXCEEDS	3.1		8.5		4.1	
90 PERCENT EXCEEDS	0.47		3.8		1.2	

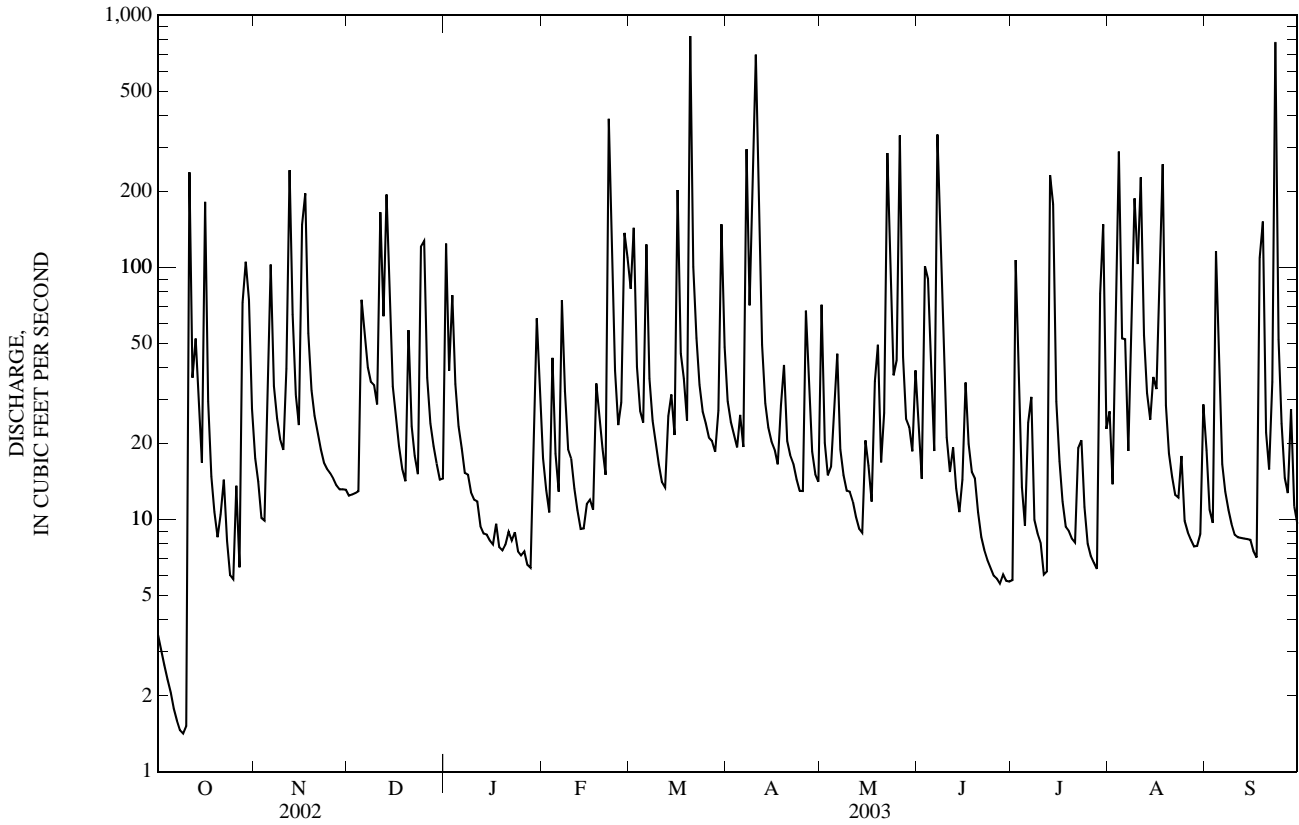
e Estimated.
 * See REMARKS.



0209399200 HORSE PEN CREEK AT US HIGHWAY 220 NEAR GREENSBORO, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1999 - 2003	
ANNUAL TOTAL	6,103.59		16,987.9			
ANNUAL MEAN	16.7		46.5		23.3	
HIGHEST ANNUAL MEAN					46.5	2003
LOWEST ANNUAL MEAN					8.37	2002
HIGHEST DAILY MEAN	243	Nov 12	827	Mar 20	827	Mar 20, 2003
LOWEST DAILY MEAN	0.14	Aug 25	1.4	Oct 9	0.14	Aug 25, 2002
ANNUAL SEVEN-DAY MINIMUM	0.38	Aug 8	1.7	Oct 4	0.38	Aug 8, 2002
MAXIMUM PEAK FLOW			2,300	Sep 23	2,300	Sep 23, 2003
MAXIMUM PEAK STAGE			10.66	Sep 23	10.66	Sep 23, 2003
INSTANTANEOUS LOW FLOW			1.4*	Oct 8	0.06	Aug 14, 2002
ANNUAL RUNOFF (CFSM)	1.05		2.93		1.46	
ANNUAL RUNOFF (INCHES)	14.28		39.75		19.87	
10 PERCENT EXCEEDS	39		112		46	
50 PERCENT EXCEEDS	5.8		19		8.9	
90 PERCENT EXCEEDS	1.4		7.7		2.5	

* See REMARKS.



PRECIPITATION RECORDS

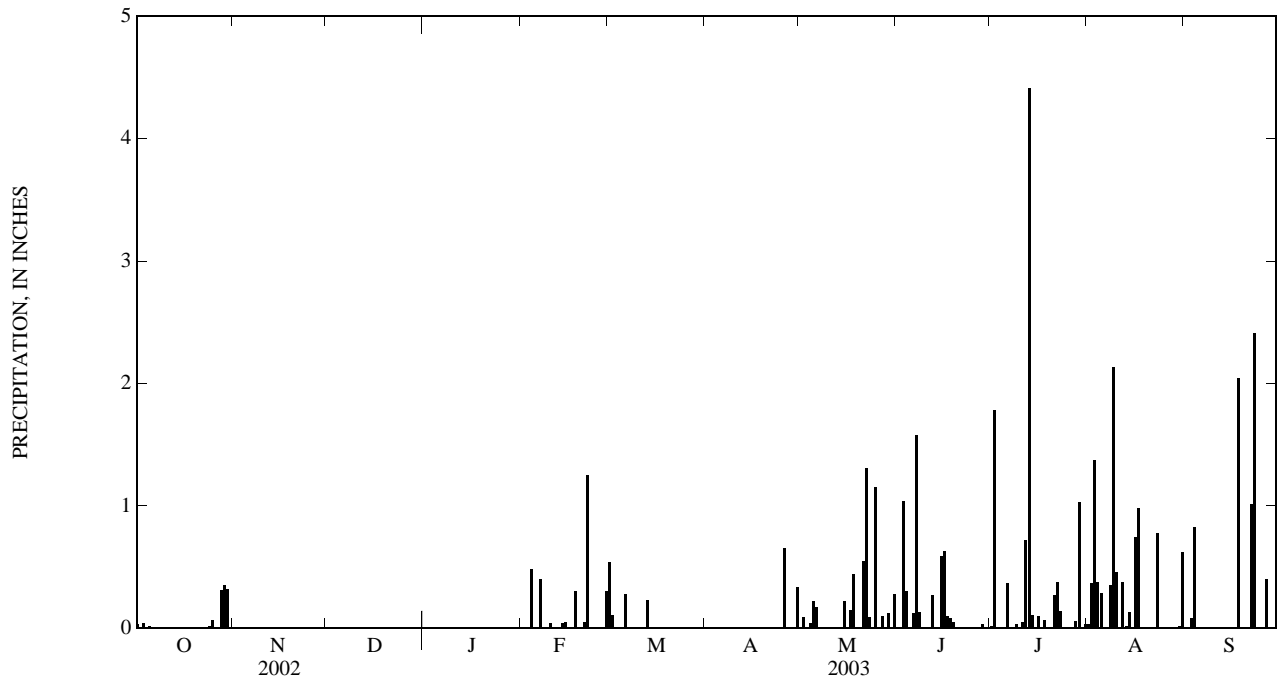
PERIOD OF RECORD.--August 1999 to current year.

GAGE.--Tipping-bucket raingage and data collection platform. Satellite telemetry at station.

REMARKS.--Precipitation data collected during freezing periods may not be accurately reflected in daily record, but are included in monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.03	---	---	---	0.01	0.54	---	0.00	0.00	0.02	0.03	0.00
2	0.00	---	---	---	0.00	0.11	---	0.09	0.00	1.78	0.37	0.00
3	0.04	---	---	---	0.00	0.00	---	0.01	1.04	0.00	1.37	0.08
4	0.00	---	---	---	0.48	0.00	---	0.04	0.30	0.00	0.38	0.83
5	0.02	---	---	---	0.00	0.01	---	0.22	0.00	0.00	0.29	0.01
6	0.00	---	---	---	0.00	0.28	---	0.17	0.12	0.37	0.00	0.00
7	0.00	---	---	---	0.40	0.00	---	0.00	1.58	0.01	0.01	0.00
8	0.00	---	---	---	0.00	0.00	---	0.00	0.13	0.00	0.35	0.01
9	---	---	---	---	0.01	0.00	---	0.00	0.00	0.03	2.13	0.00
10	---	---	---	---	0.04	0.00	---	0.00	0.00	0.00	0.46	0.00
11	---	---	---	---	0.00	0.00	---	0.00	0.00	0.05	0.01	0.00
12	---	---	---	---	0.00	0.00	---	0.00	0.27	0.72	0.38	0.00
13	---	---	---	---	0.00	0.23	---	0.00	0.00	4.41	0.02	0.00
14	---	---	---	---	0.04	0.00	---	0.00	0.00	0.11	0.13	0.00
15	---	---	---	---	0.05	---	---	0.22	0.59	0.00	0.00	0.00
16	---	---	---	---	0.00	---	---	0.00	0.63	0.10	0.74	0.00
17	---	---	---	---	0.00	---	---	0.15	0.10	0.00	0.98	0.00
18	---	---	---	---	0.30	---	---	0.44	0.08	0.07	0.00	2.04
19	---	---	---	---	0.00	---	---	0.01	0.05	0.00	0.00	0.01
20	---	---	---	---	0.00	---	---	0.00	0.01	0.00	0.00	0.00
21	---	---	---	---	0.05	---	---	0.55	0.00	0.27	0.00	0.00
22	---	---	---	---	1.25	---	---	1.31	0.00	0.38	0.01	1.01
23	0.00	---	---	---	0.01	---	---	0.09	0.00	0.14	0.78	2.41
24	0.02	---	---	---	0.00	---	---	0.01	0.00	0.00	0.00	0.00
25	0.07	---	---	---	0.00	---	---	1.15	0.00	0.00	0.00	0.00
26	0.01	---	---	---	0.01	---	0.65	0.00	0.00	0.00	0.00	0.00
27	0.00	---	---	---	0.00	---	0.00	0.10	0.00	0.00	0.00	0.40
28	0.31	---	---	---	0.30	---	0.00	0.00	0.03	0.06	0.00	0.00
29	0.35	---	---	---	---	---	0.00	0.12	0.00	1.03	0.01	0.00
30	0.32	---	---	---	---	---	0.34	0.00	0.00	0.00	0.02	0.00
31	---	---	---	0.00	---	---	---	0.28	---	0.03	0.62	---
TOTAL	---	---	---	---	2.95	---	---	4.96	4.93	9.58	9.09	6.80



02094500 REEDY FORK NEAR GIBSONVILLE, NC

LOCATION.--Lat 36°10'31", long 79°37'00", Guilford County, Hydrologic Unit 03030002, on right bank 0.2 mi downstream of Huffines Mill on Secondary Road 2719, 1.2 mi upstream from Buffalo Creek, and 6 mi northwest of Gibsonville.

DRAINAGE AREA.--131 mi².

PERIOD OF RECORD.--September 1928 to current year.

REVISED RECORDS.--WSP 1303: 1929-40 (monthly and yearly runoff). WSP 1383: 1929-30, 1933(M), 1934, 1937(M), 1939-42(M), 1948. WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder and rock-masonry control. Datum of gage is 626.88 ft above NGVD of 1929. Satellite telemetry at station.

REMARKS.--Records poor. Flow regulated since 1923 by Lake Brandt (station 02094117), 14 mi upstream; since 1957 by Lake Higgins (station 02093981) on Brush Creek, a tributary to Lake Brandt; since 1943 by Richland Lake 12 mi. upstream from station; and since 1968 by Lake Townsend (station 02094305), 9 mi upstream from station. City of Greensboro diverted a daily average of 18.1 ft³/s from Lake Brandt and a daily average of 29.6 ft³/s from Lake Townsend for municipal water supply. Prior to regulation, maximum discharge: 11,600 ft³/s, Sept. 25, 1947; gage height: 20.77 ft; minimum discharge not determined.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in July 1916 reached a stage of 17.90 ft, from information by local resident; discharge, 8,640 ft³/s.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.6	23	26	282	256	418	274	86	117	102	312	66
2	6.8	15	19	457	41	928	303	95	85	579	346	38
3	6.4	12	13	208	24	268	131	132	76	121	44	29
4	6.3	12	12	317	63	315	117	94	399	97	583	104
5	7.0	16	44	103	68	278	96	88	630	102	861	124
6	6.3	99	110	58	65	171	80	312	599	81	177	131
7	6.2	37	119	e48	159	467	709	73	1,070	121	113	79
8	6.7	21	81	e43	164	301	1,210	63	1,180	121	544	51
9	5.0	17	59	e38	97	68	1,420	60	742	83	442	36
10	4.0	14	85	36	329	43	2,550	59	291	62	644	25
11	982	13	313	32	51	249	3,910	56	211	64	684	20
12	363	356	407	29	56	42	1,150	61	112	59	826	19
13	53	299	861	30	51	27	175	60	112	228	496	19
14	74	437	1,000	e29	39	43	237	56	96	1,220	149	20
15	27	63	590	e27	55	44	136	56	79	585	64	44
16	227	286	165	e28	52	703	155	73	551	52	106	128
17	66	995	93	27	50	926	113	56	799	41	83	423
18	28	975	108	30	53	309	108	62	186	53	341	224
19	16	196	74	28	120	313	175	137	181	51	499	335
20	12	54	293	30	122	e2,500	193	123	188	46	105	137
21	11	75	267	26	248	e3,500	124	115	83	39	54	50
22	16	70	41	21	331	1,180	134	613	e47	53	40	36
23	16	53	22	25	1,690	351	100	1,160	e35	57	75	2,360
24	12	30	132	24	849	158	78	371	e25	45	64	2,650
25	10	14	813	21	216	93	100	164	e21	56	38	835
26	14	11	705	18	113	108	90	1,080	e19	46	50	64
27	13	27	50	16	251	109	115	1,470	18	68	41	68
28	45	27	51	14	786	81	119	316	79	53	27	58
29	104	19	48	16	---	68	114	202	40	33	26	45
30	106	23	37	49	---	195	98	375	28	50	24	34
31	45	---	72	106	---	364	---	80	---	100	42	---
TOTAL	2,301.3	4,289	6,710	2,216	6,399	14,620	14,314	7,748	8,099	4,468	7,900	8,252
MEAN	74.2	143	216	71.5	229	472	477	250	270	144	255	275
MAX	982	995	1,000	457	1,690	3,500	3,910	1,470	1,180	1,220	861	2,650
MIN	4.0	11	12	14	24	27	78	56	18	33	24	19

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 2003,* BY WATER YEAR (WY)

MEAN	51.9	45.7	87.6	169	154	177	148	95.5	65.9	61.0	45.8	78.6
MAX	432	165	221	644	456	613	613	365	477	596	255	518
(WY)	(1991)	(1993)	(1973)	(1978)	(1979)	(1993)	(1987)	(1978)	(1982)	(1984)	(2003)	(1996)
MIN	2.85	6.70	5.97	11.1	18.7	16.4	9.65	5.38	4.23	2.83	1.92	3.31
(WY)	(1969)	(1970)	(1969)	(1981)	(2002)	(1976)	(2002)	(2002)	(2002)	(1986)	(2002)	(1983)

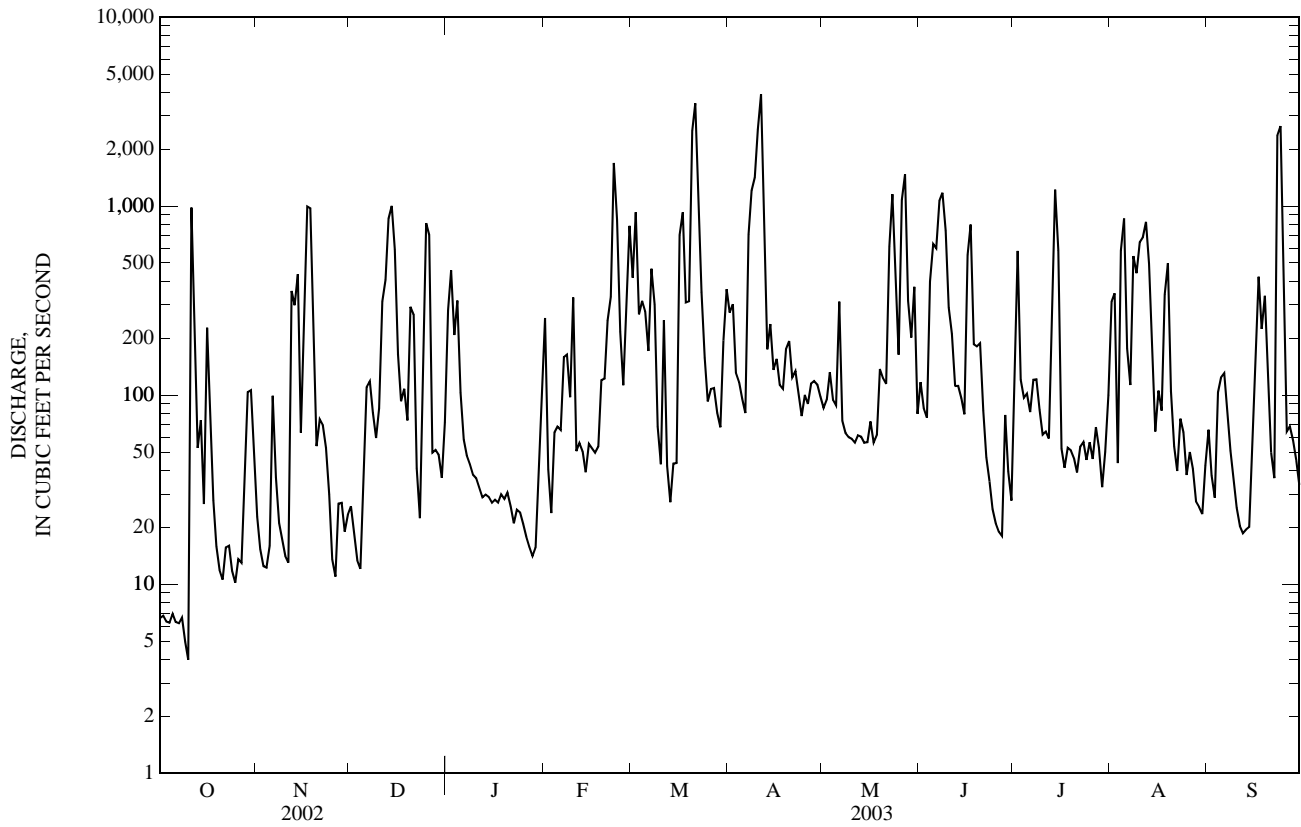
CAPE FEAR RIVER BASIN

02094500 REEDY FORK NEAR GIBSONVILLE, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1969 - 2003*	
ANNUAL TOTAL	17,851.77		87,316.3		98.0	
ANNUAL MEAN	48.9		239		239	
HIGHEST ANNUAL MEAN					239	2003
LOWEST ANNUAL MEAN					15.6	2002
HIGHEST DAILY MEAN	1,580	Sep 1	3,910	Apr 11	5,230	Sep 6, 1996
LOWEST DAILY MEAN	0.27	Aug 17	4.0	Oct 10	0.27	Aug 17, 2002
ANNUAL SEVEN-DAY MINIMUM	0.61	Aug 11	5.9	Oct 4	0.61	Aug 11, 2002
MAXIMUM PEAK FLOW			NOT DETERMINED		6,330	Sep 6, 1996
MAXIMUM PEAK STAGE			NOT DETERMINED		15.65	Sep 6, 1996
INSTANTANEOUS LOW FLOW			3.7		0.22	Aug 17, 2002
10 PERCENT EXCEEDS	74		660		269	
50 PERCENT EXCEEDS	11		80		22	
90 PERCENT EXCEEDS	1.8		19		5.7	

e Estimated.

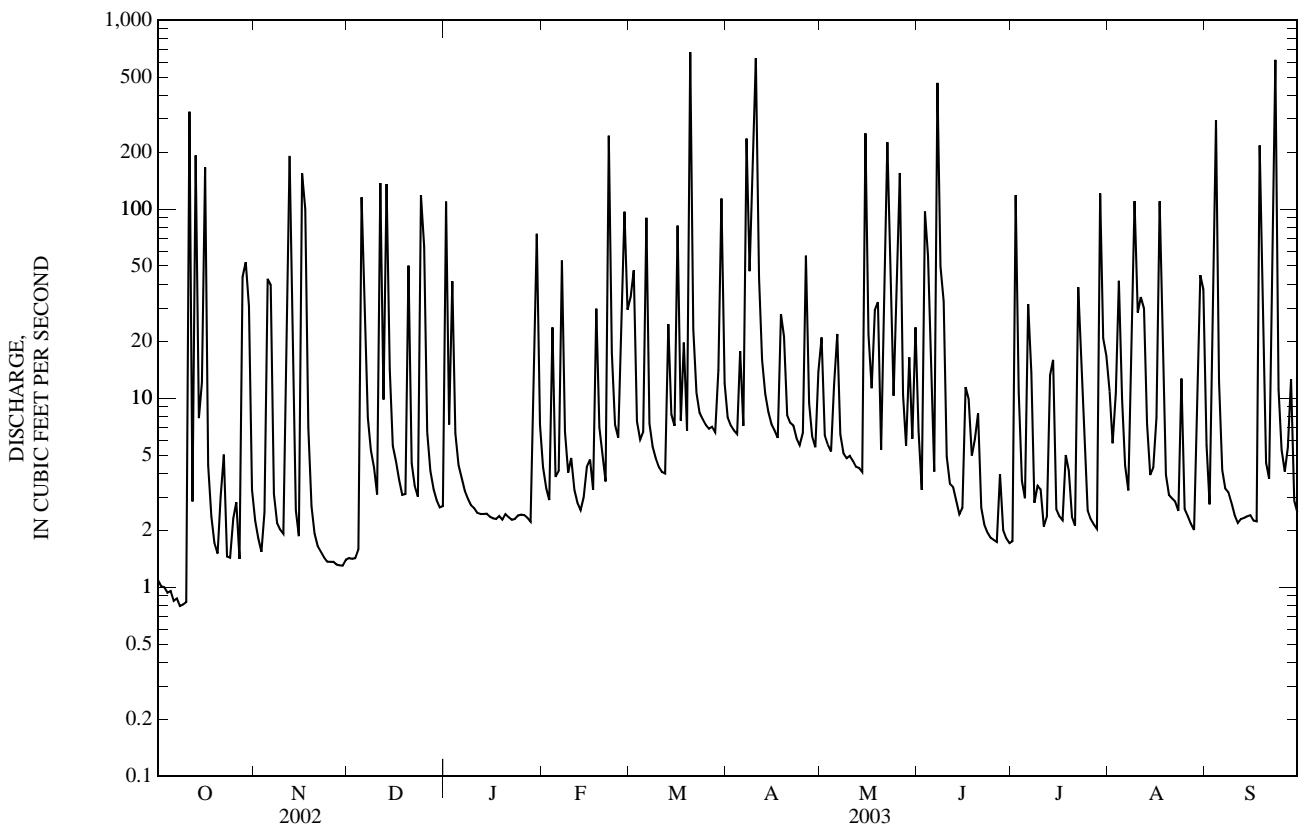
* Regulated period only (1969-2003). See REMARKS.



02094659 SOUTH BUFFALO CREEK NEAR POMONA, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1999 - 2003	
ANNUAL TOTAL	3,957.49		10,089.95		13.8	
ANNUAL MEAN	10.8		27.6		27.6	
HIGHEST ANNUAL MEAN					6.22	2003
LOWEST ANNUAL MEAN					6.22	2002
HIGHEST DAILY MEAN	328	Oct 11	676	Mar 20	676	Mar 20, 2003
LOWEST DAILY MEAN	0.11	Jun 22	0.80	Oct 8	0.11	Jun 22, 2002
ANNUAL SEVEN-DAY MINIMUM	0.13	Aug 7	0.86	Oct 4	0.13	Aug 7, 2002
MAXIMUM PEAK FLOW			3,350*	Sep 23	3,350*	Sep 23, 2003
MAXIMUM PEAK STAGE			14.45	Sep 23	14.45	Sep 23, 2003
INSTANTANEOUS LOW FLOW			0.67	Oct 8	0.10*	Jun 22, 2002
ANNUAL RUNOFF (CFSM)	1.49		3.79		1.89	
ANNUAL RUNOFF (INCHES)	20.17		51.42		25.69	
10 PERCENT EXCEEDS	20		57		31	
50 PERCENT EXCEEDS	1.8		5.1		2.6	
90 PERCENT EXCEEDS	0.20		1.8		0.63	

e Estimated.
 * See REMARKS.



02094659 SOUTH BUFFALO CREEK NEAR POMONA, NC—Continued

PRECIPITATION RECORDS

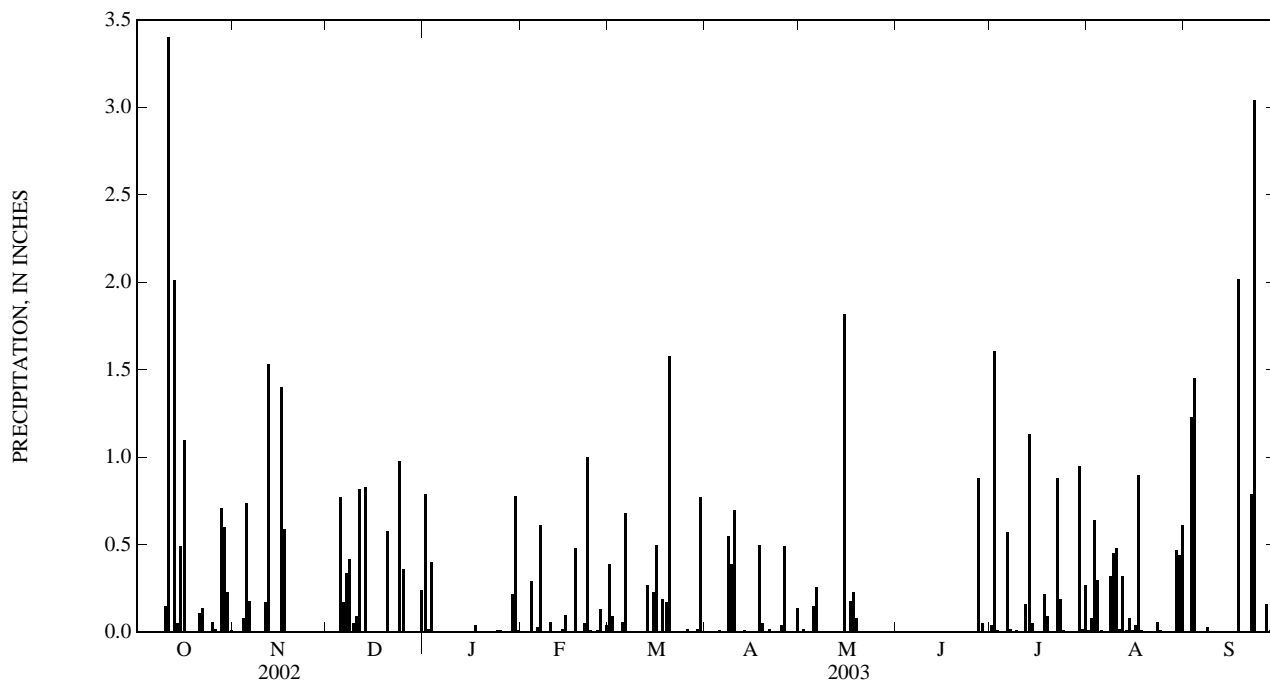
PERIOD OF RECORD.--January 2000 to current year.

GAGE.--Tipping-bucket raingage and data collection platform.

REMARKS.--Precipitation data collected during freezing periods may not be accurately reflected in daily record; consequently, winter record is poor.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

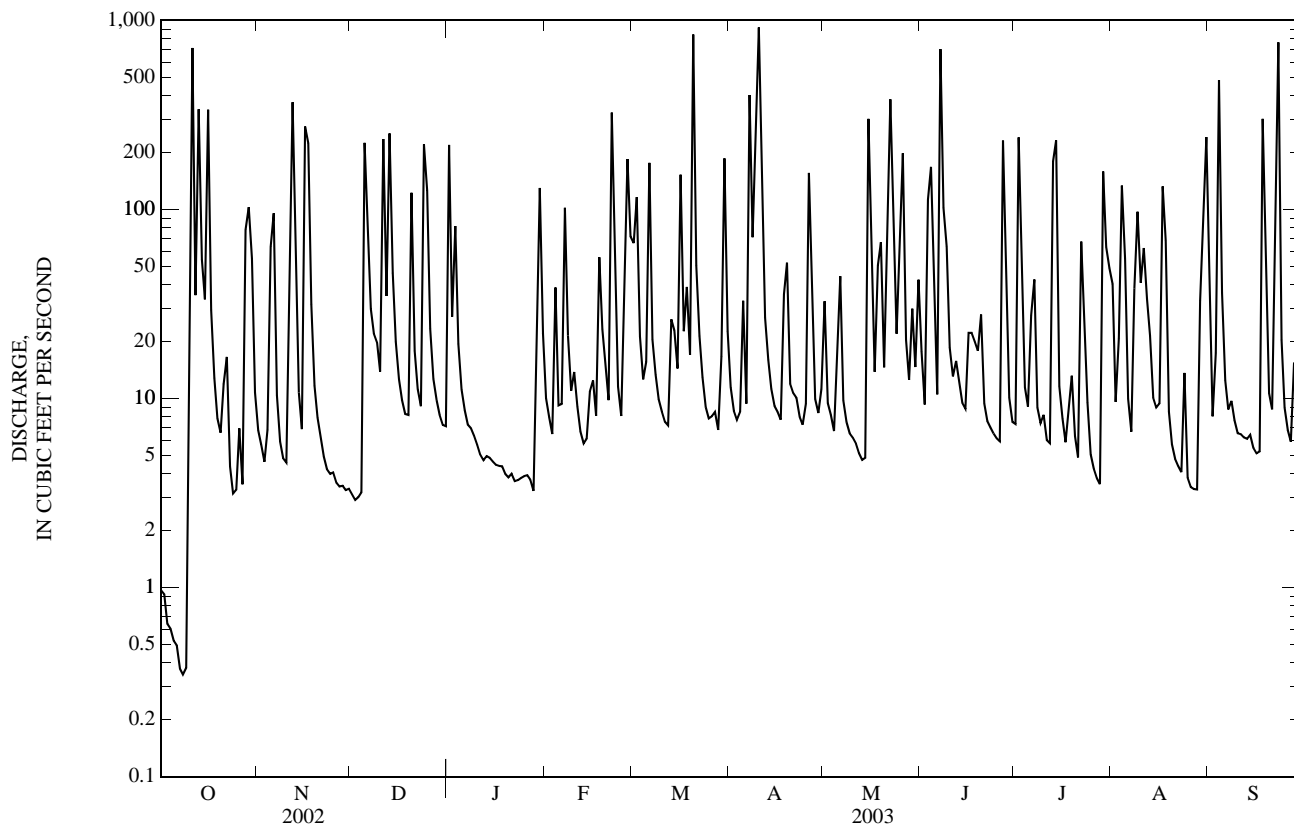
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.79	0.00	0.39	0.00	0.00	---	0.04	0.01	0.00
2	0.00	0.00	0.00	0.02	0.00	0.09	0.00	0.02	---	1.61	0.08	0.00
3	0.00	0.00	0.00	0.40	0.00	0.00	0.00	0.00	---	0.01	0.64	1.23
4	0.00	0.08	0.00	0.00	0.29	0.00	0.00	0.00	---	0.00	0.30	1.45
5	0.00	0.74	0.77	0.00	0.00	0.06	0.01	0.15	---	0.00	0.01	0.00
6	0.00	0.18	0.17	0.00	0.03	0.68	0.00	0.26	---	0.57	0.00	0.00
7	0.00	0.00	0.34	0.00	0.61	0.00	0.00	0.00	---	0.02	0.00	0.00
8	0.00	0.00	0.42	0.00	0.00	0.00	0.55	0.00	---	0.00	0.32	0.03
9	0.00	0.00	0.05	0.00	0.00	0.00	0.39	0.00	---	0.01	0.45	0.00
10	0.15	0.00	0.09	0.00	0.06	0.00	0.70	0.00	---	0.00	0.48	0.00
11	3.40	0.17	0.82	0.00	0.00	0.00	0.00	0.00	---	0.00	0.02	0.00
12	0.00	1.53	0.00	0.00	0.00	0.00	0.00	0.00	---	0.16	0.32	0.00
13	2.01	0.00	0.83	0.00	0.00	0.27	0.01	0.00	---	1.13	0.01	0.00
14	0.05	0.00	0.00	0.00	0.02	0.00	0.00	0.00	---	0.05	0.08	0.00
15	0.49	0.00	0.00	0.00	0.10	0.23	0.00	1.82	---	0.00	0.01	0.00
16	1.10	1.40	0.00	0.00	0.00	0.50	0.00	0.00	---	0.00	0.04	0.00
17	0.00	0.59	0.00	0.04	0.00	0.00	0.00	0.18	---	0.00	0.90	0.00
18	0.00	0.00	0.00	0.00	0.48	0.19	0.50	0.23	---	0.22	0.01	2.02
19	0.00	0.00	0.00	0.00	0.00	0.17	0.05	0.08	---	0.09	0.00	0.00
20	0.00	0.00	0.58	0.00	0.00	1.58	0.00	0.00	---	0.00	0.00	0.00
21	0.11	0.00	0.00	0.00	0.05	0.00	0.02	---	---	0.00	0.00	0.00
22	0.14	0.00	0.00	0.00	1.00	0.00	0.00	---	---	0.88	0.00	0.79
23	0.00	0.00	0.00	0.00	0.01	0.00	0.00	---	0.00	0.19	0.06	3.04
24	0.00	0.00	0.98	0.01	0.00	0.00	0.00	---	0.00	0.01	0.01	0.00
25	0.06	0.00	0.36	0.01	0.01	0.00	0.04	---	0.00	0.00	0.00	0.00
26	0.02	0.00	0.00	0.00	0.13	0.02	0.49	---	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	---	0.88	0.00	0.00	0.16
28	0.71	0.00	0.00	0.00	0.04	0.00	0.00	---	0.05	0.00	0.00	0.01
29	0.60	0.00	0.00	0.22	---	0.02	0.00	---	0.00	0.95	0.47	0.00
30	0.23	0.00	0.00	0.78	---	0.77	0.14	---	0.00	0.02	0.44	0.00
31	0.01	---	0.24	0.01	---	0.00	---	---	---	0.27	0.61	---
TOTAL	9.08	4.69	5.65	2.28	2.83	4.97	2.90	---	---	6.23	5.27	8.73



02094770 SOUTH BUFFALO CREEK AT US 220 AT GREENSBORO, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1998 - 2003	
ANNUAL TOTAL	7,976.35		18,453.56			
ANNUAL MEAN	21.9		50.6		27.8	
HIGHEST ANNUAL MEAN					50.6	2003
LOWEST ANNUAL MEAN					10.7	2002
HIGHEST DAILY MEAN	713	Oct 11	916	Apr 10	1,640	Sep 2, 2000
LOWEST DAILY MEAN	0.10	Aug 14	0.35	Oct 8	0.10	Aug 14, 2002
ANNUAL SEVEN-DAY MINIMUM	0.20	Aug 8	0.48	Oct 3	0.19	Sep 13, 2001
MAXIMUM PEAK FLOW			2,090	Sep 23	2,090	Sep 23, 2003
MAXIMUM PEAK STAGE			16.44	Sep 23	16.44	Sep 23, 2003
INSTANTANEOUS LOW FLOW			0.25	Oct 8	0.08	Aug 14, 2002
ANNUAL RUNOFF (CFSM)	1.42		3.28		1.80	
ANNUAL RUNOFF (INCHES)	19.27		44.58		24.51	
10 PERCENT EXCEEDS	41		133		54	
50 PERCENT EXCEEDS	4.1		11		4.9	
90 PERCENT EXCEEDS	0.46		4.0		1.4	

e Estimated.



PRECIPITATION RECORDS

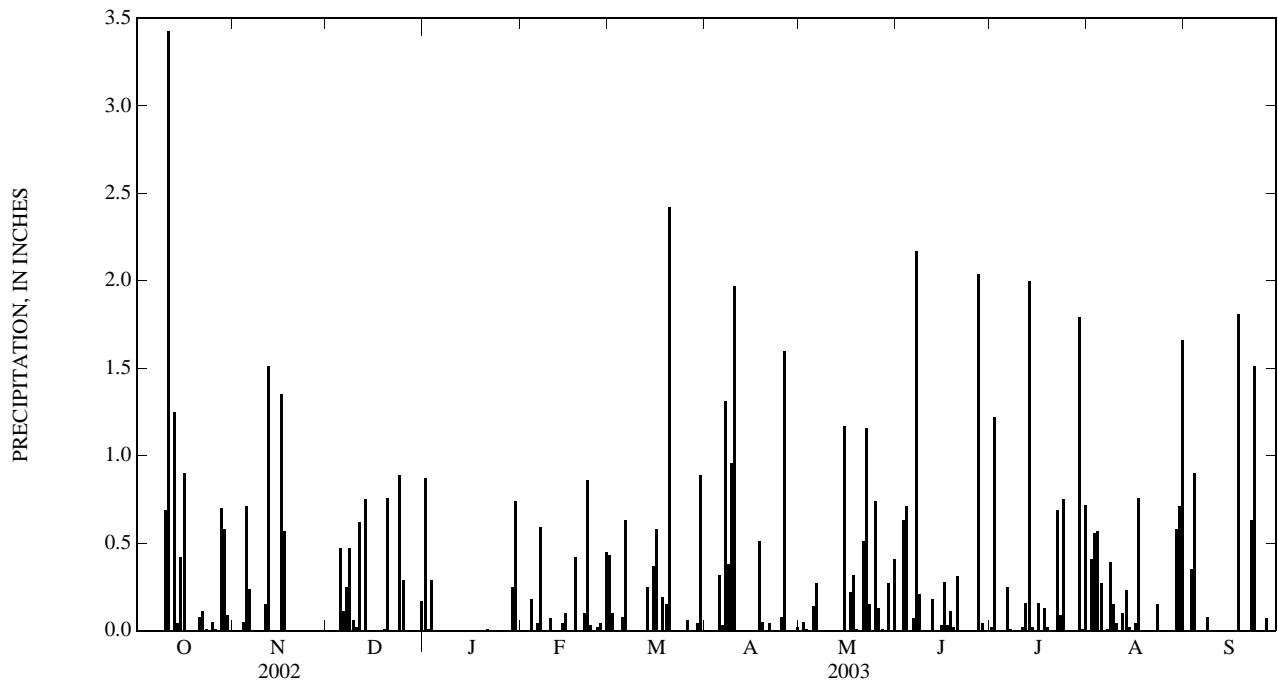
PERIOD OF RECORD.--August 1998 to current year. Records for August 1998 to December 1999 are unpublished and available in the USGS District Office in Raleigh, NC.

GAGE.--Tipping bucket raingage and data collection platform.

REMARKS.--Precipitation data collected during freezing periods may not be accurately reflected in daily record; consequently, winter record is poor.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.87	0.00	0.43	0.00	0.00	0.00	0.02	0.00	0.00
2	0.00	0.00	0.00	0.01	0.00	0.10	0.00	0.05	0.00	1.22	0.41	0.00
3	0.00	0.00	0.00	0.29	0.00	0.00	0.00	0.01	0.63	0.00	0.56	0.35
4	0.00	0.05	0.00	0.00	0.18	0.00	0.00	0.00	0.71	0.00	0.57	0.90
5	0.00	0.71	0.47	0.00	0.00	0.08	0.32	0.14	0.00	0.00	0.27	0.00
6	0.00	0.24	0.11	0.00	0.04	0.63	0.03	0.27	0.07	0.25	0.00	0.00
7	0.00	0.00	0.25	0.00	0.59	0.00	1.31	0.00	2.17	0.01	0.01	0.00
8	0.00	0.00	0.47	0.00	0.00	0.00	0.38	0.00	0.21	0.00	0.39	0.08
9	0.00	0.00	0.06	0.00	0.00	0.00	0.96	0.00	0.00	0.00	0.15	0.00
10	0.69	0.00	0.02	0.00	0.07	0.00	1.97	0.00	0.00	0.00	0.04	0.00
11	3.43	0.15	0.62	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00
12	0.00	1.51	0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.16	0.10	0.00
13	1.25	0.00	0.75	0.00	0.00	0.25	0.00	0.00	0.00	2.00	0.23	0.00
14	0.04	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.02	0.02	0.00
15	0.42	0.00	0.00	0.00	0.00	0.10	0.37	0.00	1.17	0.03	0.00	0.00
16	0.90	1.35	0.00	0.00	0.00	0.58	0.00	0.00	0.28	0.16	0.04	0.00
17	0.00	0.57	0.00	0.00	0.00	0.00	0.00	0.22	0.03	0.00	0.76	0.00
18	0.00	0.00	0.00	0.00	0.42	0.19	0.51	0.32	0.11	0.13	0.00	1.81
19	0.00	0.00	0.01	0.00	0.00	0.15	0.05	0.01	0.02	0.02	0.00	0.00
20	0.00	0.00	0.76	0.00	0.00	2.42	0.00	0.00	0.31	0.00	0.00	0.00
21	0.08	0.00	0.00	0.01	0.10	0.00	0.04	0.51	0.00	0.00	0.00	0.00
22	0.11	0.00	0.00	0.00	0.86	0.00	0.00	1.16	0.00	0.69	0.00	0.63
23	0.01	0.00	0.00	0.00	0.03	0.00	0.00	0.15	0.00	0.09	0.15	1.51
24	0.00	0.00	0.89	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00
25	0.05	0.00	0.29	0.00	0.02	0.00	0.08	0.74	0.00	0.00	0.00	0.00
26	0.01	0.00	0.00	0.00	0.04	0.06	1.60	0.13	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	2.04	0.00	0.00	0.07
28	0.70	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.04	0.00	0.00	0.00
29	0.58	0.00	0.00	0.25	---	0.04	0.00	0.27	0.00	1.79	0.58	0.00
30	0.09	0.00	0.00	0.74	---	0.89	0.02	0.00	0.00	0.01	0.71	0.00
31	0.00	---	0.17	0.00	---	0.00	---	0.41	---	0.72	1.66	---
TOTAL	8.36	4.58	4.87	2.17	2.94	6.19	7.27	5.57	6.83	8.06	6.65	5.35



02094775 RYAN CREEK BELOW US HIGHWAY 220 AT GREENSBORO, NC

LOCATION.--Lat 36°01'51", long 79°47'55", Guilford County, Hydrologic Unit 03030002, on left bank 0.6 mi upstream of South Buffalo Creek, and .2 mi below US Highway 220 in Greensboro.

DRAINAGE AREA.--4.12 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1998 to current year.

REVISED RECORDS.--WDR NC-02-1B: 1999-2001(M).

GAGE.--Water-stage recorder. Elevation of gage is 730 ft above NGVD of 1929, from topographic map. Satellite telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. No flow occurred several days in Aug. 2002. Minimum discharge for current water year also occurred Oct. 3, 4, 6.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.26	1.6	0.92	70	3.3	19	3.2	1.8	2.0	1.0	20	6.9
2	0.25	1.0	0.89	6.5	2.5	34	2.5	1.6	1.3	70	7.7	2.7
3	0.24	0.83	0.99	15	2.2	4.8	2.1	1.5	13	4.8	6.6	2.8
4	0.27	1.1	1.2	4.2	7.5	3.2	1.9	1.6	94	1.9	48	107
5	0.26	19	64	2.8	2.4	4.3	5.4	3.1	6.5	1.3	21	7.5
6	0.25	37	18	2.4	3.0	44	2.1	9.0	2.2	2.3	2.7	3.0
7	0.27	2.8	9.0	1.9	32	4.6	96	1.9	189	4.0	2.1	2.4
8	0.33	1.7	6.8	2.0	5.1	3.2	14	1.3	25	1.1	20	2.9
9	0.31	1.3	5.5	1.7	3.0	2.8	83	1.1	20	2.6	4.2	1.9
10	1.4	1.1	3.9	e1.5	3.5	2.3	240	0.94	2.8	1.6	5.3	1.7
11	252	3.9	56	1.4	2.3	2.2	18	0.86	1.9	0.88	4.7	1.5
12	4.6	110	6.8	1.3	1.9	2.0	5.3	0.78	5.9	1.3	4.1	1.5
13	82	9.8	70	1.3	1.4	5.9	3.3	0.67	2.4	129	2.9	1.5
14	7.6	3.3	8.9	1.1	1.8	4.2	2.7	0.66	1.3	83	1.8	1.5
15	7.9	2.3	3.5	0.95	2.8	4.4	2.4	49	1.2	3.3	1.6	1.4
16	92	86	2.6	e0.95	3.3	36	2.1	4.7	2.9	2.6	1.5	1.2
17	4.2	71	2.2	e0.95	2.4	5.3	1.9	2.0	2.2	2.0	24	1.1
18	1.7	8.2	1.9	0.96	18	12	10	10	2.0	2.3	6.5	82
19	0.99	3.3	1.7	1.0	7.1	4.3	15	9.1	2.7	3.0	2.1	13
20	0.74	2.4	38	1.0	4.4	256	3.4	2.2	9.4	1.8	1.8	2.5
21	1.3	2.9	3.7	0.93	3.1	10	2.9	14	1.3	1.7	1.7	2.0
22	3.7	2.1	2.5	1.0	77	4.4	2.5	96	0.86	17	1.5	14
23	0.81	1.3	2.0	e1.0	9.6	3.2	2.0	31	0.84	9.6	1.4	206
24	0.57	1.2	64	1.1	3.4	2.7	1.8	7.8	0.66	2.0	1.8	3.1
25	0.73	1.1	33	1.3	2.6	2.4	2.7	34	0.64	1.5	1.5	2.2
26	1.1	0.99	4.3	1.5	8.8	2.4	70	48	0.60	1.4	1.7	1.9
27	0.58	0.96	2.8	1.2	56	2.9	8.4	3.7	118	1.2	1.2	1.8
28	36	0.90	2.3	1.1	20	2.0	3.0	2.7	9.8	1.2	0.96	2.3
29	41	0.91	2.0	5.4	---	2.7	2.2	4.7	2.1	49	24	1.3
30	9.3	1.0	1.8	35	---	49	1.8	2.4	1.3	9.5	27	1.3
31	2.8	---	1.9	6.0	---	5.5	---	4.8	---	23	92	---
TOTAL	555.46	380.99	423.10	174.44	290.4	541.7	611.6	352.91	523.80	436.88	343.36	481.9
MEAN	17.9	12.7	13.6	5.63	10.4	17.5	20.4	11.4	17.5	14.1	11.1	16.1
MAX	252	110	70	70	77	256	240	96	189	129	92	206
MIN	0.24	0.83	0.89	0.93	1.4	2.0	1.8	0.66	0.60	0.88	0.96	1.1
CFSM	4.35	3.08	3.31	1.37	2.52	4.24	4.95	2.76	4.24	3.42	2.69	3.90
IN.	5.02	3.44	3.82	1.58	2.62	4.89	5.52	3.19	4.73	3.94	3.10	4.35

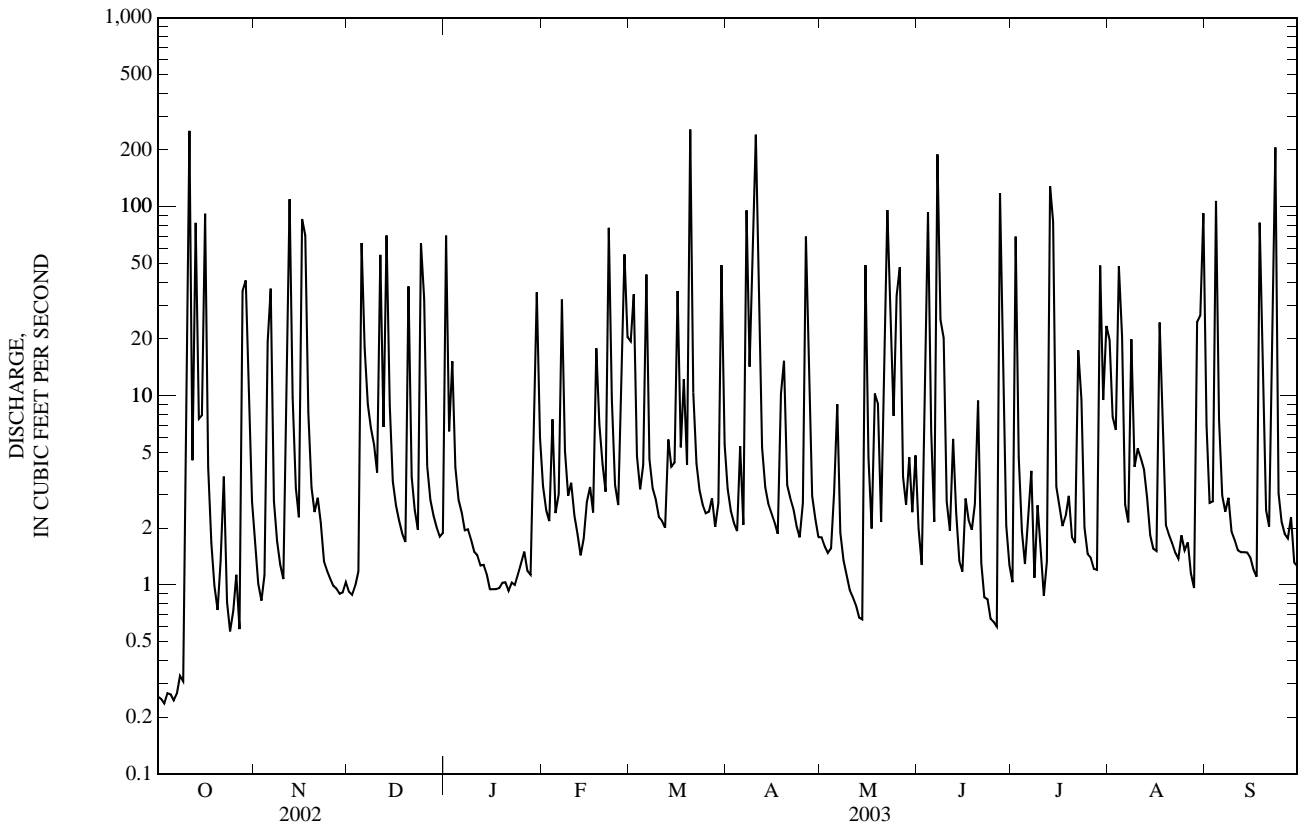
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2003, BY WATER YEAR (WY)

MEAN	4.62	3.32	4.64	7.02	4.98	7.79	6.47	3.60	5.75	4.86	4.42	10.9
MAX	17.9	12.7	13.6	12.9	10.4	17.5	20.4	11.4	17.5	14.1	11.1	29.9
(WY)	(2003)	(2003)	(2003)	(2002)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2000)
MIN	0.31	0.42	1.35	2.92	2.13	2.74	0.76	1.05	0.14	0.89	1.66	1.14
(WY)	(1999)	(1999)	(2001)	(2001)	(1999)	(1999)	(2002)	(1999)	(2002)	(1999)	(1998)	(1998)

02094775 RYAN CREEK BELOW US HIGHWAY 220 AT GREENSBORO, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1998 - 2003	
ANNUAL TOTAL	2,303.80		5,116.54			
ANNUAL MEAN	6.31		14.0		5.90	
HIGHEST ANNUAL MEAN					14.0	2003
LOWEST ANNUAL MEAN					2.98	2002
HIGHEST DAILY MEAN	252	Oct 11	256	Mar 20	393	Sep 15, 2000
LOWEST DAILY MEAN	0.00	Aug 6	0.24	Oct 3	0.00	Aug 6, 2002
ANNUAL SEVEN-DAY MINIMUM	0.00	Aug 6	0.26	Oct 1	0.00	Aug 6, 2002
MAXIMUM PEAK FLOW			1,060	Jul 13	1,060	Jul 13, 2003
MAXIMUM PEAK STAGE			12.53	Jul 13	12.53	Jul 13, 2003
INSTANTANEOUS LOW FLOW			0.20*	Oct 2	0.00*	Aug 6, 2002
ANNUAL RUNOFF (CFSM)	1.53		3.40		1.43	
ANNUAL RUNOFF (INCHES)	20.80		46.20		19.46	
10 PERCENT EXCEEDS	8.9		39		10	
50 PERCENT EXCEEDS	0.72		2.6		1.1	
90 PERCENT EXCEEDS	0.03		0.96		0.22	

e Estimated.
 * See REMARKS.



02094775 RYAN CREEK BELOW US 220 AT GREENSBORO, NC—Continued

PRECIPITATION RECORDS

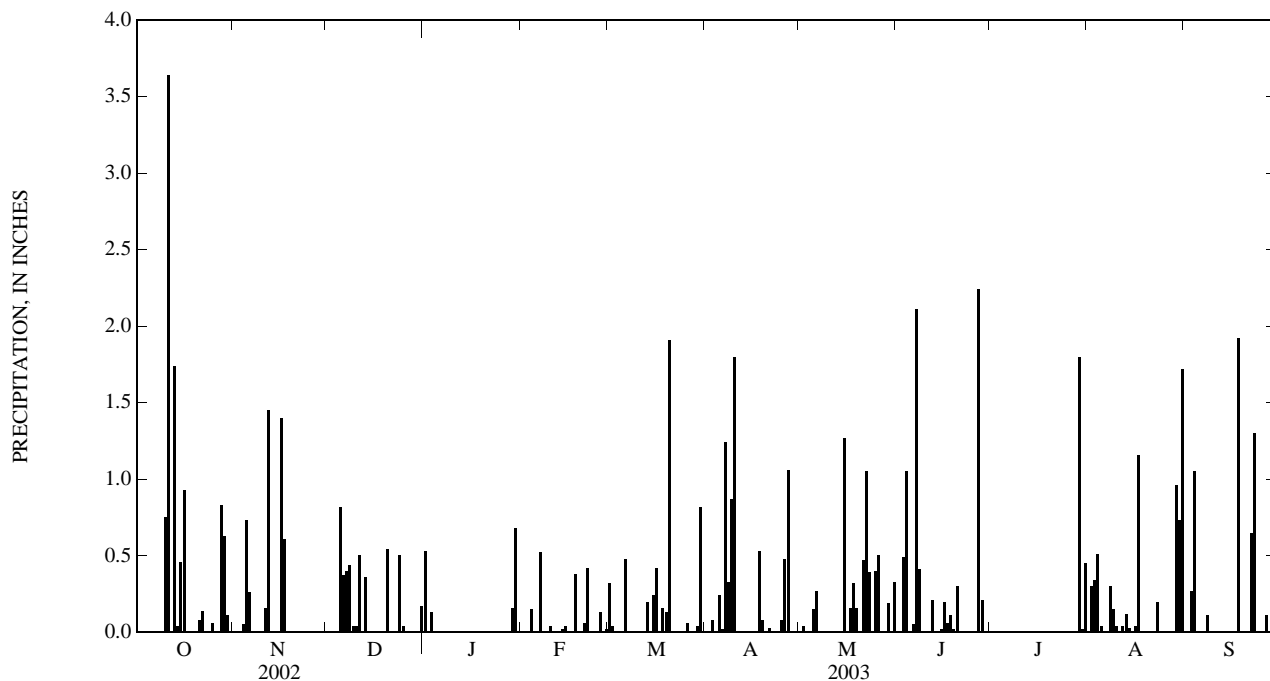
PERIOD OF RECORD.--August 1998 to current year.

GAGE.--Tipping-bucket raingage and data collection platform.

REMARKS.--Precipitation data collected during freezing periods may not be accurately reflected in daily record; consequently, winter record is poor.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.53	0.01	0.32	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.01	0.00	0.04	0.00	0.04	0.00	---	0.30	0.00
3	0.00	0.00	0.00	0.13	0.00	0.01	0.08	0.00	0.49	---	0.34	0.27
4	0.00	0.05	0.00	0.00	0.15	0.00	0.00	0.00	1.05	---	0.51	1.05
5	0.00	0.73	0.82	0.00	0.00	0.01	0.24	0.15	0.00	---	0.04	0.00
6	0.00	0.26	0.37	0.00	0.00	0.48	0.02	0.27	0.05	---	0.00	0.00
7	0.00	0.00	0.40	0.00	0.52	0.00	1.24	0.00	2.11	---	0.01	0.00
8	0.00	0.00	0.44	0.00	0.00	0.00	0.33	0.00	0.41	---	0.30	0.11
9	0.00	0.00	0.04	0.00	0.00	0.00	0.87	0.00	0.01	---	0.15	0.00
10	0.75	0.00	0.04	0.00	0.04	0.00	1.80	0.00	0.00	---	0.04	0.00
11	3.64	0.16	0.50	0.00	0.00	0.00	0.01	0.00	0.00	---	0.00	0.00
12	0.00	1.45	0.00	0.00	0.00	0.00	0.00	0.00	0.21	---	0.04	0.00
13	1.74	0.00	0.36	0.00	0.00	0.20	0.00	0.00	0.00	---	0.12	0.00
14	0.04	0.00	0.01	0.00	0.02	0.00	0.00	0.00	0.00	---	0.03	0.00
15	0.46	0.00	0.01	0.00	0.04	0.24	0.00	1.27	0.02	---	0.00	0.00
16	0.93	1.40	0.00	0.00	0.00	0.42	0.00	0.01	0.20	---	0.04	0.00
17	0.00	0.61	0.00	0.00	0.00	0.00	0.00	0.16	0.06	---	1.16	0.00
18	0.00	0.00	0.00	0.00	0.38	0.16	0.53	0.32	0.11	---	0.00	1.92
19	0.00	0.00	0.00	0.00	0.00	0.13	0.08	0.16	0.02	---	0.00	0.01
20	0.01	0.00	0.54	0.00	0.00	1.91	0.00	0.00	0.30	---	0.00	0.00
21	0.08	0.00	0.00	0.00	0.06	0.00	0.03	0.47	0.00	---	0.00	0.00
22	0.14	0.00	0.00	0.00	0.42	0.00	0.00	1.05	0.00	---	0.00	0.65
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.39	0.00	---	0.20	1.30
24	0.00	0.00	0.50	0.00	0.00	0.00	0.00	0.01	0.00	---	0.00	0.00
25	0.06	0.00	0.04	0.00	0.01	0.00	0.08	0.40	0.00	0.00	0.00	0.00
26	0.01	0.00	0.00	0.00	0.13	0.06	0.48	0.50	0.00	0.00	0.00	0.00
27	0.01	0.00	0.00	0.00	0.00	0.00	1.06	0.00	2.24	0.00	0.00	0.11
28	0.83	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.21	0.00	0.00	0.00
29	0.63	0.00	0.00	0.16	---	0.04	0.00	0.19	0.00	1.80	0.96	0.00
30	0.11	0.00	0.00	0.68	---	0.82	0.00	0.00	0.00	0.02	0.73	0.00
31	0.00	---	0.17	0.00	---	0.00	---	0.33	---	0.45	1.72	---
TOTAL	9.44	4.66	4.24	1.51	1.80	4.84	6.85	5.72	7.49	---	6.69	5.42



02095000 SOUTH BUFFALO CREEK NEAR GREENSBORO, NC

LOCATION.--Lat 36°03'36", long 79°43'32", Guilford County, Hydrologic Unit 03030002, on left bank at upstream side of bridge on Secondary Road 3000, 3.8 mi east of Greensboro, 4.0 mi downstream from Run Creek.

DRAINAGE AREA.--34.0 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1928 to September 1958. August 1998 to current year. Prior to October 1952, published as "Buffalo Creek near Greensboro".

REVISIONS.--WSP 972: 1928-30, 1932-33, 1934(M), 1935-37, 1939, 1940(M). WSP 1303: 1934, 1938, 1940-42, monthly and yearly runoff. WSP 1383: Drainage area, 1931, 1941(M).

GAGE.--Water-stage recorder. Elevation of gage is 700 ft above NGVD of 1929, from topographic map. Satellite telemetry at station.

REMARKS.--Records poor. Maximum discharge 10,000 ft³/s July 15, 1949, gage-height 11.54 ft, from rating curve extended above 2,000 ft³/s based on contracted-opening measurement, site and datum then in use. Minimum discharge for current water year also occurred Oct. 8, 9.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.3	18	5.7	635	30	214	21	38	48	14	247	196
2	2.9	12	5.4	76	20	485	15	13	16	690	26	27
3	2.9	9.7	5.4	188	16	101	12	13	203	106	72	18
4	2.6	13	5.4	48	86	67	11	10	623	25	298	956
5	2.6	88	571	27	25	76	65	27	162	16	422	131
6	2.2	309	176	20	18	562	16	83	44	15	67	30
7	2.2	30	81	16	322	96	1,130	17	1,570	104	23	20
8	2.0	16	57	15	68	54	126	11	511	15	109	26
9	2.1	12	49	14	31	42	1,020	9.0	266	13	108	17
10	2.4	10	33	13	35	34	2,240	8.4	48	17	117	14
11	1,910	43	575	10	24	30	475	7.7	32	9.3	102	12
12	114	859	78	9.1	18	28	72	6.7	72	8.8	38	11
13	538	96	663	9.2	14	58	40	6.1	44	223	68	11
14	193	31	117	9.1	16	108	29	5.5	25	1,150	27	11
15	44	20	35	8.6	27	57	25	447	21	57	17	11
16	789	567	23	e7.8	33	588	22	304	57	48	14	9.8
17	51	728	16	e7.8	23	92	19	26	45	25	336	8.5
18	22	87	14	e7.6	163	149	56	97	25	40	447	544
19	13	33	13	e7.6	84	59	141	144	43	57	26	437
20	9.0	22	329	e8.0	49	2,270	29	25	89	19	17	27
21	16	18	36	8.2	31	169	23	91	22	12	14	18
22	28	15	20	e7.4	798	54	22	1,010	15	134	12	35
23	11	11	15	e7.0	147	33	16	332	12	212	12	1,890
24	6.3	9.7	583	e6.8	46	22	14	75	11	30	41	66
25	6.2	9.5	378	e6.6	33	18	18	254	9.3	15	11	29
26	12	8.5	53	e6.4	75	17	453	595	8.6	13	9.5	22
27	7.0	7.8	29	e6.2	591	20	131	60	367	11	8.4	18
28	186	7.1	21	e10	306	14	23	37	538	9.3	7.5	34
29	268	6.7	17	38	---	27	16	64	30	323	157	14
30	110	6.6	15	368	---	497	13	42	18	184	185	12
31	32	---	14	73	---	58	---	142	---	49	1,020	---
TOTAL	4,390.7	3,103.6	4,032.9	1,674.4	3,129	6,099	6,293	4,000.4	4,974.9	3,644.4	4,058.4	4,655.3
MEAN	142	103	130	54.0	112	197	210	129	166	118	131	155
MAX	1,910	859	663	635	798	2,270	2,240	1,010	1,570	1,150	1,020	1,890
MIN	2.0	6.6	5.4	6.2	14	14	11	5.5	8.6	8.8	7.5	8.5
CFSM	4.22	3.08	3.87	1.61	3.33	5.86	6.24	3.84	4.94	3.50	3.90	4.62
IN.	4.86	3.44	4.46	1.85	3.46	6.75	6.97	4.43	5.51	4.03	4.49	5.15

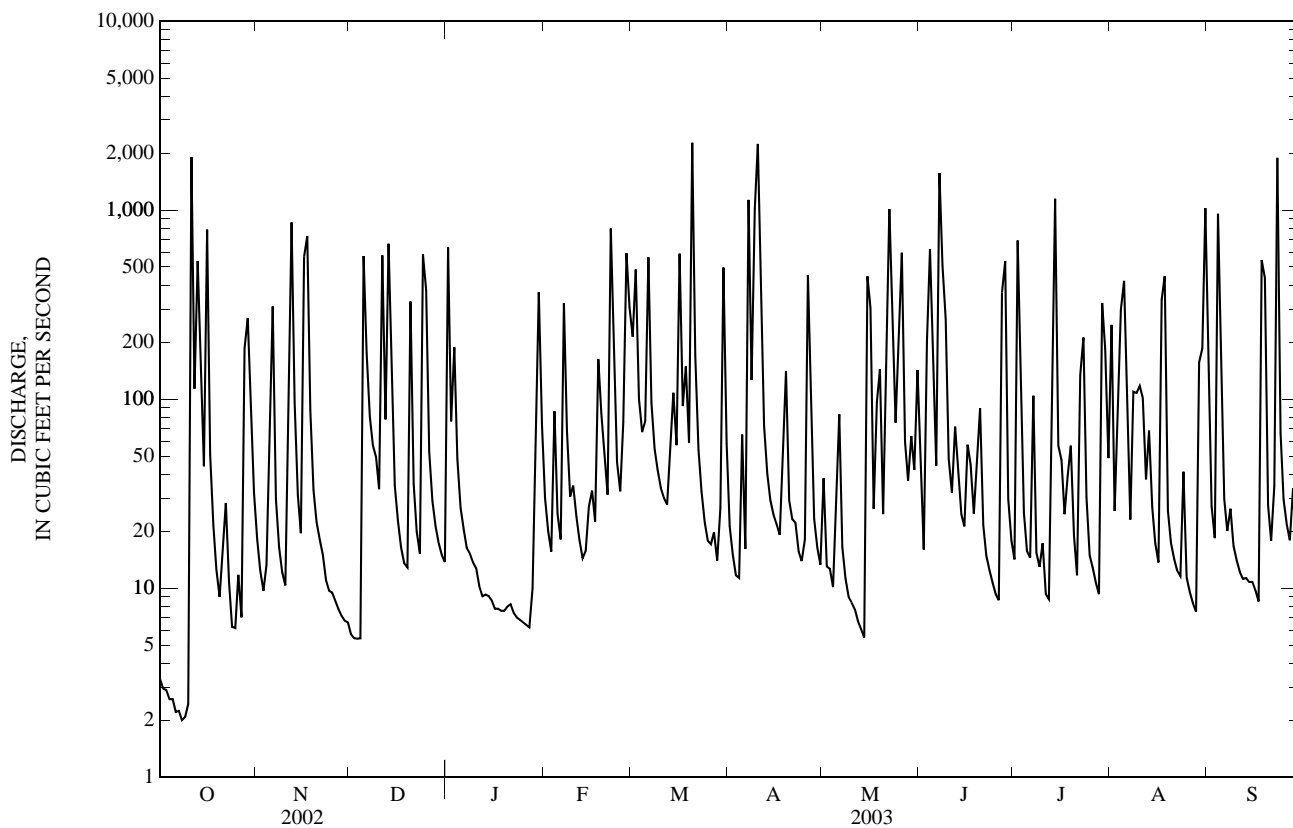
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 2003,[@] BY WATER YEAR (WY)

MEAN	25.9	30.2	40.6	59.0	65.7	63.2	53.2	28.7	30.6	36.0	25.8	42.5
MAX	142	109	130	179	135	197	210	129	166	307	131	218
(WY)	(2003)	(1949)	(2003)	(1937)	(1953)	(2003)	(2003)	(2003)	(2003)	(1949)	(2003)	(2000)
MIN	1.82	3.53	6.86	7.87	14.0	22.5	8.68	6.19	4.40	2.64	2.33	2.26
(WY)	(1931)	(1932)	(1934)	(1942)	(1931)	(1930)	(2002)	(2002)	(1933)	(1932)	(1932)	(1930)

02095000 SOUTH BUFFALO CREEK NEAR GREENSBORO, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1928 - 2003 [®]	
ANNUAL TOTAL	19,722.94		50,056.0		41.4	
ANNUAL MEAN	54.0		137		137	
HIGHEST ANNUAL MEAN					21.0	
LOWEST ANNUAL MEAN					1942	
HIGHEST DAILY MEAN	1,910	Oct 11	2,270	Mar 20	5,460	Jul 15, 1949
LOWEST DAILY MEAN	0.42	Aug 4	2.0	Oct 8	0.42	Aug 4, 2002
ANNUAL SEVEN-DAY MINIMUM	0.57	Jul 31	2.3	Oct 4	0.57	Jul 31, 2002
MAXIMUM PEAK FLOW			3,080	Mar 20	10,000*	Jul 15, 1945
MAXIMUM PEAK STAGE			14.37	Mar 20	14.37	Mar 20, 2003
INSTANTANEOUS LOW FLOW			1.9*	Oct 6	NOT DETERMINED	
ANNUAL RUNOFF (CFSM)	1.61		4.08		1.23	
ANNUAL RUNOFF (INCHES)	21.84		55.42		16.75	
10 PERCENT EXCEEDS	102		447		77	
50 PERCENT EXCEEDS	11		28		14	
90 PERCENT EXCEEDS	1.5		7.9		4.5	

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



PRECIPITATION RECORDS

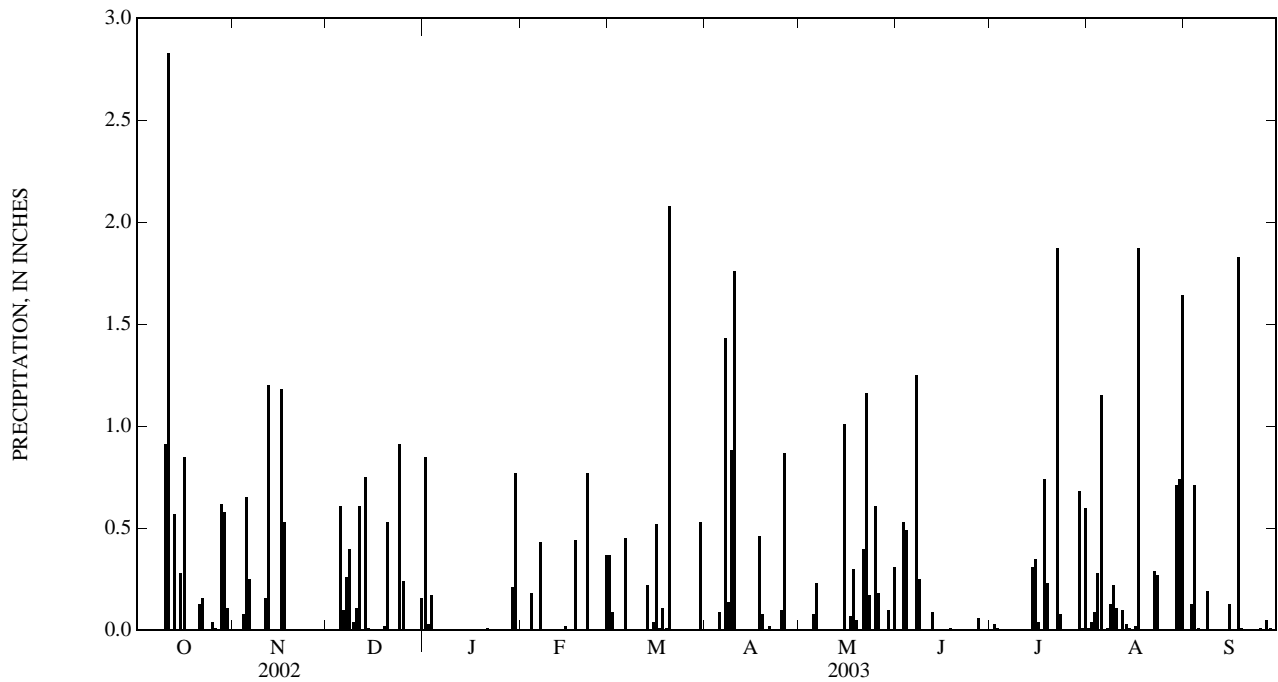
PERIOD OF RECORD.--August 1998 to current year.

GAGE.--Tipping-bucket raingage and data collection platform.

REMARKS.--Precipitation data collected during freezing periods may not be accurately reflected in daily record; consequently, winter record is poor.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.85	0.00	0.37	0.00	0.00	0.00	0.00	0.01	0.00
2	0.00	0.00	0.00	0.03	0.00	0.09	0.00	0.00	0.00	0.03	0.04	0.00
3	0.00	0.00	0.00	0.17	0.00	0.00	0.00	0.00	0.53	0.01	0.09	0.13
4	0.00	0.08	0.00	0.00	0.18	0.00	0.00	0.00	0.49	0.00	0.28	0.71
5	0.00	0.65	0.61	0.00	0.00	0.00	0.09	0.08	0.00	0.00	1.15	0.01
6	0.00	0.25	0.10	0.00	0.00	0.45	0.00	0.23	0.00	0.00	0.00	0.00
7	0.00	0.00	0.26	0.00	0.43	0.00	1.43	0.00	1.25	0.00	0.01	0.00
8	0.00	0.00	0.40	0.00	0.00	0.00	0.14	0.00	0.25	0.00	0.13	0.19
9	0.00	0.00	0.04	0.00	0.00	0.00	0.88	0.00	0.00	0.00	0.22	0.00
10	0.91	0.00	0.11	0.00	0.00	0.00	1.76	0.00	0.00	0.00	0.11	0.00
11	2.83	0.16	0.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	1.20	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.10	0.00
13	0.57	0.00	0.75	0.00	0.00	0.22	0.00	0.00	0.00	0.00	0.03	0.00
14	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.31	0.01	0.00
15	0.28	0.00	0.00	0.00	0.02	0.04	0.00	1.01	0.00	0.35	0.00	0.13
16	0.85	1.18	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.04	0.02	0.00
17	0.00	0.53	0.00	0.00	0.00	0.01	0.00	0.07	0.00	0.00	1.87	0.00
18	0.00	0.00	0.00	0.00	0.44	0.11	0.46	0.30	0.01	0.74	0.00	1.83
19	0.00	0.00	0.02	0.00	0.00	0.01	0.08	0.05	0.00	0.23	0.00	0.01
20	0.00	0.00	0.53	0.00	0.00	2.08	0.00	0.00	0.00	0.00	0.00	0.00
21	0.13	0.00	0.00	0.01	0.00	0.00	0.02	0.40	0.00	0.00	0.00	0.00
22	0.16	0.00	0.00	0.00	0.77	0.00	0.00	1.16	0.00	1.87	0.29	0.00
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.00	0.08	0.27	0.00
24	0.00	0.00	0.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.04	0.00	0.24	0.00	0.00	0.00	0.10	0.61	0.00	0.00	0.00	0.01
26	0.01	0.00	0.00	0.00	0.00	0.00	0.87	0.18	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.05
28	0.62	0.00	0.00	0.00	0.37	0.00	0.00	0.00	0.00	0.00	0.00	0.01
29	0.58	0.00	0.00	0.21	---	0.00	0.00	0.10	0.00	0.68	0.71	0.00
30	0.11	0.00	0.00	0.77	---	0.53	0.00	0.00	0.00	0.01	0.74	0.00
31	0.00	---	0.16	0.00	---	0.00	---	0.31	---	0.60	1.64	---
TOTAL	7.09	4.05	4.75	2.04	2.21	4.43	5.83	4.67	2.68	4.95	7.72	3.08



0209517912 NORTH BUFFALO CREEK AT GREENSBORO, NC

LOCATION.--Lat 36°05'21", long 79°49'44", Guilford County, Hydrologic Unit 03030002, at Friendly Street bridge, 3 mi northwest of Downtown Greensboro.

DRAINAGE AREA.--4.81 mi².

GAGE-HEIGHT RECORDS

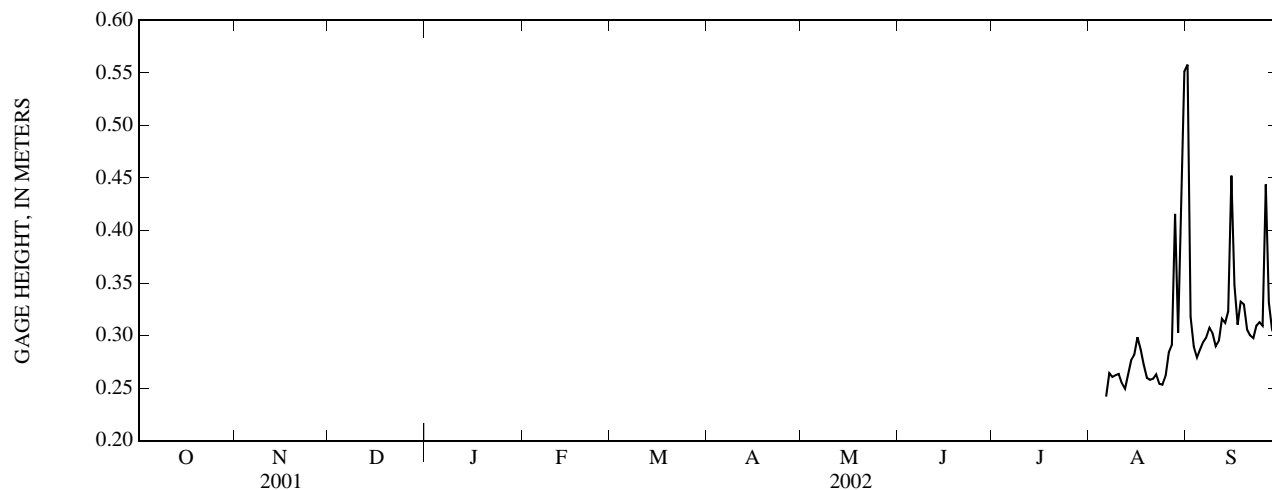
PERIOD OF RECORD.--August 2002 to November 2003 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 760 ft above NGVD of 1929, from topographic map.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height recorded, 3.16 m, Sept.23, 2003; minimum gage height recorded, 0.22 m, Aug. 5, 6, 12, 2002.

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

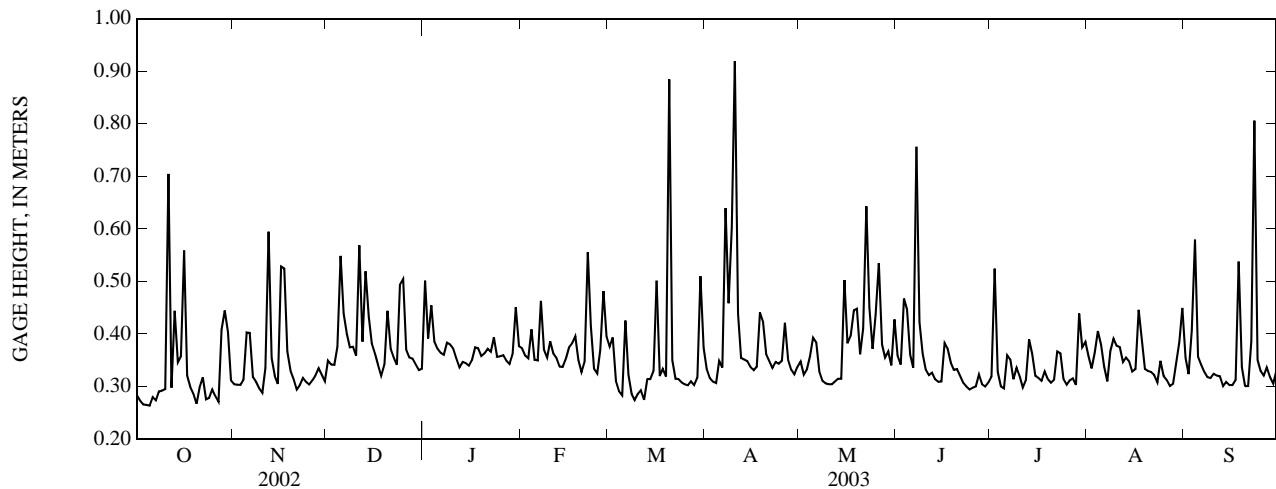
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	---	0.56
2	---	---	---	---	---	---	---	---	---	---	---	0.32
3	---	---	---	---	---	---	---	---	---	---	---	0.29
4	---	---	---	---	---	---	---	---	---	---	---	0.28
5	---	---	---	---	---	---	---	---	---	---	---	0.29
6	---	---	---	---	---	---	---	---	---	---	0.24	0.29
7	---	---	---	---	---	---	---	---	---	---	0.26	0.30
8	---	---	---	---	---	---	---	---	---	---	0.26	0.31
9	---	---	---	---	---	---	---	---	---	---	0.26	0.30
10	---	---	---	---	---	---	---	---	---	---	0.26	0.29
11	---	---	---	---	---	---	---	---	---	---	0.25	0.30
12	---	---	---	---	---	---	---	---	---	---	0.25	0.32
13	---	---	---	---	---	---	---	---	---	---	0.26	0.31
14	---	---	---	---	---	---	---	---	---	---	0.28	0.32
15	---	---	---	---	---	---	---	---	---	---	0.28	0.45
16	---	---	---	---	---	---	---	---	---	---	0.30	0.35
17	---	---	---	---	---	---	---	---	---	---	0.29	0.31
18	---	---	---	---	---	---	---	---	---	---	0.27	0.33
19	---	---	---	---	---	---	---	---	---	---	0.26	0.33
20	---	---	---	---	---	---	---	---	---	---	0.26	0.31
21	---	---	---	---	---	---	---	---	---	---	0.26	0.30
22	---	---	---	---	---	---	---	---	---	---	0.26	0.30
23	---	---	---	---	---	---	---	---	---	---	0.25	0.31
24	---	---	---	---	---	---	---	---	---	---	0.25	0.31
25	---	---	---	---	---	---	---	---	---	---	0.26	0.31
26	---	---	---	---	---	---	---	---	---	---	0.28	0.44
27	---	---	---	---	---	---	---	---	---	---	0.29	0.33
28	---	---	---	---	---	---	---	---	---	---	0.42	0.31
29	---	---	---	---	---	---	---	---	---	---	0.30	0.30
30	---	---	---	---	---	---	---	---	---	---	0.47	0.30
31	---	---	---	---	---	---	---	---	---	---	0.55	---
MEAN	---	---	---	---	---	---	---	---	---	---	---	0.33
MAX	---	---	---	---	---	---	---	---	---	---	---	0.56
MIN	---	---	---	---	---	---	---	---	---	---	---	0.28



0209517912 NORTH BUFFALO CREEK AT GREENSBORO, NC—Continued

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

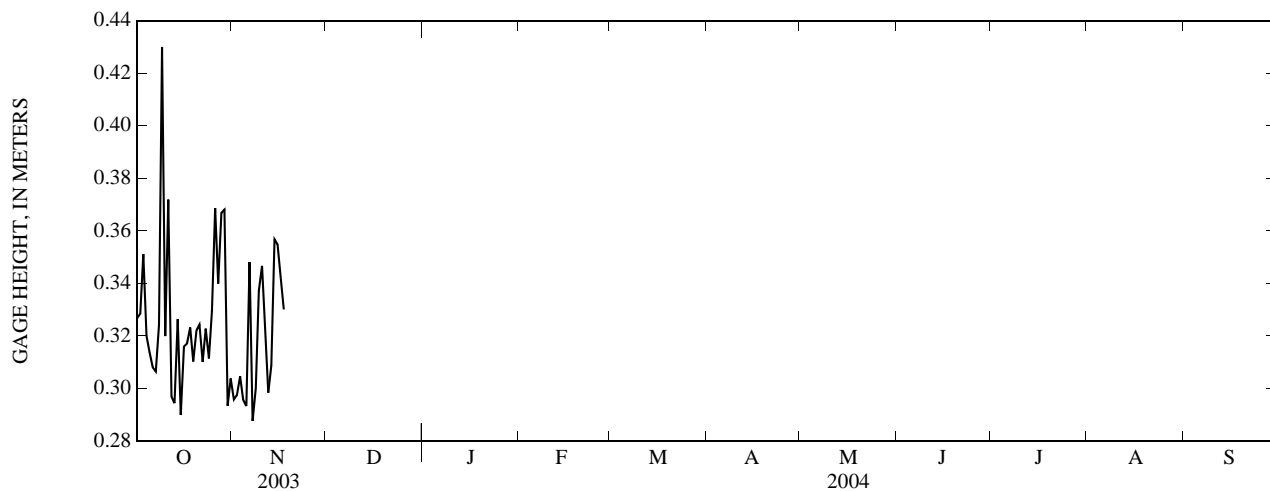
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.28	0.30	0.35	0.50	0.37	0.38	0.33	0.35	0.36	0.32	0.36	0.35
2	0.27	0.30	0.34	0.39	0.36	0.39	0.32	0.32	0.34	0.52	0.33	0.32
3	0.27	0.30	0.34	0.45	0.35	0.31	0.31	0.33	0.47	0.33	0.37	0.41
4	0.27	0.31	0.38	0.39	0.41	0.29	0.31	0.36	0.45	0.30	0.41	0.58
5	0.26	0.40	0.55	0.37	0.35	0.28	0.35	0.39	0.36	0.30	0.38	0.36
6	0.28	0.40	0.44	0.36	0.35	0.43	0.34	0.38	0.34	0.36	0.34	0.34
7	0.27	0.32	0.40	0.36	0.46	0.32	0.64	0.33	0.76	0.35	0.31	0.33
8	0.29	0.31	0.37	0.38	0.37	0.29	0.46	0.31	0.42	0.31	0.37	0.32
9	0.29	0.30	0.38	0.38	0.36	0.27	0.60	0.31	0.36	0.34	0.39	0.32
10	0.29	0.29	0.36	0.37	0.39	0.29	0.92	0.30	0.33	0.32	0.38	0.32
11	0.70	0.34	0.57	0.35	0.36	0.29	0.44	0.30	0.32	0.30	0.37	0.32
12	0.30	0.59	0.39	0.34	0.35	0.27	0.35	0.31	0.33	0.31	0.35	0.32
13	0.44	0.35	0.52	0.35	0.34	0.31	0.35	0.31	0.31	0.39	0.36	0.30
14	0.35	0.32	0.43	0.34	0.34	0.31	0.35	0.31	0.31	0.36	0.35	0.31
15	0.36	0.31	0.38	0.34	0.35	0.33	0.34	0.50	0.31	0.32	0.33	0.30
16	0.56	0.53	0.36	0.35	0.37	0.50	0.33	0.38	0.38	0.32	0.33	0.30
17	0.32	0.52	0.34	0.37	0.38	0.32	0.34	0.40	0.37	0.31	0.45	0.31
18	0.30	0.37	0.32	0.37	0.40	0.33	0.44	0.44	0.35	0.33	0.39	0.54
19	0.29	0.33	0.34	0.36	0.35	0.32	0.42	0.45	0.33	0.31	0.33	0.34
20	0.27	0.31	0.44	0.36	0.33	0.88	0.36	0.36	0.33	0.31	0.33	0.30
21	0.30	0.29	0.37	0.37	0.35	0.35	0.35	0.41	0.32	0.31	0.33	0.30
22	0.32	0.30	0.36	0.37	0.56	0.32	0.34	0.64	0.31	0.37	0.32	0.39
23	0.28	0.32	0.34	0.39	0.42	0.31	0.35	0.45	0.30	0.36	0.31	0.81
24	0.28	0.31	0.49	0.36	0.33	0.31	0.34	0.37	0.29	0.31	0.35	0.35
25	0.29	0.30	0.50	0.36	0.32	0.30	0.35	0.44	0.30	0.30	0.32	0.33
26	0.28	0.31	0.37	0.36	0.37	0.30	0.42	0.53	0.30	0.31	0.31	0.32
27	0.27	0.32	0.36	0.35	0.48	0.31	0.35	0.38	0.32	0.32	0.30	0.34
28	0.41	0.33	0.35	0.34	0.40	0.30	0.33	0.35	0.30	0.30	0.31	0.32
29	0.44	0.32	0.34	0.36	---	0.32	0.32	0.37	0.30	0.44	0.34	0.31
30	0.40	0.31	0.33	0.45	---	0.51	0.34	0.34	0.31	0.37	0.38	0.33
31	0.31	---	0.33	0.38	---	0.37	---	0.43	---	0.39	0.45	---
MEAN	0.33	0.34	0.39	0.37	0.38	0.35	0.39	0.38	0.35	0.34	0.35	0.36
MAX	0.70	0.59	0.57	0.50	0.56	0.88	0.92	0.64	0.76	0.52	0.45	0.81
MIN	0.26	0.29	0.32	0.34	0.32	0.27	0.31	0.30	0.29	0.30	0.30	0.30



0209517912 NORTH BUFFALO CREEK AT GREENSBORO, NC—Continued

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

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



WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: August 2002 to November 2003.

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

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

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum recorded, 28.4°C, Aug. 29, 2003; minimum recorded, 0.0°C, Jan. 12, 13, 17-20, 22-28, Feb. 16, 17, 2003.

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

Date	Time	Medium code	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Chloride, water, fltrd, mg/L (00940)	Sulfate water, fltrd, mg/L (00945)	Ammonia + org-N, water, unfltrd mg/L (00625)	Ammonia water, fltrd, mg/L (71846)
FEB 20...	1200	9	E3.0	748	12.9	108	7.8	332	6.9	55.5	16.1	0.50	0.10
MAY 14...	1400	D	1.2	--	8.5	--	7.8	254	19.5	--	--	--	--
JUN 12...	1515	9	--	--	7.1	--	6.9	249	22.0	--	--	--	--
JUL 01...	0740	9	--	--	--	--	--	--	--	--	--	--	--
JUL 09...	0830	9	E1.5	742	6.5	80	6.9	231	24.4	14.2	13.3	0.41	--
Date	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Organic nitrogen, water, unfltrd mg/L (00605)	Orthophosphate, water, fltrd, mg/L (00660)	Orthophosphate, water, fltrd, mg/L as P (00671)	Particulate nitrogen, susp, water, mg/L (49570)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inorganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)
FEB 20...	0.08	0.71	E.007	0.42	--	E.01	0.12	0.071	1.2	1.1	<0.1	1.1	3.3
MAY 14...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 12...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 01...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 09...	E.03	0.47	E.007	--	0.135	0.04	0.03	0.082	0.87	0.5	<0.1	0.5	3.5
Date	Biomass periphyton, ashfree drymass g/m2 (49954)	Periphyton biomass ash weight, g/m2 (00572)	Periphyton biomass dry weight, g/m2 (00573)	Biomass chlorophyll ratio, periphyton, number (70950)	Pheophytin a, periphyton, mg/m2 (62359)	E coli, modif. m-TEC, water, col/100 mL (90902)	Chlorophyll a periphyton, chromofluoro, mg/m2 (70957)	1-Naphthol, water, fltrd 0.7u GF ug/L (49295)	2,6-Diethyl-aniline water fltrd 0.7u GF ug/L (82660)	2-[(2-Et-6-Me-Ph)-amino]propan-1-ol, ug/L (61615)	2Chloro-2,6-diethyl acet-anilide wat flt ug/L (61618)	CIAT, water, fltrd, ug/L (04040)	2-Ethyl-6-methyl-aniline water, fltrd, ug/L (61620)
FEB 20...	--	--	--	--	--	2,700	--	<0.09	<0.006	<0.1	<0.005	<0.006	<0.004
MAY 14...	0.7	8.9	9.600	152	3.2	--	4.6	--	--	--	--	--	--
JUN 12...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 01...	--	--	--	--	--	600	--	--	--	--	--	--	--
JUL 09...	--	--	--	--	--	--	--	<0.09	<0.006	<0.1	<0.005	<0.006	<0.004

0209517912 NORTH BUFFALO CREEK AT GREENSBORO, NC—Continued

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

Date	3,4-Di-chloro-aniline water fltrd, ug/L (61625)	4Chloro 2methyl phenol, water, fltrd, ug/L (61633)	Aceto-chlor, water, fltrd, ug/L (49260)	Ala-chlor, water, fltrd, ug/L (46342)	Atra-zine, water, fltrd, ug/L (39632)	Azin-phos-methyl oxon, water, fltrd, ug/L (61635)	Azin-phos-methyl, water, fltrd, 0.7u GF ug/L (82686)	Ben-flur-alin, water, fltrd, 0.7u GF ug/L (82673)	Car-baryl, water, fltrd, 0.7u GF ug/L (82680)	Chlor-pyrifos oxon, water, fltrd, ug/L (61636)	Chlor-pyrifos water, fltrd, ug/L (38933)	cis-Per-methrin water fltrd, 0.7u GF ug/L (82687)	Cyflu-thrin, water, fltrd, ug/L (61585)
FEB 20...	<0.004	E.001	<0.006	<0.004	<0.007	<0.02	<0.050	<0.010	E.004	<0.06	<0.005	<0.006	<0.008
MAY 14...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 12...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 01...	--	--	--	--	--	--	--	--	--	--	--	--	--
09...	0.011	<0.006	<0.006	<0.004	<0.007	<0.02	<0.050	<0.010	E.029	<0.06	<0.005	<0.006	<0.008
Date	Cypermethrin water, fltrd, ug/L (61586)	DCPA, water fltrd, 0.7u GF ug/L (82682)	Desulf-inyl fipronil, water, fltrd, ug/L (62170)	Diaz-inon oxon, water, fltrd, ug/L (61638)	Diazi-non, water, fltrd, ug/L (39572)	Dicro-tophos, water, fltrd, ug/L (38454)	Diel-drin, water, fltrd, ug/L (39381)	Dimeth-oate, water, fltrd, 0.7u GF ug/L (82662)	Ethion monoxon water, fltrd, ug/L (61644)	Ethion, water, fltrd, ug/L (82346)	Fenami-phos sulfone water, fltrd, ug/L (61645)	Fenami-phos sulf-oxide, water, fltrd, ug/L (61646)	Fenami-phos, water, fltrd, ug/L (61591)
FEB 20...	<0.009	<0.003	E.003	<0.04	0.010	<0.08	<0.005	<0.006	<0.03	<0.004	<0.008	<0.03	<0.03
MAY 14...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 12...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 01...	--	--	--	--	--	--	--	--	--	--	--	--	--
09...	<0.009	<0.003	E.004	<0.01	<0.005	<0.08	0.006	<0.006	<0.03	<0.004	<0.008	<0.03	<0.03
Date	Desulf-inyl-fipronil amide, wat flt ug/L (62169)	Fipronil sulfide water, fltrd, ug/L (62167)	Fipronil sulfone water, fltrd, ug/L (62168)	Fipronil, water, fltrd, ug/L (62166)	Fonofos oxon, water, fltrd, ug/L (61649)	Fonofos water, fltrd, ug/L (04095)	Hexa-zinone, water, fltrd, ug/L (04025)	Ipro-dione, water, fltrd, ug/L (61593)	Isofen-phos, water, fltrd, ug/L (61594)	Mala-oxon, water, fltrd, ug/L (61652)	Mala-thion, water, fltrd, ug/L (39532)	Meta-laxyl, water, fltrd, ug/L (61596)	Methi-althion water, fltrd, ug/L (61598)
FEB 20...	<0.009	<0.005	<0.005	E.012	<0.002	<0.003	--	<1	<0.003	<0.008	<0.027	<0.005	<0.006
MAY 14...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 12...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 01...	--	--	--	--	--	--	--	--	--	--	--	--	--
09...	<0.009	E.004	<0.005	0.009	<0.002	<0.003	E.011	<1	<0.003	<0.008	<0.027	0.006	<0.006
Date	Methyl para-oxon, water, fltrd, ug/L (61664)	Methyl para-thion, water, fltrd, 0.7u GF (82667)	Metola-chlor, water, fltrd, ug/L (39415)	Metri-buzin, water, fltrd, ug/L (82630)	Myclo-butanil water, fltrd, ug/L (61599)	Pendi-meth-alin, water, fltrd, 0.7u GF (82683)	Phorate oxon, water, fltrd, ug/L (61666)	Phorate water fltrd, 0.7u GF (82664)	Phosmet oxon, water, fltrd, ug/L (61668)	Phosmet water, fltrd, ug/L (61601)	Prome-ton, water, fltrd, ug/L (04037)	Prome-tryn, water, fltrd, ug/L (04036)	Pron-amide, water, fltrd, 0.7u GF (82676)
FEB 20...	<0.03	<0.006	0.090	<0.006	<0.008	<0.022	<0.10	<0.011	<0.06	<0.008	0.02	<0.005	<0.004
MAY 14...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 12...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 01...	--	--	--	--	--	--	--	--	--	--	--	--	--
09...	<0.03	<0.006	0.087	<0.006	<0.008	<0.022	<0.10	<0.011	<0.06	<0.008	0.10	<0.005	<0.004

CAPE FEAR RIVER BASIN

0209517912 NORTH BUFFALO CREEK AT GREENSBORO, NC—Continued

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

Date	Sima- zine, water, fltrd, ug/L (04035)	Tebu- thiuron water fltrd, 0.7u GF ug/L (82670)	Ter- bufos oxon sulfone water, fltrd, ug/L (61674)	Terbu- fos, water, fltrd, 0.7u GF ug/L (82675)	Ter- buthyl- azine, water, fltrd, ug/L (04022)	Tri- flur- alin, water, fltrd, 0.7u GF ug/L (82661)	Di- chlor- vos, water fltrd, ug/L (38775)	Suspnd. sedi- ment, sieve diametr percent <.063mm (70331)	Sus- pended sedi- ment concen- tration mg/L (80154)
FEB 20...	E.005	E.01	<0.07	<0.02	<0.01	0.009	<0.01	93	11
MAY 14...	--	--	--	--	--	--	--	--	--
JUN 12...	--	--	--	--	--	--	--	--	--
JUL 01...	--	--	--	--	--	--	--	--	--
09...	<0.005	E.02	<0.07	<0.02	<0.01	<0.009	<0.01	75	3

Remark codes used in this table:

- < -- Less than
- E -- Estimated value

Medium codes used in this table:

- 9 -- Surface water
- D -- Plant tissue

TEMPERATURE, WATER, DEGREES CELSIUS
AUGUST TO SEPTEMBER 2002

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	---	---	---	21.2	19.1	20.1
2	---	---	---	---	---	---	---	---	---	21.1	19.6	20.3
3	---	---	---	---	---	---	---	---	---	23.2	19.2	21.1
4	---	---	---	---	---	---	---	---	---	24.5	21.0	22.7
5	---	---	---	---	---	---	---	---	---	23.6	21.4	22.4
6	---	---	---	---	---	---	25.4	23.2	24.5	22.7	19.7	21.2
7	---	---	---	---	---	---	23.2	20.7	21.8	21.9	20.2	21.1
8	---	---	---	---	---	---	21.3	19.2	20.4	21.4	19.4	20.3
9	---	---	---	---	---	---	21.4	19.0	20.3	21.5	19.5	20.5
10	---	---	---	---	---	---	22.0	19.4	20.8	21.8	19.5	20.6
11	---	---	---	---	---	---	23.0	20.4	21.8	22.1	20.0	21.0
12	---	---	---	---	---	---	23.8	21.6	22.8	21.0	18.8	19.6
13	---	---	---	---	---	---	25.6	22.1	23.7	20.7	17.9	19.3
14	---	---	---	---	---	---	24.6	22.9	23.7	21.6	20.2	20.8
15	---	---	---	---	---	---	24.6	23.6	24.0	22.6	21.4	22.0
16	---	---	---	---	---	---	25.3	23.3	24.3	23.8	21.4	22.4
17	---	---	---	---	---	---	26.3	23.4	24.5	23.6	21.8	22.7
18	---	---	---	---	---	---	26.7	23.7	25.2	23.1	21.7	22.2
19	---	---	---	---	---	---	25.7	23.8	24.8	23.4	21.9	22.4
20	---	---	---	---	---	---	25.3	23.6	24.5	23.3	21.7	22.4
21	---	---	---	---	---	---	24.6	22.8	23.7	23.0	21.3	22.2
22	---	---	---	---	---	---	25.2	23.4	24.2	22.8	21.6	22.2
23	---	---	---	---	---	---	26.0	23.7	24.9	22.3	20.7	21.4
24	---	---	---	---	---	---	26.1	24.1	25.0	20.7	18.7	19.6
25	---	---	---	---	---	---	25.2	23.5	24.4	19.9	18.7	19.0
26	---	---	---	---	---	---	24.2	22.4	23.1	19.7	18.3	18.9
27	---	---	---	---	---	---	22.4	21.1	21.8	23.9	19.5	21.6
28	---	---	---	---	---	---	21.2	19.9	20.5	23.7	21.4	22.4
29	---	---	---	---	---	---	20.9	19.4	20.2	21.5	19.7	20.7
30	---	---	---	---	---	---	21.0	20.1	20.6	21.4	18.6	20.0
31	---	---	---	---	---	---	20.4	19.3	20.0	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	24.5	17.9	21.1

0209517912 NORTH BUFFALO CREEK AT GREENSBORO, NC—Continued

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	22.2	19.6	20.8	12.9	11.0	12.0	6.9	4.9	5.6	12.4	9.6	10.9
2	23.4	20.5	21.8	11.0	9.3	10.2	6.2	3.9	5.1	10.0	8.5	9.4
3	24.0	21.3	22.6	11.0	9.5	10.2	7.3	5.0	5.9	9.7	7.2	9.0
4	24.0	21.8	22.9	12.2	10.4	11.3	5.1	2.0	3.6	7.2	4.0	5.6
5	24.4	22.4	23.4	12.7	11.5	12.0	---	---	---	7.1	2.9	4.4
6	23.3	20.2	21.1	13.5	11.7	12.5	6.0	4.3	4.8	6.4	2.9	4.6
7	21.4	19.6	20.5	12.6	11.0	12.0	6.2	3.5	4.7	5.0	0.7	2.5
8	20.5	16.9	18.1	12.2	10.1	11.1	7.0	4.1	5.5	8.4	2.8	5.0
9	17.3	16.1	16.7	13.3	10.6	12.0	6.7	5.8	6.3	10.7	4.9	7.2
10	18.4	16.6	17.5	15.6	12.8	14.2	6.8	5.5	6.1	9.2	4.8	6.8
11	20.5	18.4	19.6	17.9	15.6	16.9	7.2	3.9	6.0	6.2	1.5	3.1
12	21.3	19.5	20.4	16.6	14.7	15.8	8.6	6.3	7.5	3.1	0.0	1.1
13	21.4	20.4	20.9	14.7	12.2	13.9	6.5	4.9	5.7	4.7	0.0	1.6
14	20.4	16.9	18.2	12.7	10.4	11.6	7.9	5.5	6.6	5.2	0.3	2.8
15	16.9	15.1	15.6	12.9	10.2	11.7	6.9	3.5	5.2	4.7	0.3	1.7
16	17.6	14.6	16.3	13.5	12.8	13.1	8.6	4.5	6.3	3.2	0.1	1.2
17	16.8	15.3	16.1	13.2	11.6	12.6	6.5	4.1	5.3	3.9	0.0	1.6
18	15.3	13.3	14.5	12.0	10.3	11.1	7.1	4.5	5.8	2.0	0.0	1.0
19	15.6	12.8	14.2	11.2	9.0	10.2	8.2	6.0	7.1	2.1	0.0	1.0
20	16.9	14.7	15.7	11.3	8.8	10.1	12.3	7.4	10.4	5.0	0.0	1.6
21	17.0	14.2	15.9	12.6	10.7	11.5	7.8	5.0	6.3	2.8	0.9	2.1
22	15.2	13.7	14.6	11.5	8.8	10.5	9.1	4.7	6.6	4.6	0.0	1.6
23	15.2	13.0	14.0	9.4	7.1	8.2	8.1	4.3	6.3	2.5	0.0	1.2
24	14.2	13.3	13.7	10.2	7.0	8.5	7.3	6.3	6.7	3.1	0.0	1.9
25	13.6	12.5	13.0	11.0	8.0	9.3	7.0	4.3	6.0	2.6	0.0	1.2
26	15.6	13.2	14.3	10.4	8.2	9.1	5.8	3.2	4.3	1.8	0.0	0.9
27	15.6	14.1	14.9	9.1	6.4	8.4	5.1	1.6	3.3	2.8	0.0	1.4
28	15.8	14.6	15.2	6.9	5.1	5.8	5.1	1.4	3.2	2.1	0.0	1.1
29	14.6	12.9	13.5	6.8	4.4	5.5	7.2	2.3	4.4	6.3	0.8	3.5
30	13.3	11.5	12.6	9.1	6.3	7.4	7.5	2.6	5.0	6.2	3.4	4.4
31	13.5	12.4	12.9	---	---	---	10.3	4.6	7.0	4.3	3.1	3.7
MONTH	24.4	11.5	17.1	17.9	4.4	11.0	---	---	---	12.4	0.0	3.4
	FEBRUARY			MARCH			APRIL			MAY		
1	6.8	4.0	5.1	7.9	5.5	6.6	15.6	7.2	11.1	21.8	17.7	19.7
2	8.8	2.3	5.1	11.8	6.8	8.7	19.4	11.2	15.0	22.2	18.2	20.2
3	9.7	3.5	6.8	11.2	5.4	7.9	20.7	13.0	16.7	21.3	18.2	19.3
4	11.9	6.6	9.9	12.2	5.4	8.5	19.4	14.5	17.2	18.5	15.7	16.6
5	7.3	3.4	5.4	14.5	9.6	11.9	19.3	15.5	17.1	15.7	13.7	14.2
6	6.0	3.0	4.4	13.7	10.9	12.4	17.6	12.8	15.4	18.1	13.8	16.2
7	6.6	2.3	4.4	10.9	5.7	7.7	16.0	9.8	11.6	20.4	16.1	18.1
8	6.3	2.1	3.8	13.2	4.0	8.4	10.8	9.1	10.1	22.7	18.6	20.6
9	7.1	1.9	3.9	16.4	9.0	12.2	10.4	8.3	9.4	23.8	20.0	22.0
10	7.3	3.7	5.0	12.4	8.0	10	9.2	7.3	8.4	24.0	21.4	22.9
11	8.0	1.3	4.2	10.2	5.8	7.3	12.1	8.8	9.9	23.5	20.6	22.1
12	8.6	3.1	5.0	15.2	4.9	9.7	18.4	9.2	13.0	20.6	17.6	19.0
13	7.8	0.5	3.7	17.0	9.2	13.1	19.2	10.9	14.6	19.1	16.4	17.7
14	5.6	2.7	4.5	14.0	10.5	12.4	20.0	11.9	15.7	19.5	15.4	17.5
15	7.4	4.3	6.0	11.0	8.3	9.2	21.6	14.4	17.8	18.8	16.6	17.7
16	4.8	0.0	1.9	11.5	8.9	10.3	20.8	15.4	18.2	17.9	16.4	17.2
17	1.0	0.0	0.4	14.3	11.2	12.6	19.7	15.6	17.8	17.6	14.4	15.6
18	5.6	0.3	3.0	14.3	12.2	13.2	16.9	10.9	12.7	15.1	14.2	14.9
19	7.9	2.5	4.9	13.4	10.4	12.0	12.1	10.5	11.2	14.8	13.9	14.2
20	8.5	5.5	6.9	10.4	7.8	8.8	17.0	11.5	13.7	16.7	13.2	15.1
21	7.3	5.5	6.6	16.3	9.5	12.2	16.1	14.3	15.1	18.0	15.4	16.6
22	8.2	6.2	7.2	17.3	11.2	13.9	17.6	14.4	15.9	17.3	14.7	16.1
23	10.4	5.9	8.5	16.0	10.2	13.1	16.9	11.6	14.3	16.4	15.3	15.8
24	11.9	4.1	7.6	17.5	10.5	13.8	15.9	11.9	14.3	18.0	15.2	16.2
25	8.7	5.9	7.3	18.3	10.9	14.5	15.6	14.2	14.6	19.7	16.5	17.9
26	6.0	4.0	4.8	19.1	13.3	15.9	19.0	14.3	16.0	21.6	17.7	19.3
27	4.2	3.2	3.6	17.7	12.9	15.4	20.5	14.6	17.1	19.2	16.9	17.6
28	6.2	3.9	5.1	18.7	12.5	15.7	20.3	14.9	17.8	18.1	15.3	16.8
29	---	---	---	21.2	16.2	18.5	20.6	16.5	18.7	18.8	16.3	17.3
30	---	---	---	18.0	9.3	11.6	21.7	17.2	19.3	18.3	15.3	17.0
31	---	---	---	12.6	6.6	9.4	---	---	---	20.8	16.5	18.3
MONTH	11.9	0.0	5.2	21.2	4.0	11.5	21.7	7.2	14.7	24.0	13.2	17.7

02095181 NORTH BUFFALO CREEK AT WESTOVER TERRACE AT GREENSBORO, NC

LOCATION.--Lat 36°04'45", long 79°48'47", Guilford County, Hydrologic Unit 03030002, on right bank at termination of Westover Terrace in Greensboro, 0.7 mi above Southern Railway.

DRAINAGE AREA.--9.55 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1999 to current year.

GAGE.--Water-stage recorder. Datum of gage is 736.25 ft above NGVD of 1929. Satellite telemetry at station.

REMARKS.--Records fair except those for discharges over 500 ft³/s and those for estimated daily discharges, which are poor. Minimum discharge for period of record also occurred on Aug. 10, 11, 12, 2002.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.77	2.8	1.8	135	5.3	46	6.3	8.2	9.4	4.1	12	5.7
2	0.95	2.2	1.8	13	4.0	57	5.4	4.3	4.9	135	5.7	2.0
3	1.0	1.9	1.9	51	3.8	10	5.0	4.2	96	12	17	e19
4	1.0	3.5	2.1	9.5	32	6.9	4.8	6.0	61	4.5	42	e230
5	1.2	50	112	6.0	4.9	8.9	17	14	12	3.9	36	9.0
6	1.2	44	29	4.9	7.2	92	4.7	22	6.1	42	11	3.0
7	1.2	3.9	14	4.2	62	9.8	219	4.9	e406	16	2.8	2.3
8	1.2	2.8	11	4.0	9.6	6.6	53	4.2	39	4.2	19	2.2
9	1.2	2.2	10	3.8	5.3	5.6	175	3.9	22	8.5	36	2.1
10	1.7	2.3	7.5	3.5	6.9	4.7	e500	3.6	7.4	4.8	15	1.9
11	e416	20	160	3.2	4.4	4.4	42	3.7	5.8	3.4	27	1.8
12	6.0	227	19	3.0	3.9	4.3	13	3.5	6.0	6.2	14	1.8
13	e173	14	154	3.1	3.4	30	8.4	3.2	5.1	58	21	1.8
14	12	4.7	22	3.1	4.3	9.7	6.9	3.1	4.6	15	6.5	1.8
15	15	3.7	7.5	2.9	6.3	25	6.3	e170	4.7	7.2	2.8	1.9
16	193	179	5.5	3.0	7.1	132	5.7	12	28	3.5	5.5	1.6
17	6.5	118	4.1	4.3	5.3	13	5.2	18	12	2.6	e109	1.4
18	2.6	13	3.7	3.3	32	18	24	28	8.4	6.6	19	e200
19	1.9	5.2	3.5	3.0	11	9.3	17	39	10	3.4	3.2	19
20	1.8	3.8	59	2.9	7.0	e470	6.0	5.6	8.5	1.9	2.5	2.6
21	5.1	3.3	6.1	3.1	5.5	22	6.0	24	4.2	2.6	2.2	2.0
22	7.0	2.7	4.3	2.8	e210	10	5.2	214	3.9	37	2.0	58
23	2.0	2.2	3.7	3.9	21	7.3	4.4	38	3.7	10	1.9	e418
24	1.3	2.4	126	3.3	7.1	6.4	4.2	11	3.6	4.1	4.8	7.3
25	3.2	2.3	76	3.1	5.3	5.8	5.7	41	3.4	1.7	1.7	4.6
26	4.3	2.1	9.6	3.0	22	5.7	58	e140	3.3	1.6	1.7	3.9
27	1.4	2.0	5.7	2.8	103	5.5	8.5	11	17	1.6	1.6	5.8
28	57	1.9	4.6	2.9	39	5.2	4.7	7.0	4.3	1.6	1.6	8.8
29	65	1.9	4.1	13	---	8.9	4.3	10	3.5	e102	9.1	3.1
30	40	1.9	3.7	78	---	103	6.3	6.1	5.4	18	30	2.9
31	5.1	---	3.9	10	---	11	---	54	---	26	87	---
TOTAL	1,030.62	726.7	877.1	392.6	638.6	1,154.0	1,232.0	917.5	809.2	549.0	550.6	1,025.3
MEAN	33.2	24.2	28.3	12.7	22.8	37.2	41.1	29.6	27.0	17.7	17.8	34.2
MAX	416	227	160	135	210	470	500	214	406	135	109	418
MIN	0.77	1.9	1.8	2.8	3.4	4.3	4.2	3.1	3.3	1.6	1.6	1.4
CFSM	3.48	2.54	2.96	1.33	2.39	3.90	4.30	3.10	2.82	1.85	1.86	3.58
IN.	4.01	2.83	3.42	1.53	2.49	4.50	4.80	3.57	3.15	2.14	2.14	3.99

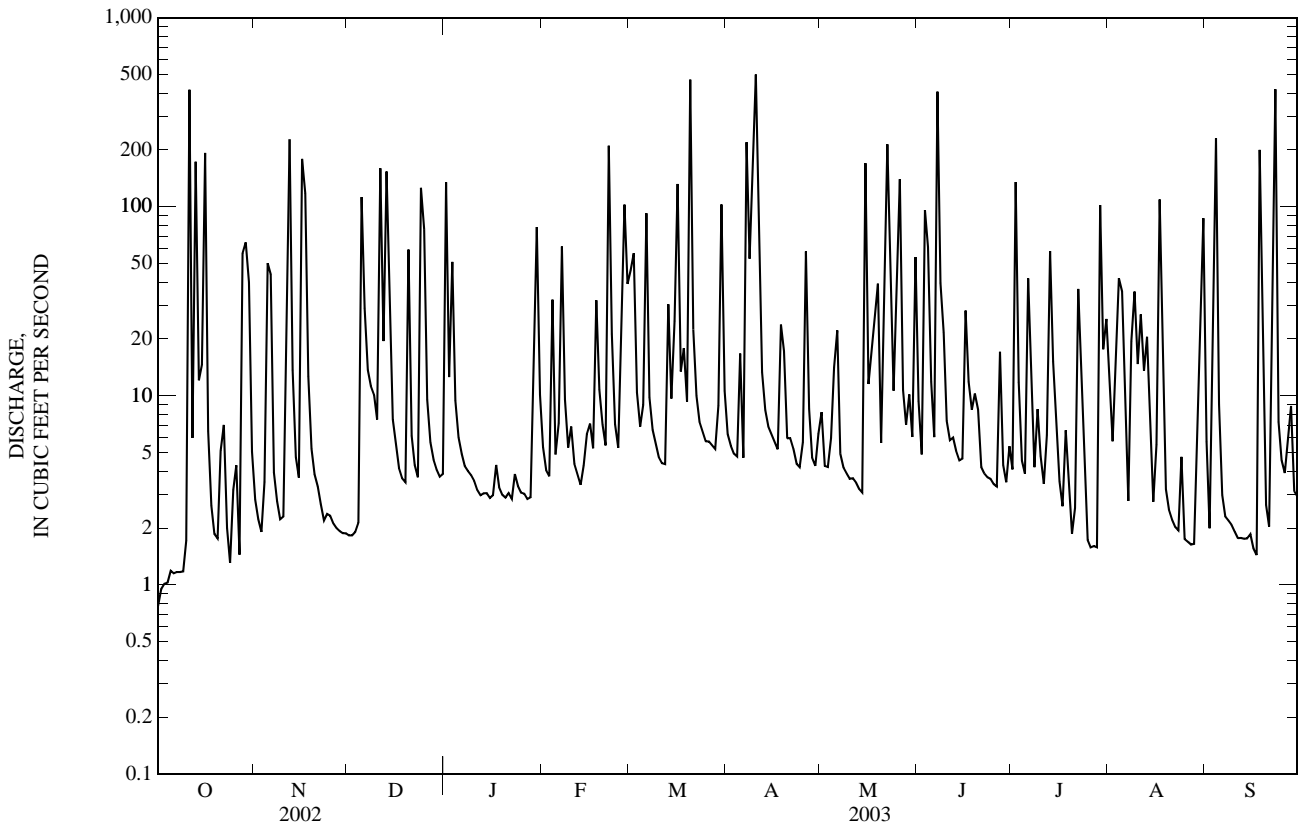
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2003, BY WATER YEAR (WY)

MEAN	11.5	9.30	11.8	13.4	14.1	20.4	18.5	13.0	15.2	13.7	12.0	25.2
MAX	33.2	24.2	28.3	17.7	22.8	37.2	41.1	29.6	27.0	25.6	17.8	46.4
(WY)	(2003)	(2003)	(2003)	(2002)	(2003)	(2003)	(2003)	(2003)	(2003)	(2001)	(2003)	(2000)
MIN	2.67	2.09	5.02	10.8	6.37	8.70	3.06	3.50	3.49	5.11	5.95	6.19
(WY)	(2001)	(2002)	(2001)	(2001)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2001)	(2001)

02095181 NORTH BUFFALO CREEK AT WESTOVER TERRACE AT GREENSBORO, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1999 - 2003	
ANNUAL TOTAL	4,702.71		9,903.22		15.0	
ANNUAL MEAN	12.9		27.1		27.1 2003	
HIGHEST ANNUAL MEAN					6.77 2002	
LOWEST ANNUAL MEAN					500 Apr 10, 2003	
HIGHEST DAILY MEAN	416	Oct 11	500	Apr 10		
LOWEST DAILY MEAN	0.00	Aug 9	0.77	Oct 1	0.00 Aug 9, 2002	
ANNUAL SEVEN-DAY MINIMUM	0.01	Aug 8	1.0	Oct 1	0.01 Aug 8, 2002	
MAXIMUM PEAK FLOW			NOT DETERMINED		NOT DETERMINED	
MAXIMUM PEAK STAGE			14.07 Sep 23		14.07 Sep 23, 2003	
INSTANTANEOUS LOW FLOW			NOT DETERMINED		0.00* Aug 10, 2002	
ANNUAL RUNOFF (CFSM)	1.35		2.84		1.57	
ANNUAL RUNOFF (INCHES)	18.32		38.58		21.36	
10 PERCENT EXCEEDS	22		61		34	
50 PERCENT EXCEEDS	2.8		5.7		3.6	
90 PERCENT EXCEEDS	0.20		1.9		1.3	

e Estimated.
 * See REMARKS.



02095181 NORTH BUFFALO CREEK AT WESTOVER TERRACE AT GREENSBORO, NC—Continued

PRECIPITATION RECORDS

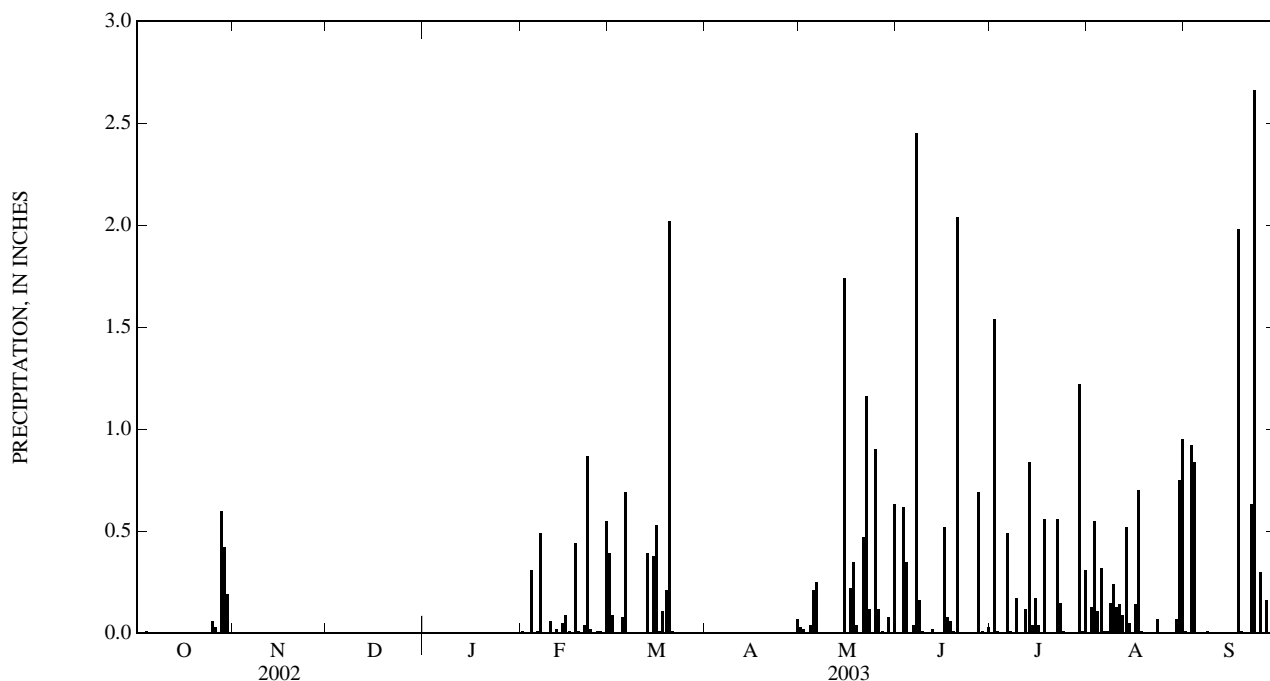
PERIOD OF RECORD.--June 1999 to current year.

GAGE.--Tipping-bucket raingage and data collection platform.

REMARKS.--Precipitation data collected during freezing periods may not be accurately reflected in daily record; consequently, winter record is poor.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	---	---	---	0.01	0.39	---	0.03	0.00	0.00	0.00	0.01
2	0.00	---	---	---	0.00	0.09	---	0.02	0.00	1.54	0.13	0.00
3	0.00	---	---	---	0.00	0.00	---	0.00	0.62	0.01	0.55	0.92
4	0.01	---	---	---	0.31	0.00	---	0.04	0.35	0.00	0.11	0.84
5	0.00	---	---	---	0.00	0.08	---	0.21	0.00	0.00	0.32	0.00
6	0.00	---	---	---	0.01	0.69	---	0.25	0.04	0.49	0.01	0.00
7	0.00	---	---	---	0.49	0.00	---	0.00	2.45	0.01	0.01	0.00
8	0.00	---	---	---	0.00	0.00	---	0.00	0.16	0.00	0.15	0.01
9	---	---	---	---	0.00	0.00	---	0.00	0.01	0.17	0.24	0.00
10	---	---	---	---	0.06	0.00	---	0.00	0.00	0.00	0.13	0.00
11	---	---	---	---	0.00	0.00	---	0.00	0.00	0.00	0.14	0.00
12	---	---	---	---	0.02	0.00	---	0.00	0.02	0.12	0.09	0.00
13	---	---	---	---	0.00	0.39	---	0.00	0.00	0.84	0.52	0.00
14	---	---	---	---	0.05	0.00	---	0.00	0.00	0.04	0.05	0.00
15	---	---	---	---	0.09	0.38	---	1.74	0.00	0.17	0.00	0.00
16	---	---	---	---	0.01	0.53	---	0.00	0.52	0.04	0.14	0.00
17	---	---	---	---	0.00	0.01	---	0.22	0.08	0.00	0.70	0.00
18	---	---	---	---	0.44	0.11	---	0.35	0.06	0.56	0.01	1.98
19	---	---	---	---	0.01	0.21	---	0.04	0.01	0.00	0.00	0.01
20	---	---	---	---	0.00	2.02	---	0.00	2.04	0.00	0.00	0.00
21	---	---	---	---	0.04	0.01	---	0.47	0.00	0.00	0.00	0.00
22	---	---	---	---	0.87	0.00	---	1.16	0.00	0.56	0.00	0.63
23	0.00	---	---	---	0.02	0.00	---	0.12	0.00	0.15	0.07	2.66
24	0.00	---	---	---	0.00	0.00	---	0.00	0.00	0.01	0.00	0.00
25	0.06	---	---	---	0.01	---	---	0.90	0.00	0.00	0.00	0.30
26	0.03	---	---	---	0.01	---	---	0.12	0.00	0.00	0.00	0.00
27	0.00	---	---	---	0.00	---	0.00	0.01	0.69	0.00	0.00	0.16
28	0.60	---	---	---	0.55	---	0.00	0.00	0.01	0.00	0.00	0.00
29	0.42	---	---	---	---	---	0.00	0.08	0.00	1.22	0.07	0.00
30	0.19	---	---	---	---	---	0.07	0.00	0.03	0.01	0.75	0.00
31	---	---	---	0.00	---	---	---	0.63	---	0.31	0.95	---
TOTAL	---	---	---	---	3.00	---	---	6.39	7.09	6.25	5.14	7.52
MEAN	---	---	---	---	0.11	---	---	0.21	0.24	0.20	0.17	0.25
MAX	---	---	---	---	0.87	---	---	1.74	2.45	1.54	0.95	2.66
MIN	---	---	---	---	0.00	---	---	0.00	0.00	0.00	0.00	0.00



02095271 NORTH BUFFALO CREEK AT CHURCH STREET AT GREENSBORO, NC

LOCATION.--Lat 36°05'52", long 79°46'57", Guilford County, Hydrologic Unit 03030002, on right bank at upstream side of Church Street, and .1 mi upstream of Southern Railway bridge in Greensboro.

DRAINAGE AREA.--14.2 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1998 to current year.

REVISED RECORDS.--WDR NC-98-1, WDR NC-99-1B, WDR NC-00-1B, WDR-01-1B: maximum discharges only.

GAGE.--Water-stage recorder. Datum of gage is 738.52 ft above NGVD of 1929. Satellite telemetry at station.

REMARKS.--Records poor. Minimum discharge for period of record also occurred Aug. 2, 2002. Minimum discharge for current water year also occurred Oct. 7, July 12.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.7	8.8	6.2	134	14	85	13	16	18	6.6	43	22
2	6.4	7.5	6.0	15	11	149	12	8.6	8.8	187	8.1	8.6
3	6.3	7.1	6.3	61	9.8	24	11	8.4	113	23	38	30
4	5.4	9.1	6.4	15	45	14	9.9	11	93	6.8	90	299
5	5.5	60	128	14	11	21	34	25	24	5.6	75	27
6	5.9	83	33	12	11	190	10	41	11	37	29	11
7	5.6	12	16	11	95	26	310	8.7	534	35	8.2	9.2
8	5.6	8.6	16	10	16	17	75	7.1	80	6.1	40	9.5
9	5.8	7.5	16	9.9	9.3	14	265	6.8	43	14	41	8.6
10	7.7	7.4	14	9.6	12	12	754	6.8	14	7.1	28	8.0
11	592	30	190	8.8	8.2	9.7	93	6.5	11	5.0	41	7.5
12	24	284	17	8.6	7.5	10	28	6.6	16	7.7	30	7.5
13	216	25	162	9.0	6.7	45	17	5.8	9.2	98	41	7.5
14	37	13	19	8.4	7.7	20	13	5.3	7.9	39	15	7.3
15	31	9.7	13	8.3	11	30	12	245	7.6	19	7.6	7.7
16	282	190	10	7.9	12	201	12	27	48	9.1	9.1	6.9
17	17	168	7.9	10	9.5	25	10	18	18	7.2	153	6.7
18	7.8	20	7.2	8.4	61	34	37	59	9.5	24	68	248
19	6.5	11	7.0	8.6	22	17	39	68	18	13	11	53
20	6.2	9.3	67	8.1	14	813	12	9.9	14	6.1	9.0	9.4
21	14	8.9	13	7.7	11	50	12	47	6.8	6.0	8.4	7.8
22	17	8.2	9.9	7.5	294	20	10	300	6.5	54	7.8	46
23	6.2	7.2	9.0	8.9	44	15	8.7	82	6.3	28	13	e850
24	5.2	7.0	129	9.3	13	13	8.3	19	6.4	10	22	18
25	7.3	6.9	76	8.2	14	11	11	79	5.8	6.1	7.3	9.4
26	11	7.3	15	9.7	45	11	98	220	6.1	5.7	6.7	7.9
27	5.8	6.3	11	10	167	11	19	18	49	5.3	6.4	8.5
28	91	6.1	9.8	10	89	10	9.6	12	9.5	5.3	6.5	20
29	100	6.3	9.0	19	---	15	9.0	17	5.9	113	31	6.6
30	65	6.3	8.3	98	---	159	11	10	7.4	52	50	6.8
31	12	---	8.3	17	---	21	---	80	---	33	202	---
TOTAL	1,614.9	1,041.5	1,046.3	582.9	1,070.7	2,092.7	1,963.5	1,474.5	1,207.7	874.7	1,146.1	1,775.4
MEAN	52.1	34.7	33.8	18.8	38.2	67.5	65.5	47.6	40.3	28.2	37.0	59.2
MAX	592	284	190	134	294	813	754	300	534	187	202	850
MIN	5.2	6.1	6.0	7.5	6.7	9.7	8.3	5.3	5.8	5.0	6.4	6.6
CFSM	3.67	2.44	2.38	1.32	2.69	4.75	4.61	3.35	2.83	1.99	2.60	4.17
IN.	4.23	2.73	2.74	1.53	2.80	5.48	5.14	3.86	3.16	2.29	3.00	4.65

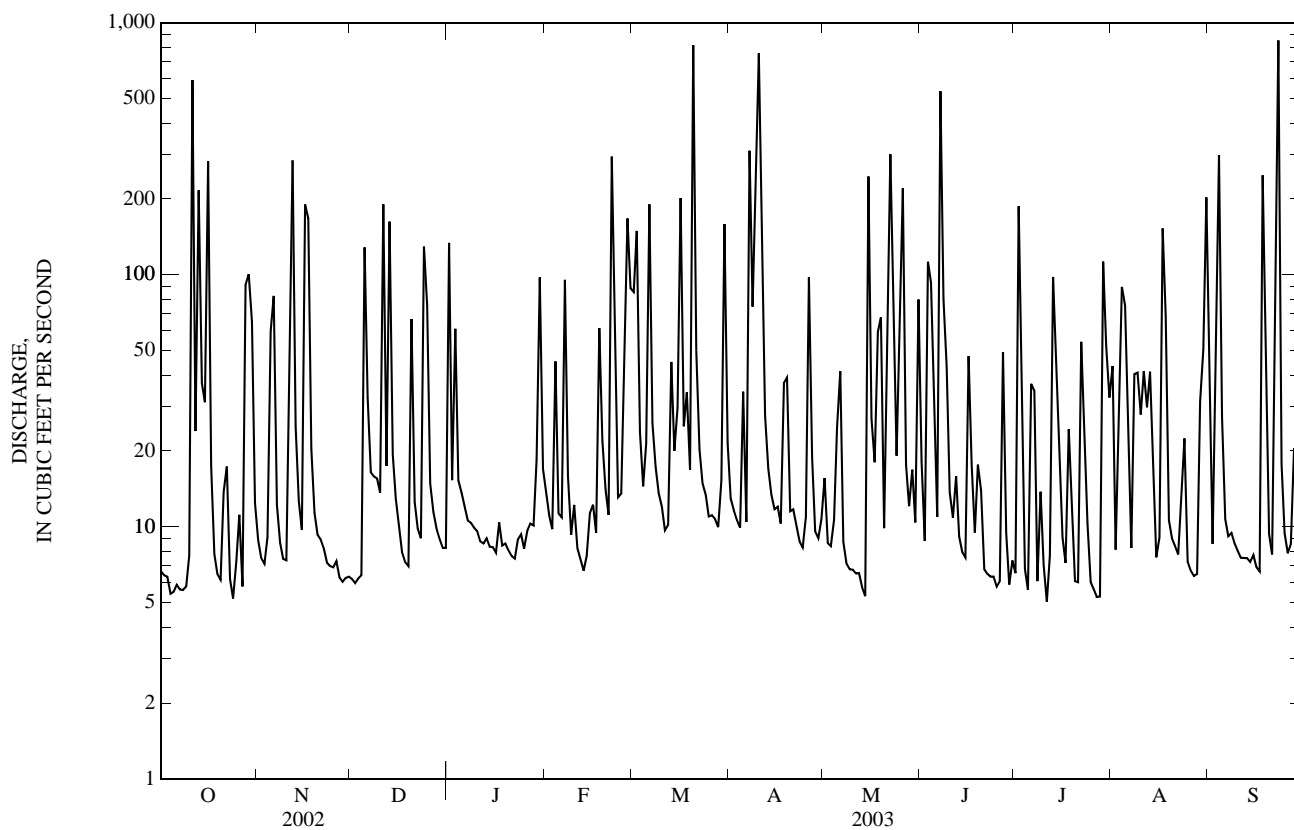
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2003, BY WATER YEAR (WY)

MEAN	17.3	14.1	17.5	22.7	21.6	30.6	28.3	20.2	22.5	23.0	18.9	30.7
MAX	52.1	34.7	33.8	29.4	38.2	67.5	65.5	47.6	40.3	36.8	37.0	59.2
(WY)	(2003)	(2003)	(2003)	(1999)	(2003)	(2003)	(2003)	(2003)	(2003)	(2001)	(2003)	(2003)
MIN	4.71	3.99	10.1	17.1	10.3	13.6	6.20	10.5	9.73	12.9	11.2	8.72
(WY)	(1999)	(2002)	(2001)	(2000)	(2002)	(1999)	(2002)	(1999)	(2002)	(2002)	(2001)	(1998)

02095271 NORTH BUFFALO CREEK AT CHURCH STREET AT GREENSBORO, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1998 - 2003	
ANNUAL TOTAL	7,820.0		15,890.9		22.8	
ANNUAL MEAN	21.4		43.5		43.5	
HIGHEST ANNUAL MEAN					13.3	
LOWEST ANNUAL MEAN					2002	
HIGHEST DAILY MEAN	592	Oct 11	850	Sep 23	850	Sep 23, 2003
LOWEST DAILY MEAN	1.4	Aug 2	5.0	Jul 11	1.4	Aug 2, 2002
ANNUAL SEVEN-DAY MINIMUM	1.9	Aug 1	5.7	Oct 3	1.9	Aug 1, 2002
MAXIMUM PEAK FLOW			NOT DETERMINED		NOT DETERMINED	
MAXIMUM PEAK STAGE			17.81	Sep 23	17.81	Sep 23, 2003
INSTANTANEOUS LOW FLOW			4.3*	Oct 5	1.2*	Oct 17, 1998
ANNUAL RUNOFF (CFSM)	1.51		3.07		1.60	
ANNUAL RUNOFF (INCHES)	20.49		41.63		21.77	
10 PERCENT EXCEEDS	41		98		52	
50 PERCENT EXCEEDS	6.7		12		8.0	
90 PERCENT EXCEEDS	4.0		6.4		3.7	

e Estimated.
 * See REMARKS.



PRECIPITATION RECORDS

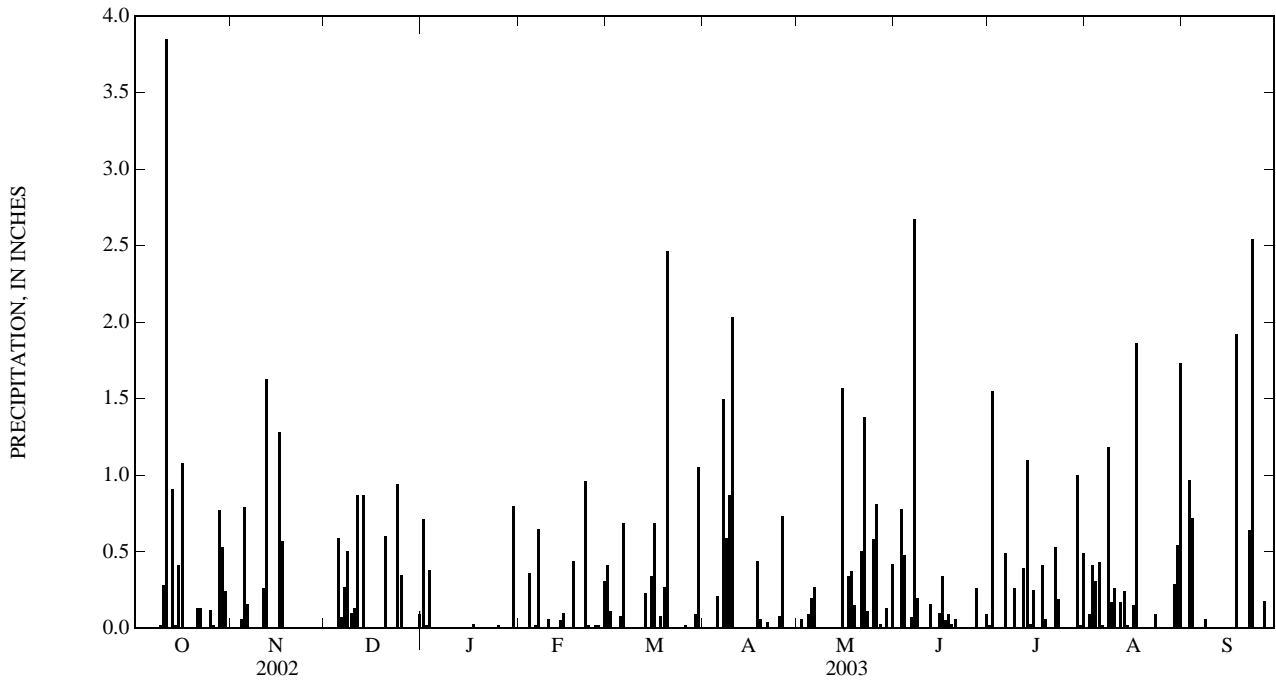
PERIOD OF RECORD.--August 1998 to current year.

GAGE.--Tipping-bucket raingage and data collection platform.

REMARKS.--Precipitation data collected during freezing periods may not be accurately reflected in daily record; consequently, winter record is poor.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.71	0.00	0.41	0.00	0.01	0.00	0.02	0.01	0.01
2	0.00	0.00	0.00	0.02	0.00	0.11	0.00	0.06	0.00	1.55	0.09	0.00
3	0.00	0.00	0.00	0.38	0.00	0.00	0.00	0.01	0.78	0.01	0.41	0.97
4	0.00	0.06	0.00	0.00	0.36	0.00	0.00	0.09	0.48	0.00	0.31	0.72
5	0.00	0.79	0.59	0.00	0.00	0.08	0.21	0.20	0.00	0.00	0.43	0.00
6	0.00	0.16	0.07	0.00	0.02	0.69	0.00	0.27	0.07	0.49	0.02	0.00
7	0.00	0.00	0.27	0.00	0.65	0.00	1.50	0.00	2.67	0.00	0.01	0.00
8	0.00	0.00	0.50	0.00	0.00	0.00	0.59	0.00	0.20	0.00	1.18	0.06
9	0.02	0.00	0.10	0.00	0.00	0.00	0.87	0.00	0.01	0.26	0.17	0.00
10	0.28	0.00	0.13	0.00	0.06	0.00	2.03	0.00	0.00	0.00	0.26	0.00
11	3.85	0.26	0.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
12	0.00	1.63	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.39	0.17	0.00
13	0.91	0.00	0.87	0.00	0.00	0.23	0.00	0.00	0.00	1.10	0.24	0.00
14	0.02	0.00	0.01	0.00	0.05	0.01	0.00	0.00	0.00	0.03	0.02	0.00
15	0.41	0.00	0.00	0.00	0.10	0.34	0.00	1.57	0.10	0.25	0.00	0.00
16	1.08	1.28	0.00	0.00	0.00	0.69	0.00	0.00	0.34	0.00	0.15	0.00
17	0.00	0.57	0.00	0.03	0.00	0.00	0.00	0.34	0.05	0.00	1.86	0.00
18	0.00	0.00	0.00	0.00	0.44	0.08	0.44	0.37	0.09	0.41	0.00	1.92
19	0.00	0.00	0.00	0.00	0.00	0.27	0.06	0.15	0.03	0.06	0.00	0.01
20	0.00	0.00	0.60	0.00	0.00	2.46	0.00	0.00	0.06	0.00	0.00	0.00
21	0.13	0.00	0.00	0.00	0.01	0.00	0.04	0.50	0.00	0.00	0.00	0.00
22	0.13	0.00	0.00	0.01	0.96	0.00	0.00	1.38	0.00	0.53	0.00	0.64
23	0.00	0.00	0.00	0.01	0.02	0.00	0.00	0.11	0.00	0.19	0.09	2.54
24	0.00	0.00	0.94	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.12	0.00	0.35	0.02	0.02	0.00	0.08	0.58	0.00	0.00	0.00	0.00
26	0.02	0.00	0.00	0.00	0.02	0.02	0.73	0.81	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.26	0.00	0.00	0.18
28	0.77	0.00	0.00	0.00	0.31	0.00	0.00	0.00	0.01	0.00	0.00	0.01
29	0.53	0.00	0.00	0.01	---	0.09	0.00	0.13	0.00	1.00	0.29	0.00
30	0.24	0.00	0.00	0.80	---	1.05	0.00	0.00	0.09	0.02	0.54	0.00
31	0.00	---	0.09	0.00	---	0.00	---	0.42	---	0.49	1.73	---
TOTAL	8.51	4.75	5.39	2.00	3.02	6.53	6.55	7.03	5.40	6.80	7.99	7.06



02095500 NORTH BUFFALO CREEK NEAR GREENSBORO, NC

LOCATION.--Lat 36°07'13", long 79°42'29", Guilford County, Hydrologic Unit 03030002, on left bank at downstream of bridge on Secondary Road 2832, 4.2 mi upstream from mouth, 5.8 mi northeast of post office in Greensboro.

DRAINAGE AREA.--37.1 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1928 to October 1990, August 1998 to current year.

REVISED RECORDS.--WSP 1303: 1929, 1931-42, monthly and yearly runoff. WSP 1383: 1928(M), 1929, 1933-34(M), 1936(M), 1941(M), 1943(M), 1945(M). WDR NC-80-1: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 678.02 ft above NGVD of 1929 (levels by U. S. Corps of Engineers). Satellite telemetry at station.

REMARKS.--No estimated daily discharges. Records fair. Diurnal fluctuation at low flow caused by mills upstream from station. Diversions into basin from Greensboro and Proximity Mills enter upstream from the station. Maximum discharge for period of record, 9,140 ft³/s, from rating curve extended above 2,900 ft³/s on basis of contracted-opening measurements at gage heights 14.15 ft, 15.96 ft and 16.63 ft. Maximum gage height for period of record, from floodmarks. Minimum discharge for current water year also occurred on Oct. 5, 6, 9.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	44	33	360	54	161	51	40	68	30	135	88
2	19	38	33	100	46	321	42	32	38	336	29	35
3	20	34	33	219	44	86	40	33	168	96	54	29
4	19	38	33	83	124	60	39	35	221	37	172	424
5	19	93	295	58	51	63	67	50	85	29	115	86
6	19	246	146	51	41	305	40	86	44	34	77	38
7	20	54	94	47	251	82	621	36	915	109	30	32
8	19	40	81	46	81	58	153	33	267	32	53	33
9	18	38	79	44	49	50	642	31	131	45	49	27
10	21	34	66	40	52	46	1,520	30	52	37	74	26
11	1,230	71	448	38	44	42	300	29	42	25	73	26
12	111	582	141	36	40	40	94	29	74	25	96	25
13	282	129	423	38	38	67	61	26	47	176	75	25
14	146	56	163	37	37	92	52	26	37	185	51	24
15	65	44	75	37	44	46	45	246	47	72	28	25
16	547	338	60	36	45	524	42	124	145	42	26	24
17	86	493	51	41	39	105	39	37	70	31	178	22
18	46	114	45	36	137	87	59	105	44	57	315	327
19	37	61	45	35	82	59	98	153	62	75	40	210
20	33	50	224	37	61	1,930	42	44	49	33	30	38
21	43	47	67	36	48	180	42	82	33	27	28	30
22	49	43	50	35	453	85	42	559	30	76	54	35
23	35	40	45	37	151	63	36	243	28	86	33	1,790
24	30	38	321	36	62	56	35	76	27	32	53	70
25	33	38	314	36	49	50	37	172	25	24	26	41
26	42	37	85	37	78	43	141	516	26	24	24	34
27	32	38	60	38	328	41	70	78	82	24	23	31
28	204	34	51	37	238	38	41	53	56	23	23	45
29	256	32	47	59	---	44	38	51	28	105	71	28
30	194	35	44	270	---	316	34	47	30	118	73	27
31	62	---	42	82	---	85	---	134	---	38	410	---
TOTAL	3,757	2,979	3,694	2,122	2,767	5,225	4,563	3,236	2,971	2,083	2,518	3,695
MEAN	121	99.3	119	68.5	98.8	169	152	104	99.0	67.2	81.2	123
MAX	1,230	582	448	360	453	1,930	1,520	559	915	336	410	1,790
MIN	18	32	33	35	37	38	34	26	25	23	23	22
CFSM	3.27	2.68	3.21	1.85	2.66	4.54	4.10	2.81	2.67	1.81	2.19	3.32
IN.	3.77	2.99	3.70	2.13	2.77	5.24	4.58	3.24	2.98	2.09	2.52	3.70

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 2003,® BY WATER YEAR (WY)

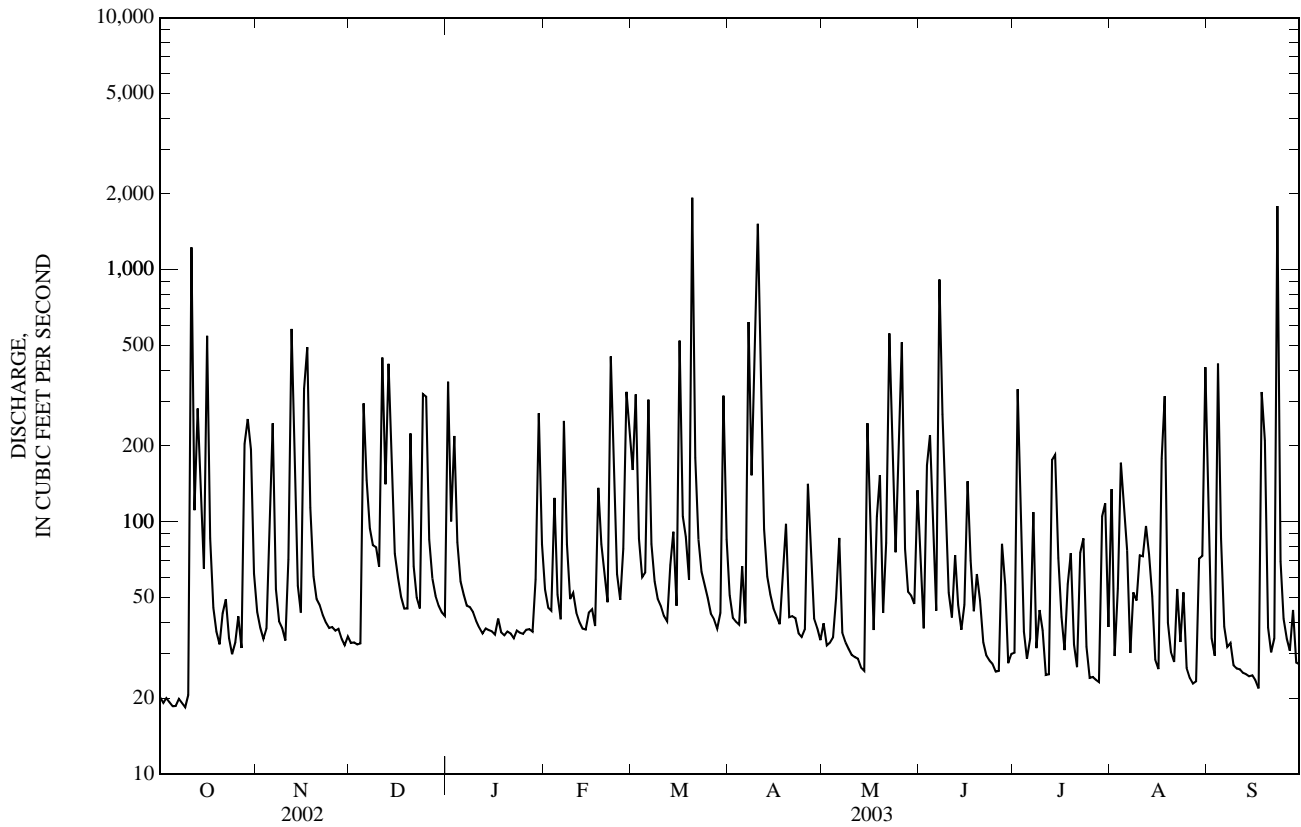
MEAN	43.6	43.3	56.5	71.1	82.9	80.3	67.2	53.5	51.1	51.6	43.9	50.5
MAX	154	120	129	205	185	231	206	177	192	231	112	247
(WY)	(1960)	(1986)	(1973)	(1978)	(1979)	(1975)	(1987)	(1978)	(1982)	(1984)	(1984)	(1979)
MIN	7.71	8.73	13.1	17.3	22.0	31.4	20.3	16.2	10.2	11.2	7.82	8.63
(WY)	(1931)	(1932)	(1934)	(1934)	(1931)	(1931)	(1942)	(1938)	(1933)	(1932)	(1932)	(1930)

02095500 NORTH BUFFALO CREEK NEAR GREENSBORO, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1928 - 2003 [@]	
ANNUAL TOTAL	21,730		39,610		57.7	
ANNUAL MEAN	59.5		109		30.6	
HIGHEST ANNUAL MEAN					109	2003
LOWEST ANNUAL MEAN					30.6	1938
HIGHEST DAILY MEAN	1,230	Oct 11	1,930	Mar 20	4,400	Sep 22, 1979
LOWEST DAILY MEAN	15	Aug 24	18	Oct 9	3.4	Aug 28, 1932
ANNUAL SEVEN-DAY MINIMUM	16	Aug 1	19	Oct 3	6.2	Aug 28, 1930
MAXIMUM PEAK FLOW			4,240	Sep 23	9,140*	Sep 22, 1979
MAXIMUM PEAK STAGE			14.53	Sep 23	20.12*	Sep 22, 1979
INSTANTANEOUS LOW FLOW			14*	Oct 4	1.6	Aug 28, 1932
ANNUAL RUNOFF (CFSM)	1.60		2.93		1.56	
ANNUAL RUNOFF (INCHES)	21.79		39.72		21.14	
10 PERCENT EXCEEDS	112		248		100	
50 PERCENT EXCEEDS	27		47		31	
90 PERCENT EXCEEDS	18		27		16	

[@] See PERIOD OF RECORD.

* See REMARKS.



02095500 NORTH BUFFALO CREEK NEAR GREENSBORO, NC—Continued

PRECIPITATION RECORDS

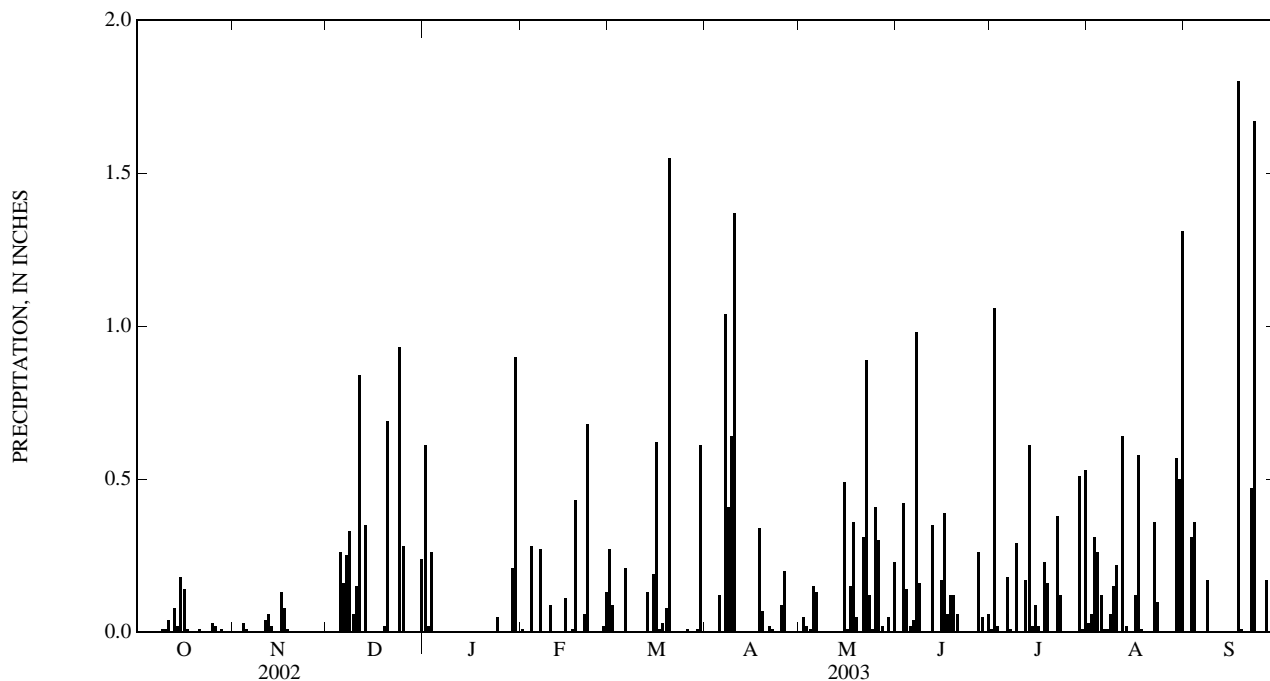
PERIOD OF RECORD.--August 1998 to current year.

GAGE.--Tipping-bucket raingage and data collection platform.

REMARKS.--Precipitation data collected during freezing periods may not be accurately reflected in daily record; consequently, winter record is poor.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

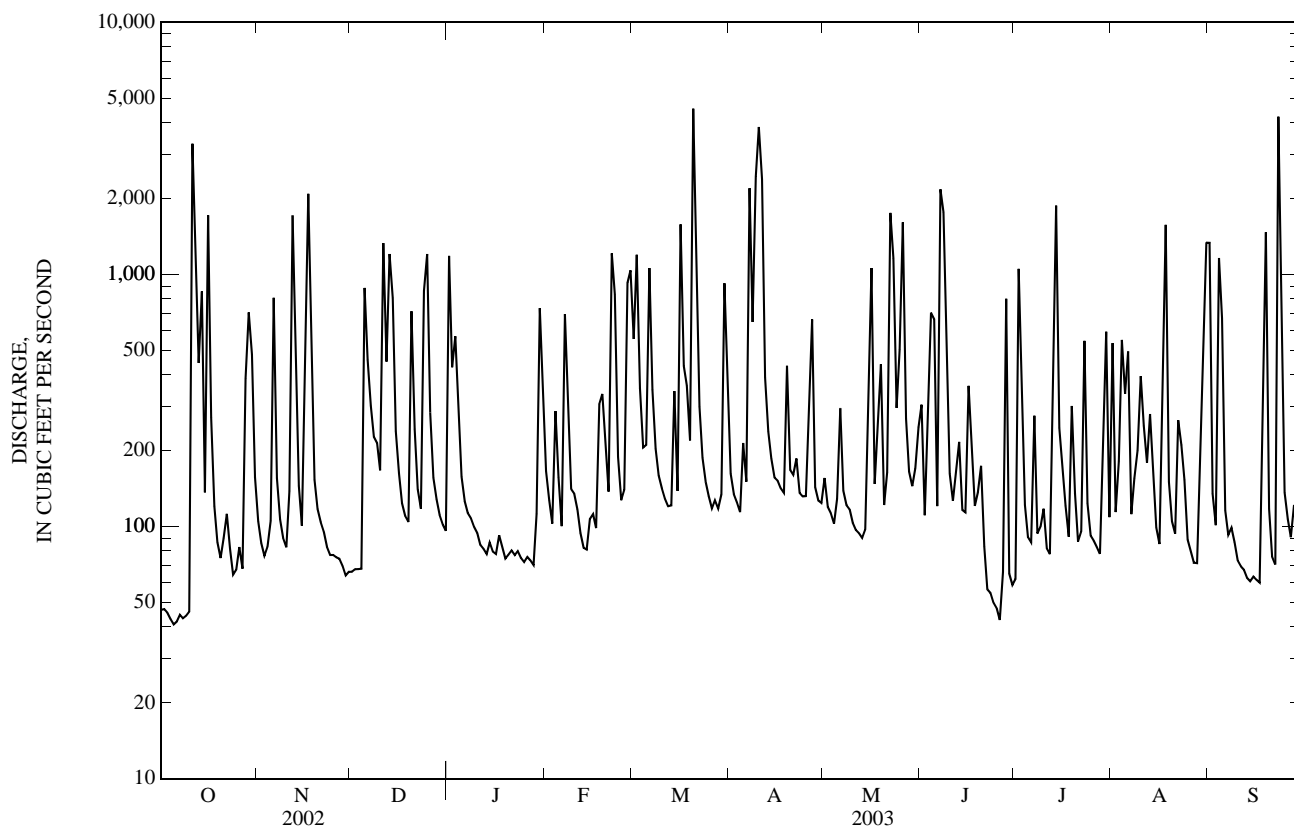
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.61	0.01	0.27	0.00	0.00	0.00	0.01	0.03	0.00
2	0.00	0.00	0.00	0.02	0.00	0.09	0.00	0.05	0.00	1.06	0.06	0.00
3	0.00	0.00	0.00	0.26	0.00	0.00	0.00	0.02	0.42	0.02	0.31	0.31
4	0.00	0.03	0.00	0.00	0.28	0.00	0.00	0.01	0.14	0.00	0.26	0.36
5	0.00	0.01	0.26	0.00	0.00	0.00	0.12	0.15	0.02	0.00	0.12	0.00
6	0.00	0.00	0.16	0.00	0.00	0.21	0.00	0.13	0.04	0.18	0.01	0.00
7	0.00	0.00	0.25	0.00	0.27	0.00	1.04	0.00	0.98	0.01	0.01	0.00
8	0.00	0.00	0.33	0.00	0.00	0.00	0.41	0.00	0.16	0.00	0.06	0.17
9	0.01	0.00	0.06	0.00	0.00	0.00	0.64	0.00	0.00	0.29	0.15	0.00
10	0.01	0.00	0.15	0.00	0.09	0.00	1.37	0.00	0.00	0.00	0.22	0.00
11	0.04	0.04	0.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.17	0.64	0.00
13	0.08	0.02	0.35	0.00	0.00	0.13	0.00	0.00	0.00	0.61	0.02	0.00
14	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00
15	0.18	0.00	0.00	0.00	0.11	0.19	0.00	0.49	0.17	0.09	0.00	0.00
16	0.14	0.13	0.00	0.00	0.00	0.62	0.00	0.01	0.39	0.02	0.12	0.00
17	0.01	0.08	0.00	0.00	0.01	0.01	0.00	0.15	0.06	0.00	0.58	0.00
18	0.00	0.01	0.00	0.00	0.43	0.03	0.34	0.36	0.12	0.23	0.01	1.80
19	0.00	0.00	0.02	0.00	0.00	0.08	0.07	0.05	0.12	0.16	0.00	0.01
20	0.00	0.00	0.69	0.00	0.00	1.55	0.00	0.00	0.06	0.00	0.00	0.00
21	0.01	0.00	0.00	0.00	0.06	0.00	0.02	0.31	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.68	0.00	0.01	0.89	0.00	0.38	0.36	0.47
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.00	0.12	0.10	1.67
24	0.00	0.00	0.93	0.05	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
25	0.03	0.00	0.28	0.00	0.00	0.00	0.09	0.41	0.00	0.00	0.00	0.00
26	0.02	0.00	0.00	0.00	0.00	0.01	0.20	0.30	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.02	0.26	0.00	0.00	0.17
28	0.01	0.00	0.00	0.00	0.13	0.00	0.00	0.00	0.05	0.00	0.00	0.00
29	0.00	0.00	0.00	0.21	---	0.01	0.00	0.05	0.00	0.51	0.57	0.00
30	0.00	0.00	0.00	0.90	---	0.61	0.00	0.00	0.06	0.01	0.50	0.00
31	0.00	---	0.24	0.00	---	0.00	---	0.23	---	0.53	1.31	---
TOTAL	0.56	0.38	4.56	2.05	2.09	3.81	4.31	3.76	3.40	4.42	5.44	4.96



0209553650 BUFFALO CREEK AT SECONDARY ROAD 2819 NEAR McLEANSVILLE, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1998 - 2003	
ANNUAL TOTAL	60,434		127,474			
ANNUAL MEAN	166		349		179	
HIGHEST ANNUAL MEAN					349	2003
LOWEST ANNUAL MEAN					100	2002
HIGHEST DAILY MEAN	3,520	Sep 1	4,550	Mar 20	4,550	Mar 20, 2003
LOWEST DAILY MEAN	37	Aug 10	41	Oct 5	37	Aug 10, 2002
ANNUAL SEVEN-DAY MINIMUM	40	Aug 8	43	Oct 3	40	Aug 8, 2002
MAXIMUM PEAK FLOW			6,720	Mar 20	6,720	Mar 20, 2003
MAXIMUM PEAK STAGE			19.35	Mar 20	19.35	Mar 20, 2003
INSTANTANEOUS LOW FLOW			30	Oct 8	22	Jul 21, 2002
ANNUAL RUNOFF (CFSM)	1.87		3.95		2.02	
ANNUAL RUNOFF (INCHES)	25.40		53.58		27.50	
10 PERCENT EXCEEDS	278		900		323	
50 PERCENT EXCEEDS	75		135		82	
90 PERCENT EXCEEDS	44		70		53	

e Estimated.



PRECIPITATION RECORDS

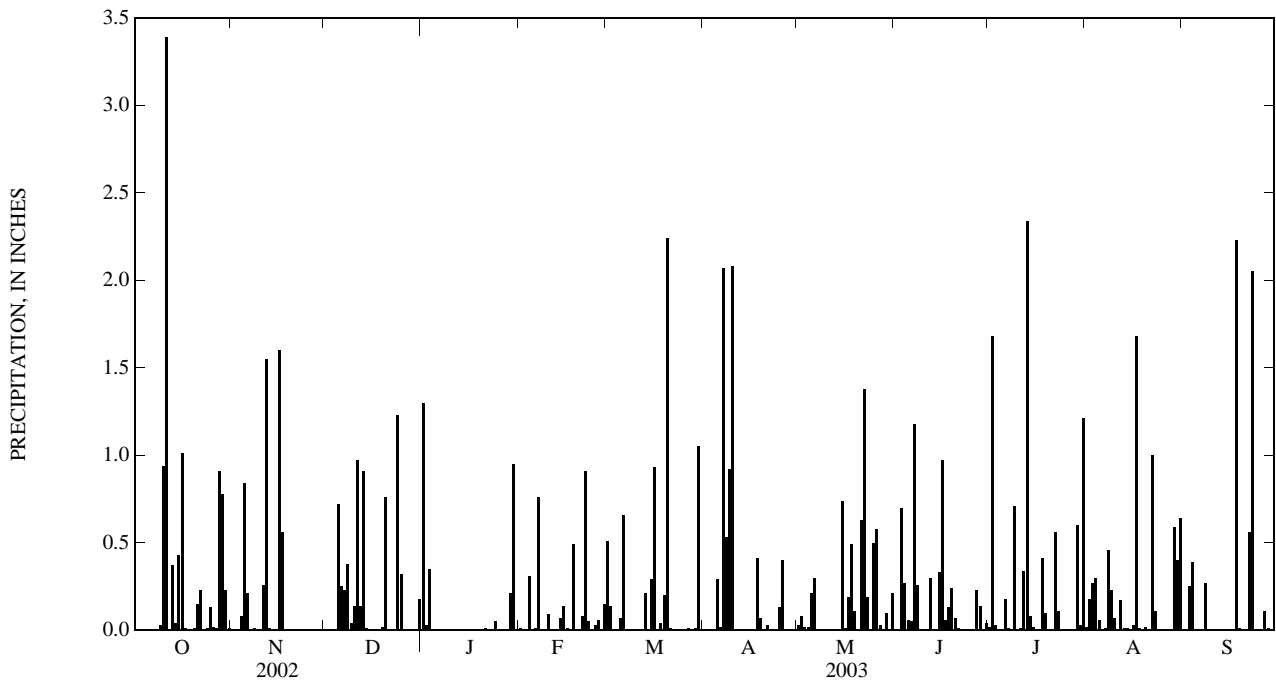
PERIOD OF RECORD.--August 1998 to current year.

GAGE.--Tipping-bucket raingage and data collection platform.

REMARKS.--Precipitation data collected during freezing periods may not be accurately reflected in daily record; consequently, winter record is poor.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	1.30	0.01	0.51	0.00	0.03	0.00	0.02	0.02	0.00
2	0.00	0.00	0.00	0.03	0.00	0.14	0.00	0.08	0.00	1.68	0.18	0.00
3	0.00	0.00	0.00	0.35	0.00	0.00	0.00	0.02	0.70	0.03	0.27	0.25
4	0.00	0.08	0.00	0.00	0.31	0.00	0.00	0.02	0.27	0.00	0.30	0.39
5	0.00	0.84	0.72	0.00	0.00	0.07	0.29	0.21	0.06	0.00	0.06	0.00
6	0.00	0.21	0.25	0.00	0.01	0.66	0.02	0.30	0.05	0.18	0.00	0.00
7	0.00	0.00	0.23	0.00	0.76	0.00	2.07	0.00	1.18	0.01	0.01	0.00
8	0.00	0.01	0.38	0.00	0.00	0.00	0.53	0.00	0.26	0.00	0.46	0.27
9	0.03	0.00	0.04	0.00	0.00	0.00	0.92	0.00	0.00	0.71	0.23	0.00
10	0.94	0.00	0.14	0.00	0.09	0.00	2.08	0.00	0.00	0.00	0.07	0.00
11	3.39	0.26	0.97	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00
12	0.00	1.55	0.14	0.00	0.00	0.00	0.00	0.00	0.30	0.34	0.17	0.00
13	0.37	0.01	0.91	0.00	0.00	0.21	0.00	0.00	0.00	2.34	0.01	0.00
14	0.04	0.00	0.01	0.00	0.07	0.00	0.00	0.00	0.00	0.08	0.01	0.00
15	0.43	0.00	0.00	0.00	0.14	0.29	0.00	0.74	0.33	0.02	0.00	0.00
16	1.01	1.60	0.00	0.00	0.01	0.93	0.00	0.01	0.97	0.00	0.03	0.00
17	0.01	0.56	0.00	0.00	0.00	0.00	0.00	0.19	0.06	0.00	1.68	0.00
18	0.00	0.00	0.00	0.00	0.49	0.04	0.41	0.49	0.13	0.41	0.01	2.23
19	0.00	0.00	0.02	0.00	0.00	0.20	0.07	0.11	0.24	0.10	0.00	0.01
20	0.01	0.00	0.76	0.00	0.00	2.24	0.00	0.00	0.07	0.00	0.02	0.00
21	0.15	0.00	0.00	0.01	0.08	0.01	0.03	0.63	0.01	0.00	0.00	0.00
22	0.23	0.00	0.00	0.00	0.91	0.00	0.00	1.38	0.00	0.56	1.00	0.56
23	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.19	0.00	0.11	0.11	2.05
24	0.01	0.00	1.23	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.13	0.00	0.32	0.00	0.03	0.00	0.13	0.50	0.00	0.00	0.00	0.00
26	0.02	0.00	0.00	0.00	0.06	0.00	0.40	0.58	0.00	0.00	0.00	0.00
27	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.03	0.23	0.00	0.00	0.11
28	0.91	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.14	0.00	0.00	0.01
29	0.78	0.00	0.00	0.21	---	0.01	0.00	0.10	0.00	0.60	0.59	0.00
30	0.23	0.00	0.00	0.95	---	1.05	0.00	0.00	0.04	0.03	0.40	0.00
31	0.01	---	0.18	0.00	---	0.00	---	0.21	---	1.21	0.64	---
TOTAL	8.71	5.12	6.30	2.90	3.17	6.37	6.95	5.82	5.04	8.44	6.27	5.88



0209647280 SERVICE CREEK ABOVE DRY CREEK AT BURLINGTON, NC

LOCATION.--Lat 36°06'34", long 79°24'09", Alamance County, Hydrologic Unit 03030002, .1 mi upstream of Dry Creek, 1 mi upstream of mouth, and 2.1 mi northeast of Burlington.

DRAINAGE AREA.--4.95 mi².

GAGE-HEIGHT RECORDS

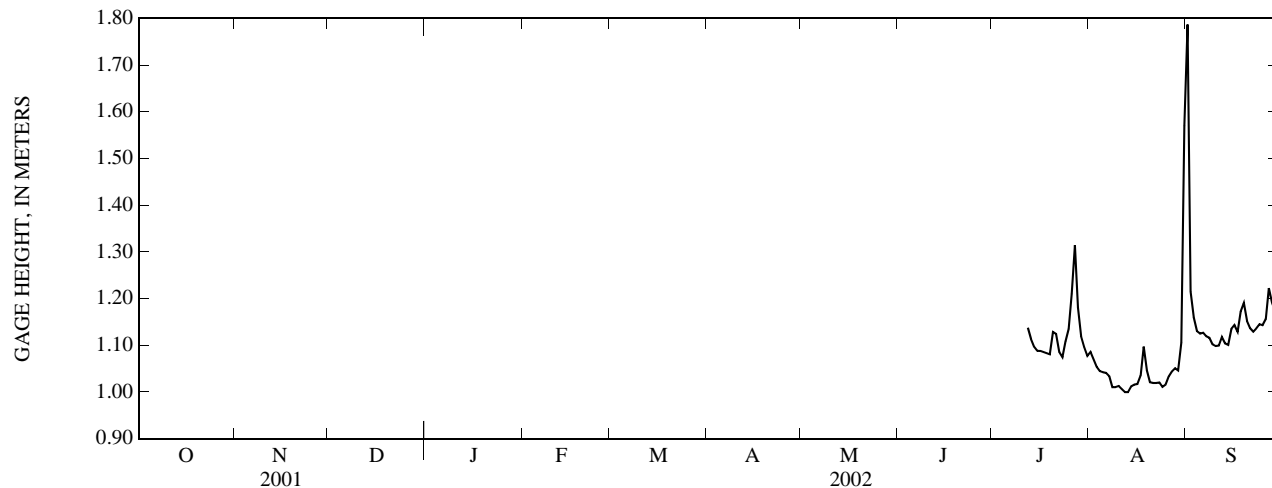
PERIOD OF RECORD.--July 2002 to November 2003 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 515 ft above NGVD of 1929, from topographic map.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height recorded, 4.55 m, Aug. 9, 2003; minimum gage height recorded, 0.98 m, Aug. 8, 9, 11-13, 24, 2002.

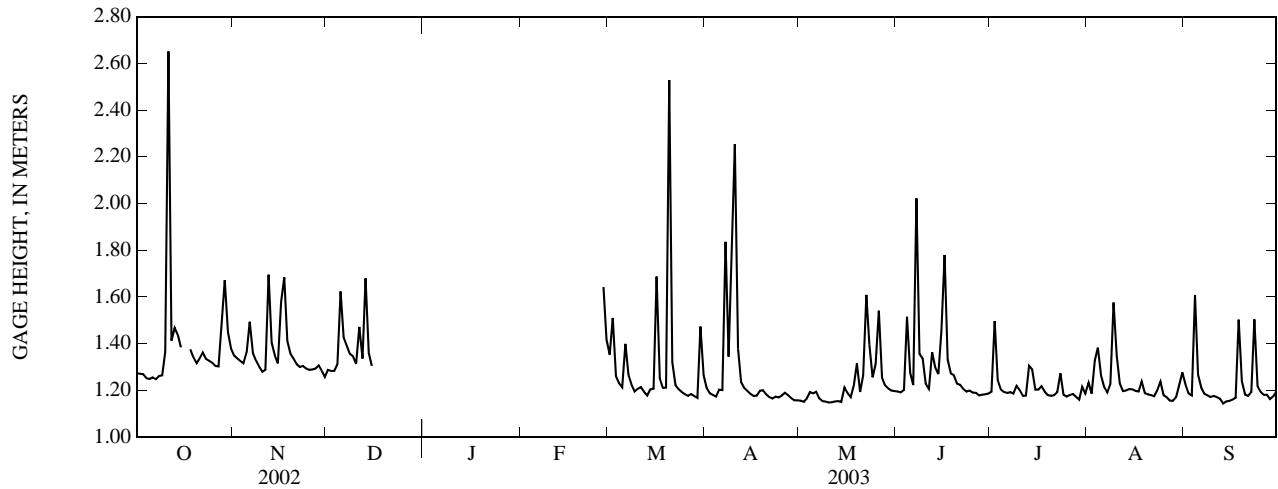
GAGE HEIGHT, ABOVE DATUM, METERS
JULY TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	1.09	1.79
2	---	---	---	---	---	---	---	---	---	---	1.07	1.21
3	---	---	---	---	---	---	---	---	---	---	1.05	1.16
4	---	---	---	---	---	---	---	---	---	---	1.04	1.13
5	---	---	---	---	---	---	---	---	---	---	1.04	1.13
6	---	---	---	---	---	---	---	---	---	---	1.04	1.13
7	---	---	---	---	---	---	---	---	---	---	1.03	1.12
8	---	---	---	---	---	---	---	---	---	---	1.01	1.12
9	---	---	---	---	---	---	---	---	---	---	1.01	1.10
10	---	---	---	---	---	---	---	---	---	---	1.01	1.10
11	---	---	---	---	---	---	---	---	---	---	1.01	1.10
12	---	---	---	---	---	---	---	---	---	1.14	1.00	1.12
13	---	---	---	---	---	---	---	---	---	1.11	1.00	1.10
14	---	---	---	---	---	---	---	---	---	1.10	1.01	1.10
15	---	---	---	---	---	---	---	---	---	1.09	1.02	1.14
16	---	---	---	---	---	---	---	---	---	1.09	1.02	1.14
17	---	---	---	---	---	---	---	---	---	1.09	1.04	1.13
18	---	---	---	---	---	---	---	---	---	1.08	1.10	1.17
19	---	---	---	---	---	---	---	---	---	1.08	1.05	1.19
20	---	---	---	---	---	---	---	---	---	1.13	1.02	1.15
21	---	---	---	---	---	---	---	---	---	1.12	1.02	1.14
22	---	---	---	---	---	---	---	---	---	1.09	1.02	1.13
23	---	---	---	---	---	---	---	---	---	1.07	1.02	1.14
24	---	---	---	---	---	---	---	---	---	1.11	1.01	1.14
25	---	---	---	---	---	---	---	---	---	1.14	1.02	1.14
26	---	---	---	---	---	---	---	---	---	1.21	1.03	1.16
27	---	---	---	---	---	---	---	---	---	1.31	1.04	1.22
28	---	---	---	---	---	---	---	---	---	1.18	1.05	1.19
29	---	---	---	---	---	---	---	---	---	1.12	1.05	1.17
30	---	---	---	---	---	---	---	---	---	1.10	1.11	1.21
31	---	---	---	---	---	---	---	---	---	1.08	1.57	---
MEAN	---	---	---	---	---	---	---	---	---	---	1.05	1.17
MAX	---	---	---	---	---	---	---	---	---	---	1.57	1.79
MIN	---	---	---	---	---	---	---	---	---	---	1.00	1.10



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

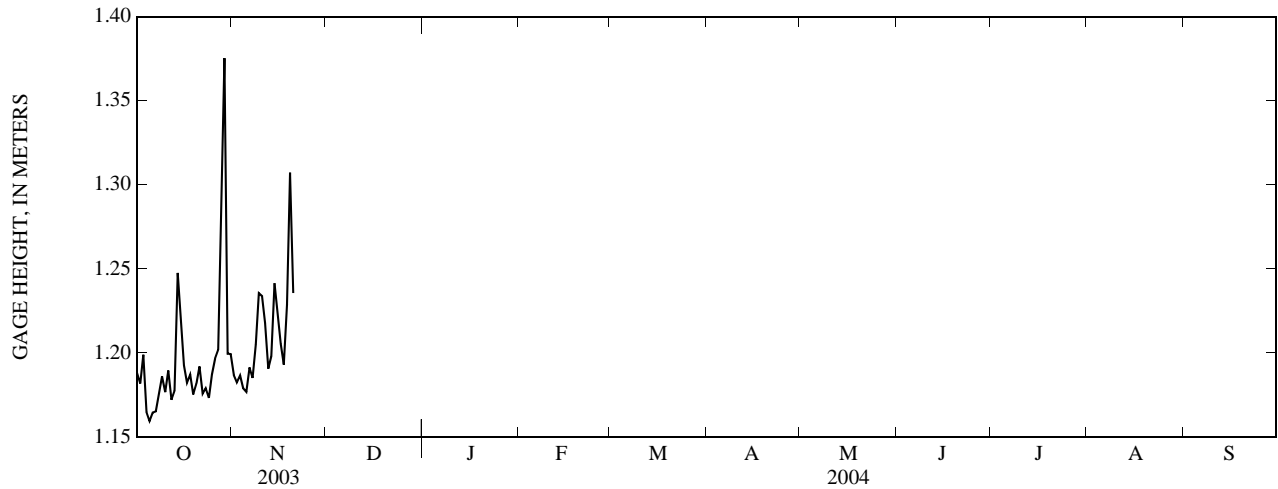
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.27	1.35	1.29	---	---	1.35	1.21	1.16	1.19	1.19	1.23	1.22
2	1.27	1.34	1.28	---	---	1.51	1.19	1.15	1.19	1.50	1.19	1.19
3	1.27	1.33	1.28	---	---	1.26	1.18	1.16	1.20	1.24	1.33	1.18
4	1.25	1.32	1.31	---	---	1.23	1.17	1.19	1.52	1.20	1.38	1.61
5	1.25	1.36	1.62	---	---	1.21	1.20	1.19	1.27	1.19	1.26	1.27
6	1.26	1.49	1.43	---	---	1.40	1.20	1.19	1.22	1.19	1.21	1.21
7	1.25	1.36	1.39	---	---	1.27	1.84	1.17	2.02	1.19	1.19	1.19
8	1.26	1.33	1.36	---	---	1.22	1.34	1.15	1.36	1.19	1.23	1.18
9	1.26	1.30	1.35	---	---	1.19	1.88	1.15	1.34	1.22	1.58	1.17
10	1.36	1.28	1.31	---	---	1.21	2.25	1.15	1.23	1.20	1.35	1.18
11	2.65	1.29	1.47	---	---	1.21	1.38	1.15	1.21	1.18	1.23	1.17
12	1.41	1.70	1.34	---	---	1.19	1.24	1.15	1.36	1.18	1.20	1.16
13	1.47	1.40	1.68	---	---	1.18	1.21	1.15	1.30	1.31	1.20	1.14
14	1.44	1.35	1.36	---	---	1.20	1.20	1.15	1.27	1.29	1.21	1.15
15	1.38	1.32	1.30	---	---	1.21	1.18	1.21	1.45	1.20	1.20	1.15
16	---	1.58	---	---	---	1.69	1.18	1.19	1.78	1.20	1.20	1.16
17	---	1.68	---	---	---	1.25	1.18	1.17	1.33	1.22	1.19	1.17
18	1.38	1.41	---	---	---	1.21	1.20	1.22	1.27	1.19	1.24	1.50
19	1.34	1.36	---	---	---	1.21	1.20	1.31	1.26	1.18	1.19	1.24
20	1.32	1.34	---	---	---	2.53	1.18	1.19	1.23	1.18	1.18	1.18
21	1.34	1.31	---	---	---	1.32	1.17	1.26	1.22	1.18	1.18	1.18
22	1.36	1.30	---	---	---	1.22	1.17	1.61	1.21	1.19	1.17	1.19
23	1.33	1.30	---	---	---	1.21	1.17	1.39	1.19	1.27	1.20	1.50
24	1.33	1.29	---	---	---	1.19	1.17	1.26	1.20	1.18	1.24	1.22
25	1.32	1.29	---	---	---	1.18	1.18	1.31	1.19	1.17	1.18	1.19
26	1.30	1.29	---	---	---	1.18	1.19	1.54	1.19	1.18	1.17	1.18
27	1.30	1.29	---	---	---	1.18	1.18	1.25	1.18	1.18	1.16	1.18
28	1.50	1.31	---	---	---	1.18	1.17	1.22	1.18	1.17	1.16	1.16
29	1.67	1.28	---	---	---	1.17	1.16	1.21	1.18	1.16	1.17	1.17
30	1.45	1.26	---	---	---	1.47	1.16	1.20	1.19	1.22	1.23	1.19
31	1.38	---	---	---	---	1.26	---	1.20	---	1.19	1.28	---
MEAN	---	1.36	---	---	---	1.30	1.28	1.23	1.30	1.21	1.23	1.22
MAX	---	1.70	---	---	---	2.53	2.25	1.61	2.02	1.50	1.58	1.61
MIN	---	1.26	---	---	---	1.17	1.16	1.15	1.18	1.16	1.16	1.14



0209647280 SERVICE CREEK ABOVE DRY CREEK AT BURLINGTON, NC—Continued

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.19	1.19	---	---	---	---	---	---	---	---	---	---
2	1.18	1.18	---	---	---	---	---	---	---	---	---	---
3	1.20	1.19	---	---	---	---	---	---	---	---	---	---
4	1.16	1.18	---	---	---	---	---	---	---	---	---	---
5	1.16	1.18	---	---	---	---	---	---	---	---	---	---
6	1.16	1.19	---	---	---	---	---	---	---	---	---	---
7	1.17	1.19	---	---	---	---	---	---	---	---	---	---
8	1.18	1.21	---	---	---	---	---	---	---	---	---	---
9	1.19	1.24	---	---	---	---	---	---	---	---	---	---
10	1.18	1.23	---	---	---	---	---	---	---	---	---	---
11	1.19	1.22	---	---	---	---	---	---	---	---	---	---
12	1.17	1.19	---	---	---	---	---	---	---	---	---	---
13	1.18	1.20	---	---	---	---	---	---	---	---	---	---
14	1.25	1.24	---	---	---	---	---	---	---	---	---	---
15	1.22	1.23	---	---	---	---	---	---	---	---	---	---
16	1.19	1.21	---	---	---	---	---	---	---	---	---	---
17	1.18	1.19	---	---	---	---	---	---	---	---	---	---
18	1.19	1.23	---	---	---	---	---	---	---	---	---	---
19	1.18	1.31	---	---	---	---	---	---	---	---	---	---
20	1.18	1.24	---	---	---	---	---	---	---	---	---	---
21	1.19	---	---	---	---	---	---	---	---	---	---	---
22	1.18	---	---	---	---	---	---	---	---	---	---	---
23	1.18	---	---	---	---	---	---	---	---	---	---	---
24	1.17	---	---	---	---	---	---	---	---	---	---	---
25	1.19	---	---	---	---	---	---	---	---	---	---	---
26	1.20	---	---	---	---	---	---	---	---	---	---	---
27	1.20	---	---	---	---	---	---	---	---	---	---	---
28	1.29	---	---	---	---	---	---	---	---	---	---	---
29	1.38	---	---	---	---	---	---	---	---	---	---	---
30	1.20	---	---	---	---	---	---	---	---	---	---	---
31	1.20	---	---	---	---	---	---	---	---	---	---	---
MEAN	1.20	---	---	---	---	---	---	---	---	---	---	---
MAX	1.38	---	---	---	---	---	---	---	---	---	---	---
MIN	1.16	---	---	---	---	---	---	---	---	---	---	---



0209647280 SERVICE CREEK ABOVE DRY CREEK AT BURLINGTON, NC—Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: August 2002 to November 2003.

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

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

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum recorded, 27.2°C, Aug. 29, 2003; minimum recorded, 0.0°C, Dec. 4, 5, 2002, Jan. 18, 19, 23-25, 27, 28, 2003

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

Date	Time	Medium code	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd 25 degC (00095)	Temperature, water, deg C (00010)	Chloride, water, fltrd, mg/L (00940)	Sulfate water, fltrd, mg/L (00945)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)			
Date			Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Particulate nitrogen, susp, water, mg/L (49570)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inorganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	Biomass periphyton, ashfree drymass g/m2 (49954)	Periphyton biomass ash weight, g/m2 (00572)	Periphyton biomass dry weight, g/m2 (00573)	
Date			Biomass chlorophyll ratio, periphyton, number (70950)	Pheophytin a, periphyton, mg/m2 (62359)	E coli, modif. m-TEC, water, col/100 mL (90902)	Chlorophyll a periphyton, chromofluoro, mg/m2 (70957)	1-Naphthol, water, fltrd 0.7u GF (49295)	2,6-Diethyl-aniline water fltrd 0.7u GF (82660)	2-[(2-Et-6-Me-Ph)-amino]propan-1-ol, ug/L (61615)	2Chloro-2,6'-diethyl acet-anilide wat flt ug/L (61618)	CIAT, water, fltrd, ug/L (04040)	2-Ethyl-6-methyl-aniline water, fltrd, ug/L (61620)	3,4-Dichloro-aniline water, fltrd, ug/L (61625)	4Chloro-2methyl phenol, water, fltrd, ug/L (61633)	Acetochlor, water, fltrd, ug/L (49260)	
FEB 24...	1000	9	E4.7	753	11.8	97	6.9	131	6.3	6.28	15.8	0.42	<0.04			
MAY 19...	1244	D	5.5	--	9.4	--	6.9	99	14.3	--	--	--	--			
JUN 23...	0930	9	--	--	7.6	--	6.5	181	18.4	--	--	--	--			
JUL 10...	0930	9	E1.9	746	7.8	92	6.4	163	22.3	7.72	9.7	0.40	<0.04			
JUL 10...	1005	9	--	--	--	--	--	--	--	--	--	--	--			
FEB 24...	0.24	<0.008	E.01	0.14	0.054	0.66	0.5	<0.1	0.5	6.4	--	--	--			
MAY 19...	--	--	--	--	--	--	--	--	--	--	4.5	36	40.50			
JUN 23...	--	--	--	--	--	--	--	--	--	--	--	--	--			
JUL 10...	0.36	E.006	E.01	0.07	0.063	0.76	0.5	<0.1	0.5	6.4	--	--	--			
JUL 10...	--	--	--	--	--	--	--	--	--	--	--	--	--			
FEB 24...	--	--	46	--	<0.09	<0.006	<0.1	<0.005	<0.006	<0.004	<0.004	<0.006	<0.006			
MAY 19...	346	5.1	--	13.0	--	--	--	--	--	--	--	--	--			
JUN 23...	--	--	--	--	--	--	--	--	--	--	--	--	--			
JUL 10...	--	--	--	--	<0.09	<0.006	<0.1	<0.005	<0.006	<0.004	0.006	<0.006	<0.006			
JUL 10...	--	--	1,900	--	--	--	--	--	--	--	--	--	--			

0209647280 SERVICE CREEK ABOVE DRY CREEK AT BURLINGTON, NC—Continued

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

Date	Alachlor, water, fltrd, ug/L (46342)	Atrazine, water, fltrd, ug/L (39632)	Azin-phos-methyl oxon, water, fltrd, ug/L (61635)	Azin-phos-methyl, water, fltrd, 0.7u GF ug/L (82686)	Ben-flur-alin, water, fltrd, 0.7u GF ug/L (82673)	Car-baryl, water, fltrd, 0.7u GF ug/L (82680)	Chlor-pyrifos oxon, water, fltrd, ug/L (61636)	Chlor-pyrifos water, fltrd, ug/L (38933)	cis-Per-methrin water fltrd, 0.7u GF ug/L (82687)	Cyflu-thrin, water, fltrd, ug/L (61585)	Cyper-methrin water, fltrd, ug/L (61586)	DCPA, water fltrd, 0.7u GF ug/L (82682)	Desulf-inyl fipronil, water, fltrd, ug/L (62170)
FEB 24...	<0.004	<0.007	<0.02	<0.050	<0.010	E.007	<0.06	<0.005	<0.006	<0.008	<0.009	<0.003	<0.004
MAY 19...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 23...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 10... 10...	<0.004 --	E.007 --	<0.02 --	<0.050 --	<0.010 --	E.015 --	<0.06 --	<0.005 --	<0.006 --	<0.008 --	<0.009 --	<0.003 --	<0.004 --
Date	Diaz-inon oxon, water, fltrd, ug/L (61638)	Diazi-non, water, fltrd, ug/L (39572)	Dicro-tophos, water, fltrd, ug/L (38454)	Diel-drin, water, fltrd, ug/L (39381)	Dimeth-oate, water, fltrd, 0.7u GF ug/L (82662)	Ethion monooxon water, fltrd, ug/L (61644)	Ethion, water, fltrd, ug/L (82346)	Fenami-phos sulfone water, fltrd, ug/L (61645)	Fenami-phos sulf-oxide, water, fltrd, ug/L (61646)	Fenami-phos, water, fltrd, ug/L (61591)	Desulf-inyl-fipronil amide, wat flt ug/L (62169)	Fipronil sulfide water, fltrd, ug/L (62167)	Fipronil sulfone water, fltrd, ug/L (62168)
FEB 24...	<0.04	E.003	<0.08	<0.005	<0.006	<0.03	<0.004	<0.008	<0.03	<0.03	<0.009	<0.005	<0.005
MAY 19...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 23...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 10... 10...	<0.01 --	0.006 --	<0.08 --	<0.005 --	<0.006 --	<0.03 --	<0.004 --	<0.008 --	<0.03 --	<0.03 --	<0.009 --	<0.005 --	<0.005 --
Date	Fipronil, water, fltrd, ug/L (62166)	Fonofos oxon, water, fltrd, ug/L (61649)	Fonofos water, fltrd, ug/L (04095)	Hexa-zinone, water, fltrd, ug/L (04025)	Ipro-dione, water, fltrd, ug/L (61593)	Isofen-phos, water, fltrd, ug/L (61594)	Mala-oxon, water, fltrd, ug/L (61652)	Mala-thion, water, fltrd, ug/L (39532)	Meta-laxyl, water, fltrd, ug/L (61596)	Methi-althion water, fltrd, ug/L (61598)	Methyl para-oxon, water, fltrd, ug/L (61664)	Methyl para-thion, water, fltrd, 0.7u GF ug/L (82667)	Metola-chlor, water, fltrd, ug/L (39415)
FEB 24...	<0.007	<0.002	<0.003	--	<1	<0.003	<0.008	<0.027	<0.005	<0.006	<0.03	<0.006	<0.013
MAY 19...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 23...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 10... 10...	<0.007 --	<0.002 --	<0.003 --	<0.013 --	<1 --	<0.003 --	<0.008 --	E.009 --	<0.005 --	<0.006 --	<0.03 --	<0.006 --	<0.013 --
Date	Metri-buzin, water, fltrd, ug/L (82630)	Myclo-butanil water, fltrd, ug/L (61599)	Pendi-meth-alin, water, fltrd, 0.7u GF ug/L (82683)	Phorate oxon, water, fltrd, ug/L (61666)	Phorate water fltrd, 0.7u GF ug/L (82664)	Phosmet oxon, water, fltrd, ug/L (61668)	Phosmet water, fltrd, ug/L (61601)	Prome-ton, water, fltrd, ug/L (04037)	Prome-tryn, water, fltrd, ug/L (04036)	Pron-amide, water, fltrd, 0.7u GF ug/L (82676)	Sima-zine, water, fltrd, ug/L (04035)	Tebu-thiuron water fltrd, 0.7u GF ug/L (82670)	Ter-bufos oxon sulfone water, fltrd, ug/L (61674)
FEB 24...	<0.006	<0.008	<0.022	<0.10	<0.011	<0.06	<0.008	E.01	<0.005	<0.004	E.003	<0.02	<0.07
MAY 19...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 23...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 10... 10...	<0.006 --	<0.008 --	<0.022 --	<0.10 --	<0.011 --	<0.12 --	<0.008 --	0.09 --	<0.005 --	<0.004 --	<0.005 --	<0.02 --	<0.07 --

0209647280 SERVICE CREEK ABOVE DRY CREEK AT BURLINGTON, NC—Continued

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

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	23.0	18.6	20.2	11.2	9.4	10.4	6.5	3.8	5.3	11.7	8.8	10.7
2	24.7	18.9	21.0	10.1	8.4	9.4	6.0	2.5	4.5	10.6	8.9	9.7
3	25.8	19.4	21.7	10.7	8.8	9.7	7.1	3.9	5.2	9.8	8.1	9.5
4	25.3	19.6	22.0	11.9	10.0	10.9	4.2	0.0	2.5	8.1	5.6	6.8
5	27.0	20.4	22.7	11.6	11.1	11.3	3.3	0.0	1.5	6.4	4.4	5.4
6	22.4	17.4	19.9	12.1	10.8	11.3	4.0	3.1	3.5	6.6	4.7	5.6
7	24.5	17.0	19.8	11.1	9.6	10.5	4.1	1.9	3.1	4.9	3.0	4.0
8	18.6	15.7	16.6	10.9	8.1	9.7	4.7	2.5	3.7	6.8	4.0	5.3
9	17.6	14.4	15.9	12.2	9.1	10.8	5.3	4.2	4.7	9.0	5.8	7.3
10	19.1	14.8	16.9	14.6	11.7	13.2	5.1	4.1	4.6	8.5	5.8	7.3
11	19.3	18.3	18.8	16.4	14.6	15.8	5.2	3.3	4.5	6.1	3.8	4.9
12	20.3	18.9	19.6	15.9	13.6	15.0	7.2	5.1	6.1	4.5	2.2	3.3
13	20.3	19.3	19.6	13.6	11.4	13.1	6.3	5.2	5.7	4.6	1.2	2.8
14	19.6	16.3	17.6	11.9	9.7	10.9	7.3	5.6	6.4	5.2	2.1	3.7
15	16.3	14.4	15.1	12.0	9.3	10.9	6.6	4.8	5.8	5.0	2.5	3.6
16	16.1	14.3	15.2	12.3	11.7	12.1	7.9	5.0	6.4	4.0	2.0	2.9
17	15.6	14.2	14.9	11.8	10.5	11.4	7.2	5.4	6.3	4.5	1.4	2.9
18	14.4	12.3	13.5	10.5	9.0	9.8	7.4	5.7	6.6	2.4	0.0	0.9
19	14.5	12.0	13.3	10.2	7.9	9.1	8.3	7.2	7.6	2.4	0.0	0.7
20	15.3	13.6	14.5	10.4	7.8	9.2	11.5	8.3	10.2	5.4	0.6	2.6
21	15.4	14.1	14.9	11.4	9.4	10.3	9.0	6.7	7.8	3.8	2.3	3.0
22	14.4	13.4	13.8	10.6	8.4	9.7	8.3	5.5	6.9	4.6	0.7	2.4
23	14.4	12.3	13.3	8.9	6.6	7.8	8.3	6.0	7.1	2.4	0.0	0.9
24	13.8	13.1	13.5	9.5	6.2	7.8	7.0	6.7	6.9	1.6	0.0	0.3
25	13.2	12.6	12.8	10.3	6.9	8.5	6.9	5.5	6.3	2.2	0.0	0.5
26	14.7	12.3	13.4	9.8	7.0	8.4	6.0	4.7	5.4	3.0	0.1	1.2
27	14.7	13.2	13.9	8.8	6.1	7.8	5.5	3.6	4.6	2.3	0.0	0.8
28	14.8	13.7	14.2	6.6	4.2	5.3	5.4	3.0	4.3	2.6	0.0	1.0
29	13.7	11.7	12.6	6.2	2.9	4.6	6.4	3.7	5.1	4.2	1.6	3.1
30	12.2	11.4	11.7	8.7	5.4	6.9	6.9	4.2	5.6	4.3	2.9	3.7
31	12.0	10.8	11.4	---	---	---	8.8	5.6	7.2	4.1	3.0	3.6
MONTH	27.0	10.8	16.3	16.4	2.9	10.1	11.5	0.0	5.5	11.7	0.0	3.9
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	6.1	4.1	5.0	7.2	4.9	6.0	14.4	8.3	11.2	21.7	17.4	19.3
2	7.1	3.9	5.4	9.4	6.5	7.8	18.3	11.2	14.5	23.2	17.1	19.7
3	8.0	4.5	6.4	9.6	6.6	8.2	19.9	12.8	16.2	20.7	17.4	18.7
4	10.8	7.8	9.2	10.6	6.4	8.5	19.2	14.5	16.8	17.4	14.9	16.5
5	8.0	5.6	6.8	13.2	9.4	11.2	17.7	15.4	16.5	14.9	14.0	14.3
6	6.4	4.1	5.2	13.1	11.4	12.2	18.4	13.7	16.0	17.0	13.9	15.4
7	5.9	2.9	4.4	12.0	7.3	9.5	15.8	9.9	11.5	20.9	15.7	17.9
8	5.8	3.8	4.7	11.3	5.7	8.6	10.5	9.6	10.3	23.8	17.9	20.3
9	6.0	3.2	4.5	14.4	9.1	11.5	9.6	8.3	9.1	24.4	18.8	21.3
10	5.9	4.8	5.2	12.8	8.7	10.6	9.4	8.0	8.5	24.5	19.8	22.1
11	6.9	3.3	5.1	9.4	7.2	8.1	10.7	8.8	9.5	22.5	19.9	21.2
12	7.6	4.0	5.5	13.1	6.1	9.5	15.5	9.5	12.2	22.6	17.7	19.5
13	6.7	2.7	4.6	14.9	9.1	12.1	17.0	11.2	14.0	21.6	15.5	18.0
14	5.6	3.8	4.8	14.7	10.9	12.8	18.1	11.8	14.9	21.4	13.8	17.4
15	6.8	5.6	6.1	10.9	9.3	9.8	19.9	13.7	16.6	18.6	16.2	17.5
16	5.6	0.3	3.2	10.7	8.5	9.6	20.7	14.8	17.6	19.8	16.9	18.1
17	2.2	0.1	1.2	13.0	10.7	11.8	20.4	15.3	17.6	18.3	15.5	16.9
18	5.9	2.2	3.6	14.0	12.1	12.9	16.7	12.4	13.9	15.6	14.8	15.2
19	6.2	2.7	4.4	13.2	11.2	12.3	12.6	11.6	12.2	15.1	14.2	14.6
20	7.8	5.4	6.6	11.2	8.0	8.9	16.6	12.1	13.8	18.7	13.8	16.2
21	7.3	5.9	6.7	13.1	9.0	10.8	15.7	13.9	14.8	18.2	15.7	16.8
22	---	---	---	14.9	11.0	12.9	18.4	14.5	16.0	17.7	15.9	16.6
23	---	---	---	14.5	10.6	12.8	18.2	11.8	14.6	17.0	16.1	16.5
24	---	---	---	15.8	11.1	13.4	17.0	11.1	14.0	17.6	16.2	16.8
25	---	---	---	16.4	11.2	13.8	15.2	13.9	14.5	18.3	16.6	17.4
26	---	---	---	17.6	13.1	15.1	18.3	14.5	15.8	19.9	18.1	18.9
27	5.2	3.2	4.0	17.5	13.6	15.2	19.3	14.6	16.6	19.0	17.2	18.1
28	5.0	3.8	4.6	17.9	13.1	15.2	20.7	13.8	17.0	19.0	15.5	17.3
29	---	---	---	19.1	15.6	16.9	21.2	15.3	18.0	18.4	16.4	17.3
30	---	---	---	17.0	10.2	12.5	21.9	16.0	18.6	19.5	15.4	17.5
31	---	---	---	12.1	8.3	10.1	---	---	---	19.6	16.8	18.2
MONTH	---	---	---	19.1	4.9	11.3	21.9	8.0	14.4	24.5	13.8	17.8

0209647295 DRY CREEK ABOVE SERVICE CREEK AT BURLINGTON, NC

LOCATION.--Lat 36°06'32", long 79°24'12", Alamance County, Hydrologic Unit 03030002, .1 mi upstream of mouth, and 2.1 mi northeast of Burlington.

DRAINAGE AREA.--2.51 mi².

GAGE-HEIGHT RECORDS

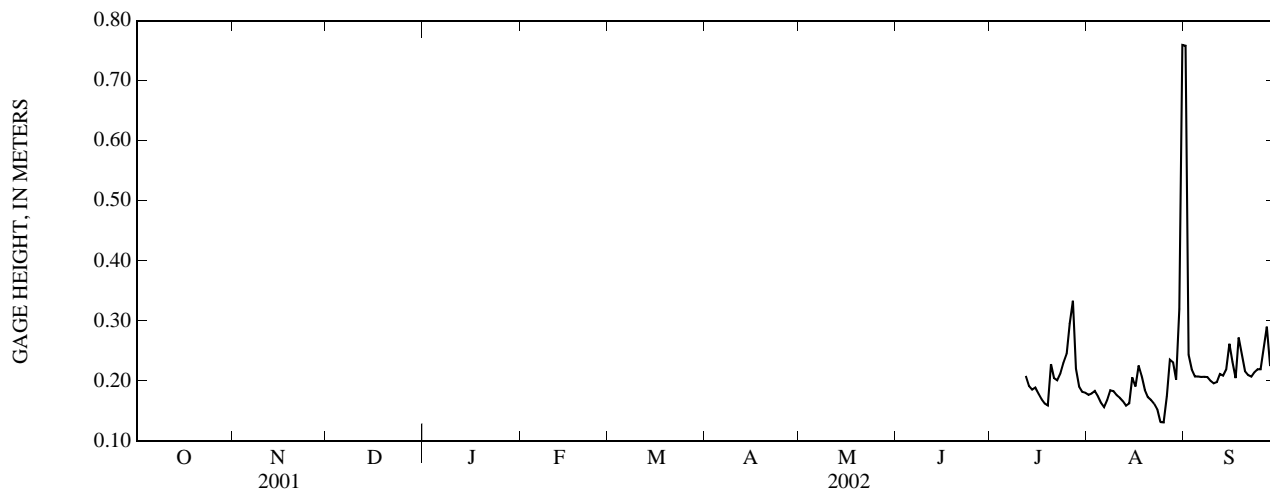
PERIOD OF RECORD.--July 2002 to November 2003 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 510 ft above NGVD of 1929, from topographic map.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height recorded, 3.45 m, Aug. 9, 2003; minimum gage height recorded, .10 m, Aug. 24, 2002.

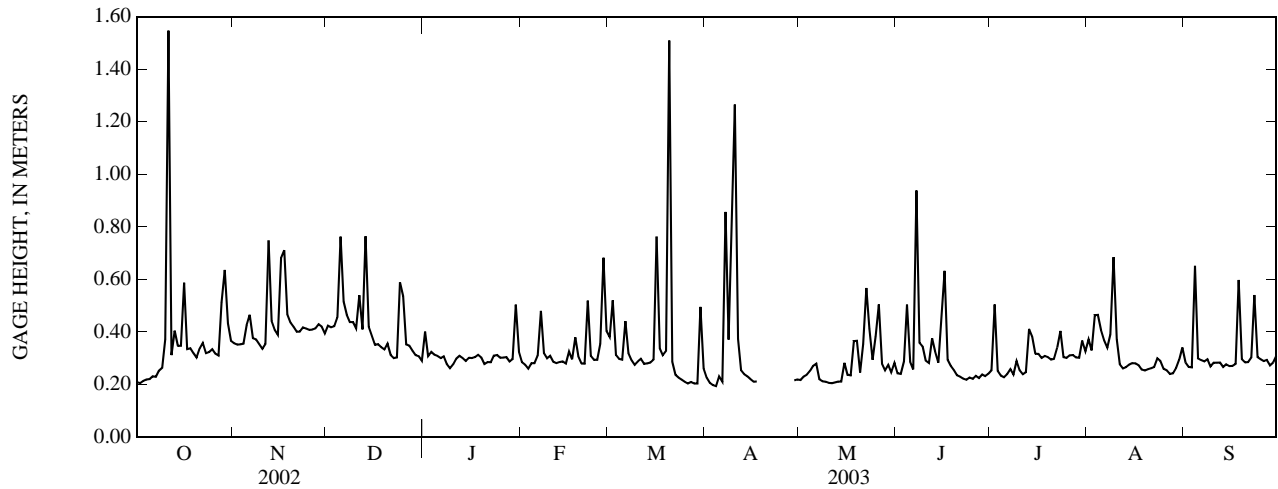
GAGE HEIGHT, ABOVE DATUM, METERS
JULY TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	0.18	0.76
2	---	---	---	---	---	---	---	---	---	---	0.18	0.24
3	---	---	---	---	---	---	---	---	---	---	0.18	0.22
4	---	---	---	---	---	---	---	---	---	---	0.17	0.21
5	---	---	---	---	---	---	---	---	---	---	0.16	0.21
6	---	---	---	---	---	---	---	---	---	---	0.16	0.21
7	---	---	---	---	---	---	---	---	---	---	0.17	0.21
8	---	---	---	---	---	---	---	---	---	---	0.18	0.21
9	---	---	---	---	---	---	---	---	---	---	0.18	0.20
10	---	---	---	---	---	---	---	---	---	---	0.18	0.20
11	---	---	---	---	---	---	---	---	---	---	0.17	0.20
12	---	---	---	---	---	---	---	---	---	0.21	0.17	0.21
13	---	---	---	---	---	---	---	---	---	0.19	0.16	0.21
14	---	---	---	---	---	---	---	---	---	0.19	0.16	0.22
15	---	---	---	---	---	---	---	---	---	0.19	0.21	0.26
16	---	---	---	---	---	---	---	---	---	0.18	0.19	0.23
17	---	---	---	---	---	---	---	---	---	0.17	0.23	0.20
18	---	---	---	---	---	---	---	---	---	0.16	0.21	0.27
19	---	---	---	---	---	---	---	---	---	0.16	0.18	0.24
20	---	---	---	---	---	---	---	---	---	0.23	0.17	0.22
21	---	---	---	---	---	---	---	---	---	0.20	0.17	0.21
22	---	---	---	---	---	---	---	---	---	0.20	0.16	0.21
23	---	---	---	---	---	---	---	---	---	0.21	0.15	0.21
24	---	---	---	---	---	---	---	---	---	0.23	0.13	0.22
25	---	---	---	---	---	---	---	---	---	0.25	0.13	0.22
26	---	---	---	---	---	---	---	---	---	0.30	0.17	0.26
27	---	---	---	---	---	---	---	---	---	0.33	0.24	0.29
28	---	---	---	---	---	---	---	---	---	0.22	0.23	0.23
29	---	---	---	---	---	---	---	---	---	0.19	0.20	0.22
30	---	---	---	---	---	---	---	---	---	0.18	0.32	0.22
31	---	---	---	---	---	---	---	---	---	0.18	0.76	---
MEAN	---	---	---	---	---	---	---	---	---	---	0.20	0.24
MAX	---	---	---	---	---	---	---	---	---	---	0.76	0.76
MIN	---	---	---	---	---	---	---	---	---	---	0.13	0.20



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

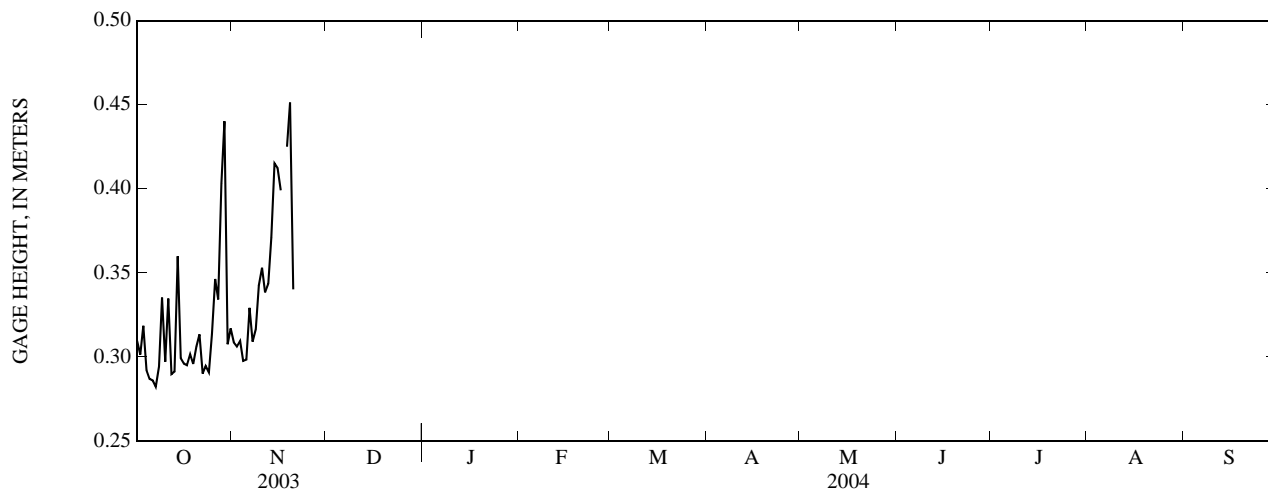
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.21	0.36	0.42	0.40	0.28	0.38	0.23	0.22	0.24	0.25	0.37	0.28
2	0.21	0.35	0.42	0.31	0.27	0.52	0.21	0.23	0.24	0.50	0.33	0.27
3	0.21	0.35	0.42	0.32	0.26	0.31	0.20	0.24	0.29	0.25	0.46	0.27
4	0.22	0.36	0.46	0.31	0.28	0.30	0.19	0.25	0.50	0.23	0.47	0.65
5	0.22	0.43	0.76	0.31	0.28	0.29	0.23	0.27	0.29	0.23	0.41	0.30
6	0.23	0.47	0.52	0.30	0.31	0.44	0.21	0.28	0.26	0.24	0.37	0.29
7	0.23	0.38	0.46	0.31	0.48	0.32	0.86	0.22	0.94	0.26	0.34	0.29
8	0.25	0.37	0.44	0.28	0.32	0.29	0.37	0.21	0.36	0.24	0.39	0.30
9	0.26	0.35	0.44	0.26	0.30	0.27	0.86	0.21	0.34	0.29	0.69	0.27
10	0.37	0.34	0.41	0.28	0.31	0.29	1.27	0.21	0.29	0.25	0.37	0.28
11	1.55	0.35	0.54	0.30	0.29	0.30	0.37	0.20	0.28	0.24	0.28	0.28
12	0.31	0.75	0.41	0.31	0.28	0.28	0.25	0.21	0.38	0.25	0.26	0.28
13	0.40	0.44	0.76	0.30	0.29	0.28	0.24	0.21	0.33	0.41	0.27	0.27
14	0.35	0.41	0.42	0.29	0.29	0.28	0.23	0.21	0.28	0.38	0.28	0.28
15	0.35	0.39	0.39	0.30	0.28	0.30	0.22	0.28	0.45	0.32	0.28	0.27
16	0.59	0.68	0.35	0.30	0.33	0.76	0.21	0.24	0.63	0.32	0.28	0.27
17	0.33	0.71	0.35	0.30	0.30	0.34	0.21	0.23	0.29	0.30	0.27	0.28
18	0.34	0.47	0.34	0.31	0.38	0.31	---	0.37	0.27	0.31	0.26	0.60
19	0.32	0.44	0.33	0.30	0.31	0.33	---	0.37	0.25	0.30	0.25	0.30
20	0.30	0.42	0.36	0.28	0.28	1.51	---	0.25	0.23	0.30	0.26	0.28
21	0.34	0.40	0.31	0.29	0.28	0.29	---	0.35	0.23	0.30	0.26	0.29
22	0.36	0.40	0.30	0.28	0.52	0.24	---	0.57	0.22	0.34	0.27	0.30
23	0.32	0.42	0.30	0.31	0.31	0.23	---	0.41	0.22	0.40	0.30	0.54
24	0.32	0.41	0.59	0.31	0.29	0.22	---	0.29	0.23	0.30	0.29	0.30
25	0.33	0.41	0.54	0.30	0.29	0.21	---	0.38	0.22	0.30	0.26	0.30
26	0.32	0.41	0.35	0.30	0.35	0.20	---	0.50	0.23	0.31	0.25	0.29
27	0.31	0.41	0.35	0.30	0.68	0.21	---	0.28	0.22	0.31	0.24	0.29
28	0.51	0.43	0.33	0.29	0.40	0.20	---	0.25	0.24	0.30	0.24	0.27
29	0.64	0.42	0.31	0.30	---	0.20	0.22	0.27	0.23	0.30	0.26	0.28
30	0.43	0.39	0.31	0.50	---	0.50	0.22	0.25	0.24	0.37	0.30	0.31
31	0.37	---	0.29	0.32	---	0.26	---	0.28	---	0.33	0.34	---
MEAN	0.37	0.43	0.42	0.31	0.33	0.35	---	0.28	0.31	0.30	0.32	0.32
MAX	1.55	0.75	0.76	0.50	0.68	1.51	---	0.57	0.94	0.50	0.69	0.65
MIN	0.21	0.34	0.29	0.26	0.26	0.20	---	0.20	0.22	0.23	0.24	0.27



0209647295 DRY CREEK ABOVE SERVICE CREEK AT BURLINGTON, NC—Continued

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.31	0.31	---	---	---	---	---	---	---	---	---	---
2	0.30	0.31	---	---	---	---	---	---	---	---	---	---
3	0.32	0.31	---	---	---	---	---	---	---	---	---	---
4	0.29	0.30	---	---	---	---	---	---	---	---	---	---
5	0.29	0.30	---	---	---	---	---	---	---	---	---	---
6	0.29	0.33	---	---	---	---	---	---	---	---	---	---
7	0.28	0.31	---	---	---	---	---	---	---	---	---	---
8	0.29	0.32	---	---	---	---	---	---	---	---	---	---
9	0.34	0.34	---	---	---	---	---	---	---	---	---	---
10	0.30	0.35	---	---	---	---	---	---	---	---	---	---
11	0.33	0.34	---	---	---	---	---	---	---	---	---	---
12	0.29	0.34	---	---	---	---	---	---	---	---	---	---
13	0.29	0.37	---	---	---	---	---	---	---	---	---	---
14	0.36	0.42	---	---	---	---	---	---	---	---	---	---
15	0.30	0.41	---	---	---	---	---	---	---	---	---	---
16	0.30	0.40	---	---	---	---	---	---	---	---	---	---
17	0.30	---	---	---	---	---	---	---	---	---	---	---
18	0.30	0.43	---	---	---	---	---	---	---	---	---	---
19	0.30	0.45	---	---	---	---	---	---	---	---	---	---
20	0.31	0.34	---	---	---	---	---	---	---	---	---	---
21	0.31	---	---	---	---	---	---	---	---	---	---	---
22	0.29	---	---	---	---	---	---	---	---	---	---	---
23	0.29	---	---	---	---	---	---	---	---	---	---	---
24	0.29	---	---	---	---	---	---	---	---	---	---	---
25	0.31	---	---	---	---	---	---	---	---	---	---	---
26	0.35	---	---	---	---	---	---	---	---	---	---	---
27	0.33	---	---	---	---	---	---	---	---	---	---	---
28	0.40	---	---	---	---	---	---	---	---	---	---	---
29	0.44	---	---	---	---	---	---	---	---	---	---	---
30	0.31	---	---	---	---	---	---	---	---	---	---	---
31	0.32	---	---	---	---	---	---	---	---	---	---	---
MEAN	0.31	---	---	---	---	---	---	---	---	---	---	---
MAX	0.44	---	---	---	---	---	---	---	---	---	---	---
MIN	0.28	---	---	---	---	---	---	---	---	---	---	---



0209647295 DRY CREEK ABOVE SERVICE CREEK AT BURLINGTON, NC—Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: August 2002 to November 2003.

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

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

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum recorded, 29.5°C, Aug. 29, 2003; minimum recorded, 0.0°C, Dec. 5, 2002, Jan. 18-20, 23, 25-28, Feb. 16, 17, 2003.

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

Date	Time	Medium code	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Chloride, water, fltrd, mg/L (00940)	Sulfate water, fltrd, mg/L (00945)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)		
Date			Nitrate water, fltrd, mg/L as N (71851)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (71856)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Particulate nitrogen, susp, water, mg/L (49570)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inorganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)
FEB 24...	1130	9	1.7	753	12.1	101	7.2	212	7.1	16.2	21.0	0.24	<0.04		
MAY 19...	1000	D	2.7	--	9.6	--	6.9	101	14.0	--	--	--	--		
JUN 23...	0930	9	--	--	8.5	--	7.1	250	18.5	--	--	--	--		
JUL 10...	1010	9	--	--	--	--	--	--	--	--	--	--	--		
JUL 10...	1100	9	E.96	746	8.0	97	6.8	130	23.7	6.17	10.2	0.35	<0.04		
FEB 24...	--	--	0.54	--	E.004	E.01	0.06	0.042	0.78	0.7	<0.1	0.6	3.8		
MAY 19...	--	--	--	--	--	--	--	--	--	--	--	--	--		
JUN 23...	--	--	--	--	--	--	--	--	--	--	--	--	--		
JUL 10...	--	--	--	--	--	--	--	--	--	--	--	--	--		
JUL 10...	1.43	0.32	0.34	0.069	0.021	<0.02	0.07	0.083	0.69	0.5	--	--	5.8		
FEB 24...	--	--	--	--	--	87	--	<0.09	<0.006	<0.1	<0.005	E.002	<0.004		
MAY 19...	2.4	31	33.60	194	6.9	--	12.3	--	--	--	--	--	--		
JUN 23...	--	--	--	--	--	--	--	--	--	--	--	--	--		
JUL 10...	--	--	--	--	--	7,100	--	--	--	--	--	--	--		
JUL 10...	--	--	--	--	--	--	--	E.02	<0.006	<0.1	<0.005	<0.006	<0.004		

0209647295 DRY CREEK ABOVE SERVICE CREEK AT BURLINGTON, NC—Continued

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

Date	3,4-Di-chloro-aniline water fltrd, ug/L (61625)	4Chloro 2methyl phenol, water, fltrd, ug/L (61633)	Aceto-chlor, water, fltrd, ug/L (49260)	Ala-chlor, water, fltrd, ug/L (46342)	Atra-zine, water, fltrd, ug/L (39632)	Azin-phos-methyl oxon, water, fltrd, ug/L (61635)	Azin-phos-methyl, water, fltrd, 0.7u GF ug/L (82686)	Ben-flur-alin, water, fltrd, 0.7u GF ug/L (82673)	Car-baryl, water, fltrd, 0.7u GF ug/L (82680)	Chlor-pyrifos oxon, water, fltrd, ug/L (61636)	Chlor-pyrifos water, fltrd, ug/L (38933)	cis-Per-methrin water fltrd, 0.7u GF ug/L (82687)	Cyflu-thrin, water, fltrd, ug/L (61585)
FEB 24...	<0.004	<0.006	<0.006	<0.004	<0.007	<0.02	<0.050	<0.010	E.004	<0.06	<0.005	<0.006	<0.008
MAY 19...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 23...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 10...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 10...	<0.004	<0.006	<0.006	<0.004	0.012	<0.02	<0.050	<0.010	E.260	<0.06	<0.005	<0.006	<0.008
Date	Cypermethrin water, fltrd, ug/L (61586)	DCPA, water fltrd, 0.7u GF ug/L (82682)	Desulf-inyl fipronil, water, fltrd, ug/L (62170)	Diaz-inon oxon, water, fltrd, ug/L (61638)	Diazi-non, water, fltrd, ug/L (39572)	Dicro-tophos, water, fltrd, ug/L (38454)	Diel-drin, water, fltrd, ug/L (39381)	Dimeth-oate, water, fltrd, 0.7u GF ug/L (82662)	Ethion monoxon water, fltrd, ug/L (61644)	Ethion, water, fltrd, ug/L (82346)	Fenami-phos sulfone water, fltrd, ug/L (61645)	Fenami-phos sulf-oxide, water, fltrd, ug/L (61646)	Fenami-phos, water, fltrd, ug/L (61591)
FEB 24...	<0.009	<0.003	<0.004	<0.04	0.005	<0.08	<0.005	<0.006	<0.03	<0.004	<0.008	<0.03	<0.03
MAY 19...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 23...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 10...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 10...	<0.009	<0.003	<0.004	<0.01	0.017	<0.08	<0.005	<0.006	<0.03	<0.004	<0.008	<0.03	<0.03
Date	Desulf-inyl-fipronil amide, wat flt ug/L (62169)	Fipronil sulfide water, fltrd, ug/L (62167)	Fipronil sulfone water, fltrd, ug/L (62168)	Fipronil, water, fltrd, ug/L (62166)	Fonofos oxon, water, fltrd, ug/L (61649)	Fonofos water, fltrd, ug/L (04095)	Hexa-zinone, water, fltrd, ug/L (04025)	Ipro-dione, water, fltrd, ug/L (61593)	Isofen-phos, water, fltrd, ug/L (61594)	Mala-oxon, water, fltrd, ug/L (61652)	Mala-thion, water, fltrd, ug/L (39532)	Meta-laxyl, water, fltrd, ug/L (61596)	Methi-althion water, fltrd, ug/L (61598)
FEB 24...	<0.009	<0.005	<0.005	<0.007	<0.002	<0.003	--	<1	<0.003	<0.008	<0.027	<0.005	<0.006
MAY 19...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 23...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 10...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 10...	<0.009	<0.005	<0.005	E.008	<0.002	<0.003	<0.013	<1	<0.003	<0.008	<0.027	<0.005	<0.006
Date	Methyl para-oxon, water, fltrd, ug/L (61664)	Methyl para-thion, water, fltrd, 0.7u GF (82667)	Metola-chlor, water, fltrd, ug/L (39415)	Metri-buzin, water, fltrd, ug/L (82630)	Myclo-butanil water, fltrd, ug/L (61599)	Pendi-meth-alin, water, fltrd, 0.7u GF (82683)	Phorate oxon, water, fltrd, ug/L (61666)	Phorate water fltrd, 0.7u GF (82664)	Phosmet oxon, water, fltrd, ug/L (61668)	Phosmet water, fltrd, ug/L (61601)	Prome-ton, water, fltrd, ug/L (04037)	Prome-tryn, water, fltrd, ug/L (04036)	Pron-amide, water, fltrd, 0.7u GF (82676)
FEB 24...	<0.03	<0.006	<0.013	<0.006	<0.008	<0.022	<0.10	<0.011	<0.06	<0.008	M	<0.005	<0.004
MAY 19...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 23...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 10...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 10...	<0.03	<0.006	<0.013	<0.006	<0.008	<0.022	<0.10	<0.011	<0.12	<0.008	0.04	<0.005	<0.004

0209647295 DRY CREEK ABOVE SERVICE CREEK AT BURLINGTON, NC—Continued

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

Date	Sima- zine, water, fltrd, ug/L (04035)	Tebu- thiuron water fltrd 0.7u GF ug/L (82670)	Ter- bufos oxon sulfone water, fltrd, ug/L (61674)	Terbu- fos, water, fltrd 0.7u GF ug/L (82675)	Ter- buthyl- azine, water, fltrd, ug/L (04022)	Tri- flur- alin, water, fltrd 0.7u GF ug/L (82661)	Di- chlor- vos, water fltrd, ug/L (38775)	Suspnd. sedi- ment, sieve diametr percent <.063mm (70331)	Sus- pended sedi- ment concen- tration mg/L (80154)	Sus- pended sedi- ment load, tons/d (80155)
FEB 24...	0.070	0.02	<0.07	<0.02	<0.01	<0.009	<0.01	86	5	0.02
MAY 19...	--	--	--	--	--	--	--	--	--	--
JUN 23...	--	--	--	--	--	--	--	--	--	--
JUL 10...	--	--	--	--	--	--	--	--	--	--
JUL 10...	<0.005	<0.02	<0.07	<0.02	<0.01	<0.009	<0.01	95	8	--

Remark codes used in this table:

< -- Less than

E -- Estimated value

M-- Presence verified, not quantified

Medium codes used in this table:

9 -- Surface water

D -- Plant tissue

TEMPERATURE, WATER, DEGREES CELSIUS
AUGUST TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	SEPTEMBER		
										MAX	MIN	MEAN
	JUNE			JULY			AUGUST					
1	---	---	---	---	---	---	---	---	---	20.6	19.0	19.9
2	---	---	---	---	---	---	---	---	---	20.5	19.5	19.9
3	---	---	---	---	---	---	---	---	---	22.2	18.5	20.1
4	---	---	---	---	---	---	---	---	---	24.3	20.0	21.7
5	---	---	---	---	---	---	---	---	---	24.7	20.2	21.6
6	---	---	---	---	---	---	---	---	---	24.1	18.5	20.5
7	---	---	---	---	---	---	---	---	---	24.2	18.8	20.5
8	---	---	---	---	---	---	---	---	---	23.5	17.8	19.8
9	---	---	---	---	---	---	---	---	---	23.7	18.1	20.0
10	---	---	---	---	---	---	---	---	---	23.6	19.1	20.8
11	---	---	---	---	---	---	---	---	---	24.4	18.7	20.8
12	---	---	---	---	---	---	---	---	---	23.6	16.9	19.1
13	---	---	---	---	---	---	---	---	---	22.6	15.8	18.5
14	---	---	---	---	---	---	---	---	---	20.8	18.7	19.8
15	---	---	---	---	---	---	---	---	---	21.8	20.3	21.1
16	---	---	---	---	---	---	---	---	---	23.0	20.9	21.7
17	---	---	---	---	---	---	---	---	---	23.9	20.3	21.6
18	---	---	---	---	---	---	---	---	---	22.8	20.7	21.6
19	---	---	---	---	---	---	---	---	---	23.0	21.3	22.1
20	---	---	---	---	---	---	---	---	---	23.2	20.3	21.5
21	---	---	---	---	---	---	---	---	---	23.6	20.1	21.4
22	---	---	---	---	---	---	---	---	---	23.4	20.5	21.7
23	---	---	---	---	---	---	---	---	---	21.9	19.3	21.1
24	---	---	---	---	---	---	---	---	---	21.9	17.4	19.0
25	---	---	---	---	---	---	---	---	---	19.9	17.8	18.6
26	---	---	---	---	---	---	24.5	22.0	23.3	19.3	17.8	18.5
27	---	---	---	---	---	---	23.2	21.2	21.9	23.5	19.3	21.6
28	---	---	---	---	---	---	21.2	19.6	20.2	22.6	20.0	21.4
29	---	---	---	---	---	---	20.9	19.0	19.8	21.7	18.0	19.4
30	---	---	---	---	---	---	20.9	19.4	20.0	21.4	16.5	18.5
31	---	---	---	---	---	---	20.4	18.8	20.0	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	24.7	15.8	20.5

0209647295 DRY CREEK ABOVE SERVICE CREEK AT BURLINGTON, NC—Continued

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	23.4	18.6	20.2	11.0	8.6	10	6.4	3.5	4.6	13.1	8.7	11.6
2	24.1	18.9	20.8	10.2	7.8	8.8	5.7	2.0	3.9	10.8	8.8	9.8
3	25.1	19.4	21.5	10.8	8.1	9.4	6.0	3.8	4.9	9.8	7.5	9.3
4	24.6	19.9	21.7	12.2	9.6	10.7	4.2	0.0	2.2	7.5	4.6	5.9
5	25.9	20.5	22.4	12.0	10.8	11.3	4.0	0.0	2.1	6.0	3.3	4.6
6	23.8	18.2	20.1	12.6	10.9	11.7	5.0	3.6	4.2	6.2	3.9	4.9
7	22.6	17.5	19.4	10.9	9.3	10.2	5.5	2.0	3.7	3.9	1.6	2.8
8	18.5	16.0	17.1	10.8	7.6	9.3	5.8	2.7	4.4	6.3	3.0	4.6
9	17.1	14.9	16.0	12.5	8.9	10.8	6.0	4.6	5.2	8.6	5.1	6.7
10	19.5	15.3	17.0	15.0	11.8	13.4	5.4	4.0	4.7	7.6	5.3	6.6
11	20.0	18.6	19.3	17.3	15.0	16.3	6.0	2.9	4.9	5.3	3.0	3.9
12	20.7	19.2	19.9	16.5	13.7	15.3	8.1	5.7	6.8	3.0	0.9	2.0
13	21.0	19.4	19.8	13.7	11.0	13.0	6.7	5.3	6.1	3.4	0.3	1.8
14	19.8	16.7	17.9	11.9	9.0	10.5	8.2	6.4	7.1	4.4	1.4	3.0
15	16.7	14.4	15.3	12.2	9.0	10.8	7.1	4.6	5.9	4.0	1.3	2.5
16	16.6	14.1	15.4	13.1	11.9	12.3	7.9	5.0	6.3	3.0	0.7	1.7
17	15.7	14.1	14.8	12.3	10.4	11.6	6.8	4.7	5.7	2.8	0.6	1.8
18	14.1	11.8	13.1	10.6	8.8	9.7	6.9	4.8	5.8	0.6	0.0	0.3
19	14.6	11.6	13.1	10.4	7.3	8.9	7.8	6.6	7.0	0.7	0.0	0.4
20	15.5	13.5	14.5	10.6	7.5	9.1	12.3	7.8	10.4	3.0	0.0	1.4
21	16.4	14.1	15.3	11.8	9.4	10.4	8.5	5.8	6.9	3.0	1.8	2.4
22	14.5	13.3	14.0	10.5	7.8	9.4	8.1	4.5	6.2	2.7	0.1	1.5
23	14.3	12.0	13.1	8.1	6.0	7.2	7.8	5.1	6.5	1.9	0.0	0.5
24	13.7	13.0	13.4	9.2	5.7	7.5	7.1	6.4	6.6	0.7	0.3	0.5
25	13.2	12.4	12.6	10.1	6.7	8.4	6.9	4.8	5.8	0.6	0.0	0.4
26	14.7	12.3	13.5	9.5	6.8	8.2	5.6	3.8	4.6	1.2	0.0	0.7
27	14.7	13.3	14.1	8.1	5.9	7.6	5.0	2.7	3.8	1.0	0.0	0.4
28	15.3	13.9	14.6	5.9	3.7	4.7	5.1	2.1	3.6	0.9	0.0	0.5
29	13.9	11.2	12.6	5.3	2.3	3.9	6.3	2.8	4.5	5.8	0.9	3.1
30	12.2	11.0	11.5	8.2	5.3	6.7	6.9	3.5	5.2	5.8	2.8	4.1
31	11.9	10.4	11.2	---	---	---	8.7	5.1	6.7	3.9	3.0	3.5
MONTH	25.9	10.4	16.3	17.3	2.3	9.9	12.3	0.0	5.4	13.1	0.0	3.3
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	6.2	3.9	4.8	7.9	5.2	6.5	15.1	4.8	9.1	21.4	18.1	19.6
2	7.1	3.4	5.0	10.5	6.9	8.4	20.0	9.1	14.1	22.4	17.8	20.0
3	8.2	3.8	6.0	10.5	6.0	8.1	21.6	12.2	16.3	20.7	18.2	19.3
4	11.3	7.3	9.2	11.4	6.0	8.4	20.6	13.9	16.9	18.2	15.4	16.6
5	7.3	4.5	6.0	14.0	9.5	11.5	18.5	14.9	16.3	15.4	14.1	14.5
6	5.8	2.9	4.4	13.6	11.5	12.4	19.9	11.3	14.6	18.0	14.2	16.4
7	6.1	2.1	4.0	11.5	6.2	8.5	14.4	9.6	11.0	21.0	16.4	18.4
8	5.4	2.8	4.0	12.1	4.7	8.2	10.8	9.0	10.4	23.4	18.6	20.7
9	5.6	2.3	3.8	15.2	8.9	11.6	9.6	8.2	8.9	24.2	19.5	21.7
10	6.0	4.1	4.8	12.8	8.1	10.2	9.7	8.1	8.6	24.5	20.8	22.5
11	6.5	2.5	4.4	9.4	6.2	7.6	9.8	8.8	9.3	22.9	20.9	21.8
12	7.1	3.2	4.9	13.8	5.3	9.2	10.7	9.8	10.1	21.9	18.3	19.9
13	5.6	1.7	3.7	15.8	8.8	12.2	11.3	10.6	10.8	20.5	16.4	18.2
14	5.6	2.9	4.3	14.8	10.6	12.8	11.9	11.1	11.3	20.5	14.8	17.6
15	7.0	5.1	6.1	10.6	8.7	9.2	12.7	11.9	12.1	19.4	17.1	18.1
16	5.1	0.0	2.5	10.9	8.4	9.7	13.3	12.7	12.9	20.2	17.3	18.6
17	1.3	0.0	0.6	13.6	10.9	12.1	13.7	13.2	13.4	19.3	16.3	17.6
18	5.0	1.3	3.1	14.4	12.0	13.0	---	---	---	16.3	15.5	15.9
19	7.0	2.5	4.7	13.2	10.7	12.1	---	---	---	15.7	14.4	14.9
20	8.2	5.4	6.7	10.7	7.7	8.6	---	---	---	19.0	14.2	16.5
21	7.1	5.6	6.5	10.8	8.9	9.8	---	---	---	19.8	16.3	17.8
22	8.3	6.7	7.3	11.9	9.8	10.7	---	---	---	18.6	16.2	17.3
23	10.1	6.5	8.8	11.6	9.3	10.4	---	---	---	18.2	16.6	17.3
24	10.4	4.8	7.4	12.1	9.5	10.6	---	---	---	18.3	16.6	17.3
25	9.1	6.4	7.8	12.8	9.2	10.9	---	---	---	20.1	17.0	18.4
26	7.3	4.5	5.9	13.6	10.6	11.9	---	---	---	20.6	18.4	19.3
27	4.5	2.8	3.5	13.0	11.1	11.9	---	---	---	19.0	17.2	18.1
28	5.4	3.5	4.6	13.6	10.9	12.2	---	---	---	19.5	15.3	17.4
29	---	---	---	15.5	13.3	14.2	20.9	15.9	18.3	19.3	16.8	17.9
30	---	---	---	14.4	9.2	10.9	20.9	16.9	18.9	20.5	15.9	18.1
31	---	---	---	9.4	6.1	7.8	---	---	---	21.2	17.3	18.9
MONTH	11.3	0.0	5.2	15.8	4.7	10.4	---	---	---	24.5	14.1	18.3

02096500 HAW RIVER AT HAW RIVER, NC

LOCATION.--Lat 36°05'13", long 79°22'01", Alamance County, Hydrologic unit 03030002, on left bank at Haw River, 650 ft downstream of Southern Railway bridge, 800 ft downstream of bridge on U.S. Highway 70 and State Highway 49, and 3 mi downstream of Stony Creek.

DRAINAGE AREA.--606 mi².

PERIOD OF RECORD.--October 1928 to current year.

REVISED RECORDS.--WSP 757: 1929 (M). WSP 782: 1934. WSP 1383: 1930,1932(M), 1933(m), 1936, 1943, 1944 (M), 1947(m). WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 471.69 ft above NGVD of 1929. U.S. Army Corps of Engineers satellite telemetry at station.

REMARKS.--Records good, except those for estimated daily discharges, which are poor. Diurnal fluctuations and occasional regulation at low flows. City of Burlington diverted an average of 3.5 ft³/s from two Stony Creek Reservoirs (stations 02096003 and 02096432) for municipal water supply, about half of which was returned upstream of station as treated effluent, the remainder was returned downstream of station. Maximum discharge for period of record from rating curve extended above 38,000 ft³/s, by logarithmic plotting; maximum gage height, 32.83 ft, from flood mark.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	106	740	221	2,120	1,180	3,180	1,300	e473	1,030	283	2,160	2,920
2	98	514	209	2,830	704	5,120	1,210	e497	606	2,550	1,310	764
3	90	351	201	1,810	487	3,050	955	535	455	2,960	695	389
4	83	275	199	1,950	520	1,790	666	481	1,600	1,060	3,260	1,650
5	77	274	e1,320	1,200	926	1,770	598	417	2,710	732	2,700	2,540
6	71	1,980	1,890	835	569	2,420	663	778	1,860	542	2,970	1,200
7	74	1,130	1,350	672	1,600	2,730	4,760	717	4,110	844	1,330	861
8	74	581	977	585	2,000	1,680	5,160	441	6,190	1,040	1,060	597
9	74	427	849	501	1,040	1,120	8,280	364	4,170	815	2,110	457
10	97	336	772	432	1,040	828	e8,200	317	2,040	640	2,730	351
11	9,450	302	2,200	377	757	824	e9,400	289	1,450	401	2,010	287
12	5,810	2,750	3,200	339	535	656	e6,600	266	1,420	342	1,960	258
13	1,170	4,010	3,850	321	470	474	e3,000	252	2,480	655	1,850	243
14	1,960	1,830	5,550	321	397	678	e1,800	219	1,060	3,980	1,550	240
15	687	958	2,830	342	406	603	e1,300	229	903	2,450	992	241
16	2,620	1,310	1,860	307	474	3,640	1,020	1,170	3,390	1,040	745	327
17	2,280	6,710	1,220	302	509	4,010	807	584	4,240	1,920	655	543
18	763	4,070	872	299	542	2,260	648	509	2,410	851	2,500	797
19	513	2,110	640	278	1,240	1,660	835	1,040	1,760	665	1,390	3,890
20	341	1,180	1,150	270	1,160	12,400	944	862	1,400	491	717	1,580
21	270	872	1,850	285	1,100	13,800	708	699	1,040	352	462	906
22	282	681	813	266	2,080	7,080	684	2,780	692	330	407	715
23	315	493	578	278	5,430	3,100	585	5,200	492	1,000	703	10,200
24	239	389	1,150	249	3,940	1,840	476	2,540	383	641	1,080	8,760
25	207	322	4,800	242	1,950	1,180	458	1,620	321	426	637	3,850
26	195	289	3,180	251	e1,540	864	502	6,230	281	364	361	1,870
27	206	269	1,480	253	e2,600	718	1,170	5,810	257	313	312	1,190
28	423	275	1,060	224	4,490	593	715	4,180	935	300	262	800
29	2,180	238	783	243	---	517	547	2,170	568	254	231	552
30	2,680	225	580	833	---	e1,730	476	1,710	284	831	498	388
31	1,280	---	510	2,020	---	e2,300	---	1,040	---	464	1,210	---
TOTAL	34,715	35,891	48,144	21,235	39,686	84,615	64,467	44,419	50,537	29,536	40,857	49,366
MEAN	1,120	1,196	1,553	685	1,417	2,730	2,149	1,433	1,685	953	1,318	1,646
MAX	9,450	6,710	5,550	2,830	5,430	13,800	9,400	6,230	6,190	3,980	3,260	10,200
MIN	71	225	199	224	397	474	458	219	257	254	231	240
CFSM	1.85	1.97	2.56	1.13	2.34	4.50	3.55	2.36	2.78	1.57	2.17	2.72
IN.	2.13	2.20	2.96	1.30	2.44	5.19	3.96	2.73	3.10	1.81	2.51	3.03

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

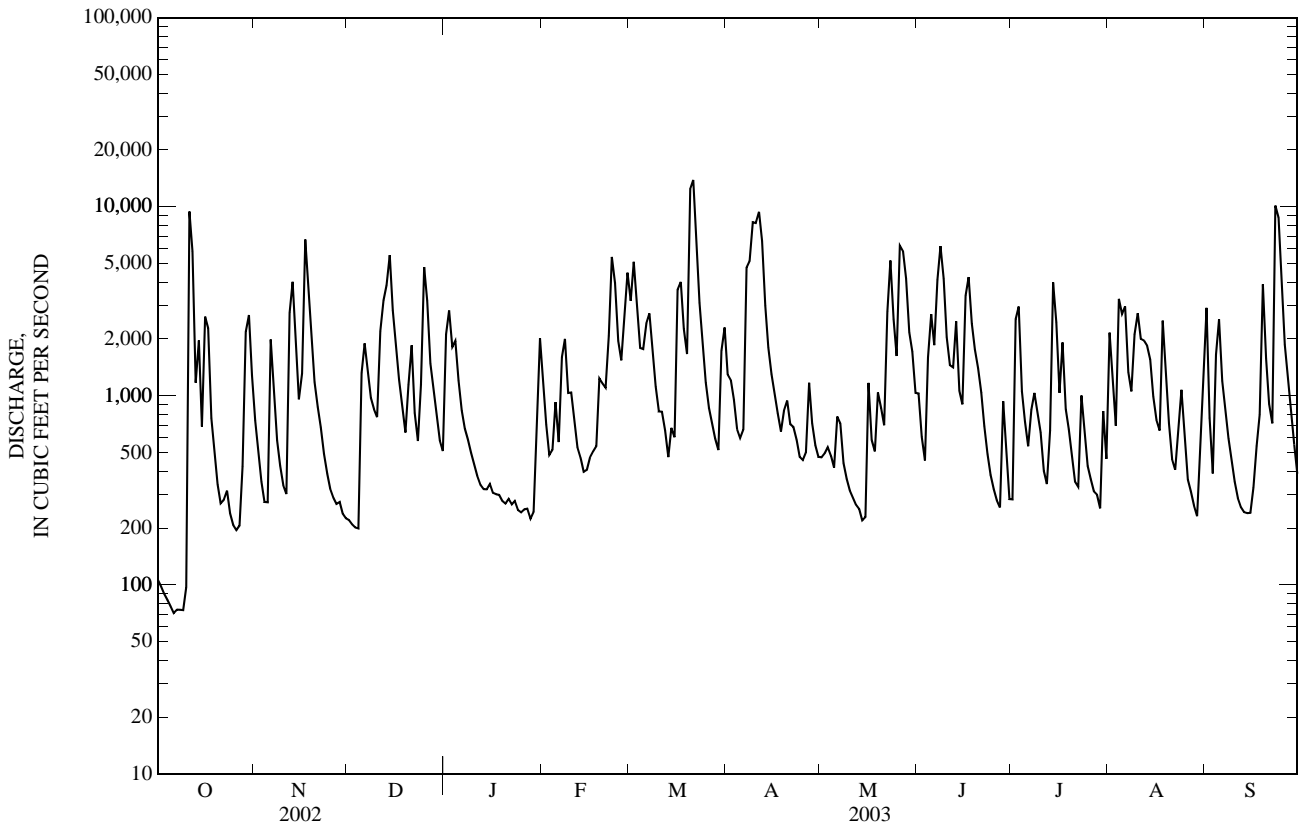
MEAN	397	408	573	896	1,005	1,031	835	495	430	395	360	443
MAX	2,480	1,286	1,553	2,977	2,492	3,276	2,771	1,948	2,145	2,348	1,662	4,373
(WY)	(1960)	(1948)	(2003)	(1937)	(1998)	(1993)	(1987)	(1978)	(1982)	(1984)	(1939)	(1996)
MIN	48.9	61.1	118	172	236	289	164	107	74.5	70.9	57.2	33.4
(WY)	(1942)	(1954)	(1934)	(1956)	(2002)	(1967)	(2002)	(2002)	(2002)	(1932)	(1953)	(1954)

CAPE FEAR RIVER BASIN

02096500 HAW RIVER AT HAW RIVER, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1929 - 2003	
ANNUAL TOTAL	181,845		543,468			
ANNUAL MEAN	498		1,489		603	
HIGHEST ANNUAL MEAN					1,489	2003
LOWEST ANNUAL MEAN					200	2002
HIGHEST DAILY MEAN	9,450	Oct 11	13,800	Mar 21	42,000	Sep 7, 1996
LOWEST DAILY MEAN	44	Aug 11	71	Oct 6	5.0	Sep 6, 1930
ANNUAL SEVEN-DAY MINIMUM	48	Aug 9	78	Oct 3	16	Oct 7, 1954
MAXIMUM PEAK FLOW			19,300	Mar 20	51,400*	Sep 6, 1996
MAXIMUM PEAK STAGE			24.55	Mar 20	32.83*	Sep 6, 1996
INSTANTANEOUS LOW FLOW			64	Oct 10	3.0	Sep 5, 1930
ANNUAL RUNOFF (CFSM)	0.82		2.46		1.00	
ANNUAL RUNOFF (INCHES)	11.16		33.36		13.53	
10 PERCENT EXCEEDS	1,170		3,490		1,270	
50 PERCENT EXCEEDS	161		813		295	
90 PERCENT EXCEEDS	62		260		100	

e Estimated.
 * See REMARKS.



0209651815 BRANCH CREEK BELOW NC 54 NEAR GRAHAM, NC

LOCATION.--Lat 36°03'30", long 79°22'42", Alamance County, Hydrologic Unit 03030002, at bridge at NC Highway 54, 1.2 mi upstream of mouth, and 1.5 mi southeast of Graham.

DRAINAGE AREA.--1.75 mi².

GAGE-HEIGHT RECORDS

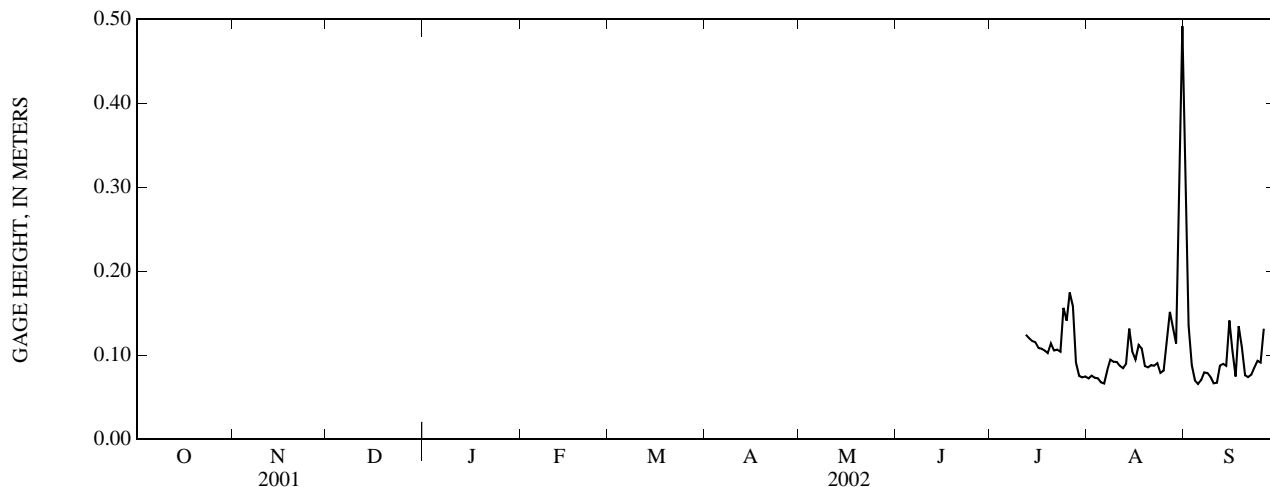
PERIOD OF RECORD.--July 2002 to October 2003 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 515 ft above NGVD of 1929, from topographic map.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height recorded, 2.16 m, March 16, 2003; minimum gage height recorded, 0.01 m, Oct. 15, 2003.

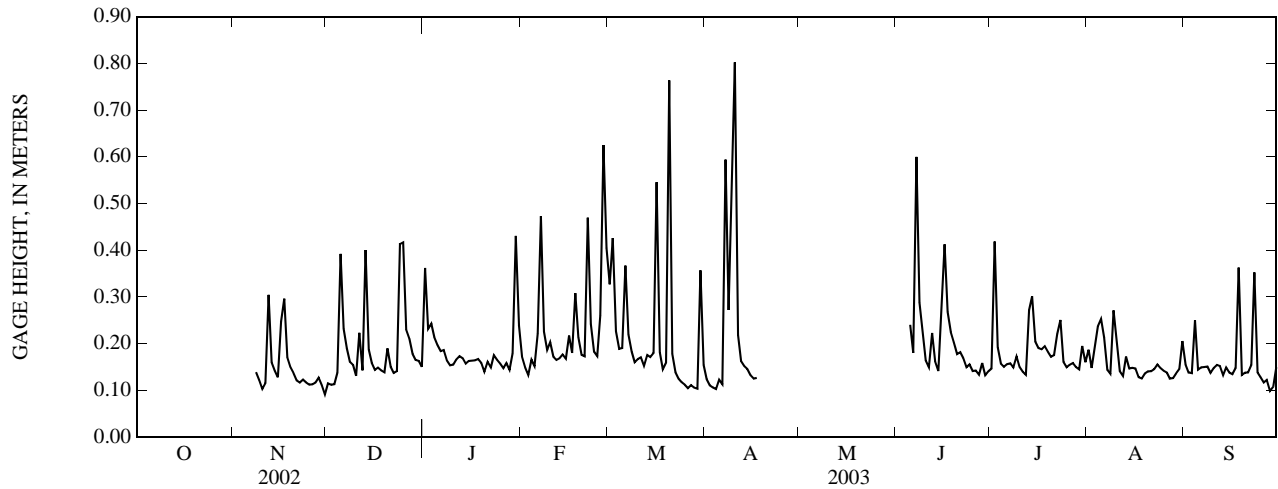
GAGE HEIGHT, ABOVE DATUM, METERS
JULY TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	0.07	0.30
2	---	---	---	---	---	---	---	---	---	---	0.08	0.14
3	---	---	---	---	---	---	---	---	---	---	0.07	0.09
4	---	---	---	---	---	---	---	---	---	---	0.07	0.07
5	---	---	---	---	---	---	---	---	---	---	0.07	0.07
6	---	---	---	---	---	---	---	---	---	---	0.07	0.07
7	---	---	---	---	---	---	---	---	---	---	0.08	0.08
8	---	---	---	---	---	---	---	---	---	---	0.09	0.08
9	---	---	---	---	---	---	---	---	---	---	0.09	0.07
10	---	---	---	---	---	---	---	---	---	---	0.09	0.07
11	---	---	---	---	---	---	---	---	---	---	0.09	0.07
12	---	---	---	---	---	---	---	---	---	0.12	0.08	0.09
13	---	---	---	---	---	---	---	---	---	0.12	0.09	0.09
14	---	---	---	---	---	---	---	---	---	0.12	0.13	0.09
15	---	---	---	---	---	---	---	---	---	0.12	0.10	0.14
16	---	---	---	---	---	---	---	---	---	0.11	0.10	0.11
17	---	---	---	---	---	---	---	---	---	0.11	0.11	0.07
18	---	---	---	---	---	---	---	---	---	0.11	0.11	0.13
19	---	---	---	---	---	---	---	---	---	0.10	0.09	0.11
20	---	---	---	---	---	---	---	---	---	0.11	0.09	0.08
21	---	---	---	---	---	---	---	---	---	0.11	0.09	0.07
22	---	---	---	---	---	---	---	---	---	0.11	0.09	0.08
23	---	---	---	---	---	---	---	---	---	0.10	0.09	0.09
24	---	---	---	---	---	---	---	---	---	0.16	0.08	0.09
25	---	---	---	---	---	---	---	---	---	0.14	0.08	0.09
26	---	---	---	---	---	---	---	---	---	0.17	0.12	0.13
27	---	---	---	---	---	---	---	---	---	0.16	0.15	---
28	---	---	---	---	---	---	---	---	---	0.09	0.13	---
29	---	---	---	---	---	---	---	---	---	0.08	0.11	---
30	---	---	---	---	---	---	---	---	---	0.07	0.28	---
31	---	---	---	---	---	---	---	---	---	0.07	0.49	---
MEAN	---	---	---	---	---	---	---	---	---	---	0.11	---
MAX	---	---	---	---	---	---	---	---	---	---	0.49	---
MIN	---	---	---	---	---	---	---	---	---	---	0.07	---



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

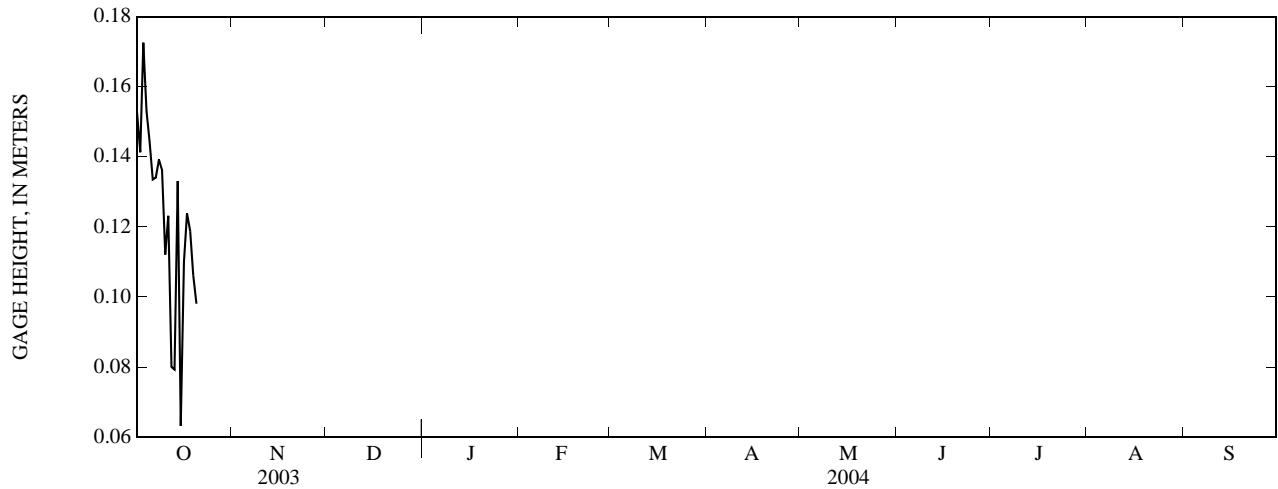
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	0.11	0.36	0.17	0.33	0.12	---	---	0.15	0.19	0.16
2	---	---	0.11	0.23	0.15	0.43	0.11	---	---	0.42	0.15	0.14
3	---	---	0.11	0.24	0.13	0.23	0.11	---	---	0.19	0.19	0.14
4	---	---	0.14	0.21	0.17	0.19	0.10	---	---	0.16	0.24	0.25
5	---	---	0.39	0.20	0.15	0.19	0.12	---	0.24	0.15	0.25	0.14
6	---	---	0.23	0.18	0.22	0.37	0.11	---	0.18	0.16	0.21	0.15
7	---	---	0.19	0.19	0.47	0.22	0.59	---	0.60	0.16	0.14	0.15
8	---	0.14	0.16	0.16	0.23	0.18	0.27	---	0.29	0.15	0.14	0.15
9	---	0.12	0.15	0.15	0.19	0.16	0.53	---	0.22	0.17	0.27	0.14
10	---	0.10	0.13	0.16	0.20	0.17	0.80	---	0.16	0.15	0.20	0.15
11	---	0.12	0.22	0.17	0.17	0.17	0.22	---	0.15	0.14	0.14	0.15
12	---	0.30	0.14	0.17	0.16	0.15	0.16	---	0.22	0.13	0.13	0.15
13	---	0.16	0.40	0.17	0.17	0.18	0.15	---	0.16	0.27	0.17	0.13
14	---	0.14	0.19	0.16	0.18	0.17	0.15	---	0.14	0.30	0.15	0.15
15	---	0.13	0.16	0.16	0.17	0.18	0.13	---	0.25	0.20	0.15	0.14
16	---	0.25	0.14	0.16	0.22	0.55	0.13	---	0.41	0.19	0.15	0.13
17	---	0.30	0.15	0.16	0.18	0.18	0.13	---	0.27	0.19	0.13	0.15
18	---	0.17	0.14	0.17	0.31	0.14	---	---	0.22	0.19	0.13	0.36
19	---	0.15	0.14	0.16	0.21	0.16	---	---	0.20	0.18	0.14	0.13
20	---	0.14	0.19	0.14	0.18	0.76	---	---	0.18	0.17	0.14	0.14
21	---	0.12	0.15	0.16	0.17	0.18	---	---	0.18	0.18	0.14	0.14
22	---	0.12	0.14	0.15	0.47	0.14	---	---	0.17	0.22	0.15	0.15
23	---	0.12	0.14	0.18	0.24	0.13	---	---	0.15	0.25	0.16	0.35
24	---	0.12	0.41	0.17	0.18	0.12	---	---	0.16	0.16	0.15	0.14
25	---	0.11	0.42	0.16	0.17	0.11	---	---	0.14	0.15	0.14	0.13
26	---	0.11	0.23	0.15	0.26	0.10	---	---	0.14	0.15	0.14	0.12
27	---	0.12	0.21	0.16	0.62	0.11	---	---	0.13	0.16	0.13	0.12
28	---	0.13	0.18	0.14	0.40	0.11	---	---	0.16	0.15	0.13	0.10
29	---	0.11	0.17	0.18	---	0.10	---	---	0.13	0.14	0.14	0.11
30	---	0.09	0.16	0.43	---	0.36	---	---	0.14	0.19	0.15	0.15
31	---	---	0.15	0.24	---	0.15	---	---	---	0.16	0.21	---
MEAN	---	---	0.19	0.19	0.23	0.22	---	---	---	0.18	0.16	0.16
MAX	---	---	0.42	0.43	0.62	0.76	---	---	---	0.42	0.27	0.36
MIN	---	---	0.11	0.14	0.13	0.10	---	---	---	0.13	0.13	0.10



0209651815 BRANCH CREEK BELOW NC 54 NEAR GRAHAM, NC—Continued

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.15	---	---	---	---	---	---	---	---	---	---	---
2	0.14	---	---	---	---	---	---	---	---	---	---	---
3	0.17	---	---	---	---	---	---	---	---	---	---	---
4	0.15	---	---	---	---	---	---	---	---	---	---	---
5	0.14	---	---	---	---	---	---	---	---	---	---	---
6	0.13	---	---	---	---	---	---	---	---	---	---	---
7	0.13	---	---	---	---	---	---	---	---	---	---	---
8	0.14	---	---	---	---	---	---	---	---	---	---	---
9	0.14	---	---	---	---	---	---	---	---	---	---	---
10	0.11	---	---	---	---	---	---	---	---	---	---	---
11	0.12	---	---	---	---	---	---	---	---	---	---	---
12	0.08	---	---	---	---	---	---	---	---	---	---	---
13	0.08	---	---	---	---	---	---	---	---	---	---	---
14	0.13	---	---	---	---	---	---	---	---	---	---	---
15	0.06	---	---	---	---	---	---	---	---	---	---	---
16	0.11	---	---	---	---	---	---	---	---	---	---	---
17	0.12	---	---	---	---	---	---	---	---	---	---	---
18	0.12	---	---	---	---	---	---	---	---	---	---	---
19	0.11	---	---	---	---	---	---	---	---	---	---	---
20	0.10	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MEAN	---	---	---	---	---	---	---	---	---	---	---	---
MAX	---	---	---	---	---	---	---	---	---	---	---	---
MIN	---	---	---	---	---	---	---	---	---	---	---	---



WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: August 2002 to July 2003.

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

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

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum recorded, 27.6°C, Sept. 17, 2002; minimum recorded, 0.0°C, Feb. 17, 2003.

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

Date	Time	Medium code	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Chloride, water, fltrd, mg/L (00940)	Sulfate water, fltrd, mg/L (00945)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)
FEB 25...	0930	9	E1.3	756	11.4	96	7.5	294	7.7	30.1	23.2	0.18	<0.04
MAY 20...	0915	D	1.4	--	7.8	--	7.3	242	--	--	--	--	--
JUN 13...	0900	9	--	--	6.8	--	7.1	214	20.8	--	--	--	--
JUL 10...	1044	9	--	--	--	--	--	--	--	--	--	--	--
JUL 11...	0930	9	E1.4	746	7.5	91	7.4	285	23.6	24.3	19.5	0.26	<0.04
Date	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Particulate nitrogen, susp, water, mg/L (49570)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inorganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	Biomass periphyton, ashfree drymass g/m2 (49954)	Periphyton biomass ash weight, g/m2 (00572)	Periphyton biomass dry weight, g/m2 (00573)
FEB 25...	0.78	<0.008	<0.02	0.03	0.023	0.96	<0.1	<0.1	<0.1	1.9	--	--	--
MAY 20...	--	--	--	--	--	--	--	--	--	--	2.2	70	72.50
JUN 13...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 10...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 11...	0.52	E.004	E.01	0.06	0.042	0.78	0.4	<0.1	0.4	3.1	--	--	--
Date	Biomass chlorophyll ratio, periphyton, number (70950)	Pheophytin a, periphyton, mg/m2 (62359)	E coli, modif. m-TEC, col/100 mL (90902)	Chlorophyll a periphyton, chromofluoro, mg/m2 (70957)	1-Naphthol, water, fltrd 0.7u GF (49295)	2,6-Diethyl-aniline water fltrd 0.7u GF (82660)	2-[(2-Et-6-Me-Ph)-amino]propan-1-ol, ug/L (61615)	2Chloro-2,6-diethyl acet-anilide wat flt ug/L (61618)	CIAT, water, fltrd, ug/L (04040)	2-Ethyl-6-methyl-aniline water, fltrd, ug/L (61620)	3,4-Dichloro-aniline water, fltrd, ug/L (61625)	4Chloro-2methyl phenol, water, fltrd, ug/L (61633)	Acetochlor, water, fltrd, ug/L (49260)
FEB 25...	--	--	150	--	<0.09	<0.006	<0.1	<0.005	<0.006	<0.004	<0.004	<0.006	<0.006
MAY 20...	447	1.8	--	4.9	--	--	--	--	--	--	--	--	--
JUN 13...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 10...	--	--	7,700	--	--	--	--	--	--	--	--	--	--
JUL 11...	--	--	--	--	<0.09	<0.006	<0.1	<0.005	<0.006	<0.004	<0.004	<0.006	<0.006

0209651815 BRANCH CREEK BELOW NC 54 NEAR GRAHAM, NC—Continued

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

Date	Alachlor, water, fltrd, ug/L (46342)	Atrazine, water, fltrd, ug/L (39632)	Azin-phos-methyl oxon, water, fltrd, ug/L (61635)	Azin-phos-methyl, water, fltrd, 0.7u GF ug/L (82686)	Ben-flur-alin, water, fltrd, 0.7u GF ug/L (82673)	Car-baryl, water, fltrd, 0.7u GF ug/L (82680)	Chlor-pyrifos oxon, water, fltrd, ug/L (61636)	Chlor-pyrifos water, fltrd, ug/L (38933)	cis-Per-methrin water fltrd, 0.7u GF ug/L (82687)	Cyflu-thrin, water, fltrd, ug/L (61585)	Cyper-methrin water, fltrd, ug/L (61586)	DCPA, water fltrd, 0.7u GF ug/L (82682)	Desulf-inyl fipronil, water, fltrd, ug/L (62170)
FEB 25...	<0.004	<0.007	<0.02	<0.050	<0.010	E.004	<0.06	<0.005	<0.006	<0.008	<0.009	<0.003	<0.004
MAY 20...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 13...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 10...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 11...	<0.004	0.007	<0.02	<0.050	<0.010	<0.041	<0.06	<0.005	<0.006	<0.008	<0.009	<0.003	<0.004
Date	Diaz-inon oxon, water, fltrd, ug/L (61638)	Diazi-non, water, fltrd, ug/L (39572)	Dicro-tophos, water, fltrd, ug/L (38454)	Diel-drin, water, fltrd, ug/L (39381)	Dimeth-oate, water, fltrd, 0.7u GF ug/L (82662)	Ethion monoxon water, fltrd, ug/L (61644)	Ethion, water, fltrd, ug/L (82346)	Fenami-phos sulfone water, fltrd, ug/L (61645)	Fenami-phos sulf-oxide, water, fltrd, ug/L (61646)	Fenami-phos, water, fltrd, ug/L (61591)	Desulf-inyl-fipronil amide, wat flt ug/L (62169)	Fipronil sulfide water, fltrd, ug/L (62167)	Fipronil sulfone water, fltrd, ug/L (62168)
FEB 25...	<0.04	E.003	<0.08	<0.005	<0.006	<0.03	<0.004	<0.008	<0.03	<0.03	<0.009	<0.005	<0.005
MAY 20...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 13...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 10...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 11...	<0.01	0.026	<0.08	<0.005	<0.006	<0.03	<0.004	<0.008	<0.03	<0.03	<0.009	<0.005	<0.006
Date	Fipronil, water, fltrd, ug/L (62166)	Fonofos oxon, water, fltrd, ug/L (61649)	Fonofos water, fltrd, ug/L (04095)	Hexa-zinone, water, fltrd, ug/L (04025)	Ipro-dione, water, fltrd, ug/L (61593)	Isofen-phos, water, fltrd, ug/L (61594)	Mala-oxon, water, fltrd, ug/L (61652)	Mala-thion, water, fltrd, ug/L (39532)	Meta-laxyl, water, fltrd, ug/L (61596)	Methi-althion water, fltrd, ug/L (61598)	Methyl para-oxon, water, fltrd, ug/L (61664)	Methyl para-thion, water, fltrd, 0.7u GF ug/L (82667)	Metola-chlor, water, fltrd, ug/L (39415)
FEB 25...	E.007	<0.002	<0.003	--	<1	<0.003	<0.008	<0.027	<0.005	<0.006	<0.03	<0.006	<0.013
MAY 20...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 13...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 10...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 11...	<0.007	<0.002	<0.003	0.023	<1	<0.003	<0.008	<0.027	<0.005	<0.006	<0.03	<0.006	<0.013
Date	Metri-buzin, water, fltrd, ug/L (82630)	Myclo-butanil water, fltrd, ug/L (61599)	Pendi-meth-alin, water, fltrd, 0.7u GF ug/L (82683)	Phorate oxon, water, fltrd, ug/L (61666)	Phorate water fltrd, 0.7u GF ug/L (82664)	Phosmet oxon, water, fltrd, ug/L (61668)	Phosmet water, fltrd, ug/L (61601)	Prome-ton, water, fltrd, ug/L (04037)	Prome-tryn, water, fltrd, ug/L (04036)	Pron-amide, water, fltrd, 0.7u GF ug/L (82676)	Sima-zine, water, fltrd, ug/L (04035)	Tebu-thiuron water fltrd, 0.7u GF ug/L (82670)	Ter-bufos oxon sulfone water, fltrd, ug/L (61674)
FEB 25...	<0.006	<0.008	<0.022	<0.10	<0.011	<0.06	<0.008	E.01	<0.005	<0.004	E.003	0.06	<0.07
MAY 20...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 13...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 10...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 11...	<0.006	<0.008	<0.022	<0.10	<0.011	<0.06	<0.008	0.02	<0.005	<0.004	0.030	0.33	<0.07

0209651815 BRANCH CREEK BELOW NC 54 NEAR GRAHAM, NC—Continued

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	7.2	4.2	5.7	13.4	9.8	12.1
2	---	---	---	---	---	---	6.5	2.9	4.8	11.2	9.3	10.3
3	---	---	---	---	---	---	7.7	4.0	5.6	10.7	8.8	10.2
4	---	---	---	---	---	---	4.7	1.0	3.1	8.8	6.3	7.3
5	---	---	---	---	---	---	4.9	0.7	2.8	6.8	5.0	6.0
6	---	---	---	---	---	---	6.2	4.4	5.2	7.4	5.6	6.4
7	---	---	---	---	---	---	6.9	3.3	4.9	5.7	3.5	4.5
8	---	---	---	12.3	9.1	10.6	7.2	3.7	5.5	7.0	4.4	5.7
9	---	---	---	13.5	9.6	11.4	7.0	5.8	6.4	9.5	6.5	8.0
10	---	---	---	15.9	12.2	14.2	6.3	5.2	5.7	9.3	6.9	8.1
11	---	---	---	17.8	15.8	17.0	6.8	3.7	5.8	6.9	4.7	5.7
12	---	---	---	17.0	14.0	15.7	9.2	6.6	7.8	4.9	2.9	3.9
13	---	---	---	14.3	11.9	13.7	7.9	5.6	6.8	4.7	2.2	3.4
14	---	---	---	12.5	9.9	11.4	9.0	6.9	7.8	5.4	2.7	4.0
15	---	---	---	12.8	9.9	11.6	8.0	5.5	6.9	5.5	3.1	4.2
16	---	---	---	13.6	12.2	12.9	8.9	5.8	7.4	4.4	2.8	3.4
17	---	---	---	12.7	11.0	12.0	7.9	6.1	7.0	4.9	2.4	3.5
18	---	---	---	11.8	9.5	10.6	8.1	6.2	7.2	3.3	0.9	2.0
19	---	---	---	11.0	8.2	9.8	9.0	7.9	8.3	3.0	0.6	1.7
20	---	---	---	11.3	8.6	10.1	12.8	9.0	11.3	5.3	1.7	3.2
21	---	---	---	12.0	10.4	11.2	9.6	6.9	7.9	4.1	3.1	3.6
22	---	---	---	11.6	8.6	10.3	8.7	6.0	7.4	4.8	1.8	3.1
23	---	---	---	9.7	7.1	8.3	8.6	6.1	7.4	3.2	0.5	1.8
24	---	---	---	10.5	6.6	8.3	7.9	7.2	7.4	1.4	0.4	0.8
25	---	---	---	11.4	7.3	9.1	7.8	5.6	6.8	3.0	0.4	1.4
26	---	---	---	11.0	7.4	9.0	6.9	5.0	5.9	3.5	0.8	2.0
27	---	---	---	9.4	6.6	8.4	6.4	4.0	5.3	2.8	0.6	1.6
28	---	---	---	7.5	4.6	5.8	6.1	3.6	5.0	3.3	0.6	1.8
29	---	---	---	7.0	3.2	5.0	7.3	4.3	5.9	6.1	2.6	3.9
30	---	---	---	9.5	5.9	7.4	7.6	5.1	6.4	6.2	3.6	4.9
31	---	---	---	---	---	---	9.8	6.5	8.0	5.2	4.0	4.6
MONTH	---	---	---	---	---	---	12.8	0.7	6.4	13.4	0.4	4.6
	FEBRUARY			MARCH			APRIL			MAY		
1	7.2	5.2	6.1	7.7	4.8	6.2	10.6	7.3	8.9	---	---	---
2	7.3	4.9	6.1	9.9	6.2	7.7	17.5	9.4	13.1	---	---	---
3	8.8	5.4	7.1	9.8	5.8	7.8	18.8	11.7	15.3	---	---	---
4	11.7	8.8	10.1	10.1	5.8	8.0	18.0	12.9	15.7	---	---	---
5	8.9	5.6	7.2	12.7	8.9	10.6	17.2	14.2	15.6	---	---	---
6	6.0	2.7	4.8	12.4	10.7	11.5	17.1	12.3	14.8	---	---	---
7	6.1	2.2	4.1	10.7	6.5	8.2	14.9	8.6	10.2	---	---	---
8	5.8	3.2	4.5	10.8	4.9	7.8	10.0	8.4	9.3	---	---	---
9	5.9	2.9	4.4	13.2	8.6	10.8	9.2	7.6	8.4	---	---	---
10	6.3	4.8	5.4	11.4	8.3	9.8	8.8	7.3	7.9	---	---	---
11	6.4	3.0	4.9	8.9	6.7	7.5	10.7	8.5	9.3	---	---	---
12	7.2	3.9	5.3	11.2	5.9	8.5	15.2	9.0	11.7	---	---	---
13	6.0	2.5	4.4	13.5	8.8	11.1	15.9	10.2	13.0	---	---	---
14	5.9	3.8	4.8	12.9	10.8	12.0	16.7	10.9	13.8	---	---	---
15	7.0	5.6	6.3	10.8	8.5	9.2	18.0	12.7	15.3	---	---	---
16	5.6	0.2	3.2	9.9	8.0	9.0	18.6	13.8	16.2	---	---	---
17	1.9	0.0	0.9	12.3	9.9	11.0	18.1	14.3	16.3	---	---	---
18	4.7	1.9	3.4	13.1	11.1	12.0	---	---	---	---	---	---
19	7.7	2.9	5.0	12.6	10.2	11.3	---	---	---	---	---	---
20	8.2	5.7	6.9	10.2	7.8	8.9	---	---	---	---	---	---
21	7.5	6.0	6.9	11.0	9.2	10	---	---	---	---	---	---
22	8.1	6.7	7.1	11.8	9.8	10.8	---	---	---	---	---	---
23	9.7	7.0	8.6	11.4	9.2	10.4	---	---	---	---	---	---
24	9.9	5.1	7.5	11.4	9.6	10.6	---	---	---	---	---	---
25	9.0	6.8	8.0	11.9	9.2	10.5	---	---	---	---	---	---
26	7.8	4.4	6.0	13.1	10.9	11.9	---	---	---	---	---	---
27	4.4	2.6	3.3	12.5	11.4	11.9	---	---	---	---	---	---
28	5.1	3.2	4.4	13.3	10.9	12.1	---	---	---	---	---	---
29	---	---	---	15.2	13.3	14.2	---	---	---	---	---	---
30	---	---	---	14.5	10.1	11.9	---	---	---	---	---	---
31	---	---	---	10.1	8.1	8.9	---	---	---	---	---	---
MONTH	11.7	0.0	5.6	15.2	4.8	10.1	---	---	---	---	---	---

0209665940 ROCK CREEK TRIB AT STONEY CREEK GOLF COURSE NEAR SEDALIA, NC

LOCATION.--Lat 36°03'54", long 79°35'58", Guilford County, Hydrologic Unit 03030002, .1 mi upstream of mouth, and 1.2 mi east of Sedalia.

DRAINAGE AREA.--4.40 mi².

GAGE-HEIGHT RECORDS

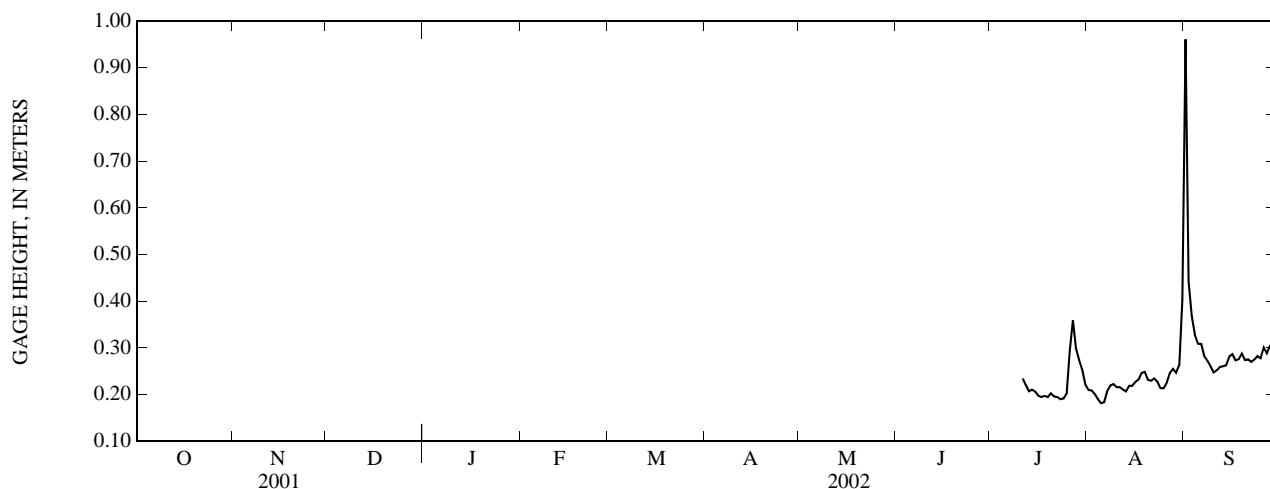
PERIOD OF RECORD.--July 2002 to November 2003 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 580 ft above NGVD of 1929, from topographic map.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height recorded, 2.73 m, July 13, 2003; minimum gage height recorded, 0.15 m, Aug. 5, 2002, Oct. 14, 22-24, 2003.

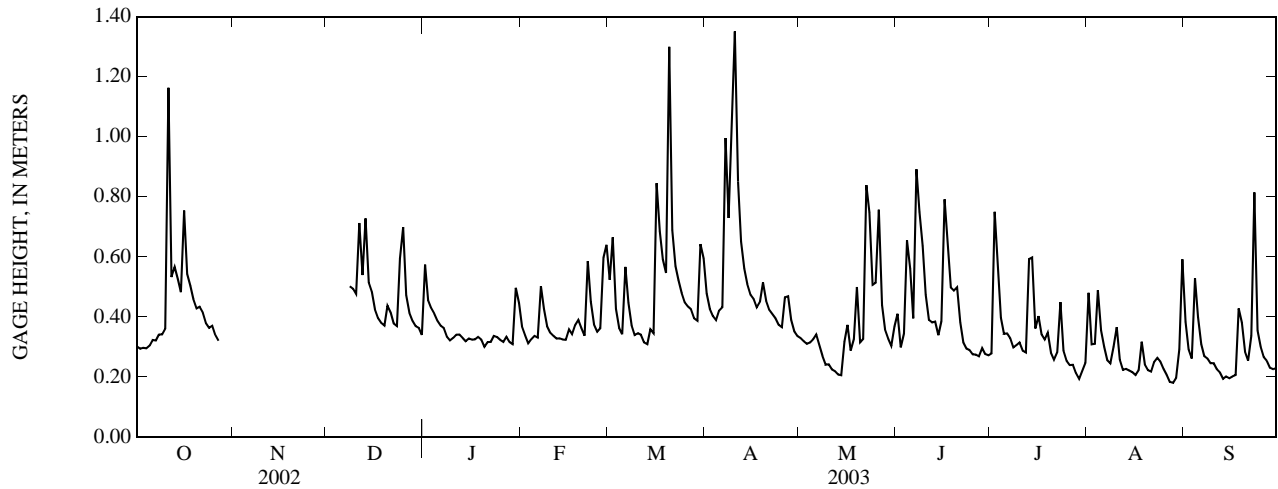
GAGE HEIGHT, ABOVE DATUM, METERS
JULY TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	0.21	0.96
2	---	---	---	---	---	---	---	---	---	---	0.21	0.44
3	---	---	---	---	---	---	---	---	---	---	0.20	0.37
4	---	---	---	---	---	---	---	---	---	---	0.19	0.33
5	---	---	---	---	---	---	---	---	---	---	0.18	0.31
6	---	---	---	---	---	---	---	---	---	---	0.18	0.31
7	---	---	---	---	---	---	---	---	---	---	0.21	0.28
8	---	---	---	---	---	---	---	---	---	---	0.22	0.27
9	---	---	---	---	---	---	---	---	---	---	0.22	0.26
10	---	---	---	---	---	---	---	---	---	---	0.22	0.25
11	---	---	---	---	---	---	---	---	---	0.23	0.22	0.25
12	---	---	---	---	---	---	---	---	---	0.22	0.21	0.26
13	---	---	---	---	---	---	---	---	---	0.21	0.21	0.26
14	---	---	---	---	---	---	---	---	---	0.21	0.22	0.26
15	---	---	---	---	---	---	---	---	---	0.21	0.22	0.28
16	---	---	---	---	---	---	---	---	---	0.20	0.23	0.29
17	---	---	---	---	---	---	---	---	---	0.19	0.23	0.27
18	---	---	---	---	---	---	---	---	---	0.20	0.25	0.28
19	---	---	---	---	---	---	---	---	---	0.19	0.25	0.29
20	---	---	---	---	---	---	---	---	---	0.20	0.23	0.27
21	---	---	---	---	---	---	---	---	---	0.20	0.23	0.28
22	---	---	---	---	---	---	---	---	---	0.19	0.23	0.27
23	---	---	---	---	---	---	---	---	---	0.19	0.23	0.27
24	---	---	---	---	---	---	---	---	---	0.19	0.21	0.28
25	---	---	---	---	---	---	---	---	---	0.20	0.21	0.28
26	---	---	---	---	---	---	---	---	---	0.29	0.23	0.30
27	---	---	---	---	---	---	---	---	---	0.36	0.25	0.29
28	---	---	---	---	---	---	---	---	---	0.30	0.26	0.30
29	---	---	---	---	---	---	---	---	---	0.27	0.25	0.31
30	---	---	---	---	---	---	---	---	---	0.25	0.26	0.31
31	---	---	---	---	---	---	---	---	---	0.22	0.40	---
MEAN	---	---	---	---	---	---	---	---	---	---	0.23	0.31
MAX	---	---	---	---	---	---	---	---	---	---	0.40	0.96
MIN	---	---	---	---	---	---	---	---	---	---	0.18	0.25



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

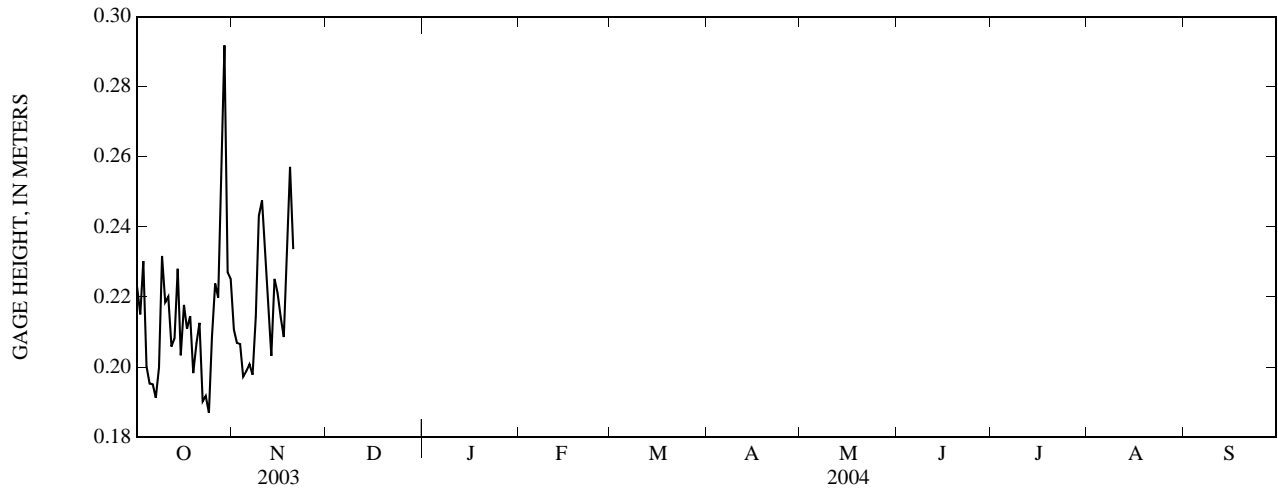
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.30	---	---	0.57	0.37	0.52	0.48	0.33	0.41	0.28	0.48	0.38
2	0.29	---	---	0.46	0.34	0.67	0.43	0.32	0.30	0.75	0.31	0.29
3	0.30	---	---	0.43	0.31	0.43	0.40	0.31	0.34	0.57	0.31	0.26
4	0.30	---	---	0.41	0.33	0.36	0.39	0.31	0.66	0.40	0.49	0.53
5	0.30	---	---	0.39	0.34	0.34	0.42	0.33	0.56	0.34	0.35	0.40
6	0.32	---	---	0.37	0.33	0.57	0.43	0.34	0.40	0.34	0.30	0.31
7	0.32	---	---	0.36	0.50	0.45	1.00	0.31	0.89	0.33	0.26	0.27
8	0.34	---	0.50	0.33	0.43	0.37	0.73	0.27	0.75	0.30	0.25	0.26
9	0.34	---	0.49	0.32	0.37	0.34	1.07	0.24	0.64	0.31	0.30	0.25
10	0.36	---	0.48	0.33	0.35	0.35	1.35	0.24	0.47	0.31	0.37	0.25
11	1.16	---	0.71	0.34	0.34	0.34	0.85	0.23	0.39	0.29	0.26	0.23
12	0.53	---	0.54	0.34	0.33	0.32	0.65	0.22	0.38	0.28	0.22	0.21
13	0.57	---	0.73	0.33	0.33	0.31	0.56	0.21	0.38	0.59	0.23	0.19
14	0.53	---	0.51	0.32	0.32	0.36	0.51	0.21	0.34	0.60	0.22	0.20
15	0.48	---	0.48	0.33	0.32	0.35	0.47	0.32	0.39	0.36	0.22	0.20
16	0.75	---	0.42	0.32	0.36	0.85	0.46	0.37	0.79	0.40	0.21	0.20
17	0.54	---	0.40	0.33	0.34	0.69	0.43	0.29	0.65	0.34	0.22	0.21
18	0.50	---	0.38	0.33	0.37	0.59	0.45	0.33	0.50	0.32	0.32	0.43
19	0.46	---	0.37	0.32	0.39	0.55	0.51	0.50	0.49	0.35	0.24	0.38
20	0.43	---	0.44	0.30	0.36	1.30	0.45	0.32	0.50	0.28	0.22	0.28
21	0.43	---	0.41	0.32	0.34	0.69	0.42	0.33	0.38	0.26	0.22	0.25
22	0.41	---	0.38	0.32	0.59	0.57	0.41	0.84	0.32	0.28	0.25	0.34
23	0.38	---	0.37	0.34	0.45	0.52	0.39	0.75	0.29	0.45	0.26	0.81
24	0.36	---	0.60	0.33	0.38	0.48	0.37	0.51	0.29	0.29	0.25	0.35
25	0.37	---	0.70	0.32	0.35	0.45	0.37	0.51	0.28	0.25	0.23	0.30
26	0.34	---	0.47	0.32	0.36	0.43	0.46	0.76	0.27	0.24	0.21	0.27
27	0.32	---	0.41	0.33	0.60	0.43	0.47	0.44	0.27	0.24	0.18	0.25
28	---	---	0.39	0.32	0.64	0.40	0.39	0.36	0.30	0.21	0.18	0.23
29	---	---	0.37	0.31	---	0.39	0.35	0.33	0.28	0.19	0.20	0.23
30	---	---	0.36	0.50	---	0.64	0.34	0.30	0.27	0.22	0.29	0.23
31	---	---	0.34	0.45	---	0.59	---	0.37	---	0.25	0.59	---
MEAN	---	---	---	0.36	0.39	0.50	0.53	0.37	0.44	0.34	0.28	0.30
MAX	---	---	---	0.57	0.64	1.30	1.35	0.84	0.89	0.75	0.59	0.81
MIN	---	---	---	0.30	0.31	0.31	0.34	0.21	0.27	0.19	0.18	0.19



0209665940 ROCK CREEK TRIB AT STONEY CREEK GOLF COURSE NEAR SEDALIA, NC—Continued

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.22	0.21	---	---	---	---	---	---	---	---	---	---
2	0.21	0.21	---	---	---	---	---	---	---	---	---	---
3	0.23	0.21	---	---	---	---	---	---	---	---	---	---
4	0.20	0.20	---	---	---	---	---	---	---	---	---	---
5	0.20	0.20	---	---	---	---	---	---	---	---	---	---
6	0.20	0.20	---	---	---	---	---	---	---	---	---	---
7	0.19	0.20	---	---	---	---	---	---	---	---	---	---
8	0.20	0.21	---	---	---	---	---	---	---	---	---	---
9	0.23	0.24	---	---	---	---	---	---	---	---	---	---
10	0.22	0.25	---	---	---	---	---	---	---	---	---	---
11	0.22	0.23	---	---	---	---	---	---	---	---	---	---
12	0.21	0.22	---	---	---	---	---	---	---	---	---	---
13	0.21	0.20	---	---	---	---	---	---	---	---	---	---
14	0.23	0.23	---	---	---	---	---	---	---	---	---	---
15	0.20	0.22	---	---	---	---	---	---	---	---	---	---
16	0.22	0.21	---	---	---	---	---	---	---	---	---	---
17	0.21	0.21	---	---	---	---	---	---	---	---	---	---
18	0.21	0.23	---	---	---	---	---	---	---	---	---	---
19	0.20	0.26	---	---	---	---	---	---	---	---	---	---
20	0.21	0.23	---	---	---	---	---	---	---	---	---	---
21	0.21	---	---	---	---	---	---	---	---	---	---	---
22	0.19	---	---	---	---	---	---	---	---	---	---	---
23	0.19	---	---	---	---	---	---	---	---	---	---	---
24	0.19	---	---	---	---	---	---	---	---	---	---	---
25	0.21	---	---	---	---	---	---	---	---	---	---	---
26	0.22	---	---	---	---	---	---	---	---	---	---	---
27	0.22	---	---	---	---	---	---	---	---	---	---	---
28	0.25	---	---	---	---	---	---	---	---	---	---	---
29	0.29	---	---	---	---	---	---	---	---	---	---	---
30	0.23	---	---	---	---	---	---	---	---	---	---	---
31	0.23	---	---	---	---	---	---	---	---	---	---	---
MEAN	0.21	---	---	---	---	---	---	---	---	---	---	---
MAX	0.29	---	---	---	---	---	---	---	---	---	---	---
MIN	0.19	---	---	---	---	---	---	---	---	---	---	---



0209665940 ROCK CREEK TRIB AT STONEY CREEK GOLF COURSE NEAR SEDALIA, NC—Continued

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

Date	Sima- zine, water, fltrd, ug/L (04035)	Tebu- thiuron water fltrd, 0.7u GF ug/L (82670)	Ter- bufos oxon sulfone water, fltrd, ug/L (61674)	Terbu- fos, water, fltrd, 0.7u GF ug/L (82675)	Ter- buthyl- azine, water, fltrd, ug/L (04022)	Tri- flur- alin, water, fltrd, 0.7u GF ug/L (82661)	Di- chlor- vos, water fltrd, ug/L (38775)	Suspnd. sedi- ment, sieve diametr percent <.063mm (70331)	Sus- pended sedi- ment concen- tration mg/L (80154)
FEB 26...	0.007	<0.02	<0.07	<0.02	<0.01	<0.009	<0.01	97	20
MAY 15...	--	--	--	--	--	--	--	--	--
JUN 10...	--	--	--	--	--	--	--	--	--
JUL 09...	<0.005	<0.02	<0.07	<0.02	<0.01	<0.009	<0.01	82	6
JUL 10...	--	--	--	--	--	--	--	--	--

Remark codes used in this table:

< -- Less than

E -- Estimated value

Medium codes used in this table:

9 -- Surface water

D -- Plant tissue

TEMPERATURE, WATER, DEGREES CELSIUS
JULY TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	JUNE			JULY			AUGUST			SEPTEMBER		
				MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	30.5	23.9	27.1	20.2	18.7	19.4			
2	---	---	---	---	---	---	30.0	23.4	26.5	20.5	19.2	19.7			
3	---	---	---	---	---	---	30.6	23.0	26.8	22.5	18.6	20.4			
4	---	---	---	---	---	---	30.0	22.6	26.5	24.8	20.4	22.4			
5	---	---	---	---	---	---	30.4	22.8	26.8	24.5	20.8	22.5			
6	---	---	---	---	---	---	29.1	23.6	26.0	23.9	19.0	21.3			
7	---	---	---	---	---	---	26.2	21.0	23.7	24.3	19.4	21.5			
8	---	---	---	---	---	---	24.8	18.7	22.2	23.8	18.1	20.7			
9	---	---	---	---	---	---	25.2	18.1	22.2	23.8	18.6	21.2			
10	---	---	---	---	---	---	25.9	18.6	22.7	25.4	19.2	22.0			
11	---	---	---	---	---	---	26.7	19.5	23.6	25.5	19.2	22.3			
12	---	---	---	24.8	19.8	22.1	27.6	21.4	24.9	23.8	17.5	20.6			
13	---	---	---	26.1	20.6	23.4	27.8	21.7	25.1	24.1	16.7	20.5			
14	---	---	---	25.5	22.6	23.8	27.3	21.5	24.6	23.2	20.1	21.4			
15	---	---	---	26.6	21.9	24.0	26.7	23.3	24.6	22.8	20.6	21.3			
16	---	---	---	28.5	22.1	25.4	27.1	22.7	24.6	24.4	20.6	22.2			
17	---	---	---	28.8	22.2	25.6	28.3	22.5	25.5	25.4	20.4	22.7			
18	---	---	---	29.3	22.6	26.1	29.5	22.7	26.1	23.2	21.3	21.9			
19	---	---	---	28.5	23.0	26.1	29.4	22.9	26.3	23.7	21.1	21.9			
20	---	---	---	28.5	22.6	25.6	27.9	22.8	25.6	24.9	20.7	22.3			
21	---	---	---	28.7	22.2	25.7	27.4	22.1	24.8	25.9	20.3	22.8			
22	---	---	---	29.8	22.4	26.0	28.1	23.0	25.7	25.8	21.0	23.1			
23	---	---	---	28.6	23.1	25.6	28.3	23.1	26.1	22.9	20.1	21.7			
24	---	---	---	27.3	22.8	24.7	28.3	23.4	25.9	22.9	17.7	20.1			
25	---	---	---	26.1	23.0	24.4	27.5	22.1	25.0	20.7	18.5	19.6			
26	---	---	---	27.9	23.0	25.0	24.2	21.6	22.6	19.2	18.2	18.7			
27	---	---	---	27.1	22.6	24.3	23.7	20.8	21.8	24.9	18.9	21.7			
28	---	---	---	28.1	23.3	25.6	20.9	19.7	20.2	23.1	20.7	21.9			
29	---	---	---	29.4	24.5	26.8	22.2	19.0	20.3	22.9	18.6	20.6			
30	---	---	---	29.8	24.7	27.1	21.0	19.7	20.3	23.2	17.4	20.0			
31	---	---	---	30.6	24.5	27.3	20.1	19.1	19.6	---	---	---			
MONTH	---	---	---	---	---	---	30.6	18.1	24.3	25.9	16.7	21.3			

0209665940 ROCK CREEK TRIB AT STONEY CREEK GOLF COURSE NEAR SEDALIA, NC—Continued

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

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	24.4	19.0	21.2	11.6	9.5	10.6	7.3	4.2	5.5	11.1	8.8	10.1
2	25.2	19.6	22.2	11.5	8.4	9.8	6.3	2.7	4.6	9.9	8.6	9.4
3	26.1	20.4	23.1	10.8	8.8	9.7	7.8	4.2	5.7	9.6	8.1	9.3
4	26.4	21.0	23.4	13.1	9.9	11.3	4.6	0.2	2.7	8.1	5.5	6.9
5	26.7	21.3	23.8	11.9	11.1	11.4	3.6	0.3	2.0	7.2	4.5	5.6
6	23.7	19.1	21.6	12.4	11.0	11.5	4.6	3.0	3.7	7.1	4.8	5.8
7	23.4	18.7	20.9	11.8	9.8	10.6	5.1	2.2	3.6	5.8	2.9	4.3
8	20.3	17.0	18.1	12.1	8.4	10.2	5.5	2.8	4.2	7.8	4.0	5.6
9	18.2	15.9	17.0	13.4	9.3	11.4	5.8	4.2	4.9	10.0	5.5	7.5
10	19.9	16.2	17.9	15.6	11.9	13.8	5.4	4.2	4.7	9.3	5.9	7.4
11	19.3	18.4	18.8	16.9	15.2	16.2	5.5	4.0	5.0	6.9	3.5	4.9
12	20.9	18.9	19.8	15.7	13.9	15.0	7.5	5.3	6.3	5.4	1.8	3.4
13	20.4	19.3	19.8	13.9	11.4	13.1	6.4	5.7	6.0	4.8	1.2	2.9
14	19.3	16.6	17.7	12.8	9.8	11.2	7.6	5.9	6.5	5.7	2.0	3.9
15	16.6	14.9	15.5	12.7	9.6	11.3	7.2	4.4	5.7	5.8	2.3	3.7
16	16.3	14.8	15.5	12.4	12.1	12.3	8.6	5.0	6.5	4.2	1.5	2.8
17	15.9	14.4	15.1	12.2	10.6	11.7	7.0	5.2	6.1	5.8	1.6	3.3
18	15.2	12.4	13.9	11.1	9.2	10.0	8.0	5.5	6.6	3.0	0.2	1.2
19	15.6	12.2	13.8	10.9	7.9	9.4	8.2	7.1	7.6	2.8	0.2	1.0
20	16.2	14.1	15.1	10.9	7.9	9.4	11.1	8.2	9.9	6.6	0.6	2.9
21	16.0	14.4	15.4	11.8	9.6	10.5	8.3	6.0	7.2	4.1	2.8	3.4
22	14.9	13.4	14.1	11.1	8.2	9.9	9.0	5.1	6.9	5.5	0.8	2.9
23	16.3	12.6	14.1	9.9	6.6	8.0	8.5	5.4	6.9	3.1	0.2	1.2
24	14.2	13.3	13.7	10.7	6.2	8.2	7.1	6.7	6.9	1.3	0.0	0.4
25	13.5	12.8	13.0	11.4	7.1	9.0	7.4	5.5	6.6	2.6	0.2	0.9
26	15.8	12.5	14.0	10.8	7.0	8.8	6.7	4.8	5.5	3.8	0.3	1.6
27	15.3	13.7	14.5	9.1	6.4	8.0	6.3	3.5	4.7	2.9	0.2	1.1
28	14.8	13.8	14.5	7.8	4.2	5.7	6.1	3.0	4.5	3.7	0.2	1.6
29	13.8	12.4	13.0	7.3	2.8	5.0	7.5	3.6	5.3	5.3	2.2	3.9
30	12.4	11.8	12.0	10.0	5.9	7.4	7.5	4.2	5.8	5.1	3.8	4.3
31	12.7	11.0	11.8	---	---	---	9.4	5.5	7.4	4.6	3.7	4.1
MONTH	26.7	11.0	16.9	16.9	2.8	10.3	11.1	0.2	5.7	11.1	0.0	4.1
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	6.8	4.4	5.4	6.2	4.2	5.2	14.9	7.5	10.9	21.5	17.1	19.1
2	8.1	3.7	5.6	9.0	5.7	7.1	18.4	10.3	14.1	22.8	16.8	19.6
3	9.3	4.5	6.8	9.3	5.5	7.2	19.7	11.7	15.5	21.4	17.3	18.8
4	11.8	7.4	9.6	10.7	5.4	7.7	18.9	13.1	16.1	17.5	14.9	16.4
5	8.8	4.9	6.7	13.0	8.5	10.4	17.6	14.4	15.7	14.9	13.6	14.0
6	6.6	4.0	5.2	12.2	10.3	11.1	18.0	12.3	15.0	16.9	13.6	15.3
7	6.4	4.0	5.0	10.6	6.4	8.5	14.9	10.0	11.1	20.8	15.4	17.7
8	6.7	3.7	4.9	11.7	4.9	8.1	10.0	9.2	9.7	23.4	17.4	20.1
9	7.3	3.4	4.9	14.2	8.0	10.7	9.2	8.4	8.8	24.4	18.4	21.1
10	6.8	4.7	5.5	12.6	7.7	9.8	8.7	7.8	8.0	24.7	19.6	22.0
11	8.0	3.0	5.2	9.4	6.0	7.4	10.1	8.0	8.8	22.4	19.6	21.1
12	8.7	3.6	5.6	13.6	5.1	9.1	14.9	8.5	11.2	22.0	17.2	19.4
13	7.6	2.1	4.7	15.5	8.3	11.7	16.5	10.2	13.1	21.2	15.5	18.1
14	6.0	3.6	4.9	14.1	10.5	12.1	17.8	11.0	14.1	21.2	14.2	17.5
15	7.5	5.6	6.5	10.5	8.6	9.2	19.6	12.8	15.9	18.9	16.0	17.3
16	5.6	0.3	2.9	10.1	8.2	9.2	20.7	13.8	17.1	20.1	17.0	18.3
17	2.4	0.2	1.3	12.3	10.0	11.1	20.4	14.7	17.4	18.9	16.1	17.5
18	7.3	2.4	4.3	13.2	11.2	12.1	16.4	11.9	13.3	16.1	14.7	15.4
19	7.5	3.2	5.1	12.4	10.3	11.5	12.6	11.4	11.9	15.6	14.4	14.9
20	8.2	5.5	6.7	10.3	7.8	8.3	16.7	12.1	14.0	18.7	14.2	16.5
21	7.3	5.9	6.8	12.8	8.3	10.2	15.9	13.9	14.8	17.3	16.1	16.8
22	8.0	6.6	7.2	14.8	10.1	12.1	17.9	14.4	15.8	17.0	15.5	16.1
23	10.0	6.9	8.5	14.6	9.5	12.1	17.7	11.8	14.6	16.4	15.6	16.0
24	11.0	5.7	8.0	16.8	10.2	13.1	16.8	11.4	14.2	17.6	15.9	16.6
25	9.6	6.8	8.2	17.5	10.1	13.6	14.8	13.7	14.3	18.2	16.7	17.4
26	7.7	4.6	6.0	18.3	11.9	14.8	18.1	14.1	15.4	20.1	17.6	18.7
27	4.6	3.4	3.8	17.6	12.6	14.8	19.1	14.4	16.4	19.1	17.3	18.2
28	4.5	3.5	4.0	18.2	11.8	14.8	20.3	14.1	17.1	19.5	15.7	17.6
29	---	---	---	20.1	15.3	17.3	20.9	15.4	18.0	18.8	16.8	17.6
30	---	---	---	16.8	9.8	12.1	21.1	16.2	18.5	20.3	15.9	18.0
31	---	---	---	12.3	7.8	9.9	---	---	---	20.8	17.3	18.6
MONTH	11.8	0.2	5.7	20.1	4.2	10.7	21.1	7.5	14.0	24.7	13.6	17.8

0209665990 ROCK CREEK ABOVE ROCK CREEK TRIB NEAR WHITSETT, NC

LOCATION.--Lat 36°03'57", long 79°35'58", Guilford County, Hydrologic Unit 03030002, .1mi above Rock Creek Tributary, and 2 mi west of Whitsett.

DRAINAGE AREA.--10.2 mi².

GAGE-HEIGHT RECORDS

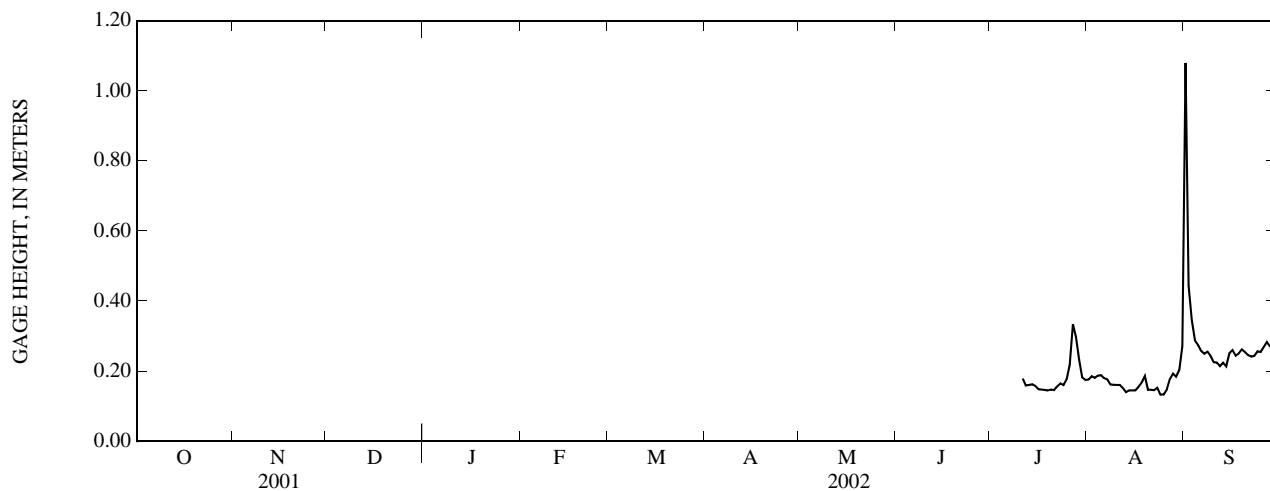
PERIOD OF RECORD.--July 2002 to November 2003 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 570 ft above NGVD of 1929, from topographic map.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height recorded, 3.36 m, July 13, 2003; minimum gage height recorded, 0.10 m, Aug. 24, 2002.

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

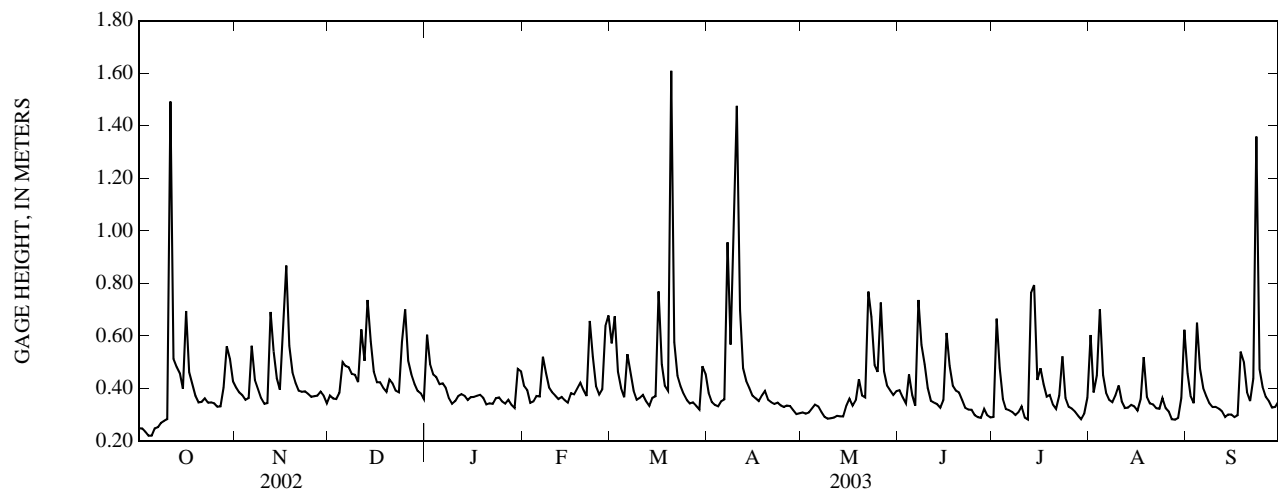
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	0.18	1.08
2	---	---	---	---	---	---	---	---	---	---	0.18	0.44
3	---	---	---	---	---	---	---	---	---	---	0.18	0.35
4	---	---	---	---	---	---	---	---	---	---	0.19	0.29
5	---	---	---	---	---	---	---	---	---	---	0.19	0.27
6	---	---	---	---	---	---	---	---	---	---	0.18	0.26
7	---	---	---	---	---	---	---	---	---	---	0.18	0.25
8	---	---	---	---	---	---	---	---	---	---	0.16	0.26
9	---	---	---	---	---	---	---	---	---	---	0.16	0.24
10	---	---	---	---	---	---	---	---	---	---	0.16	0.23
11	---	---	---	---	---	---	---	---	---	0.18	0.16	0.22
12	---	---	---	---	---	---	---	---	---	0.16	0.15	0.21
13	---	---	---	---	---	---	---	---	---	0.16	0.14	0.22
14	---	---	---	---	---	---	---	---	---	0.16	0.14	0.21
15	---	---	---	---	---	---	---	---	---	0.16	0.14	0.25
16	---	---	---	---	---	---	---	---	---	0.15	0.14	0.26
17	---	---	---	---	---	---	---	---	---	0.15	0.16	0.24
18	---	---	---	---	---	---	---	---	---	0.15	0.17	0.25
19	---	---	---	---	---	---	---	---	---	0.14	0.19	0.26
20	---	---	---	---	---	---	---	---	---	0.15	0.15	0.25
21	---	---	---	---	---	---	---	---	---	0.15	0.15	0.24
22	---	---	---	---	---	---	---	---	---	0.16	0.14	0.24
23	---	---	---	---	---	---	---	---	---	0.16	0.15	0.24
24	---	---	---	---	---	---	---	---	---	0.16	0.13	0.26
25	---	---	---	---	---	---	---	---	---	0.18	0.13	0.25
26	---	---	---	---	---	---	---	---	---	0.22	0.15	0.27
27	---	---	---	---	---	---	---	---	---	0.33	0.18	0.28
28	---	---	---	---	---	---	---	---	---	0.30	0.19	0.27
29	---	---	---	---	---	---	---	---	---	0.23	0.18	0.27
30	---	---	---	---	---	---	---	---	---	0.18	0.20	0.27
31	---	---	---	---	---	---	---	---	---	0.17	0.27	---
MEAN	---	---	---	---	---	---	---	---	---	---	0.17	0.29
MAX	---	---	---	---	---	---	---	---	---	---	0.27	1.08
MIN	---	---	---	---	---	---	---	---	---	---	0.13	0.21



0209665990 ROCK CREEK ABOVE ROCK CREEK TRIB NEAR WHITSETT, NC—Continued

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

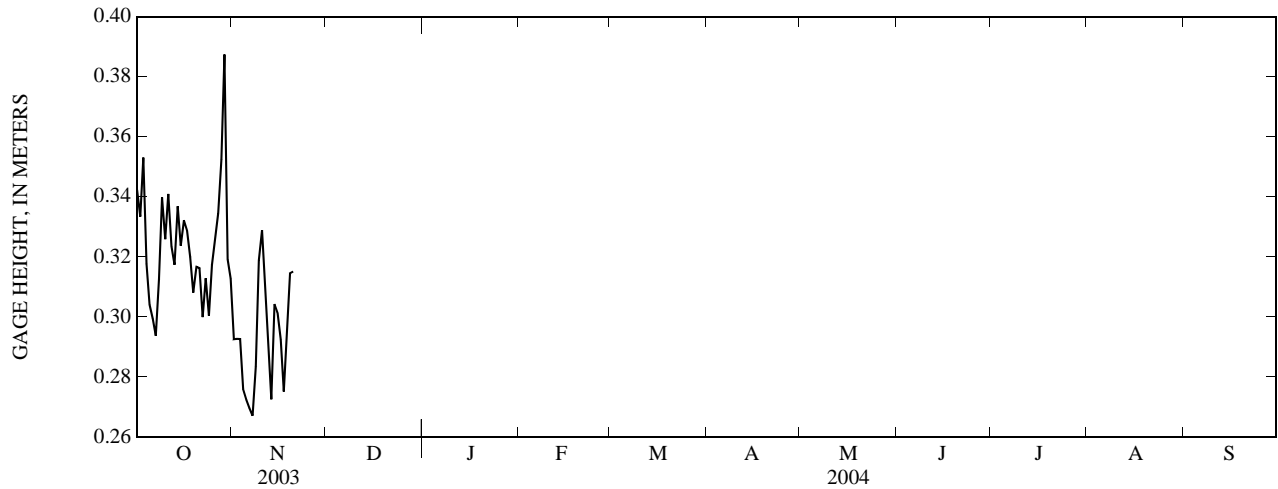
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.25	0.40	0.37	0.60	0.41	0.57	0.38	0.31	0.39	0.29	0.60	0.46
2	0.25	0.39	0.36	0.49	0.39	0.68	0.35	0.30	0.37	0.67	0.39	0.37
3	0.24	0.37	0.36	0.45	0.35	0.46	0.34	0.31	0.34	0.48	0.45	0.34
4	0.22	0.36	0.38	0.44	0.35	0.40	0.33	0.32	0.45	0.36	0.70	0.65
5	0.22	0.36	0.50	0.42	0.37	0.37	0.35	0.34	0.38	0.32	0.45	0.47
6	0.25	0.56	0.49	0.42	0.37	0.53	0.36	0.33	0.33	0.32	0.38	0.40
7	0.25	0.43	0.48	0.40	0.52	0.46	0.96	0.31	0.74	0.31	0.36	0.37
8	0.27	0.40	0.46	0.36	0.46	0.39	0.57	0.29	0.57	0.30	0.35	0.34
9	0.28	0.36	0.45	0.34	0.40	0.36	1.02	0.29	0.49	0.31	0.37	0.33
10	0.28	0.34	0.42	0.35	0.39	0.36	1.48	0.29	0.40	0.33	0.41	0.33
11	1.49	0.34	0.62	0.37	0.37	0.38	0.70	0.29	0.35	0.29	0.35	0.32
12	0.51	0.69	0.51	0.38	0.36	0.35	0.48	0.30	0.35	0.28	0.33	0.31
13	0.48	0.54	0.74	0.37	0.37	0.33	0.43	0.29	0.34	0.76	0.33	0.29
14	0.46	0.44	0.58	0.36	0.36	0.36	0.40	0.29	0.33	0.79	0.34	0.30
15	0.40	0.40	0.46	0.37	0.35	0.37	0.37	0.33	0.36	0.43	0.33	0.30
16	0.69	0.62	0.42	0.37	0.38	0.77	0.36	0.36	0.61	0.48	0.32	0.29
17	0.46	0.87	0.42	0.37	0.38	0.49	0.35	0.33	0.49	0.42	0.36	0.30
18	0.42	0.56	0.40	0.38	0.40	0.41	0.37	0.36	0.41	0.37	0.52	0.54
19	0.37	0.46	0.39	0.36	0.42	0.39	0.39	0.43	0.39	0.37	0.37	0.50
20	0.35	0.42	0.43	0.34	0.39	1.61	0.36	0.37	0.39	0.34	0.34	0.39
21	0.35	0.39	0.42	0.34	0.37	0.58	0.35	0.37	0.36	0.32	0.34	0.35
22	0.36	0.39	0.39	0.34	0.66	0.45	0.34	0.77	0.33	0.37	0.33	0.44
23	0.35	0.39	0.39	0.36	0.52	0.41	0.35	0.67	0.32	0.52	0.32	1.36
24	0.35	0.38	0.58	0.37	0.41	0.38	0.34	0.49	0.32	0.36	0.36	0.47
25	0.34	0.37	0.70	0.35	0.38	0.36	0.33	0.46	0.30	0.33	0.33	0.41
26	0.33	0.37	0.51	0.34	0.40	0.34	0.33	0.73	0.29	0.32	0.31	0.37
27	0.33	0.37	0.45	0.36	0.64	0.35	0.33	0.47	0.29	0.31	0.28	0.35
28	0.40	0.39	0.42	0.34	0.68	0.33	0.32	0.41	0.32	0.30	0.28	0.33
29	0.56	0.37	0.39	0.33	---	0.32	0.30	0.39	0.30	0.28	0.29	0.33
30	0.51	0.34	0.38	0.47	---	0.48	0.31	0.38	0.29	0.30	0.36	0.35
31	0.43	---	0.36	0.47	---	0.46	---	0.39	---	0.37	0.62	---
MEAN	0.40	0.44	0.46	0.39	0.42	0.47	0.46	0.39	0.39	0.39	0.38	0.41
MAX	1.49	0.87	0.74	0.60	0.68	1.61	1.48	0.77	0.74	0.79	0.70	1.36
MIN	0.22	0.34	0.36	0.33	0.35	0.32	0.30	0.29	0.29	0.28	0.28	0.29



0209665990 ROCK CREEK ABOVE ROCK CREEK TRIB NEAR WHITSETT, NC—Continued

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.34	0.29	---	---	---	---	---	---	---	---	---	---
2	0.33	0.29	---	---	---	---	---	---	---	---	---	---
3	0.35	0.29	---	---	---	---	---	---	---	---	---	---
4	0.32	0.28	---	---	---	---	---	---	---	---	---	---
5	0.30	0.27	---	---	---	---	---	---	---	---	---	---
6	0.30	0.27	---	---	---	---	---	---	---	---	---	---
7	0.29	0.27	---	---	---	---	---	---	---	---	---	---
8	0.31	0.28	---	---	---	---	---	---	---	---	---	---
9	0.34	0.32	---	---	---	---	---	---	---	---	---	---
10	0.33	0.33	---	---	---	---	---	---	---	---	---	---
11	0.34	0.31	---	---	---	---	---	---	---	---	---	---
12	0.32	0.29	---	---	---	---	---	---	---	---	---	---
13	0.32	0.27	---	---	---	---	---	---	---	---	---	---
14	0.34	0.30	---	---	---	---	---	---	---	---	---	---
15	0.32	0.30	---	---	---	---	---	---	---	---	---	---
16	0.33	0.29	---	---	---	---	---	---	---	---	---	---
17	0.33	0.28	---	---	---	---	---	---	---	---	---	---
18	0.32	0.29	---	---	---	---	---	---	---	---	---	---
19	0.31	0.31	---	---	---	---	---	---	---	---	---	---
20	0.32	0.32	---	---	---	---	---	---	---	---	---	---
21	0.32	---	---	---	---	---	---	---	---	---	---	---
22	0.30	---	---	---	---	---	---	---	---	---	---	---
23	0.31	---	---	---	---	---	---	---	---	---	---	---
24	0.30	---	---	---	---	---	---	---	---	---	---	---
25	0.32	---	---	---	---	---	---	---	---	---	---	---
26	0.33	---	---	---	---	---	---	---	---	---	---	---
27	0.33	---	---	---	---	---	---	---	---	---	---	---
28	0.35	---	---	---	---	---	---	---	---	---	---	---
29	0.39	---	---	---	---	---	---	---	---	---	---	---
30	0.32	---	---	---	---	---	---	---	---	---	---	---
31	0.31	---	---	---	---	---	---	---	---	---	---	---
MEAN	0.32	---	---	---	---	---	---	---	---	---	---	---
MAX	0.39	---	---	---	---	---	---	---	---	---	---	---
MIN	0.29	---	---	---	---	---	---	---	---	---	---	---



0209665990 ROCK CREEK ABOVE ROCK CREEK TRIB NEAR WHITSETT, NC—Continued

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

Date	Terbu- fos, water, fltrd 0.7u GF (82675)	Ter- buthyl- azine, water, fltrd, ug/L (04022)	Tri- flur- alin, water, fltrd 0.7u GF (82661)	Di- chlor- vos, water fltrd, ug/L (38775)	Suspnd. sedi- ment, sieve diametr percent <.063mm (70331)	Sus- pended sedi- ment concen- tration mg/L (80154)	Sus- pended sedi- ment load, tons/d (80155)
FEB 26...	<0.02	<0.01	<0.009	<0.01	63	13	0.48
MAY 15...	--	--	--	--	--	--	--
JUN 10...	--	--	--	--	--	--	--
JUL 09...	<0.02	<0.01	<0.009	<0.01	83	6	--
JUL 10...	--	--	--	--	--	--	--

Remark codes used in this table:

< -- Less than
E -- Estimated value

Medium codes used in this table:

9 -- Surface water
D -- Plant tissue

TEMPERATURE, WATER, DEGREES CELSIUS
JULY TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	JUNE			JULY			AUGUST			SEPTEMBER		
				MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	28.1	23.2	25.5	20.6	19.0	19.8			
2	---	---	---	---	---	---	27.5	22.8	24.7	20.8	19.9	20.3			
3	---	---	---	---	---	---	28.1	22.6	25.1	21.8	19.2	20.5			
4	---	---	---	---	---	---	27.8	22.2	24.8	23.2	21.0	22.1			
5	---	---	---	---	---	---	27.9	22.3	25.0	22.7	21.0	21.9			
6	---	---	---	---	---	---	27.4	22.7	24.8	22.0	19.3	20.7			
7	---	---	---	---	---	---	24.4	19.4	21.7	21.8	19.2	20.5			
8	---	---	---	---	---	---	24.1	16.5	20.3	21.0	18.5	19.8			
9	---	---	---	---	---	---	24.1	16.6	20.3	21.4	18.8	20.0			
10	---	---	---	---	---	---	25.0	17.2	21.0	22.2	19.3	20.6			
11	---	---	---	24.8	20.6	22.1	25.8	18.3	22.0	22.9	19.1	20.8			
12	---	---	---	24.0	19.8	21.6	27.0	20.4	23.6	20.9	16.8	18.9			
13	---	---	---	24.8	20.1	22.4	27.7	20.9	24.0	20.6	15.6	18.2			
14	---	---	---	26.2	22.5	23.6	25.7	20.7	23.3	21.1	19.1	20.0			
15	---	---	---	26.0	22.0	23.8	26.7	22.9	23.9	21.4	20.3	20.6			
16	---	---	---	27.6	21.9	24.7	26.5	22.4	23.9	22.2	20.5	21.3			
17	---	---	---	27.6	22.1	25.0	27.4	22.1	24.2	22.6	20.3	21.4			
18	---	---	---	27.8	22.6	25.3	28.1	22.1	24.5	21.6	20.9	21.2			
19	---	---	---	27.6	23.0	25.4	26.6	22.3	24.3	21.9	20.9	21.3			
20	---	---	---	26.9	22.8	24.9	27.6	22.2	24.7	22.4	20.5	21.4			
21	---	---	---	27.3	22.1	24.8	27.4	21.5	24.1	23.1	20.3	21.5			
22	---	---	---	28.0	22.5	24.9	28.2	22.7	25.0	23.0	20.9	21.9			
23	---	---	---	27.4	23.1	24.8	28.3	22.8	25.4	21.9	19.8	21.2			
24	---	---	---	25.1	22.9	24.1	28.7	23.0	25.4	20.5	17.7	19.2			
25	---	---	---	24.6	23.3	23.9	27.2	21.8	24.2	19.6	18.4	19.0			
26	---	---	---	26.3	23.2	24.4	23.6	21.5	22.4	19.1	18.1	18.7			
27	---	---	---	25.8	22.9	24.0	22.1	20.2	21.2	21.8	19.0	20.4			
28	---	---	---	26.0	23.4	24.7	20.2	19.4	19.7	21.6	20.4	21.0			
29	---	---	---	27.5	24.5	25.9	20.7	18.8	19.7	21.1	18.7	19.9			
30	---	---	---	28.6	24.1	26.3	20.2	19.3	19.6	20.4	17.4	19.0			
31	---	---	---	28.3	23.7	25.8	19.7	19.2	19.5	---	---	---			
MONTH	---	---	---	---	---	---	28.7	16.5	23.2	23.2	15.6	20.4			

0209665990 ROCK CREEK ABOVE ROCK CREEK TRIB NEAR WHITSETT, NC—Continued

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	21.9	18.9	20.1	11.7	9.9	10.7	7.6	5.0	6.3	10.4	8.4	9.5
2	22.2	19.2	20.6	10.7	9.1	9.9	5.5	3.9	4.8	9.3	8.0	8.8
3	23.4	19.8	21.4	10.4	9.3	9.9	7.1	5.0	5.6	9.2	7.9	8.9
4	23.6	20.2	21.8	12.2	10.2	11.1	5.3	1.6	3.9	7.9	5.5	6.6
5	24.2	20.7	22.3	12.0	11.6	11.7	3.9	1.1	2.3	6.5	4.2	5.3
6	21.8	18.6	20.1	12.6	11.3	11.8	4.6	3.5	4.0	6.4	4.6	5.5
7	21.0	18.0	19.5	11.7	10.2	10.9	5.1	2.6	3.8	5.1	3.0	4.1
8	19.1	16.4	17.4	11.3	8.9	10.1	5.9	3.2	4.5	6.8	4.0	5.2
9	17.1	15.4	16.3	12.6	9.8	11.1	5.8	4.7	5.3	8.4	5.5	6.8
10	18.9	15.7	17.0	15.1	12.5	13.5	5.8	4.6	5.2	7.9	6.4	7.0
11	19.4	18.0	18.9	16.4	15.1	16.0	5.8	4.5	5.4	6.5	4.2	4.8
12	20.9	19.2	19.9	16.2	14.2	15.4	7.9	5.7	6.7	4.4	2.5	3.2
13	20.5	19.6	20.0	14.2	11.9	13.5	6.9	6.0	6.3	3.1	1.8	2.5
14	19.7	16.8	18.0	12.4	10.0	11.3	7.6	6.2	6.8	4.4	2.6	3.4
15	16.8	14.9	15.6	12.5	9.9	11.2	7.4	5.1	6.3	4.4	2.7	3.5
16	16.7	14.8	15.8	12.7	12.3	12.5	7.7	5.5	6.5	3.0	2.0	2.5
17	16.2	14.8	15.4	12.4	11.2	12.1	6.8	5.1	5.8	3.8	2.4	2.8
18	15.0	12.8	13.9	11.4	9.8	10.6	7.2	5.3	6.1	2.6	0.5	1.3
19	14.6	12.4	13.5	11.1	8.4	9.8	7.8	6.8	7.2	1.8	0.0	0.7
20	15.7	14.0	14.8	11.0	8.4	9.8	10.4	7.8	9.3	3.3	0.6	1.7
21	15.9	14.5	15.4	12.0	10.0	10.9	8.2	6.0	6.8	3.4	2.7	3.2
22	14.5	13.8	14.1	11.2	9.1	10.3	7.6	4.8	6.1	3.6	1.8	2.4
23	14.5	12.8	13.6	9.1	7.3	8.3	7.3	5.6	6.4	2.5	0.0	1.4
24	14.3	13.6	13.8	9.7	6.7	8.2	6.9	6.3	6.5	1.7	0.0	0.5
25	13.7	13.0	13.2	10.1	7.7	9.0	6.8	5.4	6.2	2.3	0.0	0.8
26	14.4	12.8	13.5	9.6	8.0	8.9	6.2	4.7	5.3	2.2	0.2	0.9
27	14.7	14.0	14.4	9.2	7.6	8.5	5.6	3.5	4.5	2.4	0.1	0.9
28	14.9	14.0	14.6	7.6	5.4	6.1	5.4	2.9	4.2	2.4	0.2	1.1
29	14.0	12.8	13.2	6.2	4.0	5.0	6.3	3.5	4.9	3.9	1.2	2.6
30	12.8	12.1	12.3	8.4	6.2	7.2	6.4	4.1	5.3	4.5	3.3	4.0
31	12.3	11.4	11.9	---	---	---	8.4	5.3	6.6	4.2	3.3	3.7
MONTH	24.2	11.4	16.5	16.4	4.0	10.5	10.4	1.1	5.6	10.4	0.0	3.7
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	6.0	4.1	4.9	6.4	4.5	5.4	13.5	7.6	10.4	19.5	17.9	18.7
2	6.5	3.3	4.8	8.7	5.7	7.0	16.5	10.7	13.5	20.3	18.0	19.1
3	7.9	4.3	5.8	8.9	5.6	7.1	17.6	12.4	15.1	19.7	18.2	18.9
4	10.4	7.9	8.9	10.0	5.5	7.6	17.0	14.0	15.7	18.2	15.6	16.8
5	8.0	5.2	6.3	12.4	8.6	10.3	16.7	14.6	15.6	15.6	13.9	14.5
6	6.1	4.6	5.0	11.9	10.3	11.1	15.8	13.1	14.6	16.2	13.9	15.0
7	5.9	3.5	4.7	10.8	6.7	8.5	15.6	10.3	11.4	18.4	16.1	17.1
8	5.6	3.5	4.5	10.8	4.9	7.7	10.4	9.3	9.9	20.9	18.2	19.3
9	5.9	3.0	4.3	13.2	8.3	10.6	9.4	8.3	8.9	21.7	19.5	20.4
10	5.7	4.7	5.1	11.2	7.9	9.7	9.0	7.8	8.1	22.4	20.4	21.2
11	6.1	3.2	4.7	9.0	6.2	7.3	10.1	8.2	8.9	21.5	19.9	21.0
12	6.1	3.8	5.1	11.8	5.4	8.4	14.7	8.6	11.2	20.8	18.1	19.4
13	5.6	2.8	4.2	13.9	8.6	11.1	15.8	10.3	12.9	19.9	16.8	18.1
14	5.3	4.0	4.5	13.2	10.7	11.9	16.8	11.0	13.9	19.5	15.5	17.2
15	6.4	5.3	5.9	11.1	8.5	9.1	18.0	12.7	15.4	18.4	16.5	17.2
16	5.9	0.0	3.4	9.9	8.2	9.0	19.4	13.8	16.7	18.4	16.8	17.4
17	2.0	0.0	0.7	12.0	9.9	10.8	19.0	15.2	17.2	18.4	16.3	17.5
18	6.1	2.0	3.7	12.6	11.0	11.7	17.1	12.3	13.8	16.3	14.8	15.5
19	6.5	3.0	4.5	12.2	10.2	11.3	12.5	11.6	12.1	15.2	14.2	14.6
20	7.4	5.1	6.2	10.2	7.8	8.3	15.6	12.2	13.7	17.2	14.5	15.7
21	7.1	5.7	6.3	12.5	8.4	10.1	15.4	14.2	14.9	17.2	16.6	16.8
22	7.1	6.3	6.7	14.0	10.0	11.9	16.7	14.8	15.7	16.9	15.8	16.3
23	9.1	6.8	7.9	13.9	9.5	11.8	16.1	12.9	14.6	16.7	16.0	16.3
24	9.9	5.2	7.4	15.4	10.0	12.5	15.2	12.6	14.2	17.3	16.1	16.6
25	8.6	6.5	7.7	15.9	9.9	12.9	15.1	14.3	14.6	18.2	16.7	17.3
26	7.6	4.7	6.0	16.7	12.0	14.3	16.7	14.4	15.4	20.0	18.0	18.8
27	4.7	3.3	3.9	16.0	12.8	14.5	17.6	14.7	16.1	19.4	17.4	18.2
28	4.8	3.6	4.2	16.6	12.1	14.4	18.0	15.0	16.6	18.3	15.7	17.0
29	---	---	---	18.3	15.1	16.6	18.5	16.4	17.5	17.9	16.5	17.2
30	---	---	---	17.3	9.9	12.5	18.8	17.2	18.1	18.4	15.7	17.0
31	---	---	---	11.8	7.8	9.7	---	---	---	19.5	16.9	17.9
MONTH	10.4	0.0	5.3	18.3	4.5	10.5	19.4	7.6	13.9	22.4	13.9	17.5

0209679804 LITTLE ALAMANCE CREEK AT SR 2309 NEAR GRAHAM, NC

LOCATION.--Lat 36°02'10", long 79°24'37", Alamance County, Hydrologic Unit 03030002, at bridge at Secondary Road 2309, 1 mi upstream of mouth, and 4 mi south of Graham.

DRAINAGE AREA.--14.5 mi².

GAGE-HEIGHT RECORDS

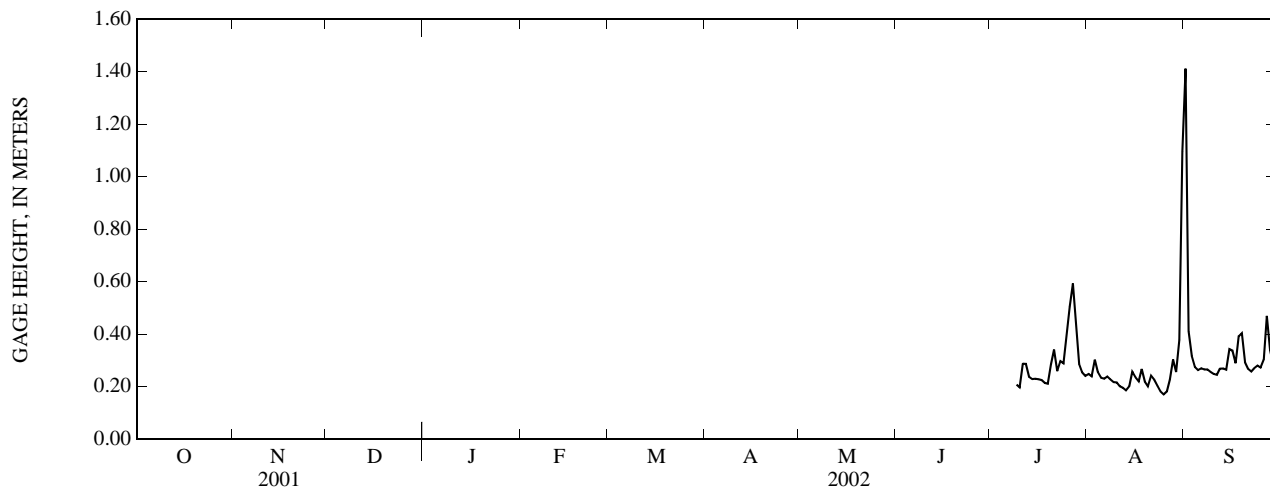
PERIOD OF RECORD.--July 2002 to November 2003 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 490 ft above NGVD of 1929, from topographic map.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height recorded, 4.47 m, Aug. 9, 2003; minimum gage height recorded, 0.14 m, Aug. 24, 2002.

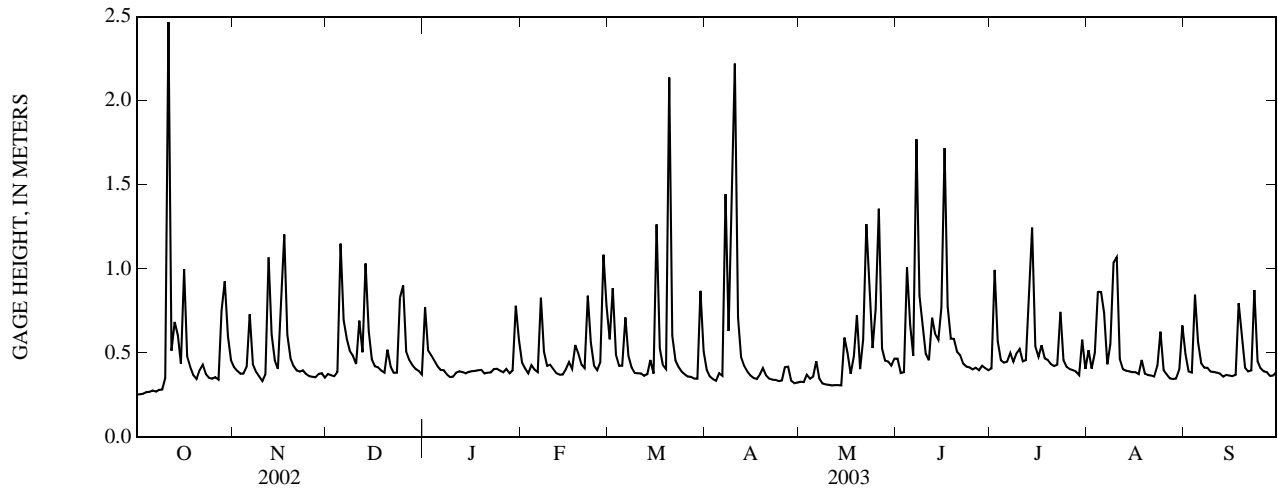
GAGE HEIGHT, ABOVE DATUM, METERS
JULY TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	0.25	1.41
2	---	---	---	---	---	---	---	---	---	---	0.24	0.41
3	---	---	---	---	---	---	---	---	---	---	0.30	0.32
4	---	---	---	---	---	---	---	---	---	---	0.26	0.27
5	---	---	---	---	---	---	---	---	---	---	0.23	0.26
6	---	---	---	---	---	---	---	---	---	---	0.23	0.27
7	---	---	---	---	---	---	---	---	---	---	0.24	0.27
8	---	---	---	---	---	---	---	---	---	---	0.23	0.27
9	---	---	---	---	---	---	---	---	---	0.21	0.22	0.26
10	---	---	---	---	---	---	---	---	---	0.20	0.22	0.25
11	---	---	---	---	---	---	---	---	---	0.29	0.20	0.25
12	---	---	---	---	---	---	---	---	---	0.29	0.20	0.27
13	---	---	---	---	---	---	---	---	---	0.24	0.19	0.27
14	---	---	---	---	---	---	---	---	---	0.23	0.20	0.26
15	---	---	---	---	---	---	---	---	---	0.23	0.26	0.34
16	---	---	---	---	---	---	---	---	---	0.23	0.24	0.34
17	---	---	---	---	---	---	---	---	---	0.23	0.22	0.29
18	---	---	---	---	---	---	---	---	---	0.21	0.27	0.39
19	---	---	---	---	---	---	---	---	---	0.21	0.22	0.40
20	---	---	---	---	---	---	---	---	---	0.29	0.20	0.29
21	---	---	---	---	---	---	---	---	---	0.34	0.24	0.27
22	---	---	---	---	---	---	---	---	---	0.26	0.23	0.26
23	---	---	---	---	---	---	---	---	---	0.30	0.20	0.27
24	---	---	---	---	---	---	---	---	---	0.29	0.18	0.28
25	---	---	---	---	---	---	---	---	---	0.40	0.17	0.27
26	---	---	---	---	---	---	---	---	---	0.50	0.18	0.30
27	---	---	---	---	---	---	---	---	---	0.59	0.23	0.47
28	---	---	---	---	---	---	---	---	---	0.43	0.30	0.34
29	---	---	---	---	---	---	---	---	---	0.29	0.26	0.29
30	---	---	---	---	---	---	---	---	---	0.25	0.38	0.27
31	---	---	---	---	---	---	---	---	---	0.24	1.10	---
MEAN	---	---	---	---	---	---	---	---	---	---	0.26	0.34
MAX	---	---	---	---	---	---	---	---	---	---	1.10	1.41
MIN	---	---	---	---	---	---	---	---	---	---	0.17	0.25



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

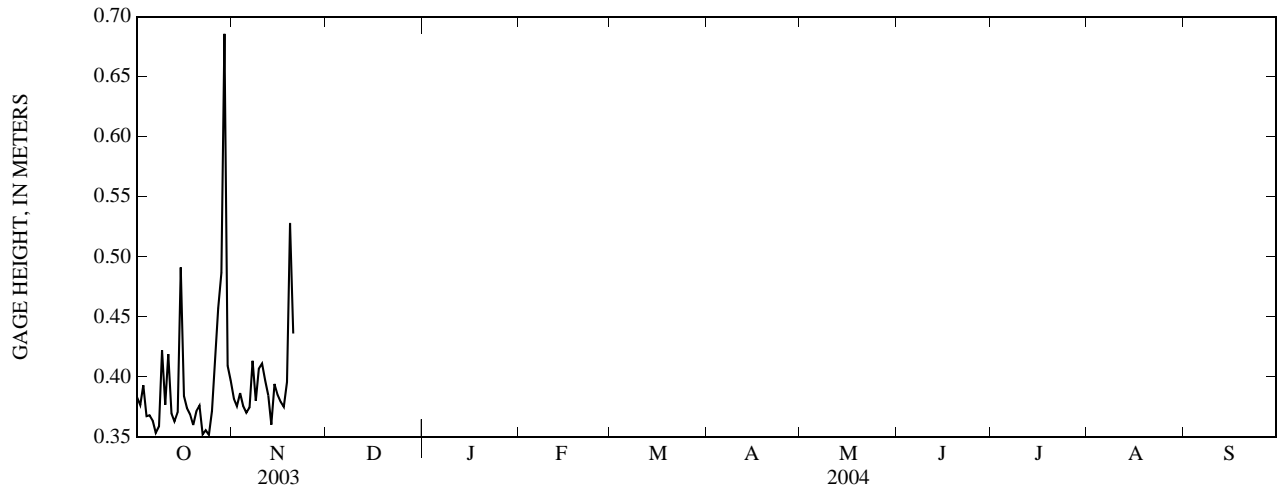
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.25	0.41	0.37	0.77	0.44	0.58	0.40	0.33	0.47	0.41	0.52	0.49
2	0.25	0.39	0.37	0.52	0.41	0.89	0.36	0.33	0.38	0.99	0.41	0.39
3	0.26	0.38	0.36	0.48	0.38	0.49	0.34	0.37	0.39	0.57	0.50	0.38
4	0.27	0.38	0.39	0.45	0.43	0.42	0.33	0.35	1.01	0.46	0.86	0.85
5	0.27	0.42	1.15	0.42	0.40	0.42	0.38	0.36	0.67	0.44	0.86	0.56
6	0.28	0.73	0.70	0.40	0.39	0.71	0.36	0.45	0.48	0.45	0.74	0.44
7	0.27	0.43	0.58	0.40	0.83	0.48	1.44	0.35	1.77	0.50	0.43	0.41
8	0.28	0.39	0.51	0.37	0.51	0.41	0.63	0.32	0.84	0.45	0.55	0.41
9	0.28	0.36	0.48	0.36	0.42	0.38	1.58	0.31	0.66	0.50	1.04	0.39
10	0.35	0.33	0.43	0.36	0.43	0.38	2.22	0.31	0.50	0.52	1.07	0.39
11	2.47	0.37	0.69	0.38	0.40	0.38	0.71	0.31	0.46	0.45	0.47	0.38
12	0.51	1.07	0.50	0.39	0.38	0.36	0.48	0.31	0.71	0.46	0.40	0.38
13	0.69	0.61	1.03	0.39	0.37	0.37	0.42	0.31	0.61	0.84	0.39	0.36
14	0.60	0.46	0.63	0.38	0.37	0.46	0.39	0.31	0.58	1.25	0.39	0.37
15	0.44	0.41	0.46	0.39	0.40	0.38	0.37	0.59	0.77	0.54	0.39	0.37
16	1.00	0.76	0.42	0.39	0.45	1.26	0.35	0.50	1.72	0.48	0.39	0.36
17	0.48	1.20	0.41	0.39	0.41	0.53	0.35	0.37	0.78	0.55	0.37	0.37
18	0.42	0.61	0.40	0.40	0.55	0.43	0.37	0.48	0.59	0.47	0.46	0.80
19	0.37	0.47	0.38	0.40	0.50	0.40	0.41	0.72	0.58	0.46	0.38	0.59
20	0.35	0.42	0.52	0.38	0.43	2.14	0.37	0.40	0.51	0.43	0.37	0.41
21	0.40	0.40	0.42	0.38	0.41	0.60	0.35	0.58	0.49	0.42	0.37	0.39
22	0.43	0.39	0.38	0.38	0.84	0.46	0.34	1.27	0.44	0.43	0.36	0.40
23	0.37	0.40	0.38	0.40	0.56	0.42	0.34	0.85	0.42	0.75	0.42	0.87
24	0.35	0.37	0.83	0.41	0.43	0.39	0.33	0.53	0.41	0.46	0.63	0.45
25	0.35	0.36	0.90	0.39	0.40	0.37	0.34	0.76	0.40	0.42	0.40	0.41
26	0.36	0.36	0.51	0.38	0.44	0.36	0.42	1.36	0.41	0.40	0.37	0.39
27	0.34	0.36	0.46	0.40	1.08	0.36	0.42	0.53	0.40	0.40	0.35	0.39
28	0.75	0.38	0.43	0.38	0.78	0.35	0.34	0.45	0.42	0.39	0.35	0.36
29	0.93	0.38	0.40	0.40	---	0.35	0.32	0.45	0.41	0.37	0.35	0.37
30	0.60	0.35	0.39	0.78	---	0.87	0.32	0.43	0.40	0.58	0.40	0.39
31	0.46	---	0.37	0.58	---	0.51	---	0.47	---	0.41	0.66	---
MEAN	0.50	0.48	0.52	0.43	0.49	0.55	0.53	0.50	0.62	0.52	0.50	0.45
MAX	2.47	1.20	1.15	0.78	1.08	2.14	2.22	1.36	1.77	1.25	1.07	0.87
MIN	0.25	0.33	0.36	0.36	0.37	0.35	0.32	0.31	0.38	0.37	0.35	0.36



0209679804 LITTLE ALAMANCE CREEK AT SR 2309 NEAR GRAHAM, NC—Continued

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.38	0.38	---	---	---	---	---	---	---	---	---	---
2	0.38	0.38	---	---	---	---	---	---	---	---	---	---
3	0.39	0.39	---	---	---	---	---	---	---	---	---	---
4	0.37	0.38	---	---	---	---	---	---	---	---	---	---
5	0.37	0.37	---	---	---	---	---	---	---	---	---	---
6	0.36	0.37	---	---	---	---	---	---	---	---	---	---
7	0.35	0.41	---	---	---	---	---	---	---	---	---	---
8	0.36	0.38	---	---	---	---	---	---	---	---	---	---
9	0.42	0.41	---	---	---	---	---	---	---	---	---	---
10	0.38	0.41	---	---	---	---	---	---	---	---	---	---
11	0.42	0.40	---	---	---	---	---	---	---	---	---	---
12	0.37	0.38	---	---	---	---	---	---	---	---	---	---
13	0.36	0.36	---	---	---	---	---	---	---	---	---	---
14	0.37	0.39	---	---	---	---	---	---	---	---	---	---
15	0.49	0.39	---	---	---	---	---	---	---	---	---	---
16	0.38	0.38	---	---	---	---	---	---	---	---	---	---
17	0.37	0.38	---	---	---	---	---	---	---	---	---	---
18	0.37	0.40	---	---	---	---	---	---	---	---	---	---
19	0.36	0.53	---	---	---	---	---	---	---	---	---	---
20	0.37	0.44	---	---	---	---	---	---	---	---	---	---
21	0.38	---	---	---	---	---	---	---	---	---	---	---
22	0.35	---	---	---	---	---	---	---	---	---	---	---
23	0.36	---	---	---	---	---	---	---	---	---	---	---
24	0.35	---	---	---	---	---	---	---	---	---	---	---
25	0.37	---	---	---	---	---	---	---	---	---	---	---
26	0.41	---	---	---	---	---	---	---	---	---	---	---
27	0.46	---	---	---	---	---	---	---	---	---	---	---
28	0.49	---	---	---	---	---	---	---	---	---	---	---
29	0.69	---	---	---	---	---	---	---	---	---	---	---
30	0.41	---	---	---	---	---	---	---	---	---	---	---
31	0.40	---	---	---	---	---	---	---	---	---	---	---
MEAN	0.40	---	---	---	---	---	---	---	---	---	---	---
MAX	0.69	---	---	---	---	---	---	---	---	---	---	---
MIN	0.35	---	---	---	---	---	---	---	---	---	---	---



0209679804 LITTLE ALAMANCE CREEK AT SR 2309 NEAR GRAHAM, NC—Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: July 2002 to November 2003.

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

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

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum recorded, 27.1°C, July 19, 2002; minimum recorded, 0.9°C, Feb. 17, 2003.

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

Date	Time	Medium code	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unfltrd 25 degC (00095)	Temperature, water, deg C (00010)	Chloride, water, fltrd, mg/L (00940)	Sulfate water, fltrd, mg/L (00945)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	
Date		Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Particulate nitrogen, susp, water, mg/L (49570)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inorganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	Biomass periphyton, ashfree drymass g/m2 (49954)	Periphyton biomass ash weight, g/m2 (00572)	Periphyton biomass dry weight, g/m2 (00573)
Date		Biomass chlorophyll ratio, periphyton, number (70950)	Pheophytin a, periphyton, mg/m2 (62359)	E coli, modif. m-TEC, water, col/100 mL (90902)	Chlorophyll a periphyton, chromofluoro, mg/m2 (70957)	1-Naphthol, water, fltrd 0.7u GF (49295)	2,6-Diethyl-aniline water fltrd 0.7u GF (82660)	2-[(2-Et-6-Me-Ph)-amino]propan-1-ol, ug/L (61615)	2Chloro-2,6-diethyl acet-anilide wat flt ug/L (61618)	CIAT, water, fltrd, ug/L (04040)	2-Ethyl-6-methyl-aniline water, fltrd, ug/L (61620)	3,4-Dichloro-aniline water, fltrd, ug/L (61625)	4Chloro-2methyl phenol, water, fltrd, ug/L (61633)	Acetochlor, water, fltrd, ug/L (49260)
FEB 25...	1200	9	E9.5	755	11.6	99	7.3	185	8.2	19.4	15.9	0.39	<0.04	
MAY 20...	1205	D	10	--	7.6	--	7.1	116	15.0	--	--	--	--	
JUN 23...	1320	9	--	--	7.4	--	6.9	188	19.7	--	--	--	--	
JUL 10...	1032	9	--	--	--	--	--	--	--	--	--	--	--	
JUL 11...	1100	9	E7.6	746	6.7	82	7.1	136	24.1	7.72	8.8	0.37	<0.04	
FEB 25...	0.56	<0.008	<0.02	0.06	0.060	0.95	0.4	<0.1	0.4	3.7	--	--	--	
MAY 20...	--	--	--	--	--	--	--	--	--	--	3.400	58	61.80	
JUN 23...	--	--	--	--	--	--	--	--	--	--	--	--	--	
JUL 10...	--	--	--	--	--	--	--	--	--	--	--	--	--	
JUL 11...	0.43	E.005	E.01	0.06	0.057	0.80	0.4	<0.1	0.4	4.7	--	--	--	
FEB 25...	--	--	240	--	<0.09	<0.006	<0.1	<0.005	<0.006	<0.004	<0.004	E.003	<0.006	
MAY 20...	375	3.7	--	9.1	--	--	--	--	--	--	--	--	--	
JUN 23...	--	--	--	--	--	--	--	--	--	--	--	--	--	
JUL 10...	--	--	5,300	--	--	--	--	--	--	--	--	--	--	
JUL 11...	--	--	--	--	<0.09	<0.006	<0.1	<0.005	<0.006	<0.004	<0.004	<0.006	<0.006	

0209679804 LITTLE ALAMANCE CREEK AT SR 2309 NEAR GRAHAM, NC—Continued

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

Date	Alachlor, water, fltrd, ug/L (46342)	Atrazine, water, fltrd, ug/L (39632)	Azin-phos-methyl oxon, water, fltrd, ug/L (61635)	Azin-phos-methyl, water, fltrd, 0.7u GF ug/L (82686)	Ben-flur-alin, water, fltrd, 0.7u GF ug/L (82673)	Car-baryl, water, fltrd, 0.7u GF ug/L (82680)	Chlor-pyrifos oxon, water, fltrd, ug/L (61636)	Chlor-pyrifos water, fltrd, ug/L (38933)	cis-Per-methrin water fltrd, 0.7u GF ug/L (82687)	Cyflu-thrin, water, fltrd, ug/L (61585)	Cyper-methrin water, fltrd, ug/L (61586)	DCPA, water fltrd, 0.7u GF ug/L (82682)	Desulf-inyl fipronil, water, fltrd, ug/L (62170)
FEB 25...	<0.004	E.004	<0.02	<0.050	<0.010	E.004	<0.06	<0.005	<0.006	<0.008	<0.009	<0.003	<0.004
MAY 20...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 23...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 10...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 11...	<0.004	0.021	<0.02	<0.050	<0.010	E.039	<0.06	0.009	<0.006	<0.008	<0.009	<0.003	<0.004

Date	Diaz-inon oxon, water, fltrd, ug/L (61638)	Diazi-non, water, fltrd, ug/L (39572)	Dicro-tophos, water, fltrd, ug/L (38454)	Diel-drin, water, fltrd, ug/L (39381)	Dimeth-oate, water, fltrd, 0.7u GF ug/L (82662)	Ethion monooxon water, fltrd, ug/L (61644)	Ethion, water, fltrd, ug/L (82346)	Fenami-phos sulfone water, fltrd, ug/L (61645)	Fenami-phos sulf-oxide, water, fltrd, ug/L (61646)	Fenami-phos, water, fltrd, ug/L (61591)	Desulf-inyl-fipronil amide, wat flt ug/L (62169)	Fipronil sulfide water, fltrd, ug/L (62167)	Fipronil sulfone water, fltrd, ug/L (62168)
FEB 25...	<0.04	0.009	<0.08	<0.005	<0.006	<0.03	<0.004	<0.008	<0.03	<0.03	<0.009	<0.005	E.007
MAY 20...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 23...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 10...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 11...	<0.01	0.058	<0.08	<0.005	<0.006	<0.03	<0.004	<0.008	<0.03	<0.03	<0.009	E.004	<0.006

Date	Fipronil, water, fltrd, ug/L (62166)	Fonofos oxon, water, fltrd, ug/L (61649)	Fonofos water, fltrd, ug/L (04095)	Hexa-zinone, water, fltrd, ug/L (04025)	Ipro-dione, water, fltrd, ug/L (61593)	Isofen-phos, water, fltrd, ug/L (61594)	Mala-oxon, water, fltrd, ug/L (61652)	Mala-thion, water, fltrd, ug/L (39532)	Meta-laxyl, water, fltrd, ug/L (61596)	Methi-althion water, fltrd, ug/L (61598)	Methyl para-oxon, water, fltrd, ug/L (61664)	Methyl para-thion, water, fltrd, 0.7u GF ug/L (82667)	Metola-chlor, water, fltrd, ug/L (39415)
FEB 25...	E.009	<0.002	<0.003	--	<1	<0.003	<0.008	<0.027	<0.005	<0.006	<0.03	<0.006	<0.013
MAY 20...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 23...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 10...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 11...	E.009	<0.002	<0.003	<0.013	<1	<0.003	<0.008	<0.027	<0.005	<0.006	<0.03	<0.006	E.005

Date	Metri-buzin, water, fltrd, ug/L (82630)	Myclo-butanil water, fltrd, ug/L (61599)	Pendi-meth-alin, water, fltrd, 0.7u GF ug/L (82683)	Phorate oxon, water, fltrd, ug/L (61666)	Phorate water fltrd, 0.7u GF ug/L (82664)	Phosmet oxon, water, fltrd, ug/L (61668)	Phosmet water, fltrd, ug/L (61601)	Prome-ton, water, fltrd, ug/L (04037)	Prome-tryn, water, fltrd, ug/L (04036)	Pron-amide, water, fltrd, 0.7u GF ug/L (82676)	Sima-zine, water, fltrd, ug/L (04035)	Tebu-thiuron water fltrd, 0.7u GF ug/L (82670)	Ter-bufos oxon sulfone water, fltrd, ug/L (61674)
FEB 25...	<0.006	<0.008	<0.022	<0.10	<0.011	<0.06	<0.008	E.01	<0.005	<0.004	0.786	0.02	<0.07
MAY 20...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 23...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 10...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 11...	<0.006	<0.008	<0.022	<0.10	<0.011	<0.06	<0.008	0.19	<0.005	<0.004	0.040	E.17	<0.07

0209679804 LITTLE ALAMANCE CREEK AT SR 2309 NEAR GRAHAM, NC—Continued

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

Date	Terbu- fos, water, fltrd, 0.7u GF (82675) ug/L	Ter- buthyl- azine, water, fltrd, (04022) ug/L	Tri- flur- alin, water, fltrd, 0.7u GF (82661) ug/L	Di- chlor- vos, water, fltrd, (38775) ug/L	Suspnd. sedi- ment, sieve diametr percent <.063mm (70331)	Sus- pended sedi- ment concen- tration mg/L (80154)
FEB 25...	<0.02	<0.01	<0.009	<0.01	85	16
MAY 20...	--	--	--	--	--	--
JUN 23...	--	--	--	--	--	--
JUL 10...	--	--	--	--	--	--
JUL 11...	<0.02	<0.01	<0.009	<0.01	94	7

Remark codes used in this table:

< -- Less than
E -- Estimated value

Medium codes used in this table:

9 -- Surface water
D -- Plant tissue

TEMPERATURE, WATER, DEGREES CELSIUS
JULY TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	JUNE			JULY			AUGUST			SEPTEMBER		
				MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	26.2	24.5	25.4	20.5	19.4	20.0			
2	---	---	---	---	---	---	25.9	24.2	25.1	20.6	20.1	20.3			
3	---	---	---	---	---	---	25.6	23.8	24.7	21.2	19.4	20.3			
4	---	---	---	---	---	---	25.4	23.5	24.5	22.4	20.7	21.6			
5	---	---	---	---	---	---	26.1	23.4	24.7	22.5	21.4	22.0			
6	---	---	---	---	---	---	25.4	23.8	24.6	21.8	20.0	21.0			
7	---	---	---	---	---	---	23.8	21.4	22.3	21.7	20.0	20.9			
8	---	---	---	---	---	---	22.3	19.6	20.9	21.0	19.1	20.2			
9	---	---	---	25.4	22.2	23.7	21.8	19.1	20.4	21.2	19.5	20.4			
10	---	---	---	26.7	23.5	24.9	22.5	19.1	20.7	22.1	20.2	21.1			
11	---	---	---	25.4	21.5	23.0	24.4	19.9	21.9	22.3	20.3	21.3			
12	---	---	---	21.8	20.7	21.3	25.7	21.6	23.6	21.4	19.1	19.9			
13	---	---	---	22.5	20.6	21.6	25.6	22.6	24.2	20.1	17.7	19.1			
14	---	---	---	23.9	22.1	22.8	24.8	22.8	23.9	20.5	19.5	20.0			
15	---	---	---	24.9	22.3	23.3	24.2	22.9	23.4	20.9	20.3	20.6			
16	---	---	---	25.7	22.7	24.1	24.5	23.3	23.8	22.0	20.9	21.4			
17	---	---	---	25.6	23.2	24.4	25.8	23.2	24.2	22.1	21.1	21.6			
18	---	---	---	26.2	23.5	24.9	25.0	23.4	24.2	22.6	21.4	21.8			
19	---	---	---	27.1	23.9	25.4	25.6	23.5	24.5	22.8	22.4	22.7			
20	---	---	---	26.1	24.0	25.0	25.8	23.6	24.6	22.5	21.6	22.1			
21	---	---	---	25.6	24.1	24.9	24.8	23.2	24.1	22.5	21.4	22.0			
22	---	---	---	25.7	23.8	24.6	25.6	23.9	24.7	22.9	21.6	22.2			
23	---	---	---	25.0	23.5	24.2	27.0	24.3	25.6	22.5	21.1	21.9			
24	---	---	---	24.6	23.6	24.1	27.0	24.7	25.7	21.1	19.4	20.1			
25	---	---	---	25.0	23.7	24.2	26.5	24.0	25.1	20.0	19.2	19.5			
26	---	---	---	25.0	24.0	24.6	24.8	22.9	23.7	19.5	18.9	19.2			
27	---	---	---	26.1	24.5	25.2	22.9	21.6	22.3	23.2	19.4	21.1			
28	---	---	---	26.2	25.0	25.6	21.8	20.5	20.9	23.1	21.7	22.4			
29	---	---	---	26.7	25.2	26.0	20.5	19.9	20.2	21.7	20.3	20.9			
30	---	---	---	26.8	25.3	26.1	20.7	19.9	20.1	20.4	18.9	19.7			
31	---	---	---	26.5	25.1	25.9	20.7	19.5	20.4	---	---	---			
MONTH	---	---	---	---	---	---	27.0	19.1	23.4	23.2	17.7	20.9			

0209679804 LITTLE ALAMANCE CREEK AT SR 2309 NEAR GRAHAM, NC—Continued

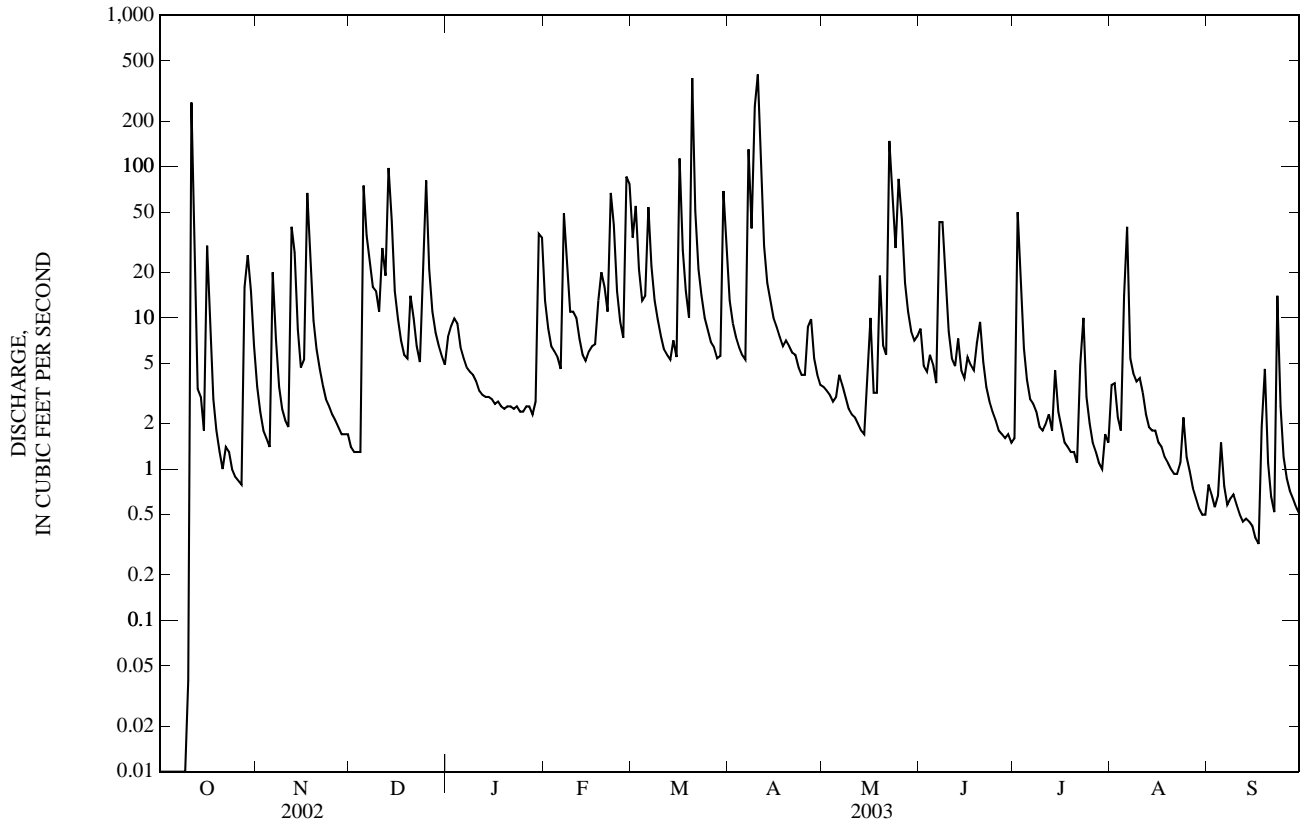
TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	21.4	19.7	20.5	13.7	11.3	12.2	7.2	5.2	6.1	12.6	8.2	11.1
2	22.0	20.2	21.1	11.4	9.8	10.3	5.7	4.1	5.1	12.1	10.4	10.9
3	22.7	20.9	21.8	10.4	9.6	10.0	7.0	4.7	5.6	10.6	9.4	10.2
4	22.9	21.2	22.1	11.8	10.3	11.0	5.1	1.9	3.8	9.4	6.8	8.1
5	23.4	21.9	22.6	11.7	11.4	11.5	4.0	1.1	2.7	6.8	5.5	6.2
6	22.6	20.5	21.3	12.4	11.6	11.9	5.0	4.0	4.5	6.7	5.7	6.2
7	21.0	19.5	20.4	11.6	10.7	11.1	5.1	4.1	4.7	5.9	4.5	5.1
8	20.4	17.6	18.7	10.9	9.3	10.2	5.6	4.3	4.9	6.3	4.7	5.5
9	17.6	16.8	17.2	11.9	9.9	11.0	6.0	5.3	5.7	7.8	6.0	6.9
10	19.4	16.7	17.3	14.6	11.9	13.0	5.8	5.4	5.6	8.1	6.8	7.4
11	20.0	18.9	19.5	16.4	14.6	15.6	5.8	4.8	5.5	6.8	5.3	6.0
12	20.6	19.8	20.2	16.8	14.6	15.8	7.2	5.6	6.5	5.3	4.0	4.6
13	21.1	20.1	20.3	14.6	12.5	13.9	7.0	6.3	6.7	4.1	3.1	3.7
14	20.6	17.6	19.0	12.5	10.8	11.7	7.5	6.5	7.1	4.4	3.0	3.8
15	17.6	15.6	16.5	12.3	10.4	11.4	7.2	6.4	6.9	4.8	3.6	4.1
16	16.2	15.0	15.6	12.9	12.3	12.5	7.4	6.3	6.9	3.7	2.9	3.4
17	16.2	15.4	15.7	12.7	11.6	12.5	7.1	5.9	6.5	4.7	3.0	3.6
18	15.5	13.9	14.5	11.6	9.9	10.7	7.3	6.0	6.6	3.2	1.9	2.4
19	14.5	13.2	13.9	10.3	8.7	9.6	8.2	7.2	7.5	2.6	1.4	1.8
20	15.3	14.2	14.6	10.4	8.8	9.7	11.9	8.2	10.3	3.7	1.4	2.6
21	15.7	15.1	15.4	11.2	9.9	10.5	10.4	7.7	8.8	3.6	3.1	3.3
22	15.1	14.4	14.7	10.9	9.3	10.3	8.3	6.7	7.5	4.1	2.3	3.1
23	14.5	13.6	14.1	9.3	8.0	8.6	7.7	6.3	7.2	3.1	1.0	2.4
24	14.4	14.0	14.2	9.0	7.2	8.3	7.6	7.0	7.3	2.5	1.0	1.5
25	14.0	13.5	13.7	9.6	7.7	8.7	7.5	6.3	6.9	2.7	1.2	1.7
26	14.4	13.3	13.8	9.4	7.9	8.7	6.4	5.6	6.0	2.8	1.3	1.9
27	14.6	14.1	14.4	9.1	7.5	8.5	5.8	4.7	5.3	2.7	1.1	1.7
28	15.5	14.6	14.9	7.5	5.8	6.5	5.2	3.8	4.6	2.5	1.1	1.7
29	14.8	12.3	13.5	5.9	4.3	5.3	5.9	4.2	5.1	3.7	2.0	2.7
30	12.8	12.2	12.4	7.9	5.9	6.9	6.4	4.8	5.7	5.2	3.4	4.3
31	13.9	11.9	12.7	---	---	---	8.2	6.0	6.9	4.5	4.0	4.2
MONTH	23.4	11.9	17.0	16.8	4.3	10.6	11.9	1.1	6.1	12.6	1.0	4.6
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	6.0	4.5	5.2	7.3	5.3	6.1	13.0	8.5	10.7	19.3	17.6	18.4
2	6.3	4.8	5.6	9.0	7.0	7.9	16.4	11.6	13.9	19.8	17.4	18.6
3	7.6	5.3	6.4	9.5	7.2	8.4	18.3	13.5	15.9	18.9	17.7	18.4
4	10.1	7.6	8.9	9.8	6.8	8.4	18.4	15.1	16.8	17.7	15.2	16.3
5	9.0	6.6	7.9	12.3	9.5	10.8	17.6	16.1	16.8	15.2	13.6	14.0
6	6.6	4.9	5.7	12.8	11.6	12.2	17.7	14.6	16.2	15.6	13.6	14.6
7	5.5	3.6	4.7	12.1	8.0	9.9	16.3	10.0	11.7	18.0	15.4	16.5
8	5.8	4.4	5.1	10.3	6.3	8.5	10.6	9.8	10.3	20.0	17.4	18.7
9	6.0	3.7	4.8	13.2	9.3	11.1	9.8	8.3	9.0	21.1	18.9	20.0
10	5.8	4.9	5.3	12.3	9.4	10.8	9.3	7.9	8.4	21.7	20.0	20.9
11	6.5	3.9	5.3	9.7	7.8	8.6	10.2	8.8	9.3	21.2	20.0	20.8
12	7.3	4.3	5.6	12.0	6.4	9.2	14.2	9.5	11.5	20.0	18.0	18.9
13	6.6	3.0	4.8	14.4	9.3	11.8	15.7	11.7	13.7	18.2	16.2	17.2
14	5.6	4.0	4.9	14.3	12.1	13.3	16.8	12.8	14.8	17.6	14.7	16.3
15	6.7	5.6	6.1	12.1	9.7	10.5	18.2	14.6	16.4	17.6	16.3	16.8
16	5.9	1.5	4.1	10.5	8.8	9.6	19.1	15.7	17.5	18.4	17.1	17.7
17	2.2	0.9	1.5	12.6	10.5	11.6	19.3	16.3	17.8	18.3	15.9	17.1
18	5.4	2.2	3.7	13.6	12.2	12.8	17.6	12.6	14.5	15.9	14.5	15.2
19	6.5	4.1	5.3	13.3	11.6	12.6	12.6	11.6	12.0	14.5	13.7	14.1
20	7.9	5.8	6.8	11.6	8.1	9.0	14.1	11.5	12.7	16.2	13.7	14.8
21	7.6	6.5	7.1	12.3	9.0	10.5	14.6	13.2	13.9	17.9	15.3	16.2
22	8.2	7.6	7.8	14.3	11.1	12.6	15.9	14.0	14.9	17.8	15.3	16.1
23	9.8	8.2	9.0	14.4	11.3	13.0	15.2	12.4	13.9	16.2	15.6	15.9
24	9.7	6.9	8.4	15.8	12.1	13.9	14.4	11.8	13.4	16.5	15.7	16.1
25	9.2	7.9	8.7	16.5	12.0	14.3	14.0	13.5	13.8	18.2	15.9	16.9
26	8.5	6.1	7.2	17.7	13.8	15.7	16.3	13.8	14.7	18.9	17.4	18.1
27	6.1	3.5	4.6	17.6	14.4	15.9	17.6	15.5	16.3	18.4	17.1	17.6
28	5.3	3.8	4.5	17.6	14.0	15.9	17.8	14.7	16.4	17.6	15.7	16.7
29	---	---	---	19.4	16.6	17.8	18.3	15.7	17.1	17.2	16.3	16.7
30	---	---	---	18.5	10.1	13.2	18.5	16.6	17.7	17.9	15.9	16.9
31	---	---	---	11.3	8.7	10	---	---	---	18.6	16.4	17.3
MONTH	10.1	0.9	5.9	19.4	5.3	11.5	19.3	7.9	14.1	21.7	13.6	17.1

02096846 CANE CREEK NEAR ORANGE GROVE, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1989 - 2003	
ANNUAL TOTAL	1,633.24		5,216.41		6.98	
ANNUAL MEAN	4.47		14.3		14.3 2003	
HIGHEST ANNUAL MEAN					0.99 2002	
LOWEST ANNUAL MEAN					516 Mar 4, 1993	
HIGHEST DAILY MEAN	265	Oct 11	406	Apr 10	2,060* Sep 6, 1996	
LOWEST DAILY MEAN	0.00	Jun 20	0.00	Oct 1	7.90* Sep 6, 1996	
ANNUAL SEVEN-DAY MINIMUM	0.00	Jun 20	0.00	Oct 1	0.00* Sep 17, 1990	
MAXIMUM PEAK FLOW			990	Apr 10	0.00* Sep 17, 1990	
MAXIMUM PEAK STAGE			5.73	Apr 10	0.93	
INSTANTANEOUS LOW FLOW			0.00*	Oct 1	12.57	
ANNUAL RUNOFF (CFSM)	0.59		1.90		13	
ANNUAL RUNOFF (INCHES)	8.06		25.74		1.8	
10 PERCENT EXCEEDS	9.7		30		0.07	
50 PERCENT EXCEEDS	0.63		4.5			
90 PERCENT EXCEEDS	0.00		0.78			

* See REMARKS.



CAPE FEAR RIVER BASIN

02096846 CANE CREEK NEAR ORANGE GROVE, NC—Continued

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

Date	Selenium, water, unfltrd ug/L (01147)	Silver, water, unfltrd recover- able, ug/L (01077)	Zinc, water, unfltrd recover- able, ug/L (01092)	Sus- pended sedi- ment concen- tration mg/L (80154)	Sus- pended sedi- ment load, tons/d (80155)
OCT					
11...	<3	<0.3	E15	--	--
31...	<3	<0.3	<25	9	0.15
DEC					
16...	--	--	--	5	0.14
FEB					
20...	--	--	--	3	0.14
MAR					
20...	<3	<0.3	E19	158	316
APR					
14...	<3	<0.3	<25	2	0.08
JUN					
30...	--	--	--	19	0.08
AUG					
21...	--	--	--	4	0.01

Remark codes used in this table:

< -- Less than

E -- Estimated value

0209684980 CANE CREEK RESERVOIR AT DAM NEAR WHITE CROSS, NC

LOCATION.--Lat 35°57'00", long 79°14'28", Orange County, Hydrologic Unit 03030002, at Orange Water and Sewage Authority intakes, 0.7 mi above State Highway 54, and 3.6 mi northwest of White Cross.

DRAINAGE AREA.--31.4 mi².

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

REMARKS.--Station operated to define water quality as part of a six-county regional surface-water quality assessment. Samples for nutrient and chlorophyll a and b analyses were collected through a sampling zone equal to double the secchi disk depth using the depth-integration sampling technique.

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

Date	Time	Color, water, fltrd, Pt-Co units (00080)	Sam-pling depth, meters (00098)	Trans-parency Secchi disc, meters (00078)	Baro-metric pres-sure, mm Hg (00025)	Dis-solved oxygen, mg/L (00300)	Dis-solved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conduc-tance, wat unfltrd uS/cm 25 degC (00095)	Temper-ature, water, deg C (00010)	Hard-ness, water, unfltrd mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes-ium, water, fltrd, mg/L (00925)
OCT													
17...	0900	88	1.0	0.50	749	4.6	50	6.6	88	18.6	27	6.26	2.79
17...	0905	--	6.0	--	749	3.7	40	6.6	90	18.1	--	--	--
17...	0910	--	11.0	--	749	0.0	0.0	7.0	185	11.3	--	--	--
APR													
04...	1100	75	1.0	0.80	749	5.8	55	6.1	58	12.9	18	4.24	1.77
04...	1105	--	6.0	--	749	4.3	38	5.9	58	9.1	--	--	--
04...	1110	--	13.2	--	749	0.1	0.0	7.0	136	8.9	--	--	--
JUN													
27...	1045	50	1.0	1.50	751	9.1	117	7.1	64	27.3	22	5.37	2.17
27...	1050	--	6.0	--	751	0.3	2	5.5	54	11.0	--	--	--
27...	1055	--	13.0	--	751	0.5	4	5.7	63	10.2	--	--	--
AUG													
15...	0945	30	1.0	2.20	758	7.1	93	6.8	68	29.2	26	6.34	2.48
15...	0950	--	6.0	--	758	0.1	0.0	5.5	63	11.9	--	--	--
15...	0955	--	13.0	--	758	0.2	2	6.0	96	9.5	--	--	--

Date	Potas-sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unfltrd, titr., mg/L as CaCO3 (00419)	Bicar-bonate, wat unfltrd, titr., mg/L (00450)	Chlor-ide, water, fltrd, mg/L (00940)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho-phosphate, water, fltrd, mg/L as P (00671)
OCT													
17...	3.68	3.76	25	30	4.90	5.2	4.9	65	0.81	0.193	0.45	0.010	<0.007
17...	--	--	--	--	--	--	--	--	0.90	0.188	0.44	0.010	<0.007
17...	--	--	--	--	--	--	--	--	2.0	1.14	0.20	0.027	E.006
APR													
04...	1.68	2.93	11	13	3.10	5.6	5.1	53	0.44	<0.015	0.357	0.007	E.004
04...	--	--	--	--	--	--	--	--	0.51	0.080	0.406	0.011	0.018
04...	--	--	--	--	--	--	--	--	0.58	0.172	0.463	0.023	0.023
JUN													
27...	1.96	3.16	21	26	3.94	7.2	3.2	53	0.87	<0.015	<0.022	<0.002	<0.007
27...	--	--	--	--	--	--	--	--	0.61	0.224	0.255	0.003	0.009
27...	--	--	--	--	--	--	--	--	1.0	0.541	E.017	0.004	0.017
AUG													
15...	1.86	3.83	27	33	4.83	7.8	2.5	55	0.62	<0.015	<0.022	<0.002	<0.007
15...	--	--	--	--	--	--	--	--	0.40	E.008	<0.022	E.002	<0.007
15...	--	--	--	--	--	--	--	--	1.7	1.01	<0.022	0.009	0.127

0209684980 CANE CREEK RESERVOIR AT DAM NEAR WHITE CROSS, NC—Continued

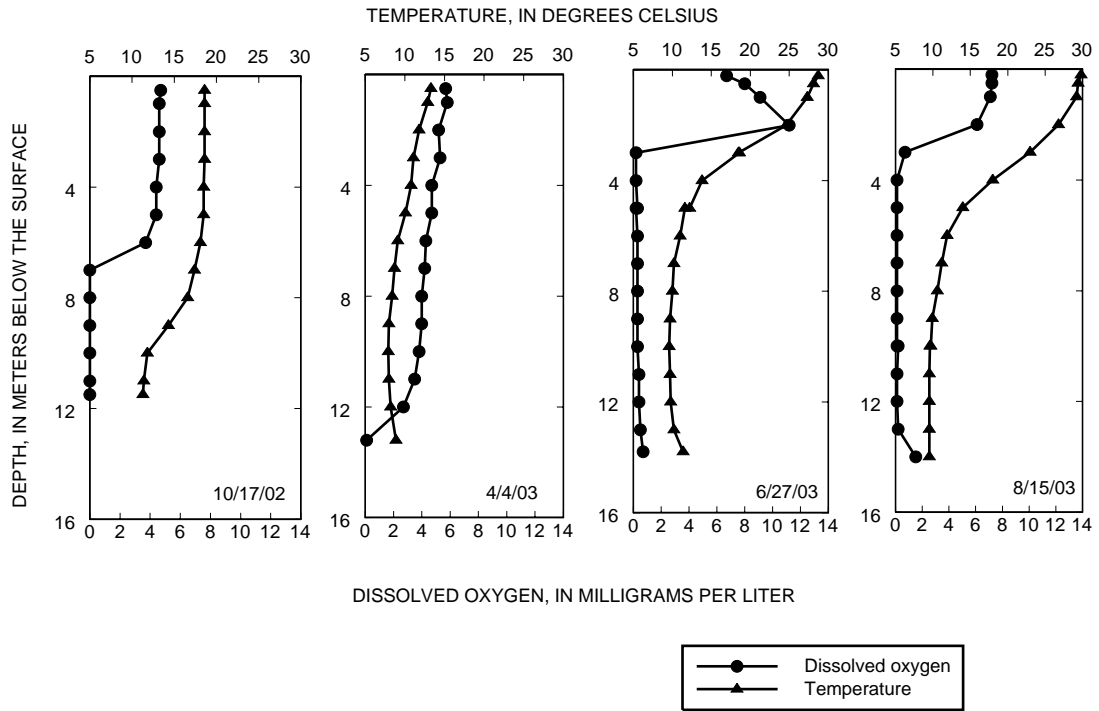
WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Phosphorus, water, unfltrd mg/L (00665)	Organic carbon, water, unfltrd mg/L (00680)	Chlorophyll a phytoplankton, fluoro, ug/L (70953)	Chlorophyll b phytoplankton, fluoro, ug/L (70954)	Aluminum, water, unfltrd recover-able, ug/L (01105)	Arsenic water unfltrd ug/L (01002)	Cadmium water, unfltrd ug/L (01027)	Chromium, water, unfltrd recover-able, ug/L (01034)	Cobalt water, unfltrd recover-able, ug/L (01037)	Copper, water, unfltrd recover-able, ug/L (01042)	Iron, water, unfltrd recover-able, ug/L (01045)	Lead, water, unfltrd recover-able, ug/L (01051)	Manganese, water, unfltrd recover-able, ug/L (01055)
OCT 17...	--	9.6	8.9	<0.1	110	<2	<0.2	<0.8	<3.4	1.4	500	<1	270
OCT 17...	--	--	--	--	--	--	--	--	--	--	500	--	280
OCT 17...	--	--	--	--	--	--	--	--	--	--	2,390	--	6,070
APR 04...	0.057	8.0	E4.6	<0.1	150	<2	<0.2	<0.8	<3.4	1.4	470	<1	71.0
APR 04...	0.077	--	--	--	--	--	--	--	--	--	580	--	149
APR 04...	0.089	--	--	--	--	--	--	--	--	--	810	--	318
JUN 27...	0.052	9.6	12.3	<0.1	--	--	--	--	--	--	470	--	28.7
JUN 27...	0.069	--	--	--	--	--	--	--	--	--	1,660	--	1,300
JUN 27...	0.113	--	--	--	--	--	--	--	--	--	3,630	--	1,700
AUG 15...	0.035	7.4	E58.2	E15.8	--	--	--	--	--	--	210	--	55.5
AUG 15...	0.026	--	--	--	--	--	--	--	--	--	2,060	--	1,480
AUG 15...	0.187	--	--	--	--	--	--	--	--	--	8,770	--	2,260

Date	Mercury water, unfltrd recover-able, ug/L (71900)	Molybdenum, water, unfltrd recover-able, ug/L (01062)	Nickel, water, unfltrd recover-able, ug/L (01067)	Selenium, water, unfltrd ug/L (01147)	Silver, water, unfltrd recover-able, ug/L (01077)	Zinc, water, unfltrd recover-able, ug/L (01092)
OCT 17...	E.01	<2	2.7	<3	<0.3	<25
OCT 17...	--	--	--	--	--	--
OCT 17...	--	--	--	--	--	--
APR 04...	0.06	<2	<2.0	<3	<0.3	<25
APR 04...	--	--	--	--	--	--
APR 04...	--	--	--	--	--	--
JUN 27...	--	--	--	--	--	--
JUN 27...	--	--	--	--	--	--
JUN 27...	--	--	--	--	--	--
AUG 15...	--	--	--	--	--	--
AUG 15...	--	--	--	--	--	--
AUG 15...	--	--	--	--	--	--

Remark codes used in this table:
 < -- Less than
 E -- Estimated value

0209684980 CANE CREEK RESERVOIR AT DAM NEAR WHITE CROSS, NC—Continued



0209695780 BROOKS CREEK AT EDDIE PERRY ROAD NEAR BYNUM, NC

LOCATION.--Lat 35°46'34", long 79°10'04", Chatham County, Hydrologic Unit 03030002, at bridge on Secondary Road 1522, 1.0 mi above mouth, and 1.2 mi west of Bynum.

DRAINAGE AREA.--9.17 mi².

GAGE-HEIGHT RECORDS

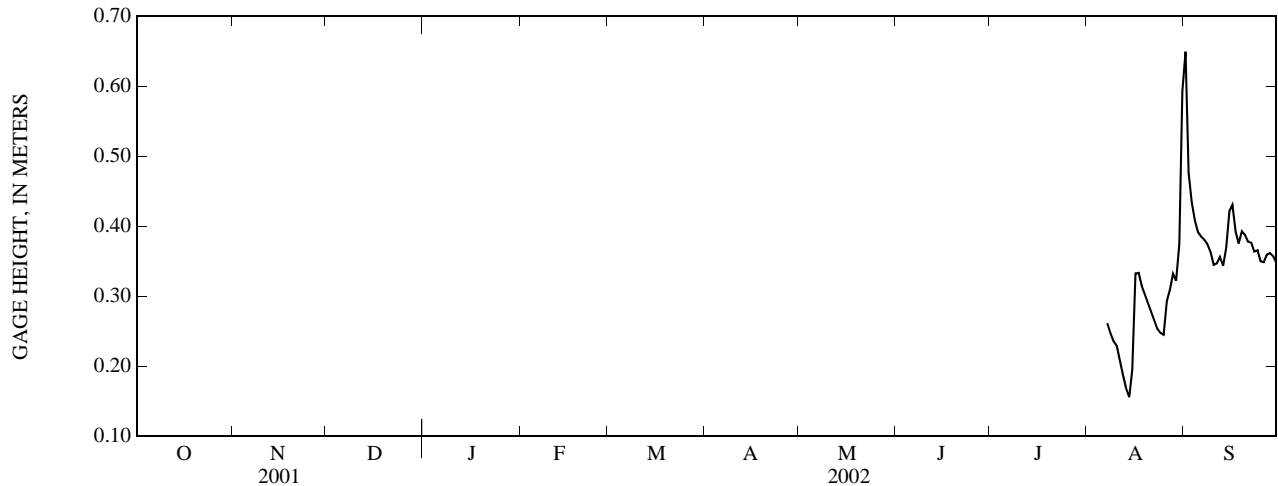
PERIOD OF RECORD.--August 2002 to November 2003 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 360 ft above NGVD of 1929, from topographic map.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height recorded, 2.17 m, April 10, 2003; minimum gage height recorded, 0.13 m, Aug. 15, 2002.

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

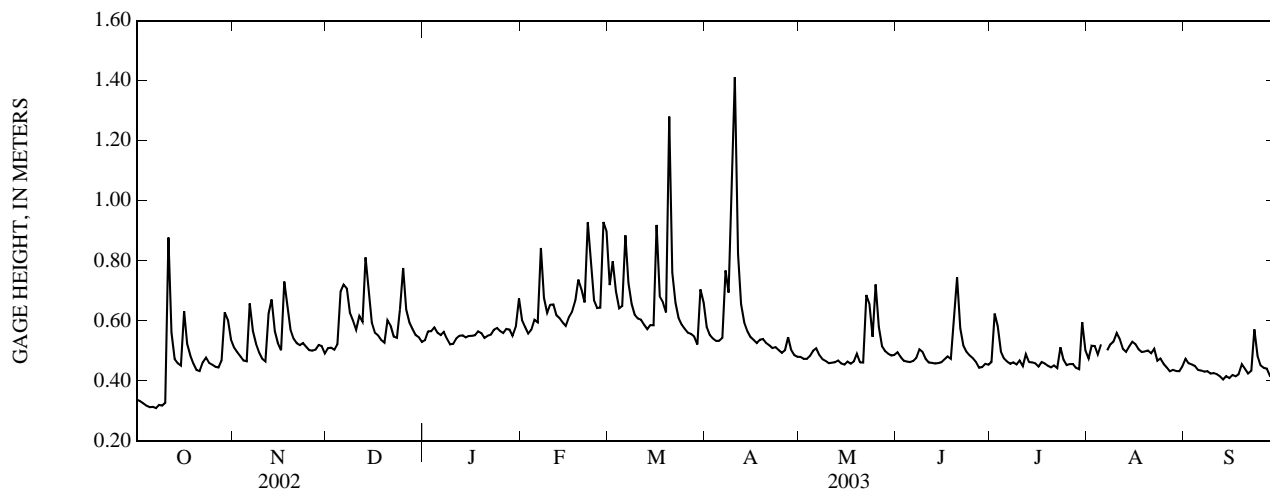
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	---	0.65
2	---	---	---	---	---	---	---	---	---	---	---	0.48
3	---	---	---	---	---	---	---	---	---	---	---	0.43
4	---	---	---	---	---	---	---	---	---	---	---	0.41
5	---	---	---	---	---	---	---	---	---	---	---	0.39
6	---	---	---	---	---	---	---	---	---	---	---	0.38
7	---	---	---	---	---	---	---	---	---	---	---	0.38
8	---	---	---	---	---	---	---	---	---	---	0.26	0.38
9	---	---	---	---	---	---	---	---	---	---	0.25	0.37
10	---	---	---	---	---	---	---	---	---	---	0.24	0.36
11	---	---	---	---	---	---	---	---	---	---	0.23	0.34
12	---	---	---	---	---	---	---	---	---	---	0.21	0.35
13	---	---	---	---	---	---	---	---	---	---	0.19	0.36
14	---	---	---	---	---	---	---	---	---	---	0.17	0.34
15	---	---	---	---	---	---	---	---	---	---	0.16	0.37
16	---	---	---	---	---	---	---	---	---	---	0.20	0.42
17	---	---	---	---	---	---	---	---	---	---	0.33	0.43
18	---	---	---	---	---	---	---	---	---	---	0.33	0.39
19	---	---	---	---	---	---	---	---	---	---	0.32	0.38
20	---	---	---	---	---	---	---	---	---	---	0.30	0.39
21	---	---	---	---	---	---	---	---	---	---	0.29	0.39
22	---	---	---	---	---	---	---	---	---	---	0.28	0.38
23	---	---	---	---	---	---	---	---	---	---	0.27	0.38
24	---	---	---	---	---	---	---	---	---	---	0.25	0.36
25	---	---	---	---	---	---	---	---	---	---	0.25	0.37
26	---	---	---	---	---	---	---	---	---	---	0.24	0.35
27	---	---	---	---	---	---	---	---	---	---	0.29	0.35
28	---	---	---	---	---	---	---	---	---	---	0.31	0.36
29	---	---	---	---	---	---	---	---	---	---	0.33	0.36
30	---	---	---	---	---	---	---	---	---	---	0.32	0.36
31	---	---	---	---	---	---	---	---	---	---	0.37	0.35
MEAN	---	---	---	---	---	---	---	---	---	---	---	0.39
MAX	---	---	---	---	---	---	---	---	---	---	---	0.65
MIN	---	---	---	---	---	---	---	---	---	---	---	0.34



0209695780 BROOKS CREEK AT EDDIE PERRY ROAD NEAR BYNUM, NC—Continued

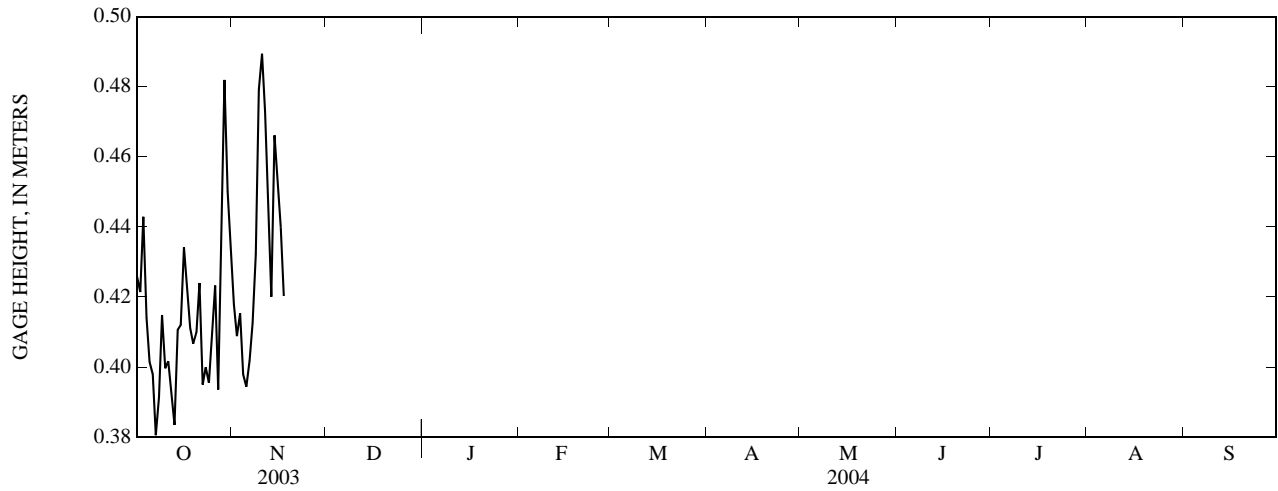
GAGE HEIGHT, ABOVE DATUM, METERS
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.34	0.51	0.51	0.54	0.60	0.72	0.58	0.48	0.50	0.46	0.48	0.47
2	0.33	0.50	0.51	0.57	0.58	0.80	0.55	0.47	0.48	0.62	0.52	0.46
3	0.33	0.48	0.50	0.57	0.56	0.70	0.54	0.47	0.47	0.58	0.52	0.45
4	0.32	0.47	0.52	0.58	0.57	0.64	0.53	0.48	0.46	0.50	0.49	0.45
5	0.31	0.47	0.70	0.56	0.60	0.65	0.53	0.50	0.46	0.48	0.52	0.44
6	0.31	0.66	0.72	0.55	0.60	0.89	0.54	0.51	0.47	0.46	---	0.43
7	0.31	0.57	0.71	0.56	0.84	0.73	0.77	0.49	0.48	0.46	0.50	0.43
8	0.32	0.52	0.63	0.54	0.68	0.66	0.69	0.47	0.50	0.46	0.52	0.43
9	0.32	0.49	0.60	0.52	0.63	0.62	1.13	0.47	0.50	0.45	0.53	0.42
10	0.33	0.47	0.57	0.52	0.65	0.61	1.41	0.46	0.47	0.47	0.56	0.43
11	0.88	0.46	0.62	0.54	0.66	0.60	0.82	0.46	0.46	0.45	0.54	0.42
12	0.56	0.62	0.60	0.55	0.62	0.59	0.66	0.46	0.46	0.49	0.51	0.42
13	0.47	0.67	0.81	0.55	0.61	0.57	0.59	0.47	0.46	0.46	0.50	0.40
14	0.46	0.57	0.70	0.54	0.60	0.59	0.57	0.46	0.46	0.46	0.52	0.42
15	0.45	0.53	0.60	0.55	0.58	0.59	0.55	0.45	0.46	0.46	0.53	0.41
16	0.63	0.50	0.56	0.55	0.61	0.92	0.54	0.46	0.47	0.45	0.52	0.42
17	0.52	0.73	0.55	0.55	0.63	0.68	0.53	0.46	0.48	0.46	0.51	0.42
18	0.48	0.65	0.54	0.57	0.67	0.66	0.54	0.47	0.47	0.46	0.50	0.42
19	0.46	0.57	0.53	0.56	0.74	0.63	0.54	0.49	0.60	0.45	0.50	0.46
20	0.44	0.54	0.60	0.54	0.70	1.28	0.53	0.46	0.74	0.45	0.50	0.44
21	0.43	0.53	0.58	0.55	0.66	0.76	0.52	0.46	0.58	0.45	0.49	0.42
22	0.46	0.52	0.55	0.55	0.93	0.66	0.51	0.69	0.52	0.44	0.51	0.43
23	0.48	0.53	0.54	0.57	0.79	0.61	0.51	0.66	0.50	0.51	0.47	0.57
24	0.46	0.51	0.64	0.58	0.67	0.59	0.50	0.55	0.49	0.47	0.47	0.48
25	0.45	0.50	0.78	0.57	0.64	0.57	0.49	0.72	0.48	0.45	0.46	0.45
26	0.45	0.50	0.64	0.56	0.64	0.56	0.50	0.58	0.46	0.46	0.45	0.44
27	0.44	0.50	0.59	0.57	0.93	0.56	0.55	0.52	0.44	0.46	0.43	0.44
28	0.47	0.52	0.57	0.57	0.90	0.55	0.50	0.50	0.45	0.44	0.44	0.42
29	0.63	0.52	0.55	0.55	---	0.52	0.49	0.49	0.46	0.44	0.43	0.42
30	0.60	0.49	0.55	0.58	---	0.71	0.48	0.48	0.45	0.60	0.43	0.43
31	0.54	---	0.53	0.67	---	0.66	---	0.49	---	0.50	0.45	---
MEAN	0.45	0.54	0.60	0.56	0.67	0.67	0.61	0.50	0.49	0.48	0.49	0.44
MAX	0.88	0.73	0.81	0.67	0.93	1.28	1.41	0.72	0.74	0.62	0.56	0.57
MIN	0.31	0.46	0.50	0.52	0.56	0.52	0.48	0.45	0.44	0.44	0.43	0.40



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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.43	0.42	---	---	---	---	---	---	---	---	---	---
2	0.42	0.41	---	---	---	---	---	---	---	---	---	---
3	0.44	0.42	---	---	---	---	---	---	---	---	---	---
4	0.41	0.40	---	---	---	---	---	---	---	---	---	---
5	0.40	0.39	---	---	---	---	---	---	---	---	---	---
6	0.40	0.40	---	---	---	---	---	---	---	---	---	---
7	0.38	0.41	---	---	---	---	---	---	---	---	---	---
8	0.39	0.43	---	---	---	---	---	---	---	---	---	---
9	0.41	0.48	---	---	---	---	---	---	---	---	---	---
10	0.40	0.49	---	---	---	---	---	---	---	---	---	---
11	0.40	0.47	---	---	---	---	---	---	---	---	---	---
12	0.39	0.45	---	---	---	---	---	---	---	---	---	---
13	0.38	0.42	---	---	---	---	---	---	---	---	---	---
14	0.41	0.47	---	---	---	---	---	---	---	---	---	---
15	0.41	0.45	---	---	---	---	---	---	---	---	---	---
16	0.43	0.44	---	---	---	---	---	---	---	---	---	---
17	0.42	0.42	---	---	---	---	---	---	---	---	---	---
18	0.41	---	---	---	---	---	---	---	---	---	---	---
19	0.41	---	---	---	---	---	---	---	---	---	---	---
20	0.41	---	---	---	---	---	---	---	---	---	---	---
21	0.42	---	---	---	---	---	---	---	---	---	---	---
22	0.39	---	---	---	---	---	---	---	---	---	---	---
23	0.40	---	---	---	---	---	---	---	---	---	---	---
24	0.40	---	---	---	---	---	---	---	---	---	---	---
25	0.41	---	---	---	---	---	---	---	---	---	---	---
26	0.42	---	---	---	---	---	---	---	---	---	---	---
27	0.39	---	---	---	---	---	---	---	---	---	---	---
28	0.45	---	---	---	---	---	---	---	---	---	---	---
29	0.48	---	---	---	---	---	---	---	---	---	---	---
30	0.45	---	---	---	---	---	---	---	---	---	---	---
31	0.44	---	---	---	---	---	---	---	---	---	---	---
MEAN	0.41	---	---	---	---	---	---	---	---	---	---	---
MAX	0.48	---	---	---	---	---	---	---	---	---	---	---
MIN	0.38	---	---	---	---	---	---	---	---	---	---	---



0209695780 BROOKS CREEK AT EDDIE PERRY ROAD NEAR BYNUM, NC—Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: August 2002 to November 2003.

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

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

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum recorded, 28.7°C, Aug. 15, 2002; minimum recorded, 0.0°C, Jan. 19, 23-26, 28, Feb. 17, 2003.

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

Date	Time	Medium code	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd 25 degC (00095)	Temperature, water, deg C (00010)	Chloride, water, fltrd, mg/L (00940)	Sulfate water, fltrd, mg/L (00945)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	
Date		Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Particulate nitrogen, susp, water, mg/L (49570)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inorganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	Biomass periphyton, ashfree drymass g/m2 (49954)	Periphyton biomass ash weight, g/m2 (00572)	Periphyton biomass dry weight, g/m2 (00573)
FEB	21...	--	--	--	--	--	--	--	--	--	--	--	--	--
	21...	0.35	<0.008	<0.02	0.04	0.021	0.63	0.2	<0.1	0.2	4.6	--	--	--
MAY	14...	--	--	--	--	--	--	--	--	--	--	7.3	52	59.70
JUN	11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL	01...	--	--	--	--	--	--	--	--	--	--	--	--	--
	01...	0.43	<0.008	<0.02	0.06	0.024	0.70	0.5	<0.1	0.5	3.9	--	--	--
Date		Biomass chlorophyll ratio, periphyton, number (70950)	Pheophytin a, periphyton, mg/m2 (62359)	E coli, modif. m-TEC, water, col/100 mL (90902)	Chlorophyll a periphyton, chromo-fluoro, mg/m2 (70957)	1-Naphthol, water, fltrd 0.7u GF (49295)	2,6-Diethyl-aniline water fltrd 0.7u GF (82660)	2-[(2-Et-6-Me-Ph)-amino]propan-1-ol, ug/L (61615)	2Chloro-2,6'-diethyl acetanilide wat flt ug/L (61618)	CIAT, water, fltrd, ug/L (04040)	2-Ethyl-6-methyl-aniline water, fltrd, ug/L (61620)	3,4-Dichloro-aniline water fltrd, ug/L (61625)	4Chloro 2methyl phenol, water, fltrd, ug/L (61633)	Aceto-chlor, water, fltrd, ug/L (49260)
FEB	21...	--	--	170	--	--	--	--	--	--	--	--	--	--
	21...	--	--	--	--	<0.09	<0.006	<0.1	<0.005	E.002	<0.004	<0.004	<0.006	<0.006
MAY	14...	261	13	--	28.0	--	--	--	--	--	--	--	--	--
JUN	11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL	01...	--	--	120	--	--	--	--	--	--	--	--	--	--
	01...	--	--	--	--	<0.09	<0.006	<0.1	<0.005	E.007	<0.004	<0.004	<0.006	<0.006

0209695780 BROOKS CREEK AT EDDIE PERRY ROAD NEAR BYNUM, NC—Continued

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

Date	Alachlor, water, fltrd, ug/L (46342)	Atrazine, water, fltrd, ug/L (39632)	Azin-phos-methyl oxon, water, fltrd, ug/L (61635)	Azin-phos-methyl, water, fltrd, 0.7u GF ug/L (82686)	Ben-flur-alin, water, fltrd, 0.7u GF ug/L (82673)	Car-baryl, water, fltrd, 0.7u GF ug/L (82680)	Chlor-pyri-fos oxon, water, fltrd, ug/L (61636)	Chlor-pyri-fos water, fltrd, ug/L (38933)	cis-Per-methrin water fltrd, 0.7u GF ug/L (82687)	Cyflu-thrin, water, fltrd, ug/L (61585)	Cy-per-methrin water, fltrd, ug/L (61586)	DCPA, water fltrd, 0.7u GF ug/L (82682)	Desulf-inyl fipronil, water, fltrd, ug/L (62170)
FEB 21...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	<0.004	<0.007	<0.02	<0.050	<0.010	<0.041	<0.06	<0.005	<0.006	<0.008	<0.009	<0.003	<0.004
MAY 14...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 01...	--	--	--	--	--	--	--	--	--	--	--	--	--
01...	<0.004	E.005	<0.02	<0.050	<0.010	<0.041	<0.06	<0.005	<0.006	<0.008	<0.009	<0.003	<0.004
Date	Diaz-inon oxon, water, fltrd, ug/L (61638)	Diazi-non, water, fltrd, ug/L (39572)	Dicro-phos, water, fltrd, ug/L (38454)	Diel-drin, water, fltrd, ug/L (39381)	Dimeth-oate, water, fltrd, 0.7u GF ug/L (82662)	Ethion monoxon, water, fltrd, ug/L (61644)	Ethion, water, fltrd, ug/L (82346)	Fenami-phos sulfone water, fltrd, ug/L (61645)	Fenami-phos sulf-oxide, water, fltrd, ug/L (61646)	Fenami-phos, water, fltrd, ug/L (61591)	Desulf-inyl-fipronil amide, wat flit ug/L (62169)	Fipronil sulfide water, fltrd, ug/L (62167)	Fipronil sulfone water, fltrd, ug/L (62168)
FEB 21...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	<0.04	<0.005	<0.08	<0.005	<0.006	<0.03	<0.004	<0.008	<0.03	<0.03	<0.009	<0.005	<0.005
MAY 14...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 01...	--	--	--	--	--	--	--	--	--	--	--	--	--
01...	<0.01	<0.005	<0.08	<0.005	<0.006	<0.03	<0.004	<0.008	<0.03	<0.03	<0.009	<0.005	<0.005
Date	Fipronil, water, fltrd, ug/L (62166)	Fonofos oxon, water, fltrd, ug/L (61649)	Fonofos, water, fltrd, ug/L (04095)	Hexa-zinone, water, fltrd, ug/L (04025)	Ipro-dione, water, fltrd, ug/L (61593)	Isofen-phos, water, fltrd, ug/L (61594)	Mal-a-oxon, water, fltrd, ug/L (61652)	Mal-a-thion, water, fltrd, ug/L (39532)	Meta-laxyl, water, fltrd, ug/L (61596)	Methi-althion water, fltrd, ug/L (61598)	Methyl para-oxon, water, fltrd, ug/L (61664)	Methyl para-thion, water, fltrd, 0.7u GF ug/L (82667)	Metola-chlor, water, fltrd, ug/L (39415)
FEB 21...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	<0.007	<0.002	<0.003	--	<1	<0.003	<0.008	<0.027	<0.005	<0.006	<0.03	<0.006	<0.013
MAY 14...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 01...	--	--	--	--	--	--	--	--	--	--	--	--	--
01...	<0.007	<0.002	<0.003	<0.013	<1	<0.003	<0.008	<0.027	<0.005	<0.006	<0.03	<0.006	<0.013
Date	Metri-buzin, water, fltrd, ug/L (82630)	Myclo-butanil water, fltrd, ug/L (61599)	Pendi-meth-alin, water, fltrd, 0.7u GF ug/L (82683)	Phorate oxon, water, fltrd, ug/L (61666)	Phorate water fltrd, 0.7u GF ug/L (82664)	Phosmet oxon, water, fltrd, ug/L (61668)	Phosmet, water, fltrd, ug/L (61601)	Prome-ton, water, fltrd, ug/L (04037)	Prome-tryn, water, fltrd, ug/L (04036)	Pron-amide, water, fltrd, 0.7u GF ug/L (82676)	Sima-zine, water, fltrd, ug/L (04035)	Tebu-thiuron water, fltrd, 0.7u GF ug/L (82670)	Ter-bufos oxon sulfone water, fltrd, ug/L (61674)
FEB 21...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	<0.006	<0.008	<0.022	<0.10	<0.011	<0.06	<0.008	<0.01	<0.005	<0.004	<0.005	<0.02	<0.07
MAY 14...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 01...	--	--	--	--	--	--	--	--	--	--	--	--	--
01...	<0.006	<0.008	<0.022	<0.10	<0.011	<0.06	<0.008	<0.01	<0.005	<0.004	0.006	<0.02	<0.07

0209695780 BROOKS CREEK AT EDDIE PERRY ROAD NEAR BYNUM, NC—Continued

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

Date	Terbu- fos, water, fltrd 0.7u GF (82675)	Ter- buthyl- azine, water, fltrd, ug/L (04022)	Tri- flur- alin, water, fltrd 0.7u GF (82661)	Di- chlor- vos, water fltrd, ug/L (38775)	Suspnd. sedi- ment, sieve diametr percent <.063mm (70331)	Sus- pended sedi- ment concentration mg/L (80154)
FEB						
21...	--	--	--	--	--	--
21...	<0.02	<0.01	<0.009	<0.01	95	6
MAY						
14...	--	--	--	--	--	--
JUN						
11...	--	--	--	--	--	--
JUL						
01...	--	--	--	--	--	--
01...	<0.02	<0.01	<0.009	<0.01	91	4

Remark codes used in this table:

- < -- Less than
- E -- Estimated value

Medium codes used in this table:

- 9 -- Surface water
- D -- Plant tissue

TEMPERATURE, WATER, DEGREES CELSIUS
AUGUST TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	JUNE			JULY			AUGUST			SEPTEMBER		
				MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	---	---	---	21.2	20.2	20.6			
2	---	---	---	---	---	---	---	---	---	21.1	19.9	20.4			
3	---	---	---	---	---	---	---	---	---	22.8	19.2	20.8			
4	---	---	---	---	---	---	---	---	---	24.4	20.8	22.4			
5	---	---	---	---	---	---	---	---	---	23.8	21.1	22.5			
6	---	---	---	---	---	---	---	---	---	22.1	19.0	20.6			
7	---	---	---	---	---	---	---	22.7	19.8	21.4	21.5	18.8	20.1		
8	---	---	---	---	---	---	---	21.7	17.6	19.9	21.2	18.0	19.7		
9	---	---	---	---	---	---	---	21.6	17.0	19.5	21.6	19.0	20.3		
10	---	---	---	---	---	---	---	22.4	16.8	19.9	22.7	19.8	21.1		
11	---	---	---	---	---	---	---	24.0	17.6	20.9	22.3	19.2	20.8		
12	---	---	---	---	---	---	---	25.6	18.9	22.5	20.8	17.8	19.4		
13	---	---	---	---	---	---	---	27.0	20.0	23.6	20.0	16.8	18.6		
14	---	---	---	---	---	---	---	26.9	20.2	23.5	20.6	19.0	19.7		
15	---	---	---	---	---	---	---	28.7	22.6	24.7	22.2	20.6	21.2		
16	---	---	---	---	---	---	---	24.8	23.0	23.8	23.0	21.2	21.9		
17	---	---	---	---	---	---	---	25.4	22.8	24.0	23.0	20.9	21.9		
18	---	---	---	---	---	---	---	26.5	23.3	24.7	22.0	21.3	21.7		
19	---	---	---	---	---	---	---	25.7	23.0	24.3	22.8	21.4	22.0		
20	---	---	---	---	---	---	---	26.3	22.6	24.3	22.5	20.6	21.5		
21	---	---	---	---	---	---	---	26.0	23.0	24.6	22.1	19.9	21.1		
22	---	---	---	---	---	---	---	26.7	23.9	25.1	22.8	20.4	21.5		
23	---	---	---	---	---	---	---	27.2	23.5	25.5	21.8	20.3	21.1		
24	---	---	---	---	---	---	---	27.4	23.8	25.3	20.9	19.0	20.0		
25	---	---	---	---	---	---	---	26.3	22.6	24.6	20.2	18.5	19.4		
26	---	---	---	---	---	---	---	24.1	22.6	23.3	20.1	19.2	19.6		
27	---	---	---	---	---	---	---	22.6	21.6	22.1	22.4	19.8	21.1		
28	---	---	---	---	---	---	---	21.6	20.8	21.2	22.2	20.9	21.4		
29	---	---	---	---	---	---	---	21.3	20.4	20.8	21.3	19.2	20.4		
30	---	---	---	---	---	---	---	20.9	20.2	20.5	19.7	17.4	18.8		
31	---	---	---	---	---	---	---	20.4	20.1	20.3	---	---	---		
MONTH	---	---	---	---	---	---	---	---	---	---	24.4	16.8	20.7		

0209695780 BROOKS CREEK AT EDDIE PERRY ROAD NEAR BYNUM, NC—Continued

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	20.8	18.5	19.6	11.1	9.3	10.2	6.8	4.4	5.7	11.7	8.5	10.2
2	21.3	18.6	20.0	10.3	8.4	9.2	4.5	3.4	4.1	10.0	8.5	9.1
3	21.8	19.4	20.6	9.9	8.6	9.3	5.7	4.4	4.9	9.6	8.0	9.1
4	22.2	19.8	21.0	10.9	9.8	10.3	4.7	2.0	3.7	8.0	5.3	6.7
5	22.9	20.7	21.8	11.2	10.9	11.0	4.0	1.4	2.6	6.2	4.0	5.0
6	21.8	19.2	20.5	12.4	11.1	11.7	5.2	4.0	4.5	6.5	4.8	5.5
7	21.0	18.7	19.9	11.3	9.5	10.4	4.6	2.7	3.7	5.2	2.9	3.9
8	20.0	16.8	17.8	10.6	7.9	9.2	5.1	2.9	4.0	6.2	3.6	4.7
9	17.7	16.2	16.9	12.0	9.0	10.3	5.5	4.4	4.9	8.6	5.3	6.7
10	18.2	16.2	17.1	14.2	11.4	12.5	5.3	4.2	4.7	8.0	6.5	7.4
11	19.6	17.8	18.8	15.8	14.2	15.2	5.8	5.0	5.5	6.5	3.9	4.8
12	20.7	19.2	19.8	15.7	14.1	15.2	8.0	5.6	6.5	4.2	2.1	3.0
13	19.7	18.8	19.3	14.1	11.6	13.2	6.5	6.1	6.2	3.7	1.5	2.6
14	19.3	16.1	17.6	11.7	9.5	10.7	7.8	6.4	7.0	4.7	2.0	3.3
15	16.1	14.5	14.9	11.7	8.9	10.3	7.1	5.2	6.2	4.5	2.6	3.3
16	16.1	14.5	15.4	12.7	11.4	12.0	7.8	4.8	6.3	3.3	1.3	2.3
17	15.5	13.9	14.8	12.5	11.1	12.0	6.8	4.9	5.9	3.2	2.0	2.6
18	14.4	12.0	13.2	11.1	8.9	9.9	7.3	5.1	6.1	2.4	0.1	0.9
19	13.6	11.3	12.6	9.8	7.3	8.6	8.0	6.5	7.1	1.2	0.0	0.5
20	15.1	13.2	14.0	10.2	7.6	8.8	10.7	8.0	9.8	3.5	0.3	1.6
21	15.4	14.2	15.0	10.7	8.9	9.7	8.9	6.4	7.5	3.4	2.2	2.7
22	14.2	13.4	13.7	10.4	9.0	9.7	8.1	5.1	6.5	3.0	1.1	2.1
23	13.7	12.3	13.1	9.0	6.9	7.7	7.4	5.1	6.3	2.9	0.0	1.2
24	13.6	13.1	13.4	8.4	6.1	7.3	7.0	6.0	6.4	0.8	0.0	0.3
25	13.5	13.3	13.4	8.7	7.0	7.9	7.1	5.9	6.7	1.1	0.0	0.4
26	14.2	13.0	13.6	8.7	7.3	7.9	6.0	4.7	5.4	1.6	0.0	0.7
27	14.7	13.7	14.1	8.2	6.9	7.7	5.3	3.2	4.3	1.6	0.2	0.9
28	14.7	14.0	14.4	6.9	4.7	5.6	5.1	2.6	3.9	1.4	0.0	0.6
29	14.0	12.7	13.3	4.7	3.6	4.2	6.1	3.0	4.4	3.7	1.4	2.3
30	12.7	11.8	12.1	7.1	4.6	6.0	6.7	3.7	5.1	3.8	3.3	3.7
31	12.1	10.8	11.4	---	---	---	8.6	5.2	6.7	3.8	2.9	3.3
MONTH	22.9	10.8	16.2	15.8	3.6	9.8	10.7	1.4	5.6	11.7	0.0	3.6
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	6.0	3.8	4.6	7.9	6.4	7.1	14.1	8.2	11.0	19.1	16.6	17.8
2	6.1	3.5	4.6	10.1	7.5	8.7	17.4	11.3	14.1	20.2	16.5	18.4
3	7.8	3.8	5.6	10.4	7.4	8.9	18.8	12.8	15.7	19.2	17.4	18.1
4	10.5	7.5	8.7	10.6	6.5	8.6	18.1	13.9	16.1	17.6	15.4	16.3
5	7.8	5.2	6.5	12.5	9.7	10.9	17.5	14.8	16.0	15.4	13.6	14.1
6	6.0	4.3	4.8	12.3	11.1	11.7	17.2	13.6	15.4	16.1	13.8	14.9
7	5.7	4.2	4.9	11.8	7.7	9.6	15.5	11.0	12.3	18.6	15.6	16.9
8	5.9	3.7	4.7	11.3	6.1	8.6	11.0	10.3	10.7	20.8	17.3	19.0
9	6.1	3.4	4.5	13.7	8.9	11.1	10.4	9.5	10	21.5	18.6	20.1
10	5.6	4.4	4.8	12.5	8.8	10.5	10.1	9.0	9.4	22.0	19.5	20.8
11	6.5	3.1	4.7	10.8	7.4	9.0	10.7	9.4	9.9	21.2	19.8	20.5
12	7.1	3.6	5.1	13.4	7.1	10.1	14.7	9.3	11.8	20.3	17.7	19.0
13	6.0	2.4	4.2	14.7	9.6	12.0	15.9	10.9	13.4	19.0	16.0	17.5
14	5.3	3.3	4.3	14.2	11.3	12.7	16.3	11.7	14.0	18.5	14.7	16.7
15	6.9	5.3	6.1	11.3	9.6	10.1	17.9	12.7	15.2	17.4	16.3	16.8
16	6.2	0.5	3.7	11.3	9.8	10.5	19.0	13.8	16.2	18.0	15.7	16.8
17	2.0	0.0	0.9	13.2	11.3	12.1	18.6	14.1	16.3	17.8	16.0	16.9
18	6.3	2.0	3.6	13.8	12.3	13.0	15.9	12.4	13.4	16.0	14.4	15.1
19	5.6	2.6	4.0	13.2	11.4	12.4	12.9	11.8	12.3	14.8	13.8	14.3
20	7.1	4.8	5.8	11.4	9.6	10.3	15.3	12.0	13.4	17.5	13.5	15.4
21	6.7	5.2	6.1	13.2	10.1	11.4	15.2	13.0	14.1	16.8	15.4	16.1
22	8.7	6.6	7.5	14.5	10.6	12.6	16.9	14.2	15.3	16.4	15.6	15.9
23	9.9	7.6	8.9	14.8	10.5	12.7	16.0	12.0	14.1	16.1	15.6	15.9
24	9.8	5.6	7.7	16.3	11.2	13.6	15.1	11.1	13.2	17.4	15.8	16.5
25	9.6	6.8	8.2	16.8	10.7	13.7	14.2	13.2	13.7	17.9	16.2	17.0
26	8.0	5.6	6.6	18.0	12.5	15.1	15.4	13.8	14.4	18.7	17.4	18.0
27	5.6	4.2	4.9	17.5	13.4	15.3	16.5	13.5	14.9	18.1	16.7	17.4
28	6.4	4.2	5.3	17.4	12.8	15.2	17.8	13.4	15.5	18.0	14.9	16.5
29	---	---	---	19.2	15.6	17.1	18.8	14.7	16.8	17.3	15.6	16.5
30	---	---	---	17.5	10.6	13.4	18.7	16.1	17.5	18.2	15.0	16.6
31	---	---	---	12.2	8.7	10.4	---	---	---	17.9	15.9	16.9
MONTH	10.5	0.0	5.4	19.2	6.1	11.6	19.0	8.2	13.9	22.0	13.5	17.1

02096960 HAW RIVER NEAR BYNUM, NC

LOCATION.--Lat 35°45'49", long 79°08'01", Chatham County, Hydrologic Unit 03030002, on right bank 500 ft upstream from Pokeberry Creek, 0.9 mi south of Bynum, and 1.1 mi downstream of U.S. Highways 15 and 501.

DRAINAGE AREA.--1,275 mi².

WATER-DISCHARGE RECORDS

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

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

GAGE.--Water-stage recorder. Datum of gage is 283.31 ft above NGVD of 1929. U.S. Army Corps of Engineers satellite telemetry at station.

REMARKS.--No estimated daily discharges. Records good. Considerable regulation for short periods at low flow caused by power plant above station.

Maximum discharge for period of record, from rating curve extended above 36,000 ft³/s, on basis of slope-conveyance measurement of peak flow; maximum gage height, 21.76 ft, from floodmarks. Minimum discharge for period of record also occurred Sept. 27, 1983. Minimum discharge for each year affected by regulation. Minimum discharge for current water year also occurred Oct. 9, 10.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	159	1,580	476	1,590	2,470	6,500	2,810	1,590	2,620	938	1,940	6,350
2	163	1,090	455	5,140	1,720	7,900	2,070	1,440	2,180	3,890	3,170	2,710
3	155	853	460	3,070	1,180	6,250	1,730	1,240	1,530	8,060	1,710	1,160
4	141	585	462	2,890	977	3,300	1,360	1,260	1,780	3,510	4,990	838
5	134	596	3,330	2,170	1,310	2,750	1,190	1,140	5,010	2,140	6,620	5,160
6	119	2,080	5,210	1,570	1,150	4,070	1,190	1,230	3,520	1,650	8,200	2,630
7	109	3,050	3,850	1,260	2,650	5,360	6,240	1,800	4,030	1,550	3,170	1,560
8	106	1,460	2,650	1,140	4,270	3,090	12,200	1,330	16,100	2,000	2,260	1,180
9	106	988	2,080	1,020	2,420	2,250	18,400	1,120	8,860	1,760	2,500	936
10	115	715	1,800	921	1,730	1,700	26,700	1,020	4,970	1,550	7,560	798
11	11,700	665	2,190	802	1,830	1,390	33,300	942	3,070	1,340	3,890	677
12	20,700	2,070	5,340	747	1,270	1,390	14,000	877	2,440	1,200	2,810	592
13	3,160	8,720	5,450	678	1,070	1,070	6,070	796	4,240	1,080	2,310	522
14	2,940	3,560	11,300	674	888	1,140	3,920	742	2,850	9,760	2,300	481
15	1,970	2,130	5,030	670	882	1,330	2,980	681	1,920	5,290	1,700	498
16	3,370	1,390	3,130	659	910	6,310	2,440	2,720	3,410	2,060	1,280	542
17	5,350	10,300	2,140	625	1,090	7,990	2,110	2,370	8,130	2,500	1,090	604
18	1,990	9,270	1,610	605	1,070	4,160	1,810	1,290	4,400	1,850	2,270	850
19	1,140	4,090	1,320	607	2,250	2,890	1,700	2,030	3,500	1,380	2,820	5,000
20	785	2,300	1,330	541	2,310	19,800	2,170	2,340	4,520	1,280	1,510	3,590
21	606	1,670	2,830	548	1,920	31,100	1,860	1,630	3,300	950	949	1,670
22	618	1,340	1,790	557	3,220	11,200	1,710	5,660	2,100	751	801	1,210
23	630	1,080	1,250	538	9,360	4,880	1,610	12,400	1,620	1,990	882	9,460
24	605	839	1,300	512	5,700	3,080	1,400	7,070	1,330	2,370	2,260	12,700
25	485	757	8,430	527	3,300	2,100	1,270	5,800	1,130	1,270	1,500	5,530
26	409	600	6,390	478	2,310	1,650	1,360	12,700	1,000	899	957	2,840
27	327	607	3,130	508	3,620	1,420	2,050	10,200	915	734	732	1,790
28	412	554	2,070	486	10,600	1,230	2,320	6,670	885	654	626	1,310
29	3,830	522	1,600	477	---	1,080	1,580	4,040	1,910	606	536	1,020
30	5,070	499	1,280	648	---	2,300	1,350	2,970	1,070	1,460	491	781
31	2,910	---	1,110	3,830	---	5,450	---	2,470	---	1,390	1,260	---
TOTAL	70,314	65,960	90,793	36,488	73,477	156,130	160,900	99,568	104,340	67,862	75,094	74,989
MEAN	2,268	2,199	2,929	1,177	2,624	5,036	5,363	3,212	3,478	2,189	2,422	2,500
MAX	20,700	10,300	11,300	5,140	10,600	31,100	33,300	12,700	16,100	9,760	8,200	12,700
MIN	106	499	455	477	882	1,070	1,190	681	885	606	491	481
CFSM	1.78	1.72	2.30	0.92	2.06	3.95	4.21	2.52	2.73	1.72	1.90	1.96
IN.	2.05	1.92	2.65	1.06	2.14	4.56	4.69	2.91	3.04	1.98	2.19	2.19

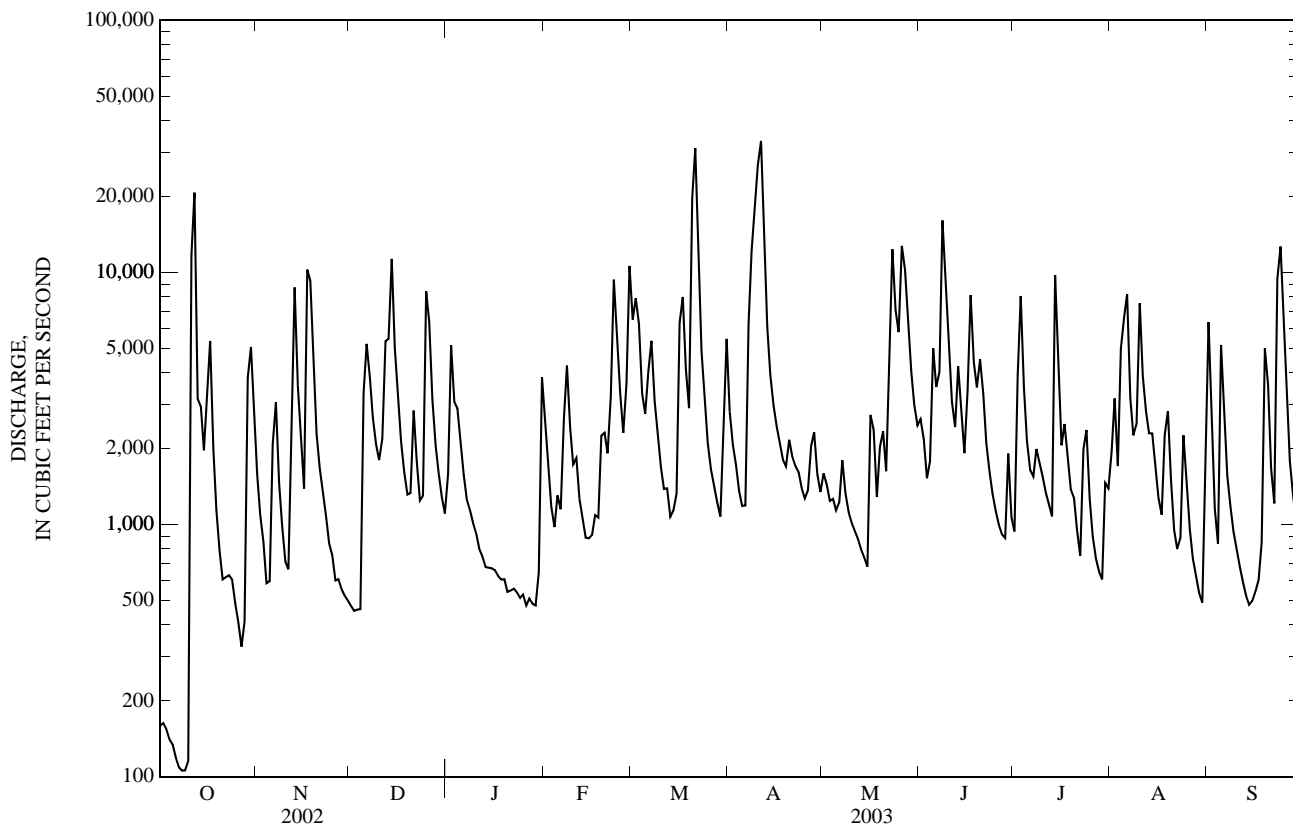
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1973 - 2003, BY WATER YEAR (WY)

MEAN	692	744	1,131	2,152	2,138	2,582	1,786	1,161	930	806	608	941
MAX	2,906	2,888	2,929	5,895	5,465	6,110	5,363	3,936	4,632	4,477	2,422	4,904
(WY)	(1991)	(1986)	(2003)	(1978)	(1979)	(1975)	(2003)	(1978)	(1982)	(1975)	(2003)	(1996)
MIN	129	109	218	262	537	648	380	171	109	135	113	111
(WY)	(2002)	(2002)	(2002)	(1981)	(2002)	(1988)	(2002)	(2002)	(2002)	(1986)	(2002)	(1983)

02096960 HAW RIVER NEAR BYNUM, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1973 - 2003	
ANNUAL TOTAL	348,234		1,075,915		1,302	
ANNUAL MEAN	954		2,948		2,948	
HIGHEST ANNUAL MEAN					370	2003
LOWEST ANNUAL MEAN					58,000	2002
HIGHEST DAILY MEAN	20,700	Oct 12	33,300	Apr 11	76,700*	Sep 6, 1996
LOWEST DAILY MEAN	60	Jul 9	106	Oct 8	0.18	Sep 10, 1983
ANNUAL SEVEN-DAY MINIMUM	78	Aug 9	119	Oct 4	46	Sep 7, 1983
MAXIMUM PEAK FLOW			41,100	Mar 21	76,700*	Sep 6, 199
MAXIMUM PEAK STAGE			16.87	Mar 21	21.76*	Sep 6, 1996
INSTANTANEOUS LOW FLOW			105*	Oct 8	0.18*	Sep 10, 1983
ANNUAL RUNOFF (CFSM)	0.75		2.31		1.02	
ANNUAL RUNOFF (INCHES)	10.16		31.39		13.87	
10 PERCENT EXCEEDS	2,330		6,370		2,840	
50 PERCENT EXCEEDS	301		1,700		574	
90 PERCENT EXCEEDS	96		556		159	

* See REMARKS.



WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1982-86, 1989-1996, 1998, 2002, to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1981 to September 1984.

WATER TEMPERATURE: October 1981 to September 1984.

INSTRUMENTATION.-- Water-quality monitor from October 1981 to September 1984.

REMARKS.--Station operated in cooperation with the Upper Cape Fear River Basin Association to assess constituent loads.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 514 microsiemens, Sept. 19, 1983; minimum, 46 microsiemens, March 21, 1983.

WATER TEMPERATURE: Maximum, 35.0°C, July 21, 1983; minimum, 0.0°C, on several days during winter months in water years 1982 and 1984.

02096960 HAW RIVER NEAR BYNUM, NC—Continued

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

Date	Time	Instantaneous discharge, cfs (00061)	Turbidity, wat unflab, Hach 2100AN NTU (99872)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Calcium, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unfltrd, titr., mg/L as CaCO ₃ (00419)	Chloride, water, fltrd, mg/L (00940)
OCT													
01...	1145	171	--	762	8.0	7.7	469	23.3	--	--	--	51	--
07...	1100	109	--	756	7.6	7.7	444	24.1	--	--	--	62	--
15...	1430	1,630	--	760	8.5	7.2	152	18.0	--	--	--	28	--
22...	1330	613	--	759	9.3	8.2	58	15.1	--	--	--	27	--
29...	0915	3,320	--	--	10.0	8.5	192	14.2	--	--	--	35	--
NOV													
05...	1100	571	--	758	9.7	7.3	138	12.1	--	--	--	--	--
12...	0900	723	--	754	10.0	7.4	144	14.9	--	--	--	29	--
19...	1145	4,140	--	762	10.8	6.9	91	10.6	--	--	--	25	--
26...	1000	619	--	760	11.2	7.0	161	8.9	--	--	--	39	--
DEC													
03...	0845	441	--	760	12.8	6.3	213	5.1	--	--	--	48	--
09...	0930	2,080	--	--	13.2	5.6	134	4.3	--	--	--	35	--
17...	0915	2,240	--	762	13.5	5.9	94	5.2	--	--	--	28	--
JAN													
08...	0930	999	--	749	13.2	7.5	111	4.2	--	--	--	37	--
14...	0915	657	--	754	13.8	7.0	152	3.4	--	--	--	32	--
21...	0900	548	--	754	13.9	6.9	196	2.8	--	--	--	32	--
30...	0945	559	--	762	13.1	7.0	222	2.6	--	--	--	80	--
FEB													
05...	0915	1,160	--	759	12.7	7.1	115	6.5	--	--	--	46	--
07...	1145	2,780	36	754	12.3	6.9	123	5.5	6.96	2.90	12.7	53	10.2
11...	0930	2,000	--	758	12.8	6.7	109	4.5	--	--	--	27	--
21...	1200	1,900	--	756	11.7	7.1	320	5.9	--	--	--	25	--
25...	0900	3,400	--	758	12.3	6.7	86	7.2	--	--	--	22	--
MAR													
07...	0915	5,900	--	761	9.9	6.7	97	10.3	--	--	--	22	--
21...	0845	35,400	180	750	11.0	6.5	55	9.1	3.83	1.71	3.14	16	3.84
24...	1200	3,090	--	757	10.6	6.8	69	13.3	--	--	--	16	--
APR													
01...	0915	2,870	--	763	10.6	6.6	87	10.7	--	--	--	20	--
08...	0930	13,600	--	762	11.8	6.3	64	11.6	--	--	--	13	--
10...	1030	23,100	--	743	11.3	6.2	52	9.3	4.15	1.79	3.09	13	2.77
15...	0845	3,040	--	763	10.5	6.7	80	14.2	--	--	--	17	--
22...	0915	1,710	--	749	9.5	7.2	136	15.6	--	--	--	33	--
MAY													
02...	1130	1,410	--	751	9.1	7.6	137	21.2	--	--	--	31	--
09...	1030	1,130	--	757	8.8	7.6	160	21.5	--	--	--	38	--
14...	0845	741	--	756	8.7	7.6	166	31.0	--	--	--	38	--
23...	1000	13,000	86	757	9.6	6.8	64	16.9	5.99	2.48	5.10	25	5.06
28...	0930	7,170	--	753	9.4	6.8	69	18.6	--	--	--	21	--
JUN													
02...	1100	2,170	--	758	8.9	7.3	101	19.2	--	--	--	24	--
13...	0930	4,520	--	756	8.6	7.2	105	23.4	--	--	--	29	--
20...	0930	3,950	--	753	8.9	7.0	94	21.6	--	--	--	23	--
24...	0900	1,360	--	759	9.2	7.3	126	22.8	--	--	--	33	--
JUL													
10...	0915	1,600	--	757	7.6	7.4	142	27.1	--	--	--	33	--
14...	1230	13,800	230	--	8.2	6.8	68	23.3	4.93	1.98	4.47	18	3.78
23...	0900	2,260	--	755	7.5	7.3	141	25.9	--	--	--	23	--
29...	1030	607	--	749	7.7	7.4	141	28.2	--	--	--	34	--
AUG													
05...	0900	5,590	--	--	8.6	7.0	83	24.4	--	--	--	23	--
12...	0930	2,980	--	754	7.3	7.0	88	24.7	--	--	--	21	--
27...	0845	747	--	756	7.6	6.7	109	26.9	--	--	--	31	--
SEP													
03...	0915	1,180	--	758	7.6	6.9	82	26.3	--	--	--	24	--
12...	0900	601	--	757	8.5	7.2	136	21.5	--	--	--	34	--
17...	0915	657	--	760	8.4	7.9	204	22.3	--	--	--	46	--
24...	0915	12,500	--	762	8.6	7.0	67	21.2	--	--	--	21	--

02096960 HAW RIVER NEAR BYNUM, NC—Continued

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

Date	Sulfate water, fltrd, mg/L (00945)	Ammonia	Ammonia water, fltrd, mg/L as N (00608)	Nitrite	Nitrite water, fltrd, mg/L as N (00613)	Ortho-	Phos- phorus, water, unfltrd mg/L (00665)	Alum- inum, water, fltrd, ug/L (01106)	Arsenic water, fltrd, ug/L (01000)	Cadmium water, fltrd, ug/L (01025)	Chrom- ium, water, fltrd, ug/L (01030)	Copper, water, fltrd, ug/L (01040)	Iron, water, fltrd, ug/L (01046)
		+ org-N, water, unfltrd mg/L as N (00625)		+ nitrate water fltrd, mg/L as N (00631)		phos- phate, water, fltrd, mg/L as P (00671)							
OCT													
01...	--	0.92	0.025	2.72	0.012	0.255	--	--	--	--	--	--	--
07...	--	0.83	0.026	3.14	0.016	0.278	--	--	--	--	--	--	--
15...	--	0.81	0.095	1.34	0.013	0.067	--	--	--	--	--	--	--
22...	--	0.60	0.052	0.84	0.011	0.056	--	--	--	--	--	--	--
29...	--	0.89	0.046	1.55	0.013	0.177	--	--	--	--	--	--	--
NOV													
05...	--	0.53	0.020	0.75	0.010	0.069	--	--	--	--	--	--	--
12...	--	0.72	0.025	0.63	0.009	0.080	--	--	--	--	--	--	--
19...	--	0.67	0.063	0.41	0.009	0.034	0.11	--	--	--	--	--	--
26...	--	<0.10	0.023	0.96	0.011	0.044	<0.04	--	--	--	--	--	--
DEC													
03...	--	0.58	<0.015	1.49	0.007	0.109	0.15	--	--	--	--	--	--
09...	--	0.71	0.077	0.73	0.008	0.058	0.12	--	--	--	--	--	--
17...	--	0.60	0.064	0.51	0.008	0.021	0.12	--	--	--	--	--	--
JAN													
08...	--	0.40	0.018	0.60	0.008	0.022	0.07	--	--	--	--	--	--
14...	--	0.48	0.041	1.10	0.022	0.035	0.07	--	--	--	--	--	--
21...	--	0.50	0.018	1.31	0.020	0.032	0.08	--	--	--	--	--	--
30...	--	0.65	0.099	1.45	0.042	0.043	0.08	--	--	--	--	--	--
FEB													
05...	--	0.45	0.018	0.63	0.011	0.015	0.07	--	--	--	--	--	--
07...	13.3	0.85	0.249	0.59	0.030	0.127	0.22	52	E.2	E.03	<0.8	1.7	240
11...	--	0.50	0.062	0.53	0.012	0.023	0.08	--	--	--	--	--	--
21...	--	1.0	0.395	0.92	0.031	0.039	0.10	--	--	--	--	--	--
25...	--	0.68	0.039	0.40	0.008	0.012	0.17	--	--	--	--	--	--
MAR													
07...	--	0.69	0.108	0.41	0.014	0.049	0.15	--	--	--	--	--	--
21...	6.1	1.0	0.105	0.22	0.007	0.024	0.33	77	0.4	<0.04	<0.8	1.8	303
24...	--	0.56	0.039	0.39	0.009	0.015	0.13	--	--	--	--	--	--
APR													
01...	--	0.64	0.066	0.48	0.016	0.031	0.13	--	--	--	--	--	--
08...	--	0.80	0.045	0.30	0.008	0.039	0.19	--	--	--	--	--	--
10...	5.6	0.62	0.056	0.25	0.006	0.068	0.19	96	0.3	<0.04	E.4	2.1	267
15...	--	0.73	0.026	0.40	0.007	0.037	0.09	--	--	--	--	--	--
22...	--	0.46	0.015	0.71	0.009	0.035	0.09	--	--	--	--	--	--
MAY													
02...	--	0.55	<0.015	0.57	0.005	0.049	0.10	--	--	--	--	--	--
09...	--	0.50	E.014	0.98	0.007	0.088	0.13	--	--	--	--	--	--
14...	--	0.47	E.011	0.69	0.006	0.073	0.11	--	--	--	--	--	--
23...	6.8	0.92	0.048	0.53	0.012	0.045	0.24	32	0.3	<0.04	<0.8	2.6	218
28...	--	0.55	0.037	0.31	0.009	0.026	0.07	--	--	--	--	--	--
JUN													
02...	--	0.55	E.013	0.48	0.007	0.033	0.11	--	--	--	--	--	--
13...	--	0.69	0.024	0.52	0.007	0.075	0.20	--	--	--	--	--	--
20...	--	0.92	0.036	0.54	0.010	0.072	0.27	--	--	--	--	--	--
24...	--	0.61	E.009	0.60	0.003	0.040	0.10	--	--	--	--	--	--
JUL													
10...	--	0.48	0.018	1.10	0.007	0.198	0.27	--	--	--	--	--	--
14...	5.2	1.3	0.041	0.33	0.007	0.029	0.44	19	0.5	<0.04	<0.8	2.1	160
23...	--	0.57	E.013	0.80	0.005	0.080	0.17	--	--	--	--	--	--
29...	--	0.53	E.010	0.54	0.004	0.080	0.14	--	--	--	--	--	--
AUG													
05...	--	0.78	0.032	0.38	0.005	0.047	0.19	--	--	--	--	--	--
12...	--	0.62	0.033	0.28	0.005	0.035	0.11	--	--	--	--	--	--
27...	--	0.51	<0.015	0.44	0.004	0.047	0.11	--	--	--	--	--	--
SEP													
03...	--	0.67	0.023	0.43	0.006	0.051	0.13	--	--	--	--	--	--
12...	--	0.47	<0.015	0.75	0.004	0.041	0.10	--	--	--	--	--	--
17...	--	0.79	<0.015	1.12	0.005	0.093	0.28	--	--	--	--	--	--
24...	--	1.0	0.043	0.24	0.007	0.031	0.28	--	--	--	--	--	--

02096960 HAW RIVER NEAR BYNUM, NC—Continued

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

Date	Lead, water, fltrd, ug/L (01049)	Mangan- ese, water, fltrd, ug/L (01056)	Mercury water, fltrd, ug/L (71890)	Nickel, water, fltrd, ug/L (01065)	Sus- pended sedi- ment concen- tration mg/L (80154)	Sus- pended sedi- ment load, tons/d (80155)
OCT						
01...	--	--	--	--	4	1.8
07...	--	--	--	--	5	1.4
15...	--	--	--	--	41	181
22...	--	--	--	--	10	17
29...	--	--	--	--	46	408
NOV						
05...	--	--	--	--	6	9.4
12...	--	--	--	--	55	107
19...	--	--	--	--	30	338
26...	--	--	--	--	5	8.4
DEC						
03...	--	--	--	--	5	6.1
09...	--	--	--	--	12	65
17...	--	--	--	--	51	310
JAN						
08...	--	--	--	--	11	30
14...	--	--	--	--	7	12
21...	--	--	--	--	5	7.5
30...	--	--	--	--	6	8.6
FEB						
05...	--	--	--	--	8	26
07...	0.16	42.5	<0.02	1.28	38	288
11...	--	--	--	--	12	64
21...	--	--	--	--	18	93
25...	--	--	--	--	58	534
MAR						
07...	--	--	--	--	51	809
21...	0.25	138	<0.02	0.73	218	20,800
24...	--	--	--	--	32	267
APR						
01...	--	--	--	--	31	243
08...	--	--	--	--	137	5,040
10...	0.15	39.9	<0.02	0.73	86	5,350
15...	--	--	--	--	28	231
22...	--	--	--	--	19	88
MAY						
02...	--	--	--	--	9	34
09...	--	--	--	--	5	16
14...	--	--	--	--	6	11
23...	0.14	21.3	<0.02	1.02	80	2,820
28...	--	--	--	--	66	1,270
JUN						
02...	--	--	--	--	18	108
13...	--	--	--	--	52	632
20...	--	--	--	--	90	955
24...	--	--	--	--	13	48
JUL						
10...	--	--	--	--	12	52
14...	0.11	36.4	<0.02	0.85	237	8,830
23...	--	--	--	--	352	2,150
29...	--	--	--	--	8	13
AUG						
05...	--	--	--	--	80	1,210
12...	--	--	--	--	27	217
27...	--	--	--	--	15	30
SEP						
03...	--	--	--	--	27	86
12...	--	--	--	--	10	16
17...	--	--	--	--	177	314
24...	--	--	--	--	168	5,670

Remark codes used in this table:

< -- Less than

E -- Estimated value

LOCATION.--Lat 35°46'28", long 79°07'13", Chatham County, Hydrologic Unit 03030002, at bridge on Secondary Road 1711, 1.2 mi above mouth, and 5.0 mi northeast of Pittsboro.

DRAINAGE AREA.--11.6 mi².

GAGE-HEIGHT RECORDS

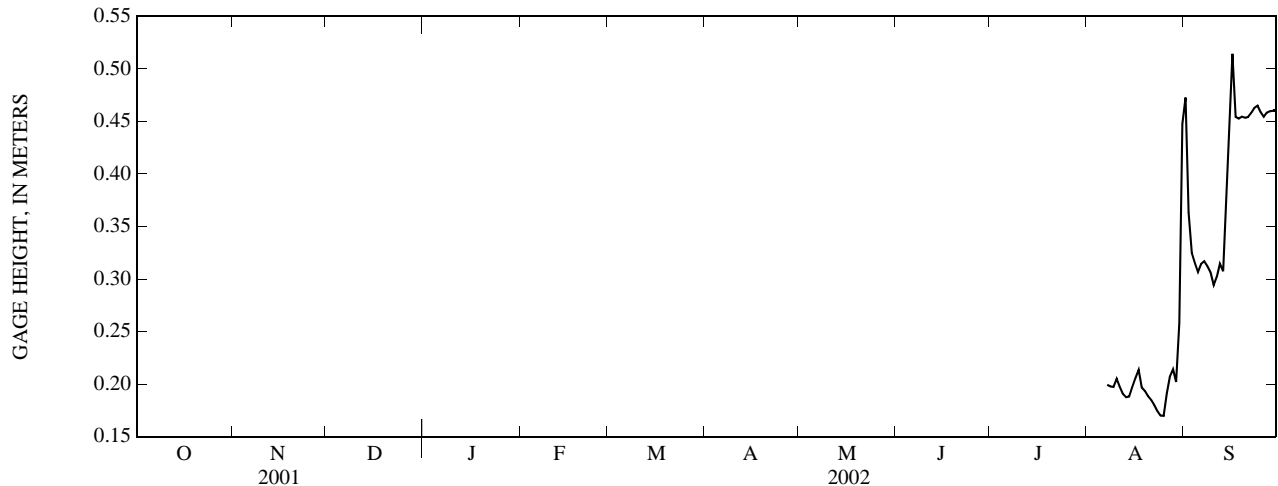
PERIOD OF RECORD.--August 2002 to November 2003 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 320 ft above NGVD of 1929, from topographic map.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height recorded, 2.22 m, April 10, 2003; minimum gage height recorded, 0.11 m, Nov. 11, 2002, Feb. 3, 4, 2003.

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

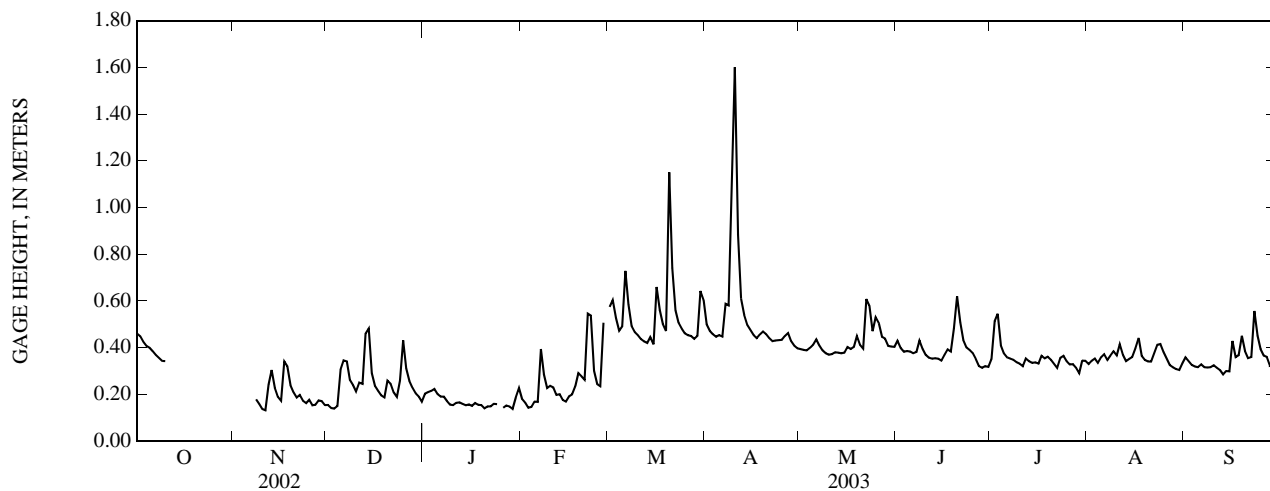
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	---	0.47
2	---	---	---	---	---	---	---	---	---	---	---	0.36
3	---	---	---	---	---	---	---	---	---	---	---	0.32
4	---	---	---	---	---	---	---	---	---	---	---	0.32
5	---	---	---	---	---	---	---	---	---	---	---	0.31
6	---	---	---	---	---	---	---	---	---	---	---	0.31
7	---	---	---	---	---	---	---	---	---	---	0.20	0.32
8	---	---	---	---	---	---	---	---	---	---	0.20	0.31
9	---	---	---	---	---	---	---	---	---	---	0.20	0.31
10	---	---	---	---	---	---	---	---	---	---	0.21	0.29
11	---	---	---	---	---	---	---	---	---	---	0.20	0.30
12	---	---	---	---	---	---	---	---	---	---	0.19	0.31
13	---	---	---	---	---	---	---	---	---	---	0.19	0.31
14	---	---	---	---	---	---	---	---	---	---	0.19	0.37
15	---	---	---	---	---	---	---	---	---	---	0.20	0.45
16	---	---	---	---	---	---	---	---	---	---	0.21	0.51
17	---	---	---	---	---	---	---	---	---	---	0.21	0.45
18	---	---	---	---	---	---	---	---	---	---	0.20	0.45
19	---	---	---	---	---	---	---	---	---	---	0.19	0.45
20	---	---	---	---	---	---	---	---	---	---	0.19	0.45
21	---	---	---	---	---	---	---	---	---	---	0.19	0.45
22	---	---	---	---	---	---	---	---	---	---	0.18	0.46
23	---	---	---	---	---	---	---	---	---	---	0.17	0.46
24	---	---	---	---	---	---	---	---	---	---	0.17	0.47
25	---	---	---	---	---	---	---	---	---	---	0.17	0.46
26	---	---	---	---	---	---	---	---	---	---	0.19	0.45
27	---	---	---	---	---	---	---	---	---	---	0.21	0.46
28	---	---	---	---	---	---	---	---	---	---	0.21	0.46
29	---	---	---	---	---	---	---	---	---	---	0.20	0.46
30	---	---	---	---	---	---	---	---	---	---	0.26	0.46
31	---	---	---	---	---	---	---	---	---	---	0.45	---
MEAN	---	---	---	---	---	---	---	---	---	---	---	0.40
MAX	---	---	---	---	---	---	---	---	---	---	---	0.51
MIN	---	---	---	---	---	---	---	---	---	---	---	0.29



0209697900 POKEBERRY CREEK NEAR PITTSBORO, NC—Continued

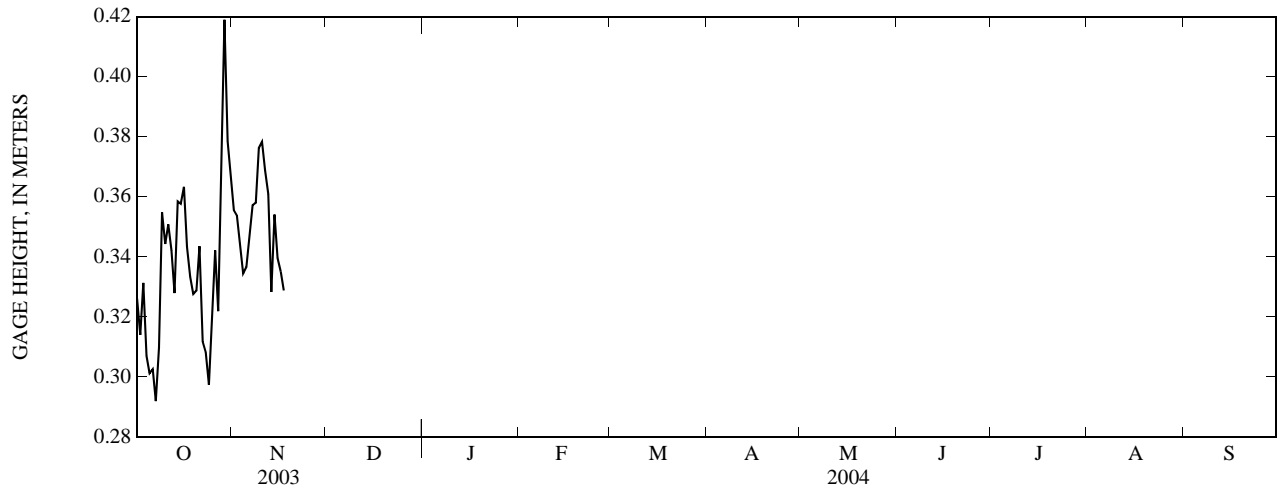
GAGE HEIGHT, ABOVE DATUM, METERS
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.46	---	0.15	0.20	0.18	0.57	0.50	0.39	0.43	0.35	0.33	0.36
2	0.45	---	0.14	0.21	0.16	0.60	0.47	0.39	0.40	0.51	0.34	0.34
3	0.43	---	0.14	0.22	0.14	0.53	0.46	0.39	0.38	0.55	0.35	0.33
4	0.41	---	0.15	0.22	0.15	0.47	0.45	0.40	0.39	0.41	0.33	0.32
5	0.40	---	0.31	0.20	0.17	0.49	0.45	0.41	0.38	0.38	0.36	0.32
6	0.38	---	0.34	0.19	0.17	0.73	0.45	0.44	0.38	0.36	0.37	0.33
7	0.37	---	0.34	0.19	0.39	0.59	0.59	0.41	0.38	0.35	0.35	0.32
8	0.36	0.18	0.26	0.17	0.28	0.49	0.58	0.39	0.43	0.35	0.37	0.31
9	0.34	0.16	0.24	0.16	0.23	0.47	1.12	0.38	0.39	0.34	0.38	0.32
10	0.34	0.14	0.21	0.15	0.24	0.45	1.60	0.37	0.37	0.33	0.37	0.32
11	---	0.13	0.25	0.16	0.23	0.44	0.88	0.37	0.36	0.32	0.41	0.31
12	---	0.24	0.24	0.17	0.20	0.43	0.61	0.38	0.35	0.35	0.37	0.30
13	---	0.30	0.46	0.16	0.20	0.42	0.54	0.38	0.35	0.34	0.34	0.28
14	---	0.23	0.48	0.15	0.18	0.45	0.50	0.38	0.35	0.33	0.35	0.30
15	---	0.19	0.29	0.16	0.17	0.41	0.48	0.38	0.34	0.34	0.36	0.30
16	---	0.17	0.24	0.15	0.19	0.66	0.45	0.40	0.37	0.33	0.40	0.43
17	---	0.34	0.22	0.16	0.20	0.56	0.44	0.39	0.39	0.36	0.44	0.36
18	---	0.32	0.20	0.16	0.23	0.50	0.46	0.40	0.38	0.35	0.36	0.37
19	---	0.24	0.19	0.15	0.29	0.47	0.47	0.45	0.48	0.36	0.35	0.45
20	---	0.21	0.26	0.14	0.28	1.15	0.46	0.41	0.62	0.35	0.34	0.39
21	---	0.19	0.24	0.15	0.26	0.74	0.44	0.40	0.51	0.33	0.34	0.35
22	---	0.20	0.21	0.15	0.55	0.56	0.43	0.61	0.43	0.31	0.37	0.36
23	---	0.17	0.19	0.16	0.54	0.51	0.43	0.58	0.40	0.36	0.41	0.56
24	---	0.16	0.26	0.16	0.30	0.48	0.43	0.47	0.39	0.36	0.42	0.45
25	---	0.18	0.43	---	0.24	0.46	0.43	0.53	0.38	0.34	0.38	0.39
26	---	0.15	0.31	0.14	0.23	0.45	0.45	0.50	0.35	0.33	0.35	0.37
27	---	0.16	0.26	0.15	0.51	0.45	0.46	0.45	0.32	0.33	0.33	0.36
28	---	0.17	0.23	0.15	---	0.44	0.43	0.44	0.31	0.31	0.32	0.32
29	---	0.17	0.20	0.14	---	0.45	0.41	0.41	0.32	0.29	0.31	0.32
30	---	0.15	0.19	0.19	---	0.64	0.40	0.40	0.32	0.34	0.30	0.33
31	---	---	0.17	0.23	---	0.60	---	0.40	---	0.34	0.33	---
MEAN	---	---	0.25	0.17	---	0.54	0.54	0.42	0.39	0.35	0.36	0.35
MAX	---	---	0.48	0.23	---	1.15	1.60	0.61	0.62	0.55	0.44	0.56
MIN	---	---	0.14	0.14	---	0.41	0.40	0.37	0.31	0.29	0.30	0.28



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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.33	0.36	---	---	---	---	---	---	---	---	---	---
2	0.31	0.35	---	---	---	---	---	---	---	---	---	---
3	0.33	0.34	---	---	---	---	---	---	---	---	---	---
4	0.31	0.33	---	---	---	---	---	---	---	---	---	---
5	0.30	0.34	---	---	---	---	---	---	---	---	---	---
6	0.30	0.35	---	---	---	---	---	---	---	---	---	---
7	0.29	0.36	---	---	---	---	---	---	---	---	---	---
8	0.31	0.36	---	---	---	---	---	---	---	---	---	---
9	0.35	0.38	---	---	---	---	---	---	---	---	---	---
10	0.34	0.38	---	---	---	---	---	---	---	---	---	---
11	0.35	0.37	---	---	---	---	---	---	---	---	---	---
12	0.34	0.36	---	---	---	---	---	---	---	---	---	---
13	0.33	0.33	---	---	---	---	---	---	---	---	---	---
14	0.36	0.35	---	---	---	---	---	---	---	---	---	---
15	0.36	0.34	---	---	---	---	---	---	---	---	---	---
16	0.36	0.34	---	---	---	---	---	---	---	---	---	---
17	0.34	0.33	---	---	---	---	---	---	---	---	---	---
18	0.33	---	---	---	---	---	---	---	---	---	---	---
19	0.33	---	---	---	---	---	---	---	---	---	---	---
20	0.33	---	---	---	---	---	---	---	---	---	---	---
21	0.34	---	---	---	---	---	---	---	---	---	---	---
22	0.31	---	---	---	---	---	---	---	---	---	---	---
23	0.31	---	---	---	---	---	---	---	---	---	---	---
24	0.30	---	---	---	---	---	---	---	---	---	---	---
25	0.32	---	---	---	---	---	---	---	---	---	---	---
26	0.34	---	---	---	---	---	---	---	---	---	---	---
27	0.32	---	---	---	---	---	---	---	---	---	---	---
28	0.37	---	---	---	---	---	---	---	---	---	---	---
29	0.42	---	---	---	---	---	---	---	---	---	---	---
30	0.38	---	---	---	---	---	---	---	---	---	---	---
31	0.37	---	---	---	---	---	---	---	---	---	---	---
MEAN	0.33	---	---	---	---	---	---	---	---	---	---	---
MAX	0.42	---	---	---	---	---	---	---	---	---	---	---
MIN	0.29	---	---	---	---	---	---	---	---	---	---	---



0209697900 POKEBERRY CREEK NEAR PITTSBORO, NC—Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: August 2002 to November 2003.

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

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

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum recorded, 28.7°C, Aug. 30, 2003; minimum recorded, 0.0°C, Jan. 19, 23-28, 2003.

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

Date	Time	Medium code	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Chloride, water, fltrd, mg/L (00940)	Sulfate water, fltrd, mg/L (00945)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)
FEB 21...	1100	9	E19	751	11.6	95	6.7	64	6.1	3.54	5.6	0.20	<0.04
MAY 14...	1300	D	4.0	--	8.3	--	7.4	88	18.1	--	--	--	--
JUN 11...	1200	9	--	--	8.3	--	7.5	92	22.7	--	--	--	--
JUL 01...	1130	9	E5.3	744	7.8	93	6.8	90	22.7	5.15	1.9	0.32	<0.04
JUL 01...	1140	9	--	--	--	--	--	--	--	--	--	--	--
Date	Nitrate water, fltrd, mg/L (71851)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L (71856)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Particulate nitrogen, susp, water, mg/L (49570)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inorganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)
FEB 21...	--	--	0.34	--	<0.008	<0.02	0.06	0.026	0.54	0.3	<0.1	0.3	3.0
MAY 14...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 01...	0.969	0.22	0.25	0.089	0.027	<0.02	0.06	0.054	0.56	0.5	<0.1	0.5	4.5
JUL 01...	--	--	--	--	--	--	--	--	--	--	--	--	--
Date	Biomass periphyton, ashfree drymass g/m2 (49954)	Periphyton biomass ash weight, g/m2 (00572)	Periphyton biomass dry weight, g/m2 (00573)	Biomass chlorophyll ratio, periphyton, number (70950)	Pheophytin a, periphyton, mg/m2 (62359)	E coli, modif. m-TEC, col/100 mL (90902)	Chlorophyll a periphyton, chromo-fluoro, mg/m2 (70957)	1-Naphthol, water, fltrd 0.7u GF ug/L (49295)	2,6-Diethyl-aniline water fltrd 0.7u GF ug/L (82660)	2-[(2-Et-6-Me-Ph)-amino]propan-1-ol, ug/L (61615)	2Chloro-2,6'-diethyl acet-anilide wat flt ug/L (61618)	CIAT, water, fltrd, ug/L (04040)	2-Ethyl-6-methyl-aniline water, fltrd, ug/L (61620)
FEB 21...	--	--	--	--	--	80	--	<0.09	<0.006	<0.1	<0.005	E.002	<0.004
MAY 14...	4.000	61	65.00	425	3.8	--	9.4	--	--	--	--	--	--
JUN 11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 01...	--	--	--	--	--	--	--	<0.09	<0.006	<0.1	<0.005	E.007	<0.004
JUL 01...	--	--	--	--	--	97	--	--	--	--	--	--	--

0209697900 POKEBERRY CREEK NEAR PITTSBORO, NC—Continued

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

Date	Sima- zine, water, fltrd, ug/L (04035)	Tebu- thiuron water fltrd, 0.7u GF ug/L (82670)	Ter- bufos oxon sulfone water, fltrd, ug/L (61674)	Terbu- fos, water, fltrd, 0.7u GF ug/L (82675)	Ter- buthyl- azine, water, fltrd, ug/L (04022)	Tri- flur- alin, water, fltrd, 0.7u GF ug/L (82661)	Di- chlor- vos, water fltrd, ug/L (38775)	Suspnd. sedi- ment, sieve diametr percent <.063mm (70331)	Sus- pended sedi- ment concen- tration mg/L (80154)
FEB 21...	E.003	<0.02	<0.07	<0.02	<0.01	<0.009	<0.01	96	7
MAY 14...	--	--	--	--	--	--	--	--	--
JUN 11...	--	--	--	--	--	--	--	--	--
JUL 01...	<0.005	<0.02	<0.07	<0.02	<0.01	<0.009	<0.01	98	19
01...	--	--	--	--	--	--	--	--	--

Remark codes used in this table:

- < -- Less than
- E -- Estimated value

Medium codes used in this table:

- 9 -- Surface water
- D -- Plant tissue

TEMPERATURE, WATER, DEGREES CELSIUS
AUGUST TO SEPTEMBER 2002

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	---	---	---	20.8	19.7	20.1
2	---	---	---	---	---	---	---	---	---	21.3	19.6	20.1
3	---	---	---	---	---	---	---	---	---	23.7	18.3	20.7
4	---	---	---	---	---	---	---	---	---	25.4	19.8	22.3
5	---	---	---	---	---	---	---	---	---	24.5	20.9	22.7
6	---	---	---	---	---	---	---	---	---	23.0	18.2	20.7
7	---	---	---	---	---	---	23.8	18.6	21.2	22.2	18.3	20.5
8	---	---	---	---	---	---	22.8	16.5	19.7	21.9	17.8	20.0
9	---	---	---	---	---	---	22.1	16.4	19.4	21.5	18.5	20.3
10	---	---	---	---	---	---	22.4	16.5	19.6	22.8	20.2	21.4
11	---	---	---	---	---	---	24.1	17.5	20.8	22.6	19.0	21.0
12	---	---	---	---	---	---	25.1	19.2	22.2	21.1	17.5	19.4
13	---	---	---	---	---	---	25.7	20.6	23.2	20.1	16.3	18.4
14	---	---	---	---	---	---	24.7	21.3	23.1	20.5	19.2	19.8
15	---	---	---	---	---	---	25.7	22.2	23.5	21.3	20.2	20.5
16	---	---	---	---	---	---	24.8	22.2	23.4	21.8	20.4	21.0
17	---	---	---	---	---	---	26.1	22.3	24.0	23.0	20.0	21.3
18	---	---	---	---	---	---	27.5	22.8	24.8	21.4	20.5	21.0
19	---	---	---	---	---	---	27.0	22.0	24.1	22.7	20.7	21.5
20	---	---	---	---	---	---	26.9	21.6	24.1	23.4	19.8	21.3
21	---	---	---	---	---	---	26.3	22.1	24.3	22.8	19.2	21.0
22	---	---	---	---	---	---	27.4	23.4	25.2	23.5	19.6	21.3
23	---	---	---	---	---	---	28.0	23.1	25.5	21.4	19.6	20.5
24	---	---	---	---	---	---	28.4	23.6	25.6	21.2	18.5	19.8
25	---	---	---	---	---	---	27.3	22.6	24.9	20.2	18.3	19.3
26	---	---	---	---	---	---	24.3	22.0	22.9	20.0	19.0	19.4
27	---	---	---	---	---	---	22.0	21.1	21.5	22.9	19.8	21.1
28	---	---	---	---	---	---	21.2	20.4	20.7	22.7	21.0	21.5
29	---	---	---	---	---	---	20.9	20.0	20.4	21.5	19.1	20.4
30	---	---	---	---	---	---	20.3	19.7	20.1	20.8	17.0	19.1
31	---	---	---	---	---	---	19.9	19.5	19.7	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	25.4	16.3	20.6

CAPE FEAR RIVER BASIN

0209697900 POKEBERRY CREEK NEAR PITTSBORO, NC—Continued

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	21.9	19.1	20.4	---	---	---	7.3	2.9	5.6	12.5	9.7	11.4
2	22.4	19.2	20.8	---	---	---	6.9	1.5	4.4	11.1	9.4	10
3	22.7	20.1	21.6	---	---	---	8.0	3.4	5.4	10.2	8.8	9.9
4	23.5	20.3	22.0	---	---	---	4.1	1.5	3.0	8.8	6.5	7.3
5	24.0	21.6	22.9	---	---	---	4.0	2.7	3.4	6.5	4.6	5.6
6	23.3	20.1	21.5	---	---	---	5.9	4.0	4.8	6.8	5.1	6.0
7	21.9	19.4	20.8	---	---	---	5.2	2.8	4.1	6.0	3.4	4.3
8	21.3	17.6	18.8	11.9	8.8	10.2	5.6	3.0	4.3	6.6	4.0	5.3
9	18.6	16.8	17.7	13.2	9.2	11.1	5.7	4.8	5.3	9.1	5.7	7.3
10	18.9	16.6	17.7	15.5	11.5	13.5	5.6	4.6	5.1	9.4	6.3	8.1
11	20.0	18.6	19.4	16.5	14.8	15.9	6.5	5.2	5.9	6.6	3.6	5.3
12	21.5	19.8	20.5	16.3	14.8	15.8	8.0	6.1	7.0	4.7	2.4	3.5
13	21.0	19.6	20.0	14.8	12.3	13.9	7.8	6.9	7.1	4.7	1.6	3.1
14	19.9	16.7	18.4	12.4	10.5	11.5	8.8	7.0	7.7	5.6	2.4	3.8
15	16.7	15.0	15.4	12.5	9.9	11.2	7.6	5.6	6.7	5.2	1.4	3.6
16	---	---	---	13.5	11.9	12.9	8.2	5.3	6.8	4.1	1.4	2.8
17	---	---	---	13.2	11.7	12.8	7.7	5.6	6.5	4.4	1.6	3.1
18	---	---	---	11.7	9.8	10.6	7.5	5.8	6.7	2.5	0.1	1.1
19	---	---	---	10.3	8.2	9.4	8.8	7.4	7.8	2.4	0.0	0.8
20	---	---	---	10.8	8.3	9.5	12.0	8.8	10.7	6.0	0.6	3.0
21	---	---	---	11.2	9.5	10.3	9.8	7.2	8.2	4.0	2.5	3.5
22	---	---	---	11.0	8.2	9.9	8.3	5.8	7.3	4.6	0.9	2.7
23	---	---	---	9.8	6.9	8.1	8.1	6.1	7.2	2.6	0.0	1.6
24	---	---	---	10.5	6.1	8.0	7.8	7.0	7.4	1.9	0.0	0.7
25	---	---	---	11.0	6.4	8.2	8.1	6.3	7.4	2.2	0.0	1.1
26	---	---	---	10.7	6.3	8.4	6.4	4.8	5.7	3.5	0.0	1.4
27	---	---	---	9.5	5.8	7.9	5.5	3.5	4.7	3.1	0.0	1.8
28	---	---	---	7.3	3.9	5.5	5.3	3.0	4.3	3.6	0.0	1.3
29	---	---	---	6.7	3.0	4.7	6.0	3.5	4.9	5.2	1.9	4.0
30	---	---	---	9.7	5.0	7.2	6.8	4.2	5.7	5.5	4.0	4.8
31	---	---	---	---	---	---	9.7	5.8	7.4	4.7	3.7	4.1
MONTH	---	---	---	---	---	---	12.0	1.5	6.1	12.5	0.0	4.3
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	6.6	4.6	5.5	8.1	6.1	6.9	14.9	8.1	11.3	22.0	19.2	20.7
2	7.0	4.1	5.4	11.9	7.5	9.2	18.5	11.3	14.8	23.2	18.6	21.0
3	9.0	4.5	6.9	11.4	7.2	9.3	19.9	13.3	16.7	21.5	19.2	20.6
4	11.7	8.8	10.3	11.5	6.6	9.0	19.6	14.7	17.3	19.2	16.7	18.3
5	9.4	6.1	7.6	14.1	10.0	11.7	18.6	15.9	17.3	16.7	15.0	15.7
6	6.7	5.3	5.9	13.1	11.1	12.2	18.0	14.1	16.4	18.5	15.3	16.7
7	7.5	5.1	6.1	12.1	7.5	9.5	17.5	11.1	12.9	20.8	17.6	19.0
8	6.9	4.2	5.6	12.2	5.5	8.6	11.1	10.3	10.7	23.6	19.4	21.4
9	6.7	4.2	5.5	14.6	9.0	11.6	10.4	9.6	10	24.6	20.9	22.6
10	6.6	5.4	5.9	12.6	9.2	11.2	9.9	9.1	9.4	25.5	21.8	23.5
11	7.4	3.6	5.5	10.8	7.8	9.4	10.9	9.2	9.8	24.0	21.5	22.9
12	7.9	4.5	6.3	13.6	7.2	10.4	16.8	9.0	12.3	23.0	18.6	20.9
13	7.6	3.4	5.6	15.0	10.0	12.5	18.1	11.5	14.6	22.0	16.7	19.1
14	6.5	4.4	5.5	14.7	12.2	13.5	19.3	12.4	15.7	21.7	15.0	18.2
15	7.6	6.4	7.0	12.7	10.0	10.6	20.5	14.3	17.4	19.5	17.1	18.2
16	6.8	1.2	4.3	11.7	9.6	10.7	21.2	15.6	18.4	20.0	17.4	18.6
17	2.5	0.5	1.4	14.5	11.5	12.7	20.6	16.1	18.6	19.5	17.1	18.6
18	6.1	2.5	4.2	15.1	12.9	13.9	19.3	13.8	15.3	17.1	15.5	16.3
19	7.4	3.8	5.4	14.3	11.7	12.8	14.1	12.8	13.4	15.9	15.0	15.4
20	8.9	6.1	7.3	11.7	9.6	10.3	16.6	12.9	14.6	18.9	14.5	16.7
21	8.2	6.3	7.2	14.1	10.0	11.5	17.0	14.4	15.8	18.3	17.1	17.9
22	9.5	7.6	8.4	15.8	10.6	13.1	18.8	15.9	17.4	17.9	16.8	17.1
23	11.4	8.7	10	16.0	10.6	13.3	17.6	13.4	16.0	17.4	16.6	16.9
24	11.5	6.2	8.7	17.4	11.8	14.5	16.6	12.6	15.3	19.2	16.8	17.8
25	11.1	8.0	9.5	17.8	11.4	14.7	16.6	15.1	15.7	19.6	17.6	18.5
26	9.8	6.3	7.6	18.8	13.2	16.1	17.8	15.4	16.3	20.8	18.6	19.5
27	6.3	5.1	5.4	17.8	14.4	16.3	19.3	14.7	17.0	20.3	18.7	19.1
28	---	---	---	18.9	13.7	16.3	19.6	15.2	17.9	19.9	16.6	18.4
29	---	---	---	20.6	16.8	18.5	21.2	16.8	19.3	19.5	17.5	18.5
30	---	---	---	19.8	10.5	14.1	22.1	18.4	20.4	19.9	16.5	18.4
31	---	---	---	13.4	8.4	10.6	---	---	---	19.6	17.6	18.6
MONTH	---	---	---	20.6	5.5	12.1	22.1	8.1	15.3	25.5	14.5	18.9

0209719700 B. EVERETT JORDAN LAKE, HAW RIVER ARM, ABOVE B. EVERETT JORDAN DAM, NC

LOCATION.--Lat 35°39'40", long 79°04'22", Chatham County, Hydrologic Unit 03030002, 0.5 mi above B. Everett Jordan Dam, and 1.4 mi southwest of Merry Oaks.

PERIOD OF RECORD.--Water years 1989 to current year. Prior to October 1993, published as Haw River at U.S. Highway 64 near Pittsboro (station 0209699980).

REMARKS.--Station operated to define water quality as part of a six-county regional surface-water quality assessment. Samples for nutrient and chlorophyll a and b analyses were collected through a sampling zone equal to double the secchi disk depth using the depth-integration sampling technique.

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

Date	Time	Color, water, fltrd, Pt-Co units (00080)	Sam-pling depth, meters (00098)	Trans-parency Secchi disc, meters (00078)	Baro-metric pres-sure, mm Hg (00025)	Dis-solved oxygen, mg/L (00300)	Dis-solved oxygen, percent of sat-uration (00301)	pH, water, unfltrd field, std units (00400)	Specif. conduc-tance, wat unfltrd uS/cm 25 degC (00095)	Temper-ature, water, deg C (00010)	Hard-ness, water, unfltrd mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes-ium, water, fltrd, mg/L (00925)	
OCT														
30...	1000	125	0.99	0.20	754	9.9	96	7.2	138	13.5	31	7.43	3.02	
30...	1005	--	3.0	--	754	9.9	96	7.2	138	13.4	--	--	--	
30...	1010	--	6.1	--	754	9.8	95	7.3	139	13.4	--	--	--	
APR														
03...	1200	88	1.0	0.55	762	9.0	88	6.9	98	14.3	26	6.35	2.54	
03...	1205	--	3.0	--	762	8.9	86	6.8	100	13.6	--	--	--	
03...	1210	--	5.9	--	762	7.6	71	6.4	93	12.4	--	--	--	
JUN														
23...	1145	88	1.0	0.30	758	10.1	120	8.0	99	24.0	30	7.13	2.84	
23...	1150	--	3.0	--	758	8.6	100	7.1	108	22.7	--	--	--	
23...	1155	--	5.0	--	758	7.8	90	7.0	113	22.2	--	--	--	
AUG														
20...	1245	62	1.0	0.80	763	7.9	101	8.3	114	28.3	30	7.21	2.90	
20...	1250	--	3.0	--	763	6.3	78	7.0	100	25.8	--	--	--	
20...	1255	--	5.0	--	763	6.4	78	6.9	95	25.3	--	--	--	
Date		Potas-sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unfltrd, titr., mg/L as CaCO3 (00419)	Bicar-bonate, wat unfltrd, titr., mg/L (00450)	Chlor-ide, water, fltrd, mg/L (00940)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho-phosphate, water, fltrd, mg/L as P (00671)
OCT														
30...	3.67	10.8	28	34	8.30	11.4	13.1	91	0.81	0.050	1.08	0.013	0.072	
30...	--	--	--	--	--	--	--	--	0.90	0.051	1.05	0.013	0.074	
30...	--	--	--	--	--	--	--	--	0.97	0.050	1.05	0.012	0.073	
APR														
03...	2.11	8.44	22	27	6.44	10.1	9.1	65	0.54	0.029	0.524	0.013	0.022	
03...	--	--	--	--	--	--	--	--	0.53	0.064	0.516	0.013	0.021	
03...	--	--	--	--	--	--	--	--	0.54	0.026	0.534	0.013	0.027	
JUN														
23...	2.67	6.58	25	30	5.80	10.4	7.1	75	0.91	<0.015	0.166	0.007	0.015	
23...	--	--	--	--	--	--	--	--	0.80	<0.015	0.297	0.006	0.029	
23...	--	--	--	--	--	--	--	--	0.69	0.040	0.441	0.005	0.043	
AUG														
20...	2.77	8.17	32	39	8.08	11.4	6.8	77	0.87	<0.015	0.109	0.004	E.004	
20...	--	--	--	--	--	--	--	--	0.64	<0.015	0.334	0.007	0.023	
20...	--	--	--	--	--	--	--	--	0.60	0.015	0.581	0.010	0.056	

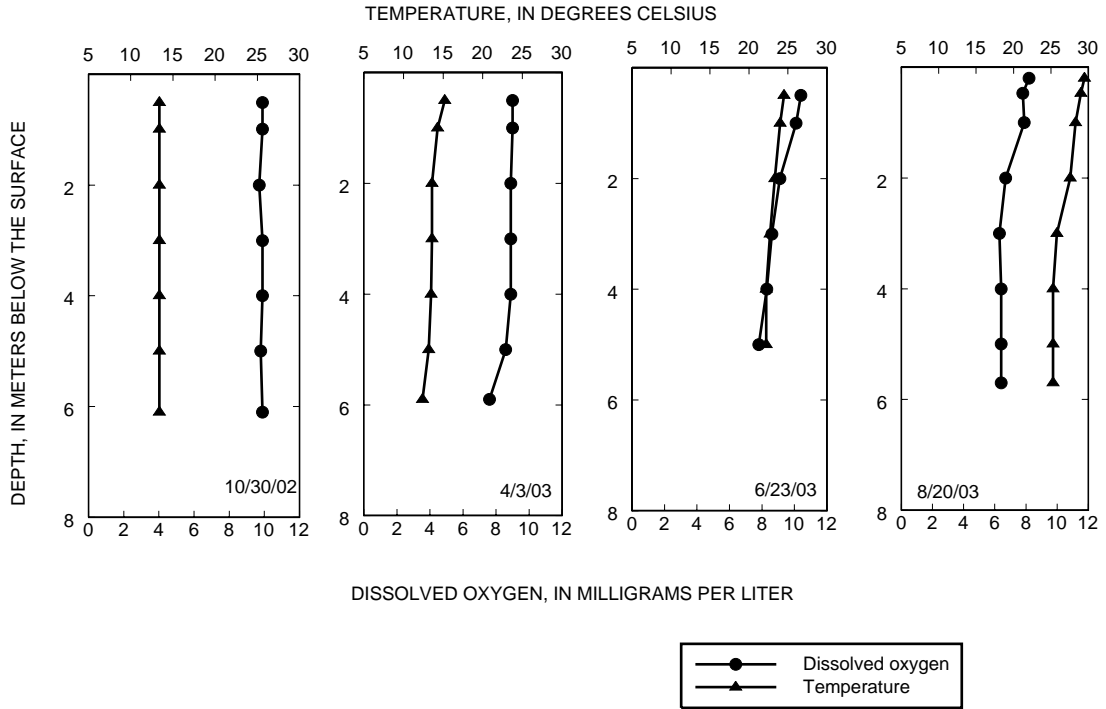
0209719700 B. EVERETT JORDAN LAKE, HAW RIVER ARM, ABOVE B. EVERETT JORDAN DAM, NC—Continued

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

Date	Phosphorus, water, unfltrd mg/L (00665)	Organic carbon, water, unfltrd mg/L (00680)	Chlorophyll a phytoplankton, fluoro, ug/L (70953)	Chlorophyll b phytoplankton, fluoro, ug/L (70954)	Aluminum, water, unfltrd recover-able, ug/L (01105)	Arsenic water unfltrd ug/L (01002)	Cadmium water, unfltrd ug/L (01027)	Chromium, water, unfltrd recover-able, ug/L (01034)	Cobalt water, unfltrd recover-able, ug/L (01037)	Copper, water, unfltrd recover-able, ug/L (01042)	Iron, water, unfltrd recover-able, ug/L (01045)	Lead, water, unfltrd recover-able, ug/L (01051)	Manganese, water, unfltrd recover-able, ug/L (01055)
OCT 30...	--	12.5	1.7	<0.1	1,070	E1	<0.2	1.8	E2.5	5.2	1,800	3	167
30...	--	--	--	--	--	--	--	--	--	--	1,900	--	192
30...	--	--	--	--	--	--	--	--	--	--	1,890	--	210
APR 03...	0.100	7.2	E5.8	<0.1	330	<2	<0.2	0.8	<3.4	2.9	900	M	62.1
03...	0.100	--	--	--	--	--	--	--	--	--	940	--	62.1
03...	0.100	--	--	--	--	--	--	--	--	--	1,020	--	128
JUN 23...	0.114	10.7	5.0	5.0	--	--	--	--	--	--	770	--	53.9
23...	0.117	--	--	--	--	--	--	--	--	--	980	--	79.2
23...	0.164	--	--	--	--	--	--	--	--	--	1,620	--	257
AUG 20...	0.086	9.5	E17.2	E1.1	--	--	--	--	--	--	810	--	78.7
20...	0.120	--	--	--	--	--	--	--	--	--	1,480	--	135
20...	0.188	--	--	--	--	--	--	--	--	--	70	--	81.2

Date	Mercury water, unfltrd recover-able, ug/L (71900)	Molybdenum, water, unfltrd recover-able, ug/L (01062)	Nickel, water, unfltrd recover-able, ug/L (01067)	Selenium, water, unfltrd ug/L (01147)	Silver, water, unfltrd recover-able, ug/L (01077)	Zinc, water, unfltrd recover-able, ug/L (01092)
OCT 30...	0.02	E1	2.0	<3	<0.3	<25
30...	--	--	--	--	--	--
30...	--	--	--	--	--	--
APR 03...	E.01	E1	2.1	<3	<0.3	<25
03...	--	--	--	--	--	--
03...	--	--	--	--	--	--
JUN 23...	--	--	--	--	--	--
23...	--	--	--	--	--	--
23...	--	--	--	--	--	--
AUG 20...	--	--	--	--	--	--
20...	--	--	--	--	--	--
20...	--	--	--	--	--	--

Remark codes used in this table:
 < -- Less than
 E -- Estimated value
 M-- Presence verified, not quantified



02097314 NEW HOPE CREEK NEAR BLANDS, NC

LOCATION.--Lat 35°53'06", long 78°57'57", Durham County, Hydrologic Unit 03030002, on right bank 15 ft downstream of bridge on Secondary Road 1107, 0.5 mi southwest of Blands, and 2 mi downstream of Third Fork Creek.

DRAINAGE AREA.--75.9 mi².

PERIOD OF RECORD.--October 1982 to current year.

GAGE.--Water-stage recorder. Datum of gage is 215.19 ft above NGVD of 1929. Satellite telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Considerable diurnal fluctuation at low flow. An average of 39.9 ft³/s was diverted from the Neuse River Basin for Durham municipal water supply; 15.9 ft³/s was returned to the Cape Fear River Basin, and about 17.4 ft³/s was returned to the Neuse River Basin. Maximum gage height for period of record and current water year occurred as a result of backwater from B. Everett Jordan Lake; maximum gage height unaffected by backwater, 14.05 ft, Sept. 6, 1996. Minimum discharge for period of record not determined due to regulation. Minimum discharge unregulated, 4.2 ft³/s, Apr. 28, 29, May 1, 2, and July 10, 1985. Minimum discharge for current water year due to regulation.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	184	29	117	229	631	396	47	109	95	29	28
2	12	128	29	161	184	417	302	45	66	136	35	21
3	13	69	26	168	144	385	246	41	45	379	41	18
4	13	38	22	174	126	339	207	38	47	348	34	17
5	12	31	60	148	119	290	180	37	46	97	41	99
6	12	116	264	129	107	277	134	82	39	51	148	33
7	12	204	445	110	213	325	118	75	41	40	123	20
8	12	159	322	94	385	340	245	45	142	36	170	20
9	12	94	218	80	263	309	862	38	153	35	344	42
10	12	50	180	70	192	246	e3,000	34	117	33	238	22
11	789	41	175	61	193	206	e6,000	32	101	28	250	17
12	2,860	101	240	55	157	177	e1,000	31	70	40	265	16
13	642	251	289	50	133	109	e500	29	78	29	142	14
14	286	288	657	47	114	98	e360	27	51	161	72	15
15	302	236	494	43	100	84	e300	26	37	109	48	16
16	287	172	286	41	94	136	e260	62	75	49	48	14
17	321	180	191	40	96	230	e220	43	63	49	56	14
18	255	274	148	37	102	312	e200	36	48	40	32	21
19	152	319	121	35	164	290	e210	98	87	31	27	141
20	69	269	134	35	233	477	e220	79	127	28	25	82
21	38	186	182	35	205	e3,000	e180	47	159	26	23	43
22	68	127	162	34	258	e600	e170	183	62	25	23	29
23	91	93	136	34	586	e400	e160	451	42	122	21	112
24	42	59	129	34	440	e350	e140	430	33	114	20	229
25	31	45	317	33	293	e280	e120	347	31	54	19	133
26	27	41	435	33	292	e250	115	421	28	33	19	65
27	25	39	292	33	285	e220	159	270	26	27	18	37
28	55	35	181	33	734	e200	154	182	24	25	17	25
29	178	31	146	33	---	e190	82	134	23	23	16	22
30	264	30	123	45	---	e184	55	88	24	33	15	19
31	249	---	104	116	---	365	---	60	---	34	15	---
TOTAL	7,154	3,890	6,537	2,158	6,441	11,717	16,295	3,558	1,994	2,330	2,374	1,384
MEAN	231	130	211	69.6	230	378	543	115	66.5	75.2	76.6	46.1
MAX	2,860	319	657	174	734	3,000	6,000	451	159	379	344	229
MIN	12	30	22	33	94	84	55	26	23	23	15	14
CFSM	3.04	1.71	2.78	0.92	3.03	4.98	7.16	1.51	0.88	0.99	1.01	0.61
IN.	3.51	1.91	3.20	1.06	3.16	5.74	7.99	1.74	0.98	1.14	1.16	0.68

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 2003, BY WATER YEAR (WY)

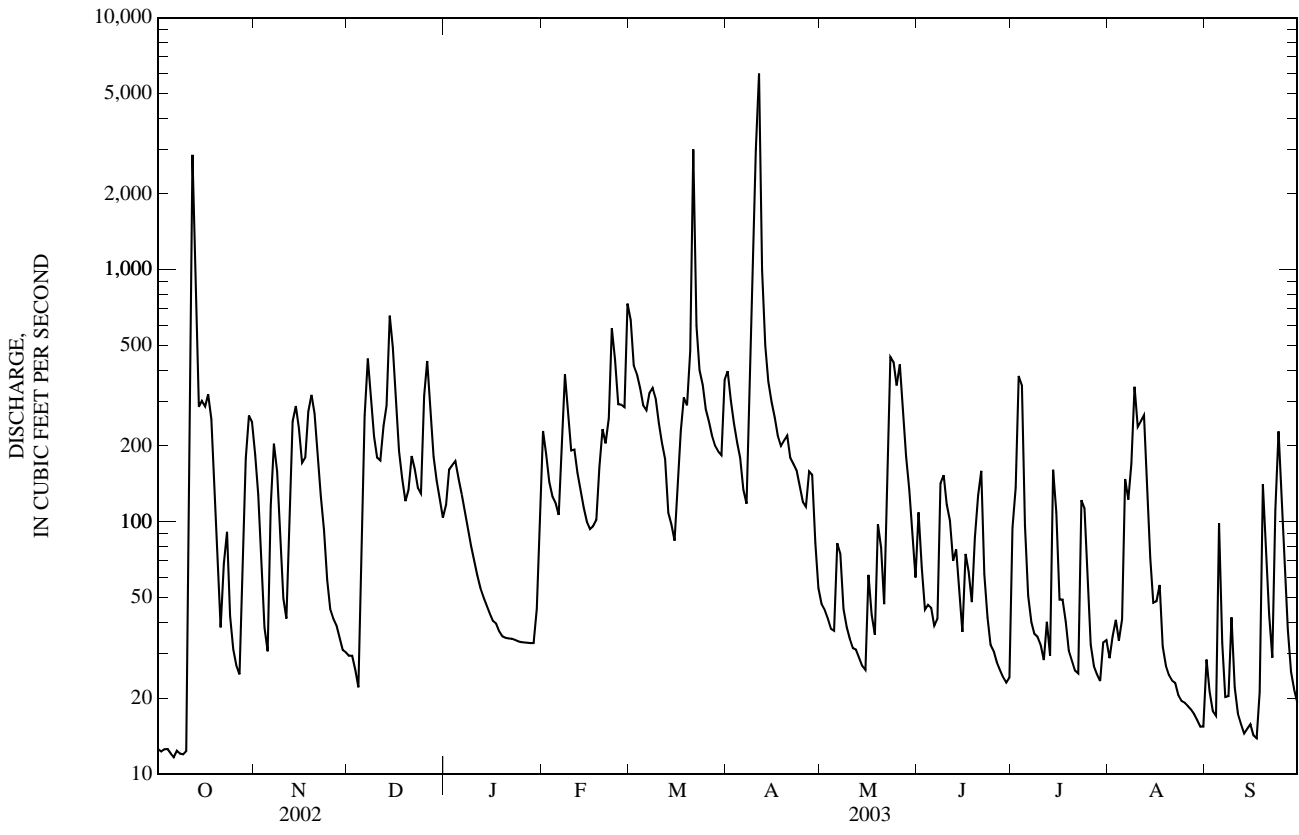
MEAN	53.9	74.0	82.6	155	199	208	159	89.6	46.2	46.5	43.1	66.1
MAX	231	371	264	509	463	493	618	411	154	156	97.8	507
(WY)	(2003)	(1986)	(1984)	(1991)	(1998)	(1998)	(1987)	(1997)	(1995)	(1995)	(1986)	(1999)
MIN	12.8	16.1	17.0	31.6	58.2	42.0	13.5	18.1	13.1	12.9	14.5	10.8
(WY)	(1987)	(1985)	(1989)	(2001)	(2002)	(1985)	(1985)	(2002)	(2002)	(1993)	(1997)	(1984)

CAPE FEAR RIVER BASIN

02097314 NEW HOPE CREEK NEAR BLANDS, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1983 - 2003	
ANNUAL TOTAL	29,634.0		65,832		101	
ANNUAL MEAN	81.2		180		180	
HIGHEST ANNUAL MEAN					180	2003
LOWEST ANNUAL MEAN					38.3	2002
HIGHEST DAILY MEAN	2,860	Oct 12	6,000	Apr 11	6,300	Sep 6, 1996
LOWEST DAILY MEAN	9.5	Jul 7	12	Oct 2	0.39	Dec 30, 1988
ANNUAL SEVEN-DAY MINIMUM	10	Jul 4	12	Oct 4	4.1	Dec 20, 2001
MAXIMUM PEAK FLOW			NOT DETERMINED		12,700	Sep 6, 1996
MAXIMUM PEAK STAGE			18.96*		18.96*	Apr 15, 2003
INSTANTANEOUS LOW FLOW			7.8*		NOT DETERMINED	
ANNUAL RUNOFF (CFSM)	1.07		2.38		1.34	
ANNUAL RUNOFF (INCHES)	14.52		32.27		18.15	
10 PERCENT EXCEEDS	234		331		223	
50 PERCENT EXCEEDS	28		97		34	
90 PERCENT EXCEEDS	11		23		13	

e Estimated.
 * See REMARKS.



02097355 BOLIN CREEK ABOVE FRANKLIN STREET NEAR CHAPEL HILL, NC

LOCATION.--Lat 35°55'38", long 79°02'18", Orange County, Hydrologic Unit 03030002, .2 mi upstream of Franklin Street, and 1 mi northeast of Chapel Hill.

DRAINAGE AREA.--10.5 mi².

GAGE-HEIGHT RECORDS

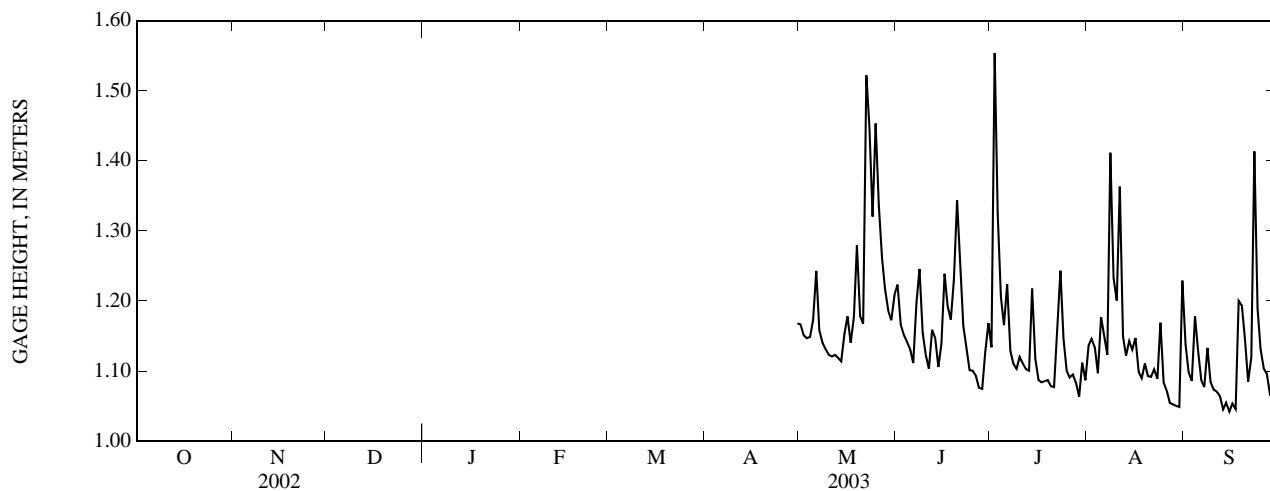
PERIOD OF RECORD.--April to November 2003 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 265 ft above NGVD of 1929, from topographic map.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height recorded, 2.63 m, August 11, 2003; minimum gage height recorded, 0.97 m, Nov. 13, 2003.

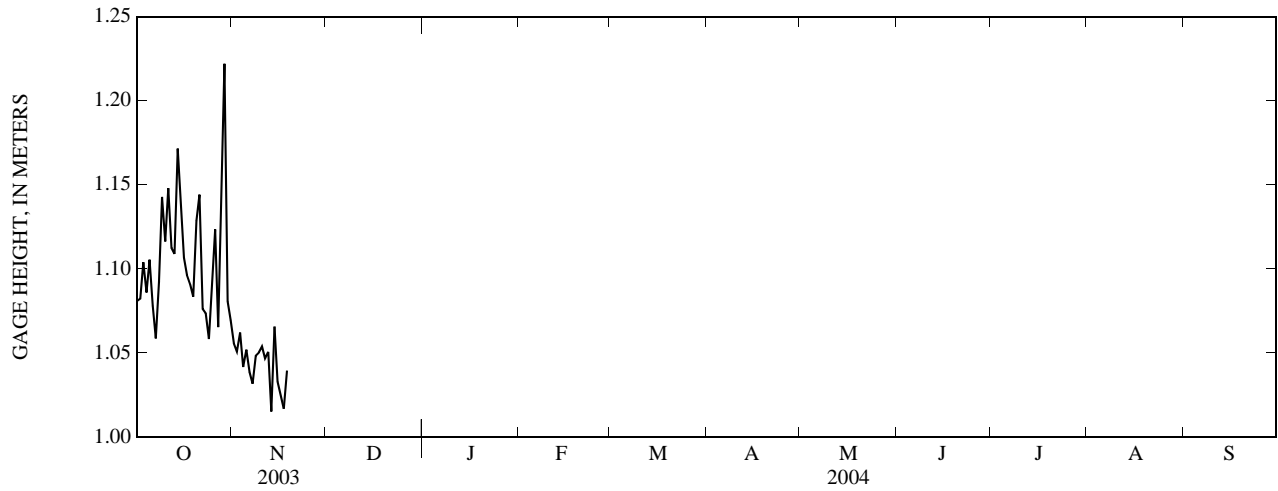
GAGE HEIGHT, ABOVE DATUM, METERS
APRIL TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	1.17	1.22	1.13	1.14	1.14
2	---	---	---	---	---	---	---	1.15	1.17	1.55	1.15	1.10
3	---	---	---	---	---	---	---	1.15	1.15	1.32	1.13	1.09
4	---	---	---	---	---	---	---	1.15	1.14	1.21	1.10	1.18
5	---	---	---	---	---	---	---	1.17	1.13	1.17	1.18	1.13
6	---	---	---	---	---	---	---	1.24	1.11	1.22	1.15	1.09
7	---	---	---	---	---	---	---	1.16	1.20	1.13	1.12	1.08
8	---	---	---	---	---	---	---	1.14	1.25	1.11	1.41	1.13
9	---	---	---	---	---	---	---	1.13	1.15	1.10	1.23	1.08
10	---	---	---	---	---	---	---	1.12	1.12	1.12	1.20	1.07
11	---	---	---	---	---	---	---	1.12	1.10	1.11	1.36	1.07
12	---	---	---	---	---	---	---	1.12	1.16	1.10	1.15	1.06
13	---	---	---	---	---	---	---	1.12	1.15	1.10	1.12	1.04
14	---	---	---	---	---	---	---	1.11	1.11	1.22	1.14	1.05
15	---	---	---	---	---	---	---	1.15	1.14	1.12	1.13	1.04
16	---	---	---	---	---	---	---	1.18	1.24	1.09	1.15	1.05
17	---	---	---	---	---	---	---	1.14	1.19	1.08	1.10	1.05
18	---	---	---	---	---	---	---	1.18	1.17	1.09	1.09	1.20
19	---	---	---	---	---	---	---	1.28	1.23	1.09	1.11	1.19
20	---	---	---	---	---	---	---	1.18	1.34	1.08	1.09	1.14
21	---	---	---	---	---	---	---	1.17	1.24	1.08	1.09	1.08
22	---	---	---	---	---	---	---	1.52	1.16	1.17	1.10	1.12
23	---	---	---	---	---	---	---	1.45	1.13	1.24	1.09	1.41
24	---	---	---	---	---	---	---	1.32	1.10	1.15	1.17	1.19
25	---	---	---	---	---	---	---	1.45	1.10	1.10	1.08	1.13
26	---	---	---	---	---	---	---	1.34	1.09	1.09	1.07	1.10
27	---	---	---	---	---	---	---	1.26	1.08	1.09	1.05	1.10
28	---	---	---	---	---	---	---	1.22	1.07	1.08	1.05	1.07
29	---	---	---	---	---	---	---	1.19	1.13	1.06	1.05	1.06
30	---	---	---	---	---	---	1.17	1.17	1.17	1.11	1.05	1.08
31	---	---	---	---	---	---	---	1.21	---	1.09	1.23	---
MEAN	---	---	---	---	---	---	---	1.21	1.16	1.14	1.14	1.11
MAX	---	---	---	---	---	---	---	1.52	1.34	1.55	1.41	1.41
MIN	---	---	---	---	---	---	---	1.11	1.07	1.06	1.05	1.04



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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.08	1.06	---	---	---	---	---	---	---	---	---	---
2	1.08	1.05	---	---	---	---	---	---	---	---	---	---
3	1.10	1.06	---	---	---	---	---	---	---	---	---	---
4	1.09	1.04	---	---	---	---	---	---	---	---	---	---
5	1.11	1.05	---	---	---	---	---	---	---	---	---	---
6	1.08	1.04	---	---	---	---	---	---	---	---	---	---
7	1.06	1.03	---	---	---	---	---	---	---	---	---	---
8	1.09	1.05	---	---	---	---	---	---	---	---	---	---
9	1.14	1.05	---	---	---	---	---	---	---	---	---	---
10	1.12	1.05	---	---	---	---	---	---	---	---	---	---
11	1.15	1.05	---	---	---	---	---	---	---	---	---	---
12	1.11	1.05	---	---	---	---	---	---	---	---	---	---
13	1.11	1.02	---	---	---	---	---	---	---	---	---	---
14	1.17	1.07	---	---	---	---	---	---	---	---	---	---
15	1.14	1.03	---	---	---	---	---	---	---	---	---	---
16	1.11	1.02	---	---	---	---	---	---	---	---	---	---
17	1.10	1.02	---	---	---	---	---	---	---	---	---	---
18	1.09	1.04	---	---	---	---	---	---	---	---	---	---
19	1.08	---	---	---	---	---	---	---	---	---	---	---
20	1.13	---	---	---	---	---	---	---	---	---	---	---
21	1.14	---	---	---	---	---	---	---	---	---	---	---
22	1.08	---	---	---	---	---	---	---	---	---	---	---
23	1.07	---	---	---	---	---	---	---	---	---	---	---
24	1.06	---	---	---	---	---	---	---	---	---	---	---
25	1.09	---	---	---	---	---	---	---	---	---	---	---
26	1.12	---	---	---	---	---	---	---	---	---	---	---
27	1.07	---	---	---	---	---	---	---	---	---	---	---
28	1.14	---	---	---	---	---	---	---	---	---	---	---
29	1.22	---	---	---	---	---	---	---	---	---	---	---
30	1.08	---	---	---	---	---	---	---	---	---	---	---
31	1.07	---	---	---	---	---	---	---	---	---	---	---
MEAN	1.11	---	---	---	---	---	---	---	---	---	---	---
MAX	1.22	---	---	---	---	---	---	---	---	---	---	---
MIN	1.06	---	---	---	---	---	---	---	---	---	---	---



02097355 BOLIN CREEK ABOVE FRANKLIN STREET NEAR CHAPEL HILL, NC—Continued

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

Date	Fipronil sulfide water, fltrd, ug/L (62167)	Fipronil sulfone water, fltrd, ug/L (62168)	Fipronil, water, fltrd, ug/L (62166)	Fonofos oxon, water, fltrd, ug/L (61649)	Fonofos water, fltrd, ug/L (04095)	Hexazinone, water, fltrd, ug/L (04025)	Iprodione, water, fltrd, ug/L (61593)	Isofenphos, water, fltrd, ug/L (61594)	Malaoxon, water, fltrd, ug/L (61652)	Malathion, water, fltrd, ug/L (39532)	Metolaxyl, water, fltrd, ug/L (61596)	Methiathion water, fltrd, ug/L (61598)	Methyl paraxon, water, fltrd, ug/L (61664)
APR 16...	<0.005	<0.005	E.009	<0.002	<0.003	--	<1	<0.003	<0.008	<0.027	<0.005	<0.006	<0.03
MAY 15...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 18...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 08...	--	--	--	--	--	--	--	--	--	--	--	--	--
15...	E.004	0.007	E.018	<0.002	<0.003	0.014	<1	<0.003	<0.008	<0.027	<0.005	<0.006	<0.03
AUG 28...	E.004	0.006	E.008	<0.002	<0.003	E.009	<1	<0.003	<0.008	<0.027	<0.005	<0.006	<0.03
SEP 16...	--	--	--	--	--	--	--	--	--	--	--	--	--

Date	Methyl parathion, water, fltrd 0.7u GF ug/L (82667)	Metolachlor, water, fltrd, ug/L (39415)	Metribuzin, water, fltrd, ug/L (82630)	Myclobutanil water, fltrd, ug/L (61599)	Pendimethalin, water, fltrd 0.7u GF ug/L (82683)	Phorate oxon, water, fltrd, ug/L (61666)	Phorate water fltrd 0.7u GF ug/L (82664)	Phosmet oxon, water, fltrd, ug/L (61668)	Phosmet water, fltrd, ug/L (61601)	Prometon, water, fltrd, ug/L (04037)	Prometryn, water, fltrd, ug/L (04036)	Pronamide, water, fltrd 0.7u GF ug/L (82676)	Simazine, water, fltrd, ug/L (04035)
APR 16...	<0.006	<0.013	<0.006	<0.008	<0.022	<0.10	<0.011	<0.06	<0.008	<0.01	<0.005	<0.004	<0.005
MAY 15...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 18...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 08...	--	--	--	--	--	--	--	--	--	--	--	--	--
15...	<0.006	<0.013	<0.006	<0.008	<0.022	<0.10	<0.011	<0.06	<0.008	0.03	<0.005	<0.004	0.296
AUG 28...	<0.006	<0.013	<0.006	<0.008	<0.022	<0.10	<0.011	<0.06	<0.008	0.04	<0.005	<0.004	0.011
SEP 16...	--	--	--	--	--	--	--	--	--	--	--	--	--

Date	Tebu-thiuron water fltrd 0.7u GF ug/L (82670)	Terbufos oxon sulfone water, fltrd, ug/L (61674)	Terbufos water, fltrd 0.7u GF ug/L (82675)	Terbuthylazine, water, fltrd, ug/L (04022)	Tri-fluralin, water, fltrd 0.7u GF ug/L (82661)	Di-chlorvos, water fltrd, ug/L (38775)	Suspnd. sedi-ment, sieve diametr percent <.063mm (70331)	Sus-pended sedi-ment concentration mg/L (80154)	Sus-pended sedi-ment load, tons/d (80155)
APR 16...	<0.02	<0.07	<0.02	<0.01	<0.009	<0.01	88	5	0.12
MAY 15...	--	--	--	--	--	--	--	--	--
JUN 18...	--	--	--	--	--	--	--	--	--
JUL 08...	--	--	--	--	--	--	--	--	--
15...	<0.02	<0.07	<0.02	M	<0.009	<0.01	97	12	--
AUG 28...	<0.02	<0.07	<0.02	M	<0.009	<0.01	92	6	0.02
SEP 16...	--	--	--	--	--	--	--	--	--

Remark codes used in this table:
 < -- Less than
 E -- Estimated value
 M-- Presence verified, not quantified

Medium codes used in this table:
 9 -- Surface water
 D -- Plant tissue

CAPE FEAR RIVER BASIN

02097355 BOLIN CREEK ABOVE FRANKLIN STREET NEAR CHAPEL HILL, NC—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
APRIL TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	---	---	---	21.2	18.1	19.5
2	---	---	---	---	---	---	---	---	---	22.1	17.9	19.7
3	---	---	---	---	---	---	---	---	---	20.4	18.5	19.3
4	---	---	---	---	---	---	---	---	---	18.6	16.2	17.0
5	---	---	---	---	---	---	---	---	---	16.2	14.4	14.8
6	---	---	---	---	---	---	---	---	---	17.2	14.5	15.9
7	---	---	---	---	---	---	---	---	---	20.1	16.5	17.9
8	---	---	---	---	---	---	---	---	---	22.5	18.2	20.0
9	---	---	---	---	---	---	---	---	---	23.1	19.3	21.0
10	---	---	---	---	---	---	---	---	---	23.8	20.5	22.0
11	---	---	---	---	---	---	---	---	---	22.6	20.9	21.7
12	---	---	---	---	---	---	---	---	---	21.6	18.7	20.2
13	---	---	---	---	---	---	---	---	---	20.2	16.8	18.5
14	---	---	---	---	---	---	---	---	---	20.0	15.7	17.7
15	---	---	---	---	---	---	---	---	---	18.8	17.3	18.0
16	---	---	---	---	---	---	---	---	---	20.1	17.1	18.5
17	---	---	---	---	---	---	---	---	---	19.4	16.8	17.9
18	---	---	---	---	---	---	---	---	---	16.8	15.2	15.9
19	---	---	---	---	---	---	---	---	---	15.8	14.7	15.1
20	---	---	---	---	---	---	---	---	---	18.5	14.4	16.3
21	---	---	---	---	---	---	---	---	---	17.8	16.3	17.1
22	---	---	---	---	---	---	---	---	---	17.8	16.5	16.9
23	---	---	---	---	---	---	---	---	---	17.2	16.8	16.9
24	---	---	---	---	---	---	---	---	---	18.3	16.7	17.4
25	---	---	---	---	---	---	---	---	---	18.4	17.3	18.0
26	---	---	---	---	---	---	---	---	---	20.0	18.2	19.0
27	---	---	---	---	---	---	---	---	---	19.6	17.8	18.8
28	---	---	---	---	---	---	---	---	---	19.1	16.1	17.7
29	---	---	---	---	---	---	---	---	---	18.6	16.7	17.6
30	---	---	---	---	---	---	21.0	17.1	18.9	19.9	16.1	17.9
31	---	---	---	---	---	---	---	---	---	20.4	17.2	18.4
MONTH	---	---	---	---	---	---	---	---	---	23.8	14.4	18.1
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	20.1	17.0	18.4	24.0	22.7	23.1	25.9	23.3	24.2	25.6	23.3	24.3
2	19.7	15.7	17.6	22.8	21.4	22.0	24.4	23.5	23.8	25.5	23.3	24.3
3	18.8	16.6	17.8	22.4	21.8	22.1	25.4	23.1	24.0	25.5	23.4	24.4
4	20.8	18.3	19.3	24.6	20.8	22.5	25.2	23.6	24.3	25.0	23.3	24.1
5	22.0	19.2	20.4	25.9	22.3	23.9	24.7	22.7	23.6	23.9	21.9	22.8
6	21.6	18.0	19.7	27.4	24.7	26.1	24.8	22.3	23.4	22.5	20.2	20.9
7	21.5	19.8	20.6	26.2	24.0	25.1	24.5	22.9	23.6	21.5	19.3	20.3
8	22.3	20.4	21.3	27.1	23.7	25.2	24.2	22.8	23.6	21.4	20.2	20.7
9	23.8	20.7	22.0	27.5	24.5	25.7	25.1	23.0	23.9	21.5	19.8	20.6
10	23.8	20.0	21.8	26.6	23.8	25.1	24.0	22.7	23.3	21.1	19.5	20.1
11	23.7	20.3	22.0	26.6	23.8	24.9	24.1	22.4	23.2	20.2	18.0	19.2
12	25.7	21.8	23.3	26.3	23.1	24.5	24.9	22.5	23.5	19.8	18.8	19.3
13	24.1	22.1	23.0	24.7	22.9	23.7	25.0	22.9	23.8	20.2	19.2	19.7
14	25.0	22.1	23.3	24.1	22.6	23.3	25.4	23.4	24.3	21.8	20.1	20.8
15	24.9	22.6	23.5	25.0	22.4	23.6	25.8	23.2	24.4	22.5	20.6	21.5
16	24.2	22.0	22.8	26.4	23.0	24.4	25.3	23.5	24.3	22.3	20.7	21.3
17	22.0	20.8	21.1	26.3	23.7	24.8	25.5	23.5	24.4	20.7	18.2	19.5
18	22.5	20.5	21.3	25.9	23.5	24.7	24.8	22.9	23.9	19.9	18.8	19.3
19	23.9	21.5	22.4	25.3	23.1	23.9	24.8	22.5	23.5	21.4	18.9	19.9
20	22.4	20.9	21.6	25.4	22.4	23.8	24.6	22.9	23.8	21.8	18.8	20.2
21	21.6	19.6	20.7	25.9	23.3	24.5	25.0	22.8	23.9	21.8	19.4	20.6
22	21.7	18.3	20.0	26.2	24.1	25.0	24.7	23.2	24.0	21.8	20.8	21.3
23	23.3	19.1	21.0	24.9	23.1	23.5	25.1	22.6	23.7	22.5	21.0	21.8
24	24.1	19.7	21.7	24.7	22.5	23.4	24.9	23.0	23.9	21.2	18.9	20.1
25	25.0	20.9	22.7	25.1	21.7	23.2	24.5	21.8	23.1	21.1	18.2	19.6
26	25.3	21.6	23.3	25.3	22.4	23.7	25.2	22.8	24.0	21.2	18.6	19.9
27	25.3	22.6	23.9	26.2	23.1	24.6	25.9	23.4	24.7	21.2	18.7	19.9
28	24.5	22.4	23.0	26.1	24.0	25.1	26.2	24.2	25.3	20.8	19.4	20.1
29	24.6	21.2	22.5	25.8	24.1	24.9	26.2	24.4	25.4	19.4	16.6	17.5
30	25.1	22.3	23.5	25.1	23.3	23.7	26.5	24.5	25.5	16.6	14.4	15.6
31	---	---	---	23.9	22.6	23.2	26.3	24.3	24.9	---	---	---
MONTH	25.7	15.7	21.5	27.5	20.8	24.1	26.5	21.8	24.0	25.6	14.4	20.7

0209737400 BOLIN CREEK AT US 15-501 NEAR CHAPEL HILL, NC

LOCATION.--Lat 35°55'29", long 79°01'34", Orange County, Hydrologic Unit 03030002, at bridge on U.S. 15-501, .5 mi above Booker Creek, and 1.7 miles northeast of Chapel Hill.

DRAINAGE AREA.--11.8 mi².

GAGE-HEIGHT RECORDS

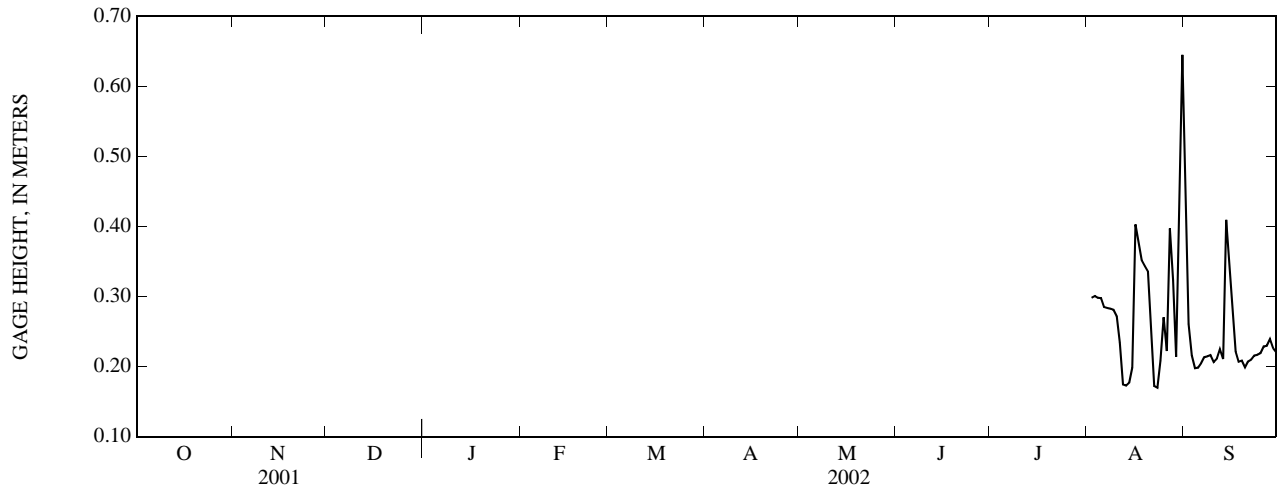
PERIOD OF RECORD.--August 2002 to April 2003 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 245 ft above NGVD of 1929, from topographic map.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height recorded, 2.34 m, October 11, 2002; minimum gage height recorded, 0.15 m, Aug. 23, 24, 2002.

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

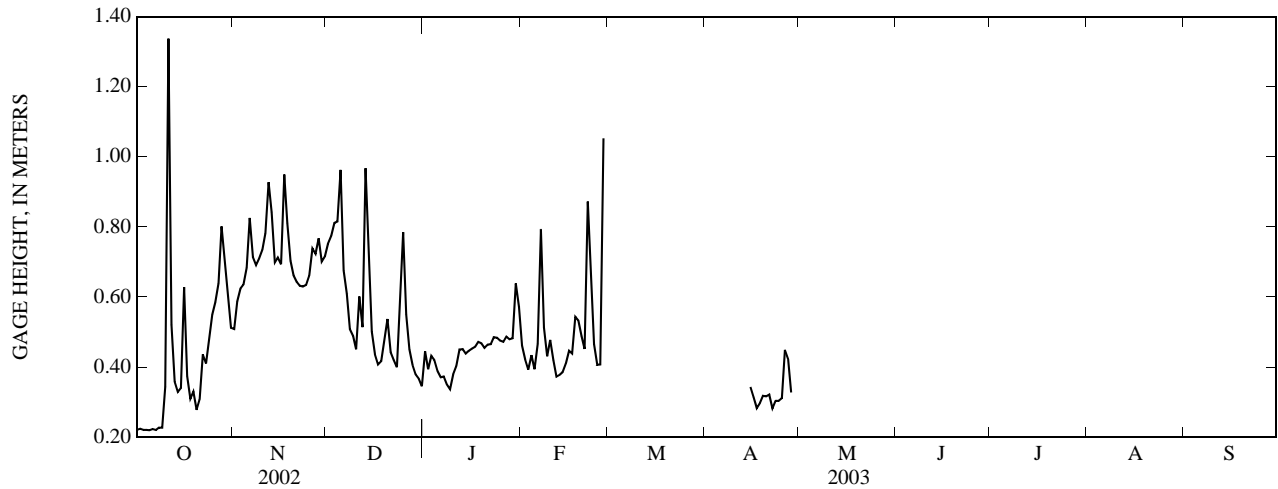
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	---	0.45
2	---	---	---	---	---	---	---	---	---	---	0.30	0.26
3	---	---	---	---	---	---	---	---	---	---	0.30	0.22
4	---	---	---	---	---	---	---	---	---	---	0.30	0.20
5	---	---	---	---	---	---	---	---	---	---	0.30	0.20
6	---	---	---	---	---	---	---	---	---	---	0.29	0.20
7	---	---	---	---	---	---	---	---	---	---	0.28	0.21
8	---	---	---	---	---	---	---	---	---	---	0.28	0.21
9	---	---	---	---	---	---	---	---	---	---	0.28	0.22
10	---	---	---	---	---	---	---	---	---	---	0.27	0.21
11	---	---	---	---	---	---	---	---	---	---	0.23	0.21
12	---	---	---	---	---	---	---	---	---	---	0.17	0.22
13	---	---	---	---	---	---	---	---	---	---	0.17	0.21
14	---	---	---	---	---	---	---	---	---	---	0.18	0.41
15	---	---	---	---	---	---	---	---	---	---	0.20	0.35
16	---	---	---	---	---	---	---	---	---	---	0.40	0.28
17	---	---	---	---	---	---	---	---	---	---	0.38	0.22
18	---	---	---	---	---	---	---	---	---	---	0.35	0.21
19	---	---	---	---	---	---	---	---	---	---	0.34	0.21
20	---	---	---	---	---	---	---	---	---	---	0.34	0.20
21	---	---	---	---	---	---	---	---	---	---	0.25	0.21
22	---	---	---	---	---	---	---	---	---	---	0.17	0.21
23	---	---	---	---	---	---	---	---	---	---	0.17	0.22
24	---	---	---	---	---	---	---	---	---	---	0.21	0.22
25	---	---	---	---	---	---	---	---	---	---	0.27	0.22
26	---	---	---	---	---	---	---	---	---	---	0.22	0.23
27	---	---	---	---	---	---	---	---	---	---	0.40	0.23
28	---	---	---	---	---	---	---	---	---	---	0.32	0.24
29	---	---	---	---	---	---	---	---	---	---	0.21	0.23
30	---	---	---	---	---	---	---	---	---	---	0.37	0.22
31	---	---	---	---	---	---	---	---	---	---	0.64	---
MEAN	---	---	---	---	---	---	---	---	---	---	---	0.24
MAX	---	---	---	---	---	---	---	---	---	---	---	0.45
MIN	---	---	---	---	---	---	---	---	---	---	---	0.20



0209737400 BOLIN CREEK AT US 15-501 NEAR CHAPEL HILL, NC—Continued

GAGE HEIGHT, ABOVE DATUM, METERS
OCTOBER 2002 TO APRIL 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.22	0.51	0.75	0.44	0.46	---	---	---	---	---	---	---
2	0.22	0.59	0.77	0.39	0.42	---	---	---	---	---	---	---
3	0.22	0.62	0.81	0.43	0.39	---	---	---	---	---	---	---
4	0.22	0.64	0.82	0.42	0.43	---	---	---	---	---	---	---
5	0.22	0.68	0.96	0.39	0.39	---	---	---	---	---	---	---
6	0.22	0.83	0.68	0.37	0.47	---	---	---	---	---	---	---
7	0.22	0.71	0.61	0.37	0.79	---	---	---	---	---	---	---
8	0.23	0.69	0.51	0.35	0.51	---	---	---	---	---	---	---
9	0.23	0.71	0.49	0.34	0.43	---	---	---	---	---	---	---
10	0.34	0.73	0.45	0.38	0.48	---	---	---	---	---	---	---
11	1.34	0.78	0.60	0.40	0.42	---	---	---	---	---	---	---
12	0.52	0.93	0.51	0.45	0.37	---	---	---	---	---	---	---
13	0.36	0.84	0.97	0.45	0.38	---	---	---	---	---	---	---
14	0.33	0.70	0.72	0.44	0.39	---	---	---	---	---	---	---
15	0.34	0.71	0.50	0.45	0.41	---	0.34	---	---	---	---	---
16	0.63	0.69	0.44	0.45	0.45	---	0.31	---	---	---	---	---
17	0.37	0.95	0.41	0.46	0.44	---	0.28	---	---	---	---	---
18	0.31	0.81	0.42	0.47	0.54	---	0.30	---	---	---	---	---
19	0.33	0.70	0.48	0.47	0.53	---	0.32	---	---	---	---	---
20	0.28	0.66	0.54	0.45	0.49	---	0.32	---	---	---	---	---
21	0.31	0.64	0.44	0.46	0.45	---	0.32	---	---	---	---	---
22	0.44	0.63	0.42	0.47	0.87	---	0.28	---	---	---	---	---
23	0.41	0.63	0.40	0.48	0.69	---	0.30	---	---	---	---	---
24	0.48	0.63	0.60	0.48	0.47	---	0.30	---	---	---	---	---
25	0.55	0.66	0.78	0.48	0.41	---	0.31	---	---	---	---	---
26	0.58	0.74	0.55	0.47	0.41	---	0.45	---	---	---	---	---
27	0.64	0.72	0.45	0.49	1.05	---	0.42	---	---	---	---	---
28	0.80	0.77	0.41	0.48	---	---	0.33	---	---	---	---	---
29	0.70	0.70	0.38	0.48	---	---	---	---	---	---	---	---
30	0.60	0.72	0.37	0.64	---	---	---	---	---	---	---	---
31	0.51	---	0.34	0.57	---	---	---	---	---	---	---	---
MEAN	0.42	0.71	0.57	0.45	---	---	---	---	---	---	---	---
MAX	1.34	0.95	0.97	0.64	---	---	---	---	---	---	---	---
MIN	0.22	0.51	0.34	0.34	---	---	---	---	---	---	---	---



CAPE FEAR RIVER BASIN

0209737400 BOLIN CREEK AT US 15-501 NEAR CHAPEL HILL, NC—Continued

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

Date	Suspnd. sediment, sieve diametr percent <.063mm (70331)	Suspended sediment concentration mg/L (80154)	Suspended sediment load, tons/d (80155)
OCT 16...	99	55	5.7
DEC 16...	91	8	0.25
FEB 25...	98	33	--
APR 16...	--	--	--
AUG 28...	--	--	--
SEP 16...	--	--	--

Remark codes used in this table:

- < -- Less than
- E -- Estimated value
- M-- Presence verified, not quantified
- K -- Counts outside the acceptable range

Medium codes used in this table:

- 9 -- Surface water

TEMPERATURE, WATER, DEGREES CELSIUS
AUGUST TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	JUNE			JULY			AUGUST			SEPTEMBER		
				MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	---	---	---	---	---	21.7	20.8	21.2	
2	---	---	---	---	---	---	---	27.4	25.3	26.1	21.4	20.6	21.0		
3	---	---	---	---	---	---	---	27.6	24.6	25.8	22.4	20.5	21.5		
4	---	---	---	---	---	---	---	27.0	24.1	25.4	24.0	21.9	23.0		
5	---	---	---	---	---	---	---	27.2	24.1	25.5	24.2	22.3	23.5		
6	---	---	---	---	---	---	---	26.2	24.3	25.1	23.6	21.2	22.4		
7	---	---	---	---	---	---	---	24.6	22.0	23.2	23.3	21.2	22.0		
8	---	---	---	---	---	---	---	24.1	20.6	22.0	23.1	20.8	21.7		
9	---	---	---	---	---	---	---	23.6	20.2	21.7	23.3	21.0	21.9		
10	---	---	---	---	---	---	---	23.9	19.9	21.8	23.9	21.6	22.5		
11	---	---	---	---	---	---	---	25.8	20.3	22.4	24.2	21.6	22.7		
12	---	---	---	---	---	---	---	26.7	21.0	23.6	23.1	20.4	21.6		
13	---	---	---	---	---	---	---	27.6	22.3	24.7	22.8	19.4	20.9		
14	---	---	---	---	---	---	---	26.0	22.5	24.3	23.6	20.5	21.8		
15	---	---	---	---	---	---	---	26.7	23.9	24.9	23.5	22.1	22.7		
16	---	---	---	---	---	---	---	25.1	24.2	24.7	23.3	22.2	22.7		
17	---	---	---	---	---	---	---	26.4	24.6	25.3	23.1	22.4	22.8		
18	---	---	---	---	---	---	---	26.3	24.6	25.3	23.3	22.7	22.9		
19	---	---	---	---	---	---	---	26.7	24.4	25.3	23.6	22.6	22.9		
20	---	---	---	---	---	---	---	26.3	24.3	25.1	23.9	21.9	22.8		
21	---	---	---	---	---	---	---	27.8	24.3	25.8	23.7	21.7	22.7		
22	---	---	---	---	---	---	---	28.2	24.5	26.1	24.3	21.9	22.9		
23	---	---	---	---	---	---	---	28.2	24.5	26.3	23.1	21.7	22.5		
24	---	---	---	---	---	---	---	27.9	24.9	26.3	22.4	20.4	21.3		
25	---	---	---	---	---	---	---	27.4	25.4	26.5	21.3	20.0	20.6		
26	---	---	---	---	---	---	---	27.0	24.4	25.6	20.8	20.0	20.4		
27	---	---	---	---	---	---	---	24.4	21.4	23.3	23.4	20.8	22.0		
28	---	---	---	---	---	---	---	21.8	21.4	21.7	23.2	21.8	22.7		
29	---	---	---	---	---	---	---	21.7	21.3	21.5	22.8	20.7	21.5		
30	---	---	---	---	---	---	---	22.0	20.7	21.2	22.3	19.6	20.8		
31	---	---	---	---	---	---	---	21.5	20.9	21.1	---	---	---		
MONTH	---	---	---	---	---	---	---	---	---	---	24.3	19.4	22.1		

0209741955 NORTHEAST CREEK AT SECONDARY ROAD 1100 NEAR GENLEE, NC

LOCATION.--Lat 35°52'21", long 78°54'48", Durham County, Hydrologic Unit 03030002, on left bank at downstream side of bridge on Secondary Road 1100, 1.3 mi west of Genlee, and 1.6 mi downstream of Burdens Creek.

DRAINAGE AREA.--21.1 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1982 to January 1994, August 1995 to current year.

GAGE.--Water-stage recorder. Datum of gage is 229.01 ft above NGVD of 1929, by levels. Satellite telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. An average of 39.9 ft³/s was diverted from the Neuse River basin for municipal water supply; 17.4 ft³/s was returned to the Cape Fear River basin, of which 7.4 ft³/s entered upstream from station as treated effluent. About 15.9 ft³/s was returned to the Neuse River basin as treated effluent. Maximum discharge for period of record from rating curve extended above 2,000 ft³/s, by logarithmic plotting.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.1	20	12	44	74	119	25	8.9	e50	12	8.0	16
2	6.6	14	13	50	23	118	15	8.6	e30	59	11	9.0
3	7.0	13	13	49	18	68	12	8.0	e16	64	9.7	7.4
4	7.1	13	12	48	20	25	11	7.3	e20	14	8.2	7.3
5	6.8	15	222	22	35	42	9.7	7.4	e18	10	12	12
6	6.6	151	318	18	17	184	9.9	19	e14	8.5	13	7.3
7	6.9	102	191	15	192	161	125	12	e20	8.5	10	6.0
8	6.7	21	66	14	210	29	231	9.2	e60	8.3	15	16
9	7.0	16	39	13	33	20	457	9.2	e80	8.2	15	16
10	7.3	15	30	13	38	16	576	7.4	e50	7.8	24	8.7
11	960	17	69	12	63	13	403	6.7	e40	7.7	14	7.3
12	545	78	107	9.4	25	13	82	6.9	e30	8.0	10	6.8
13	35	243	156	9.9	17	12	35	6.8	e34	7.1	8.5	6.3
14	18	89	400	9.7	14	23	31	6.6	e24	24	16	6.3
15	14	25	95	9.6	17	13	30	6.7	e18	12	13	6.9
16	188	19	30	9.7	20	169	18	12	e22	9.3	47	8.4
17	94	150	22	10	23	167	12	7.5	e30	9.9	17	8.6
18	18	241	17	9.5	49	31	11	6.4	e20	8.9	10	39
19	12	55	18	9.2	138	20	10	23	e50	8.3	8.8	88
20	11	23	91	9.6	73	365	10	12	e70	7.4	8.1	15
21	13	18	116	9.9	35	370	10	9.3	e72	7.7	7.8	9.8
22	44	16	26	9.8	148	59	11	109	e28	7.5	20	e9.4
23	26	15	18	9.6	368	23	9.6	257	e14	20	16	e40
24	14	13	56	10	80	16	8.8	94	e10	41	8.1	e120
25	12	13	286	9.6	25	14	9.8	91	e10	17	7.7	e70
26	11	13	170	9.3	18	12	31	121	e8.8	8.9	7.6	e30
27	12	13	32	9.8	149	11	34	22	e7.8	7.5	7.1	e14
28	43	12	20	10	496	10	14	e10	e7.4	7.8	7.1	e8.0
29	240	11	16	10	---	11	11	e16	7.5	7.4	6.9	6.8
30	175	12	14	29	---	95	9.7	e22	7.9	12	7.1	6.6
31	45	---	13	162	---	174	---	e32	---	8.9	7.7	---
TOTAL	2,598.1	1,456	2,688	663.6	2,418	2,403	2,262.5	974.9	869.4	448.6	381.4	612.9
MEAN	83.8	48.5	86.7	21.4	86.4	77.5	75.4	31.4	29.0	14.5	12.3	20.4
MAX	960	243	400	162	496	370	576	257	80	64	47	120
MIN	6.1	11	12	9.2	14	10	8.8	6.4	7.4	7.1	6.9	6.0
CFSM	3.97	2.30	4.11	1.01	4.09	3.67	3.57	1.49	1.37	0.69	0.58	0.97
IN.	4.58	2.57	4.74	1.17	4.26	4.24	3.99	1.72	1.53	0.79	0.67	1.08

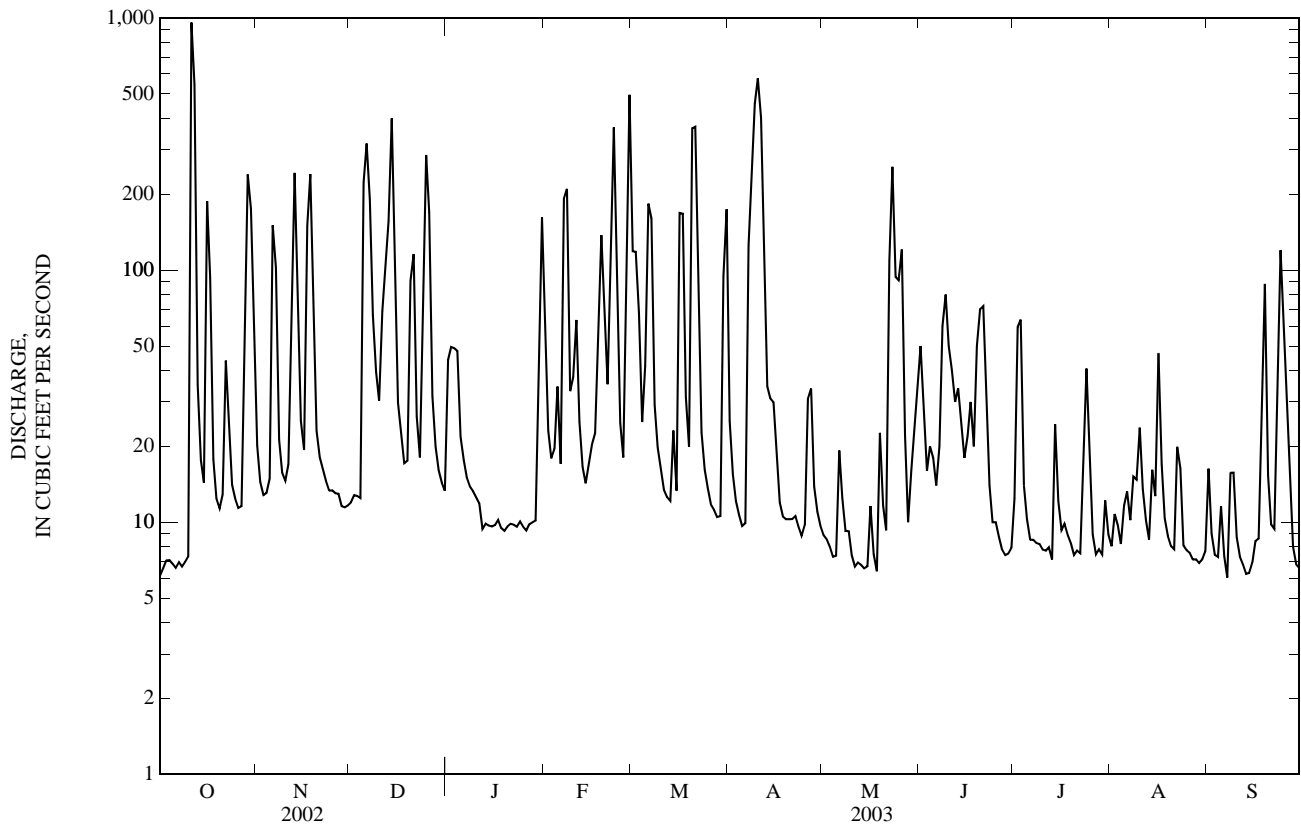
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 2003,® BY WATER YEAR (WY)

MEAN	21.5	25.7	32.3	54.6	57.9	60.2	36.5	19.2	12.8	14.4	16.4	33.2
MAX	83.8	82.7	86.7	134	111	128	84.5	59.1	44.4	48.6	66.7	247
(WY)	(2003)	(1993)	(2003)	(1998)	(1998)	(1998)	(1993)	(1990)	(1992)	(1989)	(1986)	(1999)
MIN	3.27	3.89	4.31	12.6	10.8	8.18	4.00	4.57	4.55	3.33	3.50	2.49
(WY)	(1986)	(1985)	(2002)	(1986)	(1991)	(1985)	(1985)	(2002)	(1987)	(1983)	(1983)	(1983)

0209741955 NORTHEAST CREEK AT SECONDARY ROAD 1100 NEAR GENLEE, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1983 - 2003 [®]	
ANNUAL TOTAL	10,681.7		17,776.4		32.3	
ANNUAL MEAN	29.3		48.7		49.1	
HIGHEST ANNUAL MEAN					12.4	
LOWEST ANNUAL MEAN					1996	
HIGHEST DAILY MEAN	960	Oct 11	960	Oct 11	3,350	Sep 6, 1996
LOWEST DAILY MEAN	2.6	Jan 16	6.0	Sep 7	0.74	Jul 16, 1991
ANNUAL SEVEN-DAY MINIMUM	3.2	May 21	6.7	Oct 1	1.5	Oct 7, 1985
MAXIMUM PEAK FLOW			2,450	Oct 11	5,140*	Sep 6, 1996
MAXIMUM PEAK STAGE			11.97	Oct 11	13.92	Sep 6, 1996
INSTANTANEOUS LOW FLOW			4.3	Sep 30	0.76	Oct 7, 1985
ANNUAL RUNOFF (CFSM)	1.39		2.31		1.53	
ANNUAL RUNOFF (INCHES)	18.83		31.34		20.81	
10 PERCENT EXCEEDS	60		130		61	
50 PERCENT EXCEEDS	8.6		15		9.0	
90 PERCENT EXCEEDS	4.1		7.4		4.0	

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



0209741955 NORTHEAST CREEK AT SECONDARY ROAD 1100 NEAR GENLEE, NC—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1983-86, 1988-1995, 1999, 2001.

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.

COOPERATION.--Sample 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 Water Quality Lab. Results may be obtained from the District Office in Raleigh, NC. Instantaneous discharge is not available for April and August 1994.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 872 microsiemens, Oct. 15, 1984; minimum, 29 microsiemens, Jan. 11, Apr. 5, 1984.

WATER TEMPERATURE: Maximum, 29.0°C, Aug. 23, 1983; minimum, 0.0°C, Dec. 28, 1983, Jan. 2, 22, 23, 1984.

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

Date	Time	Instantaneous discharge, cfs (00061)	Color, water, fltrd, Pt-Co units (00080)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, unfltrd mg/L as CaCO3 (00900)	Calcium, water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unfltrd, titr., field, mg/L as CaCO3 (00419)	
Date		Bicarbonate, wat unfltrd, titr., field, mg/L (00450)	Chloride, water, fltrd, mg/L (00940)	Silica, water, fltrd, mg/L (00955)	Sulfate, water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia, water, fltrd, mg/L as N (00608)	Nitrite + nitrate, water, fltrd, mg/L as N (00631)	Nitrite, water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Organic carbon, water, unfltrd mg/L (00680)	Aluminum, water, unfltrd recoverable, ug/L (01105)
Date		Arsenic, water, unfltrd ug/L (01002)	Cadmium, water, unfltrd ug/L (01027)	Chromium, water, unfltrd recoverable, ug/L (01034)	Cobalt, water, unfltrd recoverable, ug/L (01037)	Copper, water, unfltrd recoverable, ug/L (01042)	Iron, water, unfltrd recoverable, ug/L (01045)	Lead, water, unfltrd recoverable, ug/L (01051)	Manganese, water, unfltrd recoverable, ug/L (01055)	Mercury, water, unfltrd recoverable, ug/L (71900)	Molybdenum, water, unfltrd recoverable, ug/L (01062)	Nickel, water, unfltrd recoverable, ug/L (01067)	Selenium, water, unfltrd ug/L (01147)	Silver, water, unfltrd recoverable, ug/L (01077)
Date		Zinc, water, unfltrd recoverable, ug/L (01092)	Suspended sediment concentration, mg/L (80154)	Suspended sediment load, tons/d (80155)										
MAY 23...	1230	264	200	6.4	6.6	123	16.9	33	8.79	2.71	2.71	9.92	32	
MAY 23...	39	9.53	6.3	7.2	87	0.83	0.038	0.941	0.013	0.074	0.191	13.6	630	
MAY 23...	<2	<0.2	1.0	<3.4	7.6	970	1	57.1	E.01	3	E1.5	<3	<0.3	
MAY 23...						<25	33	23						

Remark codes used in this table:

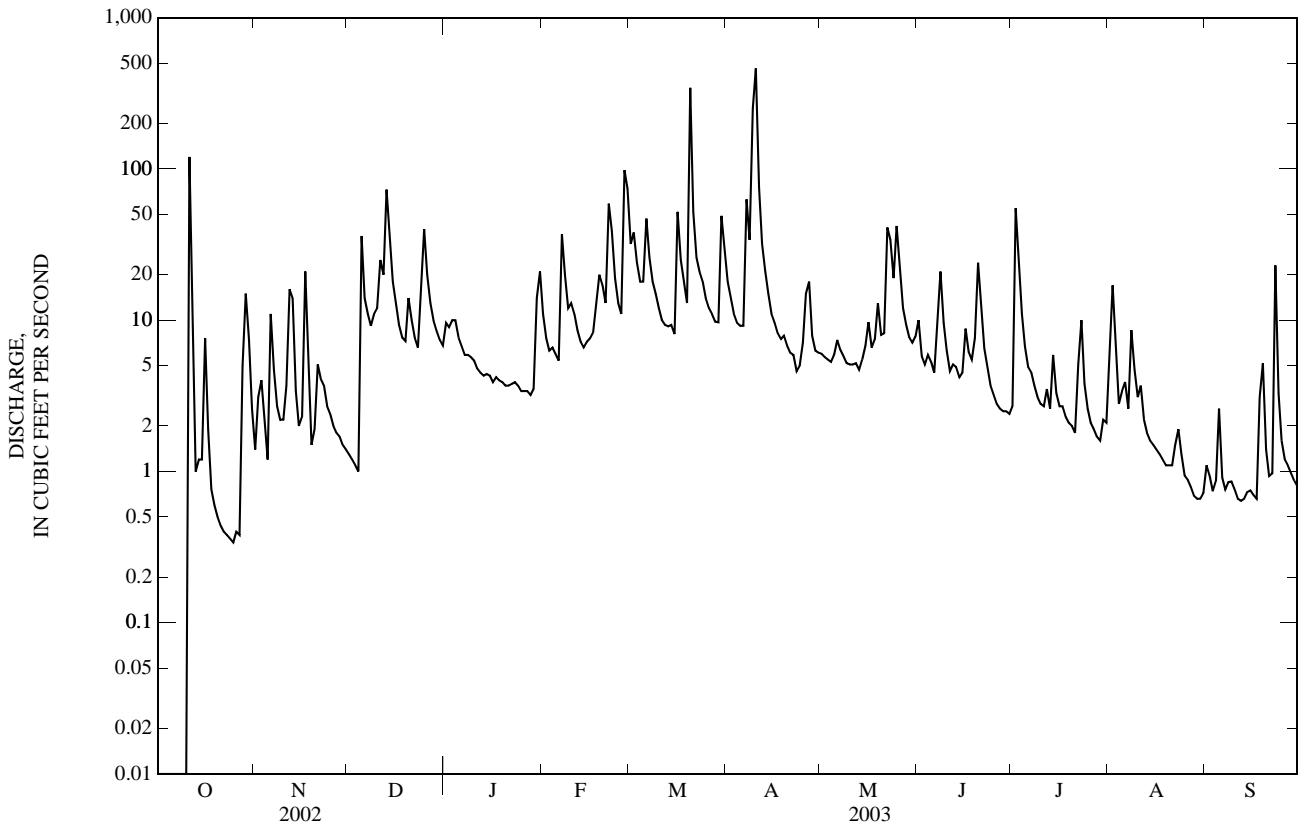
< -- Less than

E -- Estimated value

02097464 MORGAN CREEK NEAR WHITE CROSS, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1989 - 2003	
ANNUAL TOTAL	1,293.73		4,546.95		7.69	
ANNUAL MEAN	3.54		12.5		12.5	
HIGHEST ANNUAL MEAN					1.46	
LOWEST ANNUAL MEAN					1998	
HIGHEST DAILY MEAN	120	Oct 11	462	Apr 10	737	Sep 6, 1996
LOWEST DAILY MEAN	0.00	Jun 16	0.00	Oct 1	0.00	Jun 16, 2002
ANNUAL SEVEN-DAY MINIMUM	0.00	Aug 8	0.00	Oct 1	0.00	Aug 8, 2002
MAXIMUM PEAK FLOW			1,570*	Apr 10	3,100*	Aug 27, 1995
MAXIMUM PEAK STAGE			9.40	Apr 10	11.20	Aug 27, 1995
INSTANTANEOUS LOW FLOW			0.00*	Oct 1	0.00*	Jun 16, 2002
ANNUAL RUNOFF (CFSM)	0.42		1.49		0.92	
ANNUAL RUNOFF (INCHES)	5.76		20.26		12.51	
10 PERCENT EXCEEDS	8.4		22		15	
50 PERCENT EXCEEDS	1.0		5.5		2.8	
90 PERCENT EXCEEDS	0.01		0.83		0.23	

e Estimated.
 * See REMARKS.



02097464 MORGAN CREEK NEAR WHITE CROSS, NC—Continued

GAGE-HEIGHT RECORDS

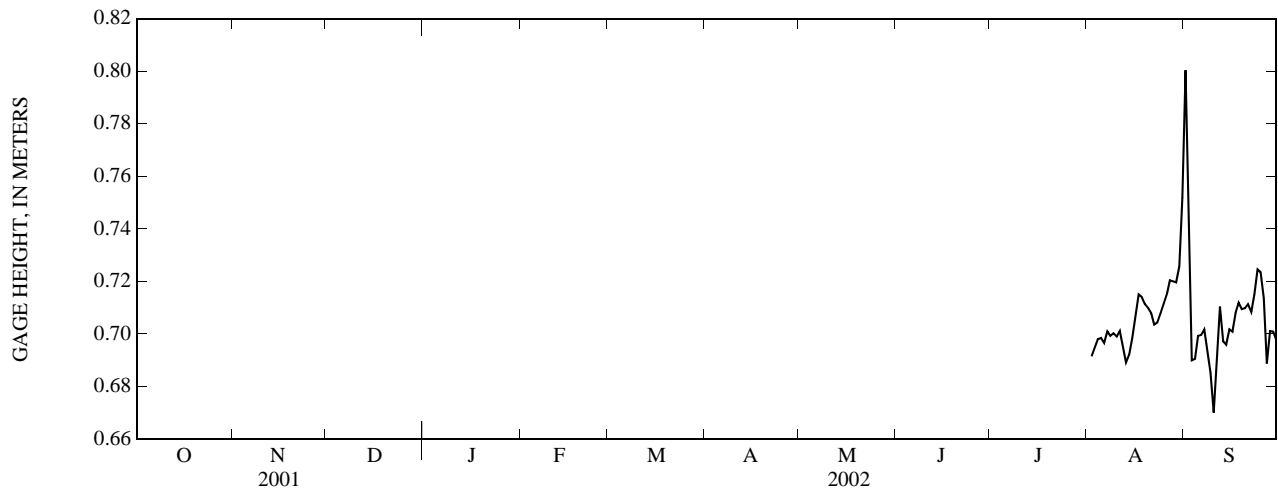
PERIOD OF RECORD.--August 2002 to November 2003 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 725 ft above NGVD of 1929, from topographic map.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height recorded, 2.91 m, Apr. 10, 2003; minimum gage height recorded, 0.61 m, Sept. 18, 2002.

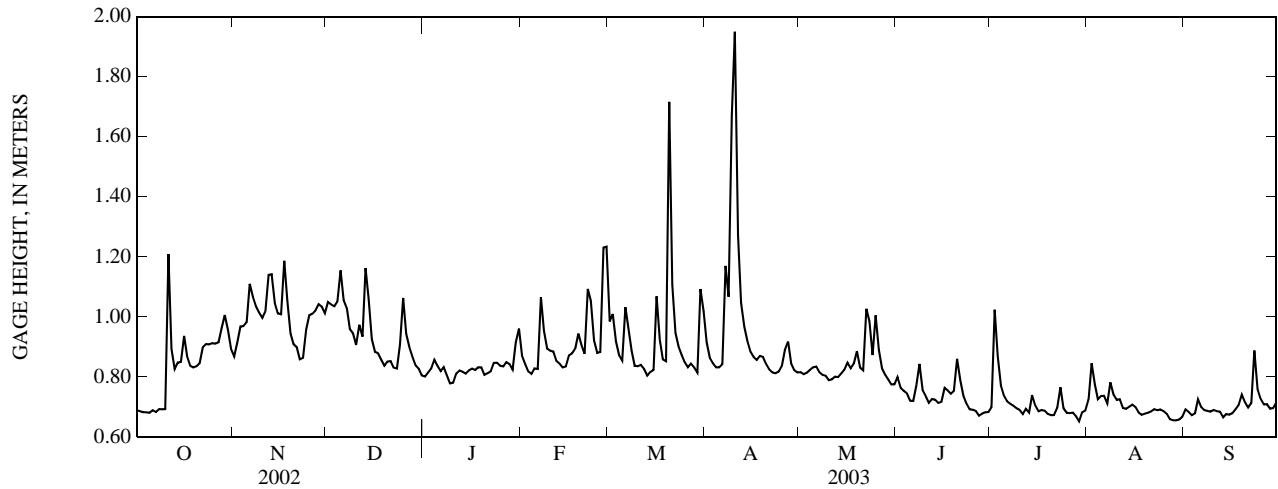
GAGE HEIGHT, ABOVE DATUM, METERS
AUGUST TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	---	0.80
2	---	---	---	---	---	---	---	---	---	---	0.69	0.74
3	---	---	---	---	---	---	---	---	---	---	0.69	0.69
4	---	---	---	---	---	---	---	---	---	---	0.70	0.69
5	---	---	---	---	---	---	---	---	---	---	0.70	0.70
6	---	---	---	---	---	---	---	---	---	---	0.70	0.70
7	---	---	---	---	---	---	---	---	---	---	0.70	0.70
8	---	---	---	---	---	---	---	---	---	---	0.70	0.69
9	---	---	---	---	---	---	---	---	---	---	0.70	0.69
10	---	---	---	---	---	---	---	---	---	---	0.70	0.67
11	---	---	---	---	---	---	---	---	---	---	0.70	0.69
12	---	---	---	---	---	---	---	---	---	---	0.69	0.71
13	---	---	---	---	---	---	---	---	---	---	0.69	0.70
14	---	---	---	---	---	---	---	---	---	---	0.69	0.70
15	---	---	---	---	---	---	---	---	---	---	0.70	0.70
16	---	---	---	---	---	---	---	---	---	---	0.71	0.70
17	---	---	---	---	---	---	---	---	---	---	0.72	0.71
18	---	---	---	---	---	---	---	---	---	---	0.71	0.71
19	---	---	---	---	---	---	---	---	---	---	0.71	0.71
20	---	---	---	---	---	---	---	---	---	---	0.71	0.71
21	---	---	---	---	---	---	---	---	---	---	0.71	0.71
22	---	---	---	---	---	---	---	---	---	---	0.70	0.71
23	---	---	---	---	---	---	---	---	---	---	0.70	0.71
24	---	---	---	---	---	---	---	---	---	---	0.71	0.72
25	---	---	---	---	---	---	---	---	---	---	0.71	0.72
26	---	---	---	---	---	---	---	---	---	---	0.72	0.71
27	---	---	---	---	---	---	---	---	---	---	0.72	0.69
28	---	---	---	---	---	---	---	---	---	---	0.72	0.70
29	---	---	---	---	---	---	---	---	---	---	0.72	0.70
30	---	---	---	---	---	---	---	---	---	---	0.73	0.70
31	---	---	---	---	---	---	---	---	---	---	0.75	---
MEAN	---	---	---	---	---	---	---	---	---	---	---	0.71
MAX	---	---	---	---	---	---	---	---	---	---	---	0.80
MIN	---	---	---	---	---	---	---	---	---	---	---	0.67



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

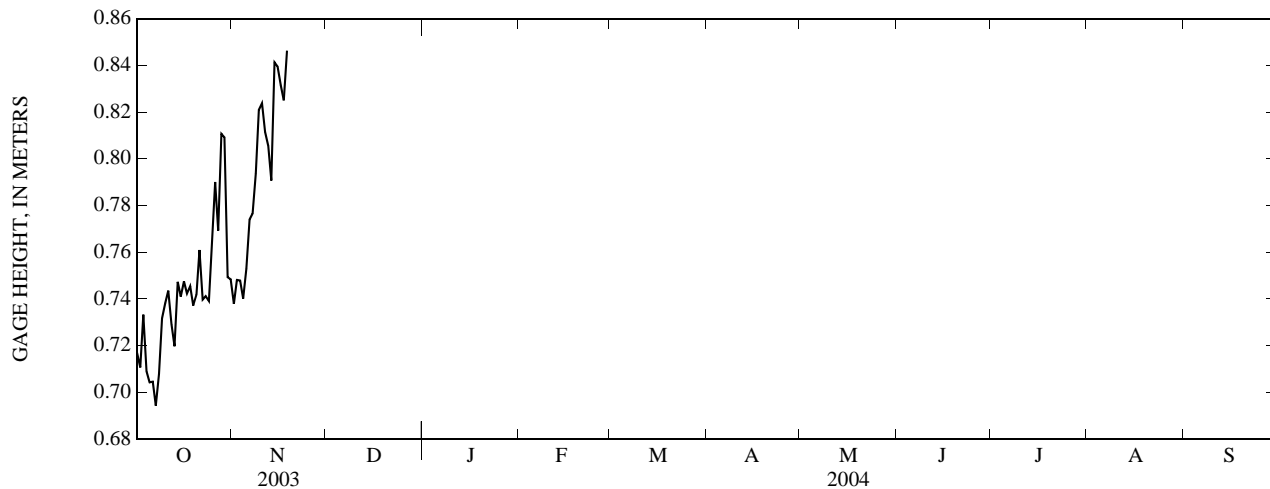
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.69	0.87	1.05	0.80	0.87	0.99	0.92	0.82	0.80	0.70	0.73	0.69
2	0.69	0.91	1.04	0.81	0.84	1.01	0.86	0.81	0.76	1.02	0.85	0.68
3	0.68	0.97	1.04	0.83	0.82	0.92	0.85	0.81	0.75	0.87	0.78	0.67
4	0.68	0.97	1.05	0.86	0.81	0.87	0.83	0.82	0.75	0.77	0.73	0.68
5	0.68	0.98	1.15	0.84	0.83	0.85	0.83	0.83	0.72	0.74	0.74	0.73
6	0.69	1.11	1.06	0.82	0.83	1.03	0.84	0.83	0.72	0.72	0.74	0.70
7	0.68	1.07	1.03	0.83	1.07	0.96	1.17	0.82	0.77	0.71	0.71	0.69
8	0.69	1.03	0.96	0.80	0.95	0.89	1.07	0.81	0.84	0.70	0.78	0.69
9	0.69	1.01	0.94	0.78	0.89	0.84	1.67	0.80	0.76	0.70	0.74	0.68
10	0.69	1.00	0.91	0.78	0.89	0.84	1.95	0.79	0.74	0.69	0.72	0.69
11	1.21	1.02	0.97	0.81	0.88	0.84	1.27	0.79	0.71	0.68	0.73	0.69
12	0.89	1.14	0.93	0.82	0.85	0.83	1.05	0.80	0.73	0.69	0.70	0.68
13	0.83	1.14	1.16	0.82	0.84	0.80	0.97	0.80	0.72	0.68	0.69	0.67
14	0.85	1.05	1.06	0.81	0.83	0.82	0.92	0.81	0.71	0.74	0.70	0.68
15	0.85	1.01	0.93	0.82	0.83	0.82	0.88	0.82	0.72	0.70	0.71	0.67
16	0.94	1.01	0.88	0.83	0.87	1.07	0.87	0.85	0.76	0.69	0.70	0.68
17	0.87	1.19	0.88	0.82	0.88	0.92	0.86	0.83	0.76	0.69	0.68	0.69
18	0.84	1.05	0.86	0.83	0.90	0.86	0.87	0.85	0.74	0.69	0.67	0.71
19	0.83	0.94	0.84	0.83	0.94	0.85	0.87	0.89	0.75	0.68	0.68	0.74
20	0.84	0.91	0.85	0.81	0.91	1.72	0.84	0.83	0.86	0.67	0.68	0.72
21	0.85	0.90	0.85	0.81	0.88	1.11	0.83	0.82	0.79	0.67	0.69	0.70
22	0.90	0.86	0.83	0.82	1.09	0.95	0.81	1.03	0.74	0.70	0.69	0.71
23	0.91	0.86	0.83	0.85	1.05	0.90	0.81	0.99	0.71	0.77	0.69	0.89
24	0.91	0.96	0.91	0.85	0.92	0.87	0.82	0.87	0.69	0.70	0.69	0.76
25	0.91	1.01	1.06	0.84	0.88	0.85	0.84	1.01	0.69	0.68	0.69	0.73
26	0.91	1.01	0.94	0.84	0.88	0.83	0.89	0.89	0.69	0.68	0.68	0.71
27	0.92	1.02	0.90	0.85	1.23	0.84	0.92	0.83	0.67	0.68	0.66	0.71
28	0.96	1.04	0.87	0.84	1.23	0.83	0.85	0.81	0.68	0.67	0.66	0.69
29	1.01	1.03	0.84	0.82	---	0.81	0.82	0.79	0.68	0.65	0.66	0.70
30	0.96	1.01	0.83	0.92	---	1.09	0.82	0.77	0.68	0.68	0.66	0.72
31	0.89	---	0.80	0.96	---	1.02	---	0.78	---	0.69	0.67	---
MEAN	0.84	1.00	0.94	0.83	0.92	0.93	0.96	0.84	0.74	0.71	0.71	0.70
MAX	1.21	1.19	1.16	0.96	1.23	1.72	1.95	1.03	0.86	1.02	0.85	0.89
MIN	0.68	0.86	0.80	0.78	0.81	0.80	0.81	0.77	0.67	0.65	0.66	0.67



02097464 MORGAN CREEK NEAR WHITE CROSS, NC—Continued

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.72	0.74	---	---	---	---	---	---	---	---	---	---
2	0.71	0.75	---	---	---	---	---	---	---	---	---	---
3	0.73	0.75	---	---	---	---	---	---	---	---	---	---
4	0.71	0.74	---	---	---	---	---	---	---	---	---	---
5	0.70	0.75	---	---	---	---	---	---	---	---	---	---
6	0.70	0.77	---	---	---	---	---	---	---	---	---	---
7	0.69	0.78	---	---	---	---	---	---	---	---	---	---
8	0.71	0.79	---	---	---	---	---	---	---	---	---	---
9	0.73	0.82	---	---	---	---	---	---	---	---	---	---
10	0.74	0.82	---	---	---	---	---	---	---	---	---	---
11	0.74	0.81	---	---	---	---	---	---	---	---	---	---
12	0.73	0.81	---	---	---	---	---	---	---	---	---	---
13	0.72	0.79	---	---	---	---	---	---	---	---	---	---
14	0.75	0.84	---	---	---	---	---	---	---	---	---	---
15	0.74	0.84	---	---	---	---	---	---	---	---	---	---
16	0.75	0.83	---	---	---	---	---	---	---	---	---	---
17	0.74	0.82	---	---	---	---	---	---	---	---	---	---
18	0.75	0.85	---	---	---	---	---	---	---	---	---	---
19	0.74	---	---	---	---	---	---	---	---	---	---	---
20	0.74	---	---	---	---	---	---	---	---	---	---	---
21	0.76	---	---	---	---	---	---	---	---	---	---	---
22	0.74	---	---	---	---	---	---	---	---	---	---	---
23	0.74	---	---	---	---	---	---	---	---	---	---	---
24	0.74	---	---	---	---	---	---	---	---	---	---	---
25	0.77	---	---	---	---	---	---	---	---	---	---	---
26	0.79	---	---	---	---	---	---	---	---	---	---	---
27	0.77	---	---	---	---	---	---	---	---	---	---	---
28	0.81	---	---	---	---	---	---	---	---	---	---	---
29	0.81	---	---	---	---	---	---	---	---	---	---	---
30	0.75	---	---	---	---	---	---	---	---	---	---	---
31	0.75	---	---	---	---	---	---	---	---	---	---	---
MEAN	0.74	---	---	---	---	---	---	---	---	---	---	---
MAX	0.81	---	---	---	---	---	---	---	---	---	---	---
MIN	0.69	---	---	---	---	---	---	---	---	---	---	---



WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: August 2002 to November 2003.

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

REMARKS.--Station operated as part of a six county regional surface-water quality assessment and the NAWQA Urban Land Use Gradient study.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum recorded, 27.6°C, Aug. 30, 2003; minimum recorded, 0.0°C, Jan. 19, 23-26, 28, 2003.

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

Date	Time	Medium code	Instantaneous discharge, cfs (00061)	Color, water, fltrd, Pt-Co units (00080)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, unfltrd mg/L as CaCO3 (00900)	Calcium, water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)
OCT 16...	0915	9	13	--	742	8.9	90	7.0	128	14.9	--	--	--
NOV 01...	0830	9	1.4	45	758	9.1	80	6.8	115	9.2	33	7.96	3.20
DEC 16...	1330	9	12	50	747	11.3	95	6.9	90	7.2	28	6.59	2.71
FEB 20...	1145	9	17	50	760	12.0	98	6.9	79	6.7	23	5.66	2.27
25...	0945	9	13	--	758	11.5	96	7.1	84	7.4	--	--	--
MAR 20...	0900	9	555	260	750	10.7	94	6.1	42	9.3	14	3.21	1.35
APR 14...	1315	9	15	88	761	10.2	100	6.4	65	14.3	21	4.93	2.01
16...	1100	9	10	--	756	8.5	85	6.8	96	15.1	--	--	--
MAY 15...	1600	D	5.7	--	--	8.5	--	7.4	95	17.2	--	--	--
JUN 18...	1200	9	5.7	--	--	--	--	7.8	100	20.8	--	--	--
30...	1045	9	2.3	12	768	7.2	81	6.7	110	21.7	43	11.3	3.54
JUL 08...	1015	9	3.9	--	--	--	--	--	--	--	--	--	--
15...	1200	9	3.3	--	752	7.5	87	7.0	100	22.2	--	--	--
AUG 21...	1215	9	1.2	40	757	7.2	84	7.0	124	22.6	46	11.9	3.85
28...	1300	9	0.73	--	760	6.7	81	5.7	120	24.6	--	--	--
Date	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unfltrd, titr., mg/L as CaCO3 (00419)	Bicarbonate, wat unfltrd, titr., mg/L (00450)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate, water, fltrd, mg/L (00945)	Residue water, fltrd, sum of constituents mg/L (70301)	Residue water, fltrd, tons/acre-ft (70303)	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L (71846)
OCT 16...	--	--	--	--	7.82	--	--	12.2	--	--	--	0.95	--
NOV 01...	3.67	5.60	--	--	8.23	<0.17	12.2	10.5	70	0.12	91	0.50	--
DEC 16...	2.53	4.94	--	--	6.08	<0.17	10.6	8.3	--	--	87	0.37	--
FEB 20...	1.56	4.76	18	22	5.74	0.03	8.6	7.0	49	0.08	59	0.34	--
25...	--	--	--	--	5.44	--	--	7.1	--	--	--	0.30	--
MAR 20...	2.04	1.92	8	10	2.81	0.05	4.4	4.2	27	0.07	51	1.8	0.22
APR 14...	1.10	3.63	18	22	4.77	0.06	10.6	5.1	45	0.07	54	0.30	--
16...	--	--	--	--	6.05	--	--	4.9	--	--	--	2.0	0.93
MAY 15...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 18...	--	--	--	--	--	--	--	--	--	--	--	--	--
30...	1.95	5.91	39	47	6.61	<0.2	13.2	2.9	71	0.10	73	0.66	--
JUL 08...	--	--	--	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	6.17	--	--	2.8	--	--	--	0.29	--
AUG 21...	2.45	5.55	42	51	7.09	<0.2	15.2	2.8	77	0.10	76	0.29	--
28...	--	--	--	--	6.70	--	--	2.8	--	--	--	0.28	--

02097464 MORGAN CREEK NEAR WHITE CROSS, NC—Continued

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

Date	Ammonia water, fltrd, mg/L as N (00608)	Nitrate water, fltrd, mg/L (71851)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L (71856)	Nitrite water, fltrd, mg/L as N (00613)	Organic nitrogen, water, unfltrd mg/L (00605)	Ortho-phosphate, water, fltrd, mg/L (00660)	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Particulate nitrogen, susp, water, mg/L (49570)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)	Total carbon, suspnd sedimnt total, mg/L (00694)
Date	Inorganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	Organic carbon, water, unfltrd mg/L (00680)	Biomass periphyton, ashfree drymass g/m2 (49954)	Periphyton biomass ash weight, g/m2 (00572)	Periphyton biomass dry weight, g/m2 (00573)	Biomass chlorophyll ratio, periphyton, number (70950)	Pheophytin a, periphyton, mg/m2 (62359)	E coli, modif. m-TEC, water, col/100 mL (90902)	Chlorophyll a periphyton, chromo-fluoro, mg/m2 (70957)	Aluminum, water, unfltrd recover-able, ug/L (01105)	Arsenic water unfltrd ug/L (01002)
OCT 16...	<0.04	5.67	1.28	1.31	0.102	0.031	--	0.576	0.19	0.20	0.32	2.3	1.6
NOV 01...	E.009	4.04	0.91	0.92	0.013	0.004	--	0.169	0.055	--	--	1.4	--
DEC 16...	E.011	3.67	0.83	0.83	0.010	0.003	--	0.101	0.033	<0.02	0.05	1.2	0.2
FEB 20...	<0.015	2.13	0.48	0.48	0.010	0.003	--	0.043	0.014	--	E.04	0.83	--
FEB 25...	<0.04	--	--	0.56	--	<0.008	--	0.067	0.02	0.05	0.066	0.86	0.4
MAR 20...	0.170	2.29	0.52	0.53	0.033	0.010	1.6	0.178	0.058	--	0.43	2.3	--
APR 14...	E.014	2.35	0.53	0.535	0.010	0.003	--	0.064	0.021	--	0.049	0.84	--
APR 16...	0.72	2.25	0.51	0.56	0.184	0.056	1.3	0.067	0.02	0.60	0.20	2.6	3.5
MAY 15...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 18...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 30...	E.012	--	--	0.473	--	E.002	--	0.120	0.039	--	0.094	1.1	--
JUL 08...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 15...	<0.04	--	--	0.41	--	<0.008	--	0.163	0.05	0.08	0.104	0.70	0.9
AUG 21...	<0.015	3.17	0.72	0.722	0.016	0.005	--	0.067	0.022	--	0.091	1.0	--
AUG 28...	<0.04	--	--	0.47	--	<0.008	--	0.113	0.04	0.02	0.088	0.74	0.2

02097464 MORGAN CREEK NEAR WHITE CROSS, NC—Continued

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

Date	Cadmium water, unfltrd ug/L (01027)	Chrom- ium, water, unfltrd recover- able, ug/L (01034)	Cobalt water, unfltrd recover- able, ug/L (01037)	Copper, water, unfltrd recover- able, ug/L (01042)	Iron, water, unfltrd recover- able, ug/L (01045)	Lead, water, unfltrd recover- able, ug/L (01051)	Mangan- ese, water, unfltrd recover- able, ug/L (01055)	Mercury water, unfltrd recover- able, ug/L (71900)	Molyb- denum, water, unfltrd recover- able, ug/L (01062)	Nickel, water, unfltrd recover- able, ug/L (01067)	Selen- ium, water, unfltrd ug/L (01147)	Silver, water, unfltrd recover- able, ug/L (01077)	Zinc, water, unfltrd recover- able, ug/L (01092)
OCT 16...	--	--	--	--	--	--	--	--	--	--	--	--	--
NOV 01...	<0.2	<0.8	<3.4	1.4	490	<1	27.4	<0.02	<2	<2.0	<3	<0.3	<25
DEC 16...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB 20...	--	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR 20...	<0.2	2.3	E3.1	6.2	3,280	5	421	0.03	<2	E1.9	<3	<0.3	<25
APR 14...	<0.2	<0.8	<3.4	1.6	510	<1	28.8	<0.02	<2	<2.0	<3	<0.3	<25
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY 15...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 18...	--	--	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 08...	--	--	--	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 21...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
Date	1-Naph- thol, water, fltrd 0.7u GF ug/L (49295)	2,6-Di- ethyl- aniline water fltrd 0.7u GF ug/L (82660)	2-[(2- Et-6-Me -Ph)- -amino] propan- 1-ol, ug/L (61615)	2Chloro -2,6'- diethyl acet- anilide wat flt ug/L (61618)	CIAT, water, fltrd, ug/L (04040)	2-Ethyl -6- methyl- aniline water, fltrd, ug/L (61620)	3,4-Di- chloro- aniline water fltrd, ug/L (61625)	4Chloro 2methyl phenol, water, fltrd, ug/L (61633)	Aceto- chlor, water, fltrd, ug/L (49260)	Ala- chlor, water, fltrd, ug/L (46342)	Atra- zine, water, fltrd, ug/L (39632)	Azin- phos- methyl oxon, water, fltrd, ug/L (61635)	Azin- phos- methyl, water, fltrd 0.7u GF ug/L (82686)
OCT 16...	<0.09	<0.006	<0.1	<0.005	E.010	<0.004	<0.004	<0.006	<0.006	<0.004	<0.007	<0.02	<0.050
NOV 01...	--	--	--	--	--	--	--	--	--	--	--	--	--
DEC 16...	<0.09	<0.006	<0.1	<0.005	E.006	<0.004	<0.004	<0.006	<0.006	<0.004	<0.007	<0.02	<0.050
FEB 20...	--	--	--	--	--	--	--	--	--	--	--	--	--
25...	<0.09	<0.006	<0.1	<0.005	E.008	<0.004	<0.004	<0.006	<0.006	<0.004	E.003	<0.02	<0.050
MAR 20...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR 14...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	<0.09	<0.006	<0.1	<0.005	E.008	<0.004	<0.004	<0.006	<0.006	<0.004	E.004	<0.02	<0.050
MAY 15...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 18...	--	--	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 08...	--	--	--	--	--	--	--	--	--	--	--	--	--
15...	<0.09	<0.006	<0.1	<0.005	E.029	<0.004	<0.004	<0.006	<0.006	<0.004	0.143	<0.02	<0.050
AUG 21...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	<0.09	<0.006	<0.1	<0.005	E.015	<0.004	<0.004	<0.006	<0.006	<0.004	0.020	<0.02	<0.050

02097464 MORGAN CREEK NEAR WHITE CROSS, NC—Continued

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

Date	Ben-flu- alin, water, fltrd 0.7u GF (82673)	Car- baryl, water, fltrd 0.7u GF (82680)	Chlor- pyrifos oxon, water, fltrd, ug/L (61636)	Chlor- pyrifos water, fltrd, ug/L (38933)	cis- Per- methrin water fltrd 0.7u GF (82687)	Cyflu- thrin, water, fltrd, ug/L (61585)	Cyper- methrin water, fltrd, ug/L (61586)	DCPA, water fltrd 0.7u GF (82682)	Desulf- inyl fipro- nil, water, fltrd, ug/L (62170)	Diaz- inon oxon, water, fltrd, ug/L (61638)	Diazi- non, water, fltrd, ug/L (39572)	Dicro- tophos, water fltrd, ug/L (38454)	Diel- drin, water, fltrd, ug/L (39381)
OCT 16...	<0.010	<0.041	<0.06	<0.005	<0.006	<0.008	<0.009	<0.003	<0.004	--	<0.005	<0.08	<0.005
NOV 01...	--	--	--	--	--	--	--	--	--	--	--	--	--
DEC 16...	<0.010	<0.041	<0.06	<0.005	<0.006	<0.008	<0.009	<0.003	<0.004	<0.04	<0.005	<0.08	<0.005
FEB 20...	--	--	--	--	--	--	--	--	--	--	--	--	--
25...	<0.010	<0.041	<0.06	<0.005	<0.006	<0.008	<0.009	<0.003	<0.004	<0.04	<0.005	<0.08	<0.005
MAR 20...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR 14...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	<0.010	<0.041	<0.06	<0.005	<0.006	<0.008	<0.009	<0.003	<0.004	<0.04	<0.005	<0.08	<0.005
MAY 15...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 18...	--	--	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 08...	--	--	--	--	--	--	--	--	--	--	--	--	--
15...	<0.010	<0.041	<0.06	<0.005	<0.006	<0.008	<0.009	<0.003	<0.004	<0.01	<0.005	<0.08	<0.005
AUG 21...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	<0.010	<0.041	<0.06	<0.005	<0.006	<0.008	<0.009	<0.003	<0.004	<0.01	<0.005	<0.08	<0.005
Date	Dimeth- oate, water, fltrd 0.7u GF (82662)	Ethion monoxon water, fltrd, ug/L (61644)	Ethion, water, fltrd, ug/L (82346)	Fenami- phos sulfone water, fltrd, ug/L (61645)	Fenami- phos sulf- oxide, water, fltrd, ug/L (61646)	Fenami- phos, water, fltrd, ug/L (61591)	Desulf- inyl- fipro- nil amide, wat flt ug/L (62169)	Fipro- nil sulfide water, fltrd, ug/L (62167)	Fipro- nil sulfone water, fltrd, ug/L (62168)	Fipro- nil, water, fltrd, ug/L (62166)	Fonofos oxon, water, fltrd, ug/L (61649)	Fonofos water, fltrd, ug/L (04095)	Hexa- zinone, water, fltrd, ug/L (04025)
OCT 16...	<0.006	<0.03	<0.004	<0.008	<0.03	<0.03	<0.009	<0.005	<0.005	<0.007	<0.002	<0.003	--
NOV 01...	--	--	--	--	--	--	--	--	--	--	--	--	--
DEC 16...	<0.006	<0.03	<0.004	<0.008	<0.03	<0.03	<0.009	<0.005	<0.005	<0.007	<0.002	<0.003	--
FEB 20...	--	--	--	--	--	--	--	--	--	--	--	--	--
25...	<0.006	<0.03	<0.004	<0.008	<0.03	<0.03	<0.009	<0.005	<0.005	<0.007	<0.002	<0.003	--
MAR 20...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR 14...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	<0.006	<0.03	<0.004	<0.008	<0.03	<0.03	<0.009	<0.005	<0.005	<0.007	<0.002	<0.003	--
MAY 15...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 18...	--	--	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 08...	--	--	--	--	--	--	--	--	--	--	--	--	--
15...	<0.006	<0.03	<0.004	<0.008	<0.03	<0.03	<0.009	<0.005	<0.006	<0.007	<0.002	<0.003	<0.013
AUG 21...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	<0.006	<0.03	<0.004	<0.008	<0.03	<0.03	<0.009	<0.005	E.005	E.006	<0.002	<0.003	<0.013

02097464 MORGAN CREEK NEAR WHITE CROSS, NC—Continued

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

Date	Ipro- dione, water, fltrd, ug/L (61593)	Isofen- phos, water, fltrd, ug/L (61594)	Malax- oxon, water, fltrd, ug/L (61652)	Malathion, water, fltrd, ug/L (39532)	Metaxyl, water, fltrd, ug/L (61596)	Methi- althion water, fltrd, ug/L (61598)	Methyl para- oxon, water, fltrd, ug/L (61664)	Methyl para- thion, water, fltrd 0.7u GF ug/L (82667)	Metola- chlor, water, fltrd, ug/L (39415)	Metri- buzin, water, fltrd, ug/L (82630)	Myclo- butanil water, fltrd, ug/L (61599)	Pendi- meth- alin, water, fltrd 0.7u GF ug/L (82683)	Phorate oxon, water, fltrd, ug/L (61666)
OCT 16...	<1	<0.003	<0.008	<0.027	<0.005	<0.006	<0.03	<0.006	<0.013	<0.006	<0.008	<0.022	<0.10
NOV 01...	--	--	--	--	--	--	--	--	--	--	--	--	--
DEC 16...	<1	<0.003	<0.008	<0.027	<0.005	<0.006	<0.03	<0.006	<0.013	<0.006	<0.008	<0.022	<0.10
FEB 20...	--	--	--	--	--	--	--	--	--	--	--	--	--
25...	<1	<0.003	<0.008	<0.027	<0.005	<0.006	<0.03	<0.006	E.003	<0.006	<0.008	<0.022	<0.10
MAR 20...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR 14...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	<1	<0.003	<0.008	<0.027	<0.005	<0.006	<0.03	<0.006	<0.013	<0.006	<0.008	<0.022	<0.10
MAY 15...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 18...	--	--	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 08...	--	--	--	--	--	--	--	--	--	--	--	--	--
15...	<1	<0.003	<0.008	<0.027	<0.005	<0.006	<0.03	<0.006	0.020	<0.006	<0.008	<0.022	<0.10
AUG 21...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	<1	<0.003	<0.008	<0.027	<0.005	<0.006	<0.03	<0.006	E.004	<0.006	<0.008	<0.022	<0.10

Date	Phorate water fltrd 0.7u GF ug/L (82664)	Phosmet oxon, water, fltrd, ug/L (61668)	Phosmet water, fltrd, ug/L (61601)	Prome- ton, water, fltrd, ug/L (04037)	Prome- tryn, water, fltrd, ug/L (04036)	Pron- amide, water, fltrd 0.7u GF ug/L (82676)	Sima- zine, water, fltrd, ug/L (04035)	Tebu- thiuron water fltrd 0.7u GF ug/L (82670)	Ter- bufos oxon sulfone water, fltrd, ug/L (61674)	Terbu- fos, water, fltrd 0.7u GF ug/L (82675)	Ter- buthyl- azine, water, fltrd, ug/L (04022)	Tri- flur- alin, water, fltrd 0.7u GF ug/L (82661)	Di- chlor- vos, water fltrd, ug/L (38775)
OCT 16...	<0.011	<0.06	<0.008	<0.01	<0.005	<0.004	<0.005	<0.02	<0.07	<0.02	<0.01	<0.009	<0.01
NOV 01...	--	--	--	--	--	--	--	--	--	--	--	--	--
DEC 16...	<0.011	<0.06	<0.008	<0.01	<0.005	<0.004	<0.005	<0.02	<0.07	<0.02	<0.01	<0.009	<0.01
FEB 20...	--	--	--	--	--	--	--	--	--	--	--	--	--
25...	<0.011	<0.06	<0.008	M	<0.005	<0.004	<0.005	<0.02	<0.07	<0.02	<0.01	<0.009	<0.01
MAR 20...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR 14...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	<0.011	<0.06	<0.008	<0.01	<0.005	<0.004	<0.005	<0.02	<0.07	<0.02	<0.01	<0.009	<0.01
MAY 15...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 18...	--	--	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 08...	--	--	--	--	--	--	--	--	--	--	--	--	--
15...	<0.011	<0.06	<0.008	E.01	<0.005	<0.004	<0.005	<0.02	<0.07	<0.02	<0.01	<0.009	<0.01
AUG 21...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	<0.011	<0.06	<0.008	M	<0.005	<0.004	<0.005	<0.02	<0.07	<0.02	<0.01	<0.009	<0.01

02097464 MORGAN CREEK NEAR WHITE CROSS, NC—Continued

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

Date	Suspnd. sedi- ment, sieve diametr percent <.063mm (70331)	Sus- pended sedi- ment concen- tration mg/L (80154)	Sus- pended sedi- ment load, tons/d (80155)
OCT			
16...	98	62	2.2
NOV			
01...	--	3	0.01
DEC			
16...	87	5	0.16
FEB			
20...	--	11	0.49
25...	81	10	0.35
MAR			
20...	--	335	503
APR			
14...	--	10	0.40
16...	93	12	0.32
MAY			
15...	--	--	--
JUN			
18...	--	--	--
30...	--	7	0.05
JUL			
08...	--	--	--
15...	94	5	0.04
AUG			
21...	--	6	0.02
28...	93	7	0.01

Remark codes used in this table:

< -- Less than

E -- Estimated value

M-- Presence verified, not quantified

Medium codes used in this table:

9 -- Surface water

D -- Plant tissue

CAPE FEAR RIVER BASIN

02097464 MORGAN CREEK NEAR WHITE CROSS, NC—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
AUGUST TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	---	---	---	20.4	19.5	19.9
2	---	---	---	---	---	---	24.3	23.2	23.7	20.2	19.7	19.9
3	---	---	---	---	---	---	23.8	22.7	23.3	21.3	19.4	20.3
4	---	---	---	---	---	---	23.6	22.3	22.9	22.5	20.2	21.2
5	---	---	---	---	---	---	23.6	22.2	22.9	22.2	20.7	21.3
6	---	---	---	---	---	---	23.1	22.2	22.7	21.1	19.6	20.3
7	---	---	---	---	---	---	22.2	20.2	21.1	20.5	19.5	19.9
8	---	---	---	---	---	---	20.3	19.2	19.8	20.4	19.0	19.6
9	---	---	---	---	---	---	20.0	18.6	19.3	20.3	19.3	19.7
10	---	---	---	---	---	---	20.2	18.4	19.3	21.3	19.5	20.1
11	---	---	---	---	---	---	21.2	18.7	19.8	21.4	19.7	20.4
12	---	---	---	---	---	---	22.1	19.5	20.7	20.2	18.8	19.4
13	---	---	---	---	---	---	22.5	20.4	21.5	19.2	17.9	18.7
14	---	---	---	---	---	---	22.6	20.9	21.9	19.6	18.7	19.1
15	---	---	---	---	---	---	23.2	21.8	22.4	20.5	19.4	19.9
16	---	---	---	---	---	---	23.2	22.0	22.5	21.1	20.0	20.4
17	---	---	---	---	---	---	24.0	22.2	23.0	21.2	20.3	20.7
18	---	---	---	---	---	---	23.8	22.6	23.2	21.1	20.6	20.8
19	---	---	---	---	---	---	24.1	22.6	23.2	21.4	20.7	21.0
20	---	---	---	---	---	---	23.8	22.5	23.2	21.4	20.4	20.9
21	---	---	---	---	---	---	23.9	22.6	23.2	21.1	20.2	20.8
22	---	---	---	---	---	---	24.4	23.1	23.8	21.4	20.3	20.9
23	---	---	---	---	---	---	24.5	23.1	23.8	21.0	20.3	20.7
24	---	---	---	---	---	---	24.5	23.4	23.9	20.3	19.4	19.8
25	---	---	---	---	---	---	24.1	23.0	23.6	19.4	19.0	19.2
26	---	---	---	---	---	---	23.4	22.3	22.8	19.3	18.9	19.1
27	---	---	---	---	---	---	22.3	21.3	21.8	21.7	19.3	20.5
28	---	---	---	---	---	---	21.3	20.6	20.9	21.2	20.3	20.6
29	---	---	---	---	---	---	20.6	20.2	20.4	20.3	19.3	19.8
30	---	---	---	---	---	---	20.2	20.0	20.1	19.6	18.4	19.1
31	---	---	---	---	---	---	20.0	19.6	19.9	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	22.5	17.9	20.1

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	20.1	18.8	19.4	10.7	8.9	9.8	7.2	5.0	5.6	11.3	8.4	10
2	20.5	19.0	19.8	9.8	8.2	9.0	5.0	2.9	3.8	10.0	8.4	9.1
3	21.1	19.7	20.3	9.7	8.2	8.8	5.7	4.3	5.0	9.4	8.1	9.1
4	21.8	19.9	20.7	11.0	9.3	10	5.4	1.0	3.3	8.1	5.4	6.7
5	22.0	20.5	21.2	10.8	10.6	10.7	4.0	0.9	2.3	6.0	4.0	5.0
6	21.3	19.6	20.1	12.0	10.8	11.3	4.8	4.0	4.4	6.0	4.6	5.2
7	20.3	19.0	19.6	11.1	9.4	10.1	4.5	2.8	3.9	5.2	2.7	3.7
8	19.2	17.6	18.2	10.2	7.8	9.0	5.1	3.1	4.2	5.9	3.2	4.4
9	17.8	17.0	17.3	11.3	8.7	9.8	5.6	4.6	5.1	8.1	4.9	6.3
10	17.6	16.7	17.2	13.7	10.9	12.0	5.2	4.3	4.8	8.0	6.3	7.2
11	19.5	17.6	18.6	15.4	13.6	14.7	6.1	4.9	5.5	6.3	3.9	4.8
12	20.2	19.2	19.6	15.4	13.9	15.0	7.8	6.0	6.8	4.0	2.0	2.9
13	19.7	19.0	19.4	13.9	11.7	13.1	7.0	6.5	6.7	3.3	1.2	2.2
14	19.4	16.0	17.5	11.7	9.6	10.7	8.2	6.9	7.5	4.1	1.5	2.7
15	16.0	14.3	14.8	11.5	9.3	10.4	7.2	5.5	6.5	4.0	2.2	3.1
16	15.8	14.3	15.1	12.3	11.3	11.8	7.6	5.2	6.4	2.8	1.2	1.9
17	15.4	13.8	14.6	12.3	11.1	11.9	6.6	5.0	5.8	3.1	1.4	2.2
18	14.2	11.8	12.9	11.1	9.2	9.9	6.9	5.1	5.9	1.8	0.2	0.8
19	13.7	11.2	12.3	9.5	7.3	8.6	8.0	6.6	7.1	0.8	0.0	0.3
20	14.8	12.8	13.6	9.9	7.7	8.8	11.2	8.0	9.9	2.9	0.1	1.1
21	14.9	14.0	14.6	10.6	8.9	9.6	9.2	6.5	7.6	2.6	2.0	2.3
22	14.0	13.0	13.5	10.3	8.8	9.7	7.9	5.1	6.4	2.9	1.0	1.9
23	13.9	12.0	12.9	8.8	6.8	7.6	7.3	5.3	6.3	2.4	0.0	1.0
24	13.6	12.8	13.1	8.6	5.9	7.2	7.0	6.0	6.5	0.5	0.0	0.2
25	13.3	12.9	13.1	9.2	6.8	7.9	7.4	6.0	6.9	0.7	0.0	0.3
26	14.3	12.9	13.4	8.8	7.1	8.0	6.0	4.8	5.4	0.9	0.0	0.4
27	14.3	13.6	13.9	8.3	7.2	7.7	5.1	3.4	4.3	1.0	0.1	0.5
28	14.3	14.1	14.1	7.2	4.9	5.7	5.0	2.8	3.9	0.7	0.0	0.3
29	14.1	12.5	13.1	5.3	3.2	4.2	6.0	3.4	4.6	3.1	0.6	1.6
30	12.5	11.3	11.8	7.5	4.8	6.0	6.5	4.1	5.2	3.5	3.1	3.4
31	11.4	10.5	11.0	---	---	---	8.4	5.4	6.7	4.1	3.1	3.6
MONTH	22.0	10.5	16.0	15.4	3.2	9.6	11.2	0.9	5.6	11.3	0.0	3.4

02097464 MORGAN CREEK NEAR WHITE CROSS, NC—Continued

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	6.0	4.1	4.9	7.9	6.1	6.9	13.4	8.1	10.7	20.3	18.0	19.0
2	6.2	3.8	4.9	10.3	7.5	8.7	16.6	10.9	13.7	21.1	17.4	19.1
3	7.6	4.2	5.8	9.9	6.8	8.5	18.1	12.8	15.5	19.7	18.1	18.9
4	10.7	7.5	8.8	9.8	6.1	8.1	17.8	14.1	16.2	18.1	15.6	16.6
5	8.3	5.7	6.8	12.5	9.3	10.7	17.2	15.0	16.0	15.6	14.0	14.3
6	6.3	4.1	4.9	12.2	11.1	11.7	17.0	13.5	15.2	16.4	14.0	15.1
7	6.2	3.8	5.0	11.4	7.1	8.9	15.4	10.5	12.0	19.2	16.0	17.3
8	6.0	4.1	5.0	10.5	5.4	8.0	10.5	9.9	10.2	21.7	17.8	19.4
9	6.2	3.6	4.7	13.6	8.8	11.0	10.2	8.9	9.6	22.3	18.9	20.4
10	6.0	4.8	5.2	12.1	8.8	10.5	9.8	8.6	9.0	22.9	19.8	21.3
11	6.6	3.4	4.9	9.5	7.0	8.3	10.4	9.1	9.6	22.0	20.3	21.1
12	7.2	4.1	5.4	12.3	6.4	9.2	14.5	9.1	11.5	20.8	18.2	19.5
13	6.1	3.0	4.5	14.1	9.4	11.6	15.3	10.8	13.2	19.4	16.1	17.8
14	5.6	3.8	4.7	13.7	11.1	12.4	16.5	11.5	14.1	18.8	14.7	16.8
15	6.7	5.5	6.1	11.1	9.2	9.8	17.8	13.4	15.7	17.5	16.3	17.0
16	6.0	0.8	3.7	11.2	9.5	10.3	18.6	14.7	16.8	18.9	16.5	17.5
17	2.0	0.2	1.1	13.4	11.1	12.1	18.4	15.1	16.9	18.4	16.4	17.3
18	5.8	2.0	3.6	13.9	12.3	13.0	16.7	12.7	14.0	16.4	14.7	15.4
19	6.3	3.5	4.9	13.3	11.1	12.2	12.9	12.1	12.5	15.1	14.2	14.5
20	8.2	5.8	6.8	11.1	9.0	9.7	14.8	12.2	13.3	17.7	13.9	15.6
21	7.5	6.3	7.0	12.7	9.6	10.9	15.1	13.5	14.3	17.0	15.6	16.4
22	8.5	7.4	7.8	14.0	10.3	12.2	17.1	14.8	15.7	16.8	15.9	16.1
23	9.9	8.0	9.0	14.6	10.2	12.6	16.2	12.7	14.5	16.6	15.8	16.1
24	9.6	5.9	7.9	15.8	11.3	13.6	15.3	11.7	13.7	17.6	16.1	16.8
25	9.5	7.3	8.5	16.3	10.8	13.7	14.6	13.9	14.2	18.4	16.8	17.5
26	8.4	5.6	6.8	17.5	12.6	15.0	15.9	14.4	15.0	19.2	17.7	18.4
27	5.6	4.3	4.8	16.8	13.3	15.1	17.0	14.4	15.7	19.1	17.2	18.2
28	6.4	4.8	5.6	17.3	12.7	15.1	18.1	14.4	16.3	18.2	15.5	16.9
29	---	---	---	19.1	15.8	17.2	19.1	15.9	17.4	17.9	16.6	17.2
30	---	---	---	17.7	10.0	13.1	20.3	16.9	18.4	19.0	15.8	17.3
31	---	---	---	11.7	8.3	10	---	---	---	18.6	16.9	17.7
MONTH	10.7	0.2	5.7	19.1	5.4	11.3	20.3	8.1	14.0	22.9	13.9	17.5
	JUNE			JULY			AUGUST			SEPTEMBER		
1	19.0	16.9	17.9	22.4	21.5	22.0	24.4	22.5	23.1	25.8	23.2	24.3
2	18.5	15.3	16.9	21.9	20.1	21.0	23.4	22.8	23.0	26.1	23.2	24.6
3	18.1	16.2	17.3	21.2	20.4	20.8	24.1	22.3	23.1	26.1	23.2	24.6
4	19.9	17.8	18.7	22.9	19.9	21.3	24.2	22.8	23.4	25.2	23.3	24.3
5	21.0	18.7	19.6	24.5	21.8	22.9	23.8	21.7	22.8	23.9	21.9	22.8
6	20.5	17.1	18.8	25.1	22.4	23.6	24.6	21.5	22.8	22.5	20.1	20.9
7	20.4	19.4	19.9	24.7	22.6	23.6	24.6	22.9	23.6	22.1	19.3	20.4
8	21.2	19.6	20.3	25.9	22.5	24.0	23.7	22.4	23.1	21.4	20.0	20.6
9	22.5	20.2	21.3	26.4	23.2	24.5	24.7	22.9	23.7	21.6	19.5	20.4
10	22.6	19.9	21.2	25.4	22.8	24.0	23.7	22.6	23.2	20.9	19.2	19.9
11	22.8	19.6	21.1	25.4	22.9	23.9	24.5	22.3	23.3	21.1	17.7	19.0
12	23.1	20.9	21.9	25.1	22.1	23.4	25.2	22.6	23.8	19.9	18.4	19.1
13	23.3	21.3	22.1	23.7	21.9	22.8	25.2	23.3	24.2	20.5	19.1	19.7
14	24.0	21.4	22.6	23.1	21.5	22.3	25.7	23.6	24.5	22.6	20.0	21.0
15	23.7	21.8	22.6	24.4	21.6	22.9	26.0	23.2	24.4	23.3	20.4	21.6
16	22.4	21.3	21.8	25.5	22.2	23.6	25.4	23.7	24.4	22.6	20.5	21.4
17	21.3	20.0	20.4	25.4	22.8	23.9	25.9	23.6	24.5	20.8	18.0	19.3
18	21.3	19.7	20.4	25.5	22.5	23.9	25.2	22.9	24.0	19.8	18.5	18.8
19	21.9	20.6	21.2	24.1	22.3	23.2	24.7	22.6	23.5	21.5	18.5	19.6
20	21.7	20.0	21.0	25.1	21.5	23.1	24.5	22.8	23.6	22.1	18.5	20.1
21	21.2	18.6	19.7	25.5	22.1	23.7	25.8	22.5	24.0	22.3	19.1	20.6
22	20.5	17.6	19.1	25.7	23.0	24.0	24.6	23.3	24.0	21.9	20.6	21.3
23	22.0	18.4	20.0	23.3	22.4	22.9	25.2	22.5	23.7	22.2	21.2	21.7
24	22.7	18.7	20.6	24.0	21.8	22.6	25.0	23.0	23.9	21.4	19.0	20.2
25	23.6	19.7	21.5	24.2	20.8	22.4	25.0	21.7	23.3	21.3	17.9	19.5
26	24.2	20.4	22.2	24.7	21.5	22.9	26.1	22.6	24.1	21.7	18.3	19.8
27	24.3	21.5	22.8	25.5	22.1	23.6	27.0	23.3	24.9	21.9	18.3	20.0
28	23.2	21.5	22.1	26.2	23.0	24.4	27.2	24.1	25.6	21.1	19.1	20.0
29	23.8	20.3	21.8	25.6	23.2	24.3	27.4	24.3	25.7	19.1	16.2	17.3
30	23.8	21.3	22.5	24.3	22.5	23.0	27.6	24.4	25.8	17.1	13.8	15.4
31	---	---	---	23.4	21.9	22.5	26.0	24.0	24.7	---	---	---
MONTH	24.3	15.3	20.6	26.4	19.9	23.1	27.6	21.5	23.9	26.1	13.8	20.6

0209749990 UNIVERSITY LAKE AT INTAKES NEAR CHAPEL HILL, NC

LOCATION.--Lat 35°53'49", long 79°05'32", Orange County, Hydrologic Unit 03030002, at Orange Water and Sewage Authority intakes, and 1.8 mi southwest of Chapel Hill.

DRAINAGE AREA.--30 mi².

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

REMARKS.--Station operated to define water quality as part of a six-county regional surface-water quality assessment. Samples for nutrient and chlorophyll a and b analyses were collected through a sampling zone equal to double the secchi disk depth using the depth-integration sampling technique.

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

Date	Time	Color, water, fltrd, Pt-Co units (00080)	Sam-pling depth, meters (00098)	Trans-parency Secchi disc, meters (00078)	Baro-metric pres-sure, mm Hg (00025)	Dis-solved oxygen, mg/L (00300)	Dis-solved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conduc-tance, wat unfltrd uS/cm 25 degC (00095)	Temper-ature, water, deg C (00010)	Hard-ness, water, unfltrd mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes-ium, water, fltrd, mg/L (00925)
NOV													
01...	0930	40	1.0	0.90	758	4.0	39	6.6	106	14.4	30	7.44	2.65
01...	0935	--	4.0	--	758	3.9	38	6.5	106	14.2	--	--	--
01...	0940	--	8.4	--	758	2.9	28	6.5	112	13.9	--	--	--
APR													
04...	0900	62	1.0	0.70	752	4.6	44	6.1	66	12.6	21	5.38	1.90
04...	0905	--	3.0	--	752	4.2	39	5.9	64	10.6	--	--	--
04...	0910	--	7.6	--	752	1.9	17	6.0	79	9.8	--	--	--
JUN													
27...	0915	40	1.0	0.90	751	9.9	125	7.8	89	26.5	30	7.88	2.62
27...	0920	--	4.0	--	751	0.2	2	6.2	94	13.6	--	--	--
27...	0925	--	8.0	--	751	0.4	4	6.6	157	10.8	--	--	--
AUG													
15...	1130	38	1.0	0.90	758	8.6	112	7.3	89	28.3	31	8.18	2.50
15...	1135	--	4.0	--	758	0.2	2	6.0	128	15.0	--	--	--
15...	1140	--	8.1	--	758	0.3	2	6.4	220	11.5	--	--	--

Date	Potas-sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unfltrd, titr., mg/L as CaCO3 (00419)	Bicar-bonate, wat unfltrd, titr., mg/L (00450)	Chlor-ide, water, fltrd, mg/L (00940)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho-phosphate, water, fltrd, mg/L as P (00671)
NOV													
01...	3.52	5.18	--	--	5.97	12.4	9.4	84	0.84	0.224	0.27	0.021	0.009
01...	--	--	--	--	--	--	--	--	0.76	0.230	0.27	0.020	0.010
01...	--	--	--	--	--	--	--	--	0.94	0.317	0.29	0.021	0.010
APR													
04...	1.65	4.30	18	22	3.68	9.9	6.8	56	0.62	E.009	0.149	0.006	E.005
04...	--	--	--	--	--	--	--	--	0.69	0.199	0.228	0.006	0.017
04...	--	--	--	--	--	--	--	--	1.1	0.470	0.150	0.009	0.018
JUN													
27...	2.02	5.68	28	34	5.54	14.6	4.7	77	0.69	<0.015	<0.022	<0.002	<0.007
27...	--	--	--	--	--	--	--	--	1.2	0.483	<0.022	0.005	0.012
27...	--	--	--	--	--	--	--	--	3.0	2.01	--	0.023	0.299
AUG													
15...	2.40	5.74	29	35	5.45	14.4	3.9	72	0.70	<0.015	<0.022	<0.002	E.004
15...	--	--	--	--	--	--	--	--	0.55	E.012	<0.022	0.003	<0.007
15...	--	--	--	--	--	--	--	--	4.0	2.78	E.016	0.019	0.251

0209749990 UNIVERSITY LAKE AT INTAKES NEAR CHAPEL HILL, NC—Continued

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

Date	Phosphorus, water, unfltrd mg/L (00665)	Organic carbon, water, unfltrd mg/L (00680)	Chlorophyll a phytoplankton, fluoro, ug/L (70953)	Chlorophyll b phytoplankton, fluoro, ug/L (70954)	Aluminum, water, unfltrd recover-able, ug/L (01105)	Arsenic water unfltrd ug/L (01002)	Cadmium water, unfltrd ug/L (01027)	Chromium, water, unfltrd recover-able, ug/L (01034)	Cobalt water, unfltrd recover-able, ug/L (01037)	Copper, water, unfltrd recover-able, ug/L (01042)	Iron, water, unfltrd recover-able, ug/L (01045)	Lead, water, unfltrd recover-able, ug/L (01051)	Manganese, water, unfltrd recover-able, ug/L (01055)
NOV													
01...	--	9.7	1.9	<0.1	80	<2	<0.2	<0.8	<3.4	E1.2	430	<1	156
01...	--	--	--	--	--	--	--	--	--	--	510	--	189
01...	--	--	--	--	--	--	--	--	--	--	970	--	347
APR													
04...	0.090	9.4	E26.0	<0.1	170	<2	<0.2	<0.8	<3.4	1.5	700	<1	153
04...	0.082	--	--	--	--	--	--	--	--	--	840	--	332
04...	0.159	--	--	--	--	--	--	--	--	--	2,500	--	965
JUN													
27...	0.045	9.2	9.7	0.5	--	--	--	--	--	--	730	--	76.2
27...	0.056	--	--	--	--	--	--	--	--	--	4,640	--	3,220
27...	0.41	--	--	--	--	--	--	--	--	--	990	--	814
AUG													
15...	0.053	13.0	E19.7	<0.1	--	--	--	--	--	--	350	--	84.5
15...	0.042	--	--	--	--	--	--	--	--	--	2,850	--	3,200
15...	0.38	--	--	--	--	--	--	--	--	--	26,800	--	4,820

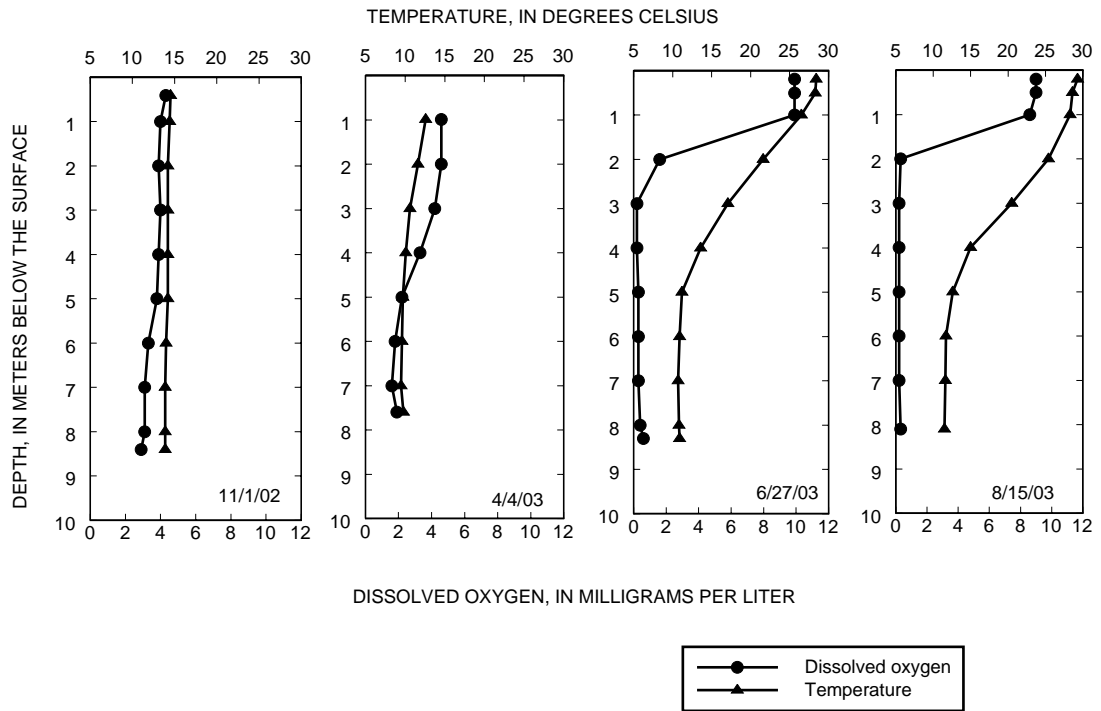
Date	Mercury water, unfltrd recover-able, ug/L (71900)	Molybdenum, water, unfltrd recover-able, ug/L (01062)	Nickel, water, unfltrd recover-able, ug/L (01067)	Selenium, water, unfltrd ug/L (01147)	Silver, water, unfltrd recover-able, ug/L (01077)	Zinc, water, unfltrd recover-able, ug/L (01092)
NOV						
01...	0.02	E1	<2.0	<3	<0.3	<25
01...	--	--	--	--	--	--
01...	--	--	--	--	--	--
APR						
04...	0.03	<2	<2.0	<3	<0.3	E14
04...	--	--	--	--	--	--
04...	--	--	--	--	--	--
JUN						
27...	--	--	--	--	--	--
27...	--	--	--	--	--	--
27...	--	--	--	--	--	--
AUG						
15...	--	--	--	--	--	--
15...	--	--	--	--	--	--
15...	--	--	--	--	--	--

Remark codes used in this table:

< -- Less than

E -- Estimated value

0209749990 UNIVERSITY LAKE AT INTAKES NEAR CHAPEL HILL, NC—Continued



0209750881 WILSON CREEK AT MOUTH NEAR CHAPEL HILL, NC

LOCATION.--Lat 35°53'30", long 79°03'40", Orange County, Hydrologic Unit 03030002, at mouth, 1.6 mi south of Chapel Hill.

DRAINAGE AREA.--3.44 mi².

GAGE-HEIGHT RECORDS

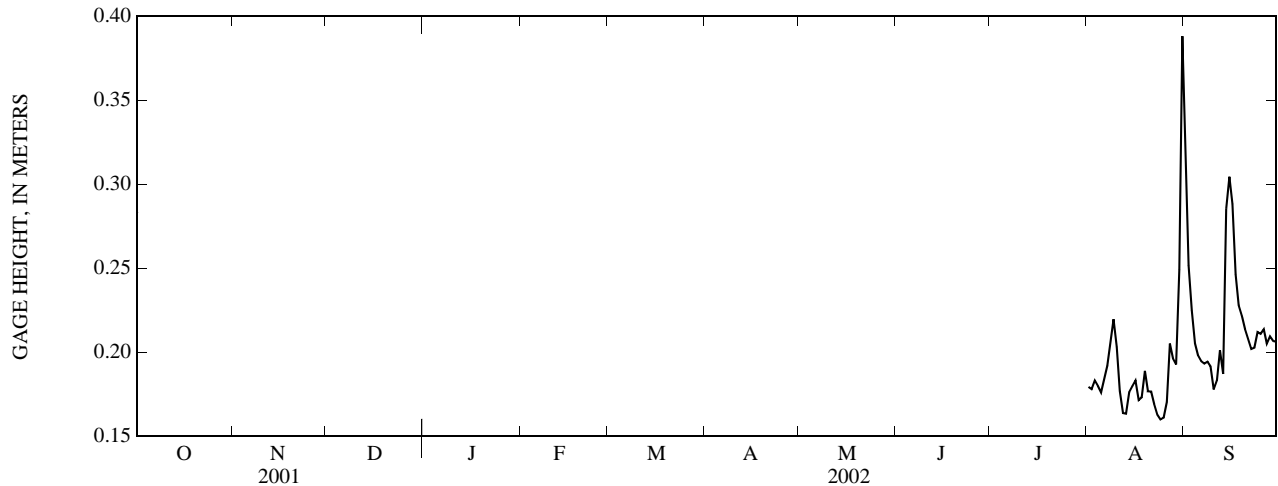
PERIOD OF RECORD.--August 2002 to November 2003 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 300 ft above NGVD of 1929, from topographic map.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height recorded, 1.99 m, April 10, 2003; minimum gage height recorded, 0.14 m, Aug. 12, 18, 24, 25, 2002.

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

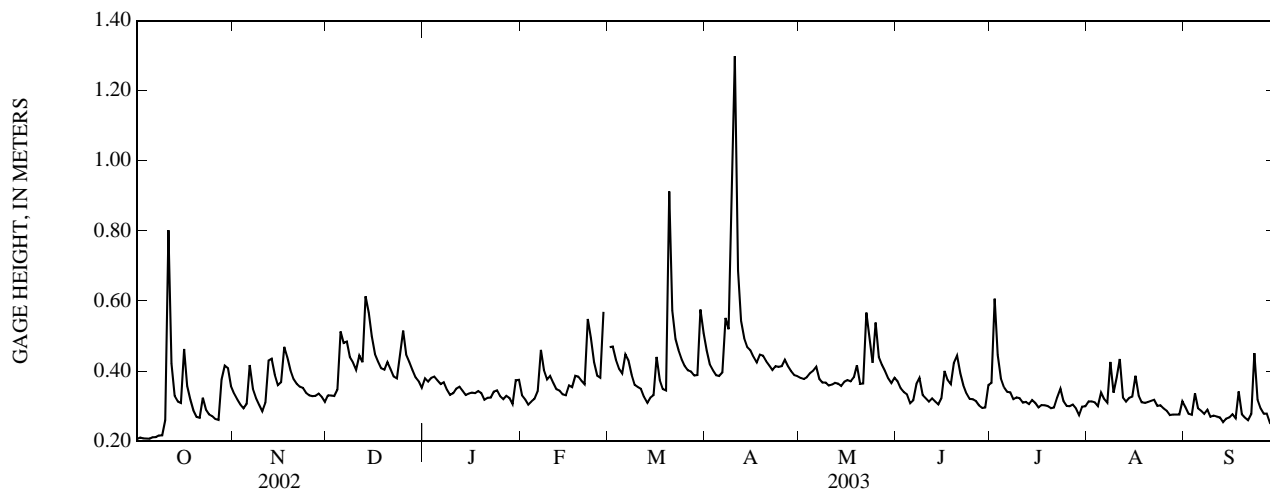
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	0.18	0.32
2	---	---	---	---	---	---	---	---	---	---	0.18	0.25
3	---	---	---	---	---	---	---	---	---	---	0.18	0.22
4	---	---	---	---	---	---	---	---	---	---	0.18	0.21
5	---	---	---	---	---	---	---	---	---	---	0.18	0.20
6	---	---	---	---	---	---	---	---	---	---	0.18	0.19
7	---	---	---	---	---	---	---	---	---	---	0.19	0.19
8	---	---	---	---	---	---	---	---	---	---	0.20	0.19
9	---	---	---	---	---	---	---	---	---	---	0.22	0.19
10	---	---	---	---	---	---	---	---	---	---	0.20	0.18
11	---	---	---	---	---	---	---	---	---	---	0.18	0.18
12	---	---	---	---	---	---	---	---	---	---	0.16	0.20
13	---	---	---	---	---	---	---	---	---	---	0.16	0.19
14	---	---	---	---	---	---	---	---	---	---	0.18	0.29
15	---	---	---	---	---	---	---	---	---	---	0.18	0.30
16	---	---	---	---	---	---	---	---	---	---	0.18	0.29
17	---	---	---	---	---	---	---	---	---	---	0.17	0.25
18	---	---	---	---	---	---	---	---	---	---	0.17	0.23
19	---	---	---	---	---	---	---	---	---	---	0.19	0.22
20	---	---	---	---	---	---	---	---	---	---	0.18	0.21
21	---	---	---	---	---	---	---	---	---	---	0.18	0.21
22	---	---	---	---	---	---	---	---	---	---	0.17	0.20
23	---	---	---	---	---	---	---	---	---	---	0.16	0.20
24	---	---	---	---	---	---	---	---	---	---	0.16	0.21
25	---	---	---	---	---	---	---	---	---	---	0.16	0.21
26	---	---	---	---	---	---	---	---	---	---	0.17	0.21
27	---	---	---	---	---	---	---	---	---	---	0.21	0.21
28	---	---	---	---	---	---	---	---	---	---	0.20	0.21
29	---	---	---	---	---	---	---	---	---	---	0.19	0.21
30	---	---	---	---	---	---	---	---	---	---	0.25	0.21
31	---	---	---	---	---	---	---	---	---	---	0.39	---
MEAN	---	---	---	---	---	---	---	---	---	---	0.19	0.22
MAX	---	---	---	---	---	---	---	---	---	---	0.39	0.32
MIN	---	---	---	---	---	---	---	---	---	---	0.16	0.18



0209750881 WILSON CREEK AT MOUTH NEAR CHAPEL HILL, NC—Continued

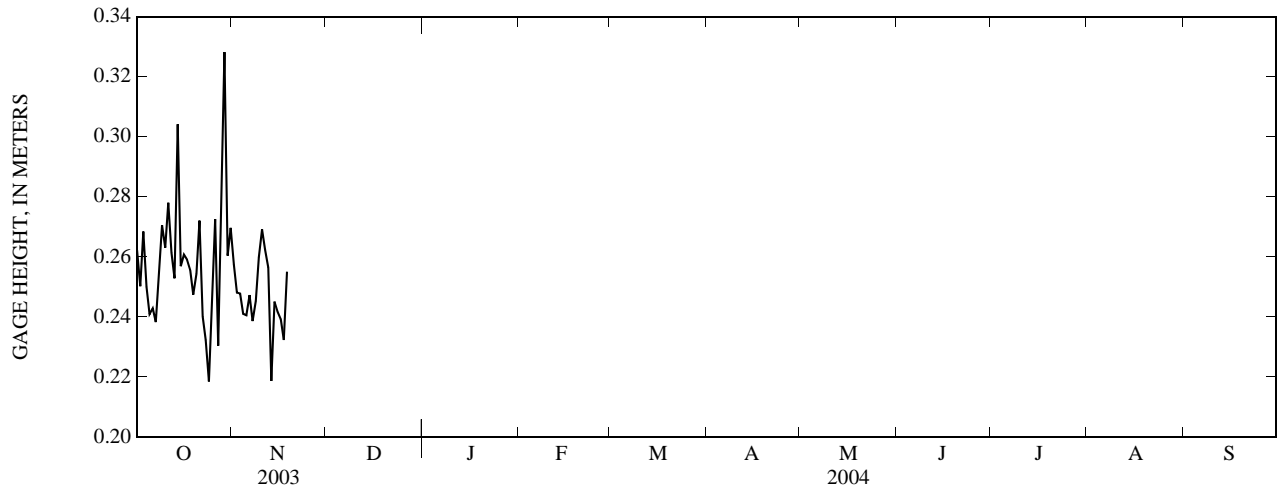
GAGE HEIGHT, ABOVE DATUM, METERS
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.21	0.33	0.33	0.38	0.33	0.47	0.46	0.38	0.37	0.37	0.31	0.30
2	0.21	0.32	0.33	0.37	0.32	0.47	0.42	0.38	0.35	0.61	0.31	0.28
3	0.21	0.30	0.33	0.38	0.30	0.43	0.40	0.38	0.34	0.45	0.31	0.27
4	0.21	0.29	0.35	0.38	0.31	0.41	0.39	0.39	0.33	0.38	0.30	0.34
5	0.21	0.31	0.51	0.37	0.32	0.39	0.39	0.40	0.31	0.35	0.34	0.29
6	0.21	0.42	0.48	0.36	0.34	0.45	0.40	0.41	0.32	0.34	0.32	0.29
7	0.21	0.35	0.48	0.37	0.46	0.43	0.55	0.38	0.36	0.34	0.31	0.28
8	0.22	0.32	0.44	0.35	0.40	0.39	0.52	0.37	0.38	0.32	0.43	0.29
9	0.22	0.30	0.42	0.33	0.38	0.36	0.89	0.37	0.33	0.32	0.34	0.27
10	0.26	0.28	0.40	0.34	0.39	0.35	1.30	0.36	0.32	0.32	0.38	0.27
11	0.80	0.31	0.44	0.35	0.37	0.35	0.69	0.36	0.31	0.31	0.43	0.27
12	0.42	0.43	0.42	0.36	0.35	0.33	0.54	0.37	0.32	0.31	0.32	0.27
13	0.33	0.43	0.61	0.34	0.34	0.31	0.49	0.36	0.31	0.31	0.31	0.25
14	0.31	0.39	0.57	0.33	0.33	0.32	0.47	0.36	0.30	0.32	0.32	0.26
15	0.31	0.36	0.50	0.34	0.33	0.33	0.46	0.37	0.32	0.31	0.33	0.27
16	0.46	0.37	0.45	0.34	0.36	0.44	0.44	0.37	0.40	0.30	0.39	0.28
17	0.36	0.47	0.43	0.34	0.35	0.37	0.42	0.37	0.37	0.30	0.33	0.27
18	0.32	0.44	0.41	0.34	0.39	0.35	0.45	0.38	0.36	0.30	0.31	0.34
19	0.29	0.40	0.40	0.34	0.38	0.34	0.44	0.42	0.42	0.30	0.31	0.28
20	0.27	0.38	0.43	0.32	0.37	0.91	0.43	0.36	0.44	0.29	0.31	0.27
21	0.27	0.36	0.40	0.32	0.36	0.57	0.42	0.36	0.39	0.30	0.31	0.26
22	0.32	0.36	0.38	0.32	0.55	0.49	0.40	0.57	0.36	0.32	0.32	0.28
23	0.29	0.35	0.38	0.34	0.50	0.46	0.41	0.50	0.34	0.35	0.30	0.45
24	0.28	0.34	0.44	0.34	0.43	0.43	0.41	0.42	0.32	0.31	0.30	0.32
25	0.27	0.33	0.52	0.33	0.39	0.41	0.41	0.54	0.32	0.30	0.29	0.29
26	0.26	0.33	0.45	0.32	0.38	0.40	0.43	0.44	0.31	0.30	0.29	0.28
27	0.26	0.33	0.43	0.33	0.57	0.40	0.41	0.42	0.30	0.30	0.27	0.28
28	0.38	0.34	0.40	0.32	---	0.39	0.40	0.40	0.29	0.29	0.28	0.25
29	0.42	0.33	0.38	0.31	---	0.39	0.39	0.38	0.30	0.27	0.28	0.24
30	0.41	0.31	0.37	0.37	---	0.58	0.39	0.37	0.36	0.30	0.28	0.26
31	0.36	---	0.35	0.37	---	0.51	---	0.38	---	0.30	0.31	---
MEAN	0.31	0.35	0.43	0.35	0.38	0.43	0.49	0.40	0.34	0.33	0.32	0.28
MAX	0.80	0.47	0.61	0.38	0.57	0.91	1.30	0.57	0.44	0.61	0.43	0.45
MIN	0.21	0.28	0.33	0.31	0.30	0.31	0.39	0.36	0.29	0.27	0.27	0.24



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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.26	0.26	---	---	---	---	---	---	---	---	---	---
2	0.25	0.25	---	---	---	---	---	---	---	---	---	---
3	0.27	0.25	---	---	---	---	---	---	---	---	---	---
4	0.25	0.24	---	---	---	---	---	---	---	---	---	---
5	0.24	0.24	---	---	---	---	---	---	---	---	---	---
6	0.24	0.25	---	---	---	---	---	---	---	---	---	---
7	0.24	0.24	---	---	---	---	---	---	---	---	---	---
8	0.26	0.25	---	---	---	---	---	---	---	---	---	---
9	0.27	0.26	---	---	---	---	---	---	---	---	---	---
10	0.26	0.27	---	---	---	---	---	---	---	---	---	---
11	0.28	0.26	---	---	---	---	---	---	---	---	---	---
12	0.26	0.26	---	---	---	---	---	---	---	---	---	---
13	0.25	0.22	---	---	---	---	---	---	---	---	---	---
14	0.30	0.25	---	---	---	---	---	---	---	---	---	---
15	0.26	0.24	---	---	---	---	---	---	---	---	---	---
16	0.26	0.24	---	---	---	---	---	---	---	---	---	---
17	0.26	0.23	---	---	---	---	---	---	---	---	---	---
18	0.26	0.26	---	---	---	---	---	---	---	---	---	---
19	0.25	---	---	---	---	---	---	---	---	---	---	---
20	0.25	---	---	---	---	---	---	---	---	---	---	---
21	0.27	---	---	---	---	---	---	---	---	---	---	---
22	0.24	---	---	---	---	---	---	---	---	---	---	---
23	0.23	---	---	---	---	---	---	---	---	---	---	---
24	0.22	---	---	---	---	---	---	---	---	---	---	---
25	0.24	---	---	---	---	---	---	---	---	---	---	---
26	0.27	---	---	---	---	---	---	---	---	---	---	---
27	0.23	---	---	---	---	---	---	---	---	---	---	---
28	0.29	---	---	---	---	---	---	---	---	---	---	---
29	0.33	---	---	---	---	---	---	---	---	---	---	---
30	0.26	---	---	---	---	---	---	---	---	---	---	---
31	0.27	---	---	---	---	---	---	---	---	---	---	---
MEAN	0.26	---	---	---	---	---	---	---	---	---	---	---
MAX	0.33	---	---	---	---	---	---	---	---	---	---	---
MIN	0.22	---	---	---	---	---	---	---	---	---	---	---



0209750881 WILSON CREEK AT MOUTH NEAR CHAPEL HILL, NC—Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: August 2002 to November 2003.

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

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

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum recorded, 28.0°C, Aug. 24, 2002; minimum recorded, 0.2°C, Jan. 24, 2003.

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

Date	Time	Medium code	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd 25 degC (00095)	Temperature, water, deg C (00010)	Chloride, water, fltrd, mg/L (00940)	Sulfate water, fltrd, mg/L (00945)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	
Date		Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Particulate nitrogen, susp, water, mg/L (49570)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inorganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	Biomass periphyton, ashfree drymass g/m2 (49954)	Periphyton biomass ash weight, g/m2 (00572)	Periphyton biomass dry weight, g/m2 (00573)
Date		Biomass chlorophyll ratio, periphyton, number (70950)	Pheophytin a, periphyton, mg/m2 (62359)	E coli, modif. m-TEC, water, col/100 mL (90902)	Chlorophyll a periphyton, chromofluoro, mg/m2 (70957)	1-Naphthol, water, fltrd 0.7u GF ug/L (49295)	2,6-Diethyl-aniline water fltrd 0.7u GF ug/L (82660)	2-[(2-Et-6-Me-Ph)-amino]propan-1-ol, ug/L (61615)	2Chloro-2,6-diethyl acet-anilide wat flt ug/L (61618)	CIAT, water, fltrd, ug/L (04040)	2-Ethyl-6-methyl-aniline water, fltrd, ug/L (61620)	3,4-Dichloro-aniline water, fltrd, ug/L (61625)	4Chloro-2methyl phenol, water, fltrd, ug/L (61633)	Acetochlor, water, fltrd, ug/L (49260)
FEB 20...	0930	9	6.0	757	11.8	96	6.8	108	6.4	10.8	10.2	<0.10	<0.04	
MAY 15...	1230	D	E1.8	--	8.4	--	7.3	110	17.5	--	--	--	--	
JUN 18...	1200	9	--	--	--	--	7.4	103	19.9	--	--	--	--	
JUL 08...	1030	9	--	--	--	--	--	--	--	--	--	--	--	
JUL 15...	0945	9	E2.5	767	8.1	91	7.3	115	21.5	7.12	6.1	0.18	<0.04	
FEB 20...	0.22	<0.008	<0.02	0.03	E.002	--	0.2	<0.1	0.2	2.8	--	--	--	
MAY 15...	--	--	--	--	--	--	--	--	--	--	1.600	18	19.30	
JUN 18...	--	--	--	--	--	--	--	--	--	--	--	--	--	
JUL 08...	--	--	--	--	--	--	--	--	--	--	--	--	--	
JUL 15...	0.23	<0.008	E.01	0.03	0.029	0.41	0.2	<0.1	0.2	3.3	--	--	--	
FEB 20...	--	--	47	--	<0.09	<0.006	<0.1	<0.005	<0.006	<0.004	<0.004	<0.006	<0.006	
MAY 15...	1,170	<1.0	--	1.4	--	--	--	--	--	--	--	--	--	
JUN 18...	--	--	--	--	--	--	--	--	--	--	--	--	--	
JUL 08...	--	--	230	--	--	--	--	--	--	--	--	--	--	
JUL 15...	--	--	--	--	<0.09	<0.006	<0.1	<0.005	<0.006	<0.004	<0.004	<0.006	<0.006	

0209750881 WILSON CREEK AT MOUTH NEAR CHAPEL HILL, NC—Continued

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

Date	Alachlor, water, fltrd, ug/L (46342)	Atrazine, water, fltrd, ug/L (39632)	Azin-phos-methyl oxon, water, fltrd, ug/L (61635)	Azin-phos-methyl, water, fltrd, 0.7u GF ug/L (82686)	Ben-flur-alin, water, fltrd, 0.7u GF ug/L (82673)	Car-baryl, water, fltrd, 0.7u GF ug/L (82680)	Chlor-pyri-fos oxon, water, fltrd, ug/L (61636)	Chlor-pyri-fos oxon, water, fltrd, ug/L (38933)	cis-Per-methrin water fltrd, 0.7u GF ug/L (82687)	Cyflu-thrin, water, fltrd, ug/L (61585)	Cy-per-methrin water, fltrd, ug/L (61586)	DCPA, water fltrd, 0.7u GF ug/L (82682)	Desulf-inyl fipronil, water, fltrd, ug/L (62170)
FEB 20...	<0.004	E.006	<0.02	<0.050	<0.010	<0.041	<0.06	<0.005	<0.006	<0.008	<0.009	<0.003	E.001
MAY 15...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 18...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 08...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 15...	<0.004	E.004	<0.02	<0.050	<0.010	E.005	<0.06	<0.005	<0.006	<0.008	<0.009	<0.003	E.003
Date	Diaz-inon oxon, water, fltrd, ug/L (61638)	Diazi-non, water, fltrd, ug/L (39572)	Dicro-tophos, water, fltrd, ug/L (38454)	Diel-drin, water, fltrd, ug/L (39381)	Dimeth-oate, water, fltrd, 0.7u GF ug/L (82662)	Ethion monoxon water, fltrd, ug/L (61644)	Ethion, water, fltrd, ug/L (82346)	Fenami-phos sulfone water, fltrd, ug/L (61645)	Fenami-phos sulf-oxide, water, fltrd, ug/L (61646)	Fenami-phos, water, fltrd, ug/L (61591)	Desulf-inyl-fipronil amide, wat flt ug/L (62169)	Fipronil sulfide water, fltrd, ug/L (62167)	Fipronil sulfone water, fltrd, ug/L (62168)
FEB 20...	<0.04	<0.005	<0.08	<0.005	<0.006	<0.03	<0.004	<0.008	<0.03	<0.03	<0.009	<0.005	<0.005
MAY 15...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 18...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 08...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 15...	<0.01	E.004	<0.08	<0.005	<0.006	<0.03	<0.004	<0.008	<0.03	<0.03	<0.009	E.004	0.006
Date	Fipronil, water, fltrd, ug/L (62166)	Fonofos oxon, water, fltrd, ug/L (61649)	Fonofos water, fltrd, ug/L (04095)	Hexa-zinone, water, fltrd, ug/L (04025)	Ipro-dione, water, fltrd, ug/L (61593)	Isofen-phos, water, fltrd, ug/L (61594)	Mala-oxon, water, fltrd, ug/L (61652)	Mala-thion, water, fltrd, ug/L (39532)	Meta-laxyl, water, fltrd, ug/L (61596)	Methi-althion water, fltrd, ug/L (61598)	Methyl para-oxon, water, fltrd, ug/L (61664)	Methyl para-thion, water, fltrd, 0.7u GF ug/L (82667)	Metola-chlor, water, fltrd, ug/L (39415)
FEB 20...	E.004	<0.002	<0.003	--	<1	<0.003	<0.008	<0.027	<0.005	<0.006	<0.03	<0.006	<0.013
MAY 15...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 18...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 08...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 15...	E.008	<0.002	<0.003	<0.013	<1	<0.003	<0.008	<0.027	<0.005	<0.006	<0.03	<0.006	<0.013
Date	Metri-buzin, water, fltrd, ug/L (82630)	Myclo-butanil water, fltrd, ug/L (61599)	Pendi-meth-alin, water, fltrd, 0.7u GF ug/L (82683)	Phorate oxon, water, fltrd, ug/L (61666)	Phorate water fltrd, 0.7u GF ug/L (82664)	Phosmet oxon, water, fltrd, ug/L (61668)	Phosmet water, fltrd, ug/L (61601)	Prome-ton, water, fltrd, ug/L (04037)	Prome-tryn, water, fltrd, ug/L (04036)	Pron-amide, water, fltrd, 0.7u GF ug/L (82676)	Sima-zine, water, fltrd, ug/L (04035)	Tebu-thiuron water fltrd, 0.7u GF ug/L (82670)	Ter-bufos oxon sulfone water, fltrd, ug/L (61674)
FEB 20...	<0.006	<0.008	<0.022	<0.10	<0.011	<0.06	<0.008	<0.01	<0.005	<0.004	<0.005	<0.02	<0.07
MAY 15...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 18...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 08...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 15...	<0.006	<0.008	<0.022	<0.10	<0.011	<0.06	<0.008	<0.01	<0.005	<0.004	<0.005	<0.02	<0.07

0209750881 WILSON CREEK AT MOUTH NEAR CHAPEL HILL, NC—Continued

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

Date	Terbu- fos, water, fltrd 0.7u GF (82675)	Ter- buthyl- azine, water, fltrd, ug/L (04022)	Tri- flur- alin, water, fltrd 0.7u GF (82661)	Di- chlor- vos, water fltrd, ug/L (38775)	Suspnd. sedi- ment, sieve diametr percent <.063mm (70331)	Sus- pended sedi- ment concen- tration mg/L (80154)	Sus- pended sedi- ment load, tons/d (80155)
FEB 20...	<0.02	<0.01	<0.009	<0.01	88	6	0.10
MAY 15...	--	--	--	--	--	--	--
JUN 18...	--	--	--	--	--	--	--
JUL 08...	--	--	--	--	--	--	--
15...	<0.02	<0.01	<0.009	<0.01	82	4	--

Remark codes used in this table:

- < -- Less than
- E -- Estimated value

Medium codes used in this table:

- 9 -- Surface water
- D -- Plant tissue

TEMPERATURE, WATER, DEGREES CELSIUS
AUGUST TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	JUNE			JULY			AUGUST			SEPTEMBER		
				MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	26.5	22.7	24.6	20.4	19.5	19.8			
2	---	---	---	---	---	---	26.0	22.3	24.0	20.4	19.1	19.6			
3	---	---	---	---	---	---	25.8	21.3	23.5	22.4	18.2	20.1			
4	---	---	---	---	---	---	25.7	21.0	23.4	23.7	19.4	21.4			
5	---	---	---	---	---	---	25.9	21.1	23.5	22.7	20.0	21.3			
6	---	---	---	---	---	---	24.9	21.5	23.1	21.9	17.6	19.8			
7	---	---	---	---	---	---	22.6	18.4	20.8	21.1	17.9	19.5			
8	---	---	---	---	---	---	22.4	17.0	19.9	21.5	17.1	19.2			
9	---	---	---	---	---	---	23.5	16.4	20.4	21.3	18.0	19.7			
10	---	---	---	---	---	---	23.5	18.6	21.1	22.5	19.4	20.7			
11	---	---	---	---	---	---	23.6	18.2	21.1	22.3	18.4	20.3			
12	---	---	---	---	---	---	25.1	19.3	22.4	19.9	16.6	18.4			
13	---	---	---	---	---	---	26.0	20.5	23.2	19.9	15.4	17.9			
14	---	---	---	---	---	---	25.3	20.4	22.7	21.8	18.4	20.1			
15	---	---	---	---	---	---	25.3	22.2	23.3	22.0	20.4	21.1			
16	---	---	---	---	---	---	24.5	21.8	23.1	22.0	20.7	21.3			
17	---	---	---	---	---	---	25.6	21.7	23.7	22.4	20.2	21.2			
18	---	---	---	---	---	---	26.5	22.1	24.3	21.7	20.5	21.1			
19	---	---	---	---	---	---	25.8	21.8	23.7	22.3	20.4	21.2			
20	---	---	---	---	---	---	25.5	21.6	23.8	22.4	19.5	20.8			
21	---	---	---	---	---	---	25.9	21.7	23.7	22.0	18.9	20.5			
22	---	---	---	---	---	---	26.1	22.7	24.5	22.5	19.3	20.8			
23	---	---	---	---	---	---	27.1	22.4	24.7	21.1	19.3	20.2			
24	---	---	---	---	---	---	28.0	22.8	24.8	20.3	17.6	18.9			
25	---	---	---	---	---	---	26.0	21.6	23.8	19.7	17.7	18.7			
26	---	---	---	---	---	---	22.6	21.3	22.1	20.4	18.1	19.0			
27	---	---	---	---	---	---	21.4	20.4	20.9	23.1	19.9	21.4			
28	---	---	---	---	---	---	20.6	19.6	20.0	22.3	20.7	21.4			
29	---	---	---	---	---	---	20.3	19.2	19.7	21.0	19.1	20.1			
30	---	---	---	---	---	---	20.4	19.1	19.6	20.4	17.5	19.1			
31	---	---	---	---	---	---	20.3	19.5	19.8	---	---	---			
MONTH	---	---	---	---	---	---	28.0	16.4	22.6	23.7	15.4	20.2			

0209750881 WILSON CREEK AT MOUTH NEAR CHAPEL HILL, NC—Continued

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	21.6	18.9	20.1	12.2	10.2	11.3	8.0	5.2	6.5	12.8	10.3	11.6
2	22.0	19.2	20.6	11.4	9.3	10.5	7.5	3.8	5.8	10.9	9.3	10.1
3	22.4	20.0	21.3	11.8	9.8	10.7	8.2	5.4	6.6	10.6	8.8	10.2
4	22.9	20.2	21.6	13.0	11.0	11.9	5.5	1.6	3.8	8.8	6.4	7.6
5	23.4	21.1	22.2	12.5	12.1	12.3	5.4	1.9	3.8	8.0	5.2	6.5
6	22.2	19.4	20.5	13.5	11.6	12.6	6.6	5.2	5.8	8.0	6.1	6.9
7	21.2	18.9	20.0	11.9	10.3	11.1	6.5	4.2	5.3	6.3	4.1	5.3
8	20.0	17.1	18.0	12.0	9.0	10.6	7.1	4.7	5.9	8.2	5.3	6.6
9	18.1	16.4	17.2	13.5	10.0	11.8	7.0	6.1	6.5	10.3	7.0	8.4
10	19.4	16.4	17.5	15.6	12.5	14.1	6.8	5.9	6.4	9.9	6.8	8.6
11	19.9	19.2	19.6	17.0	15.2	16.1	7.3	6.0	6.8	7.2	4.8	6.0
12	20.6	19.3	19.9	16.5	14.3	15.7	9.0	7.1	7.9	5.6	3.4	4.5
13	19.9	19.0	19.5	14.3	11.9	13.6	8.0	6.8	7.6	6.1	2.9	4.4
14	19.4	16.5	17.7	12.9	10.4	11.7	9.1	7.9	8.5	6.8	3.4	5.0
15	16.5	15.4	15.6	13.2	10.4	11.8	8.5	7.1	7.8	6.1	3.3	4.8
16	16.9	15.8	16.3	13.8	12.8	13.3	9.8	6.9	8.1	5.3	2.8	3.9
17	16.4	14.6	15.6	13.4	11.6	12.8	8.3	6.5	7.4	5.6	3.0	4.1
18	15.2	13.0	14.3	11.7	9.9	10.8	8.8	6.7	7.7	3.9	1.0	2.4
19	15.6	12.7	14.2	11.5	8.6	10.1	9.6	8.1	8.7	4.0	0.6	2.1
20	16.8	14.4	15.6	11.9	9.0	10.4	12.6	9.6	11.2	6.8	2.2	4.1
21	16.5	14.7	15.8	12.2	10.2	11.1	9.6	7.5	8.5	4.9	3.6	4.3
22	15.0	14.0	14.5	11.7	9.3	10.7	9.9	6.5	8.1	5.6	2.2	3.8
23	15.5	12.9	14.2	10.0	7.7	8.9	9.2	6.7	7.9	4.0	0.3	2.3
24	14.9	14.1	14.5	10.8	7.3	9.0	8.5	7.8	8.1	2.2	0.2	0.9
25	14.6	13.9	14.2	11.5	7.9	9.6	8.9	6.9	8.0	4.4	0.4	2.0
26	16.0	13.8	14.8	10.9	8.0	9.4	7.8	6.1	6.8	5.5	1.7	3.3
27	15.6	14.3	15.0	9.8	7.4	8.9	7.4	5.0	6.1	4.0	1.2	2.6
28	15.9	14.6	15.2	7.7	5.5	6.6	7.2	4.5	5.8	4.6	0.5	2.3
29	14.6	13.2	13.8	7.4	4.1	5.9	8.3	5.1	6.6	6.4	3.3	5.1
30	13.3	12.6	13.0	10.1	6.9	8.3	8.7	5.5	7.1	6.2	4.8	5.5
31	13.0	11.7	12.4	---	---	---	10.3	7.0	8.7	5.7	4.8	5.2
MONTH	23.4	11.7	16.9	17.0	4.1	11.1	12.6	1.6	7.1	12.8	0.2	5.2
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	7.9	5.6	6.5	8.2	6.6	7.3	14.5	8.1	11.0	19.6	16.4	17.9
2	8.3	4.9	6.3	10.9	7.6	8.8	17.2	10.5	13.5	20.4	16.0	18.1
3	9.7	5.1	7.4	10.4	6.5	8.3	18.4	11.7	14.7	18.6	16.8	17.6
4	12.1	8.2	10.0	10.4	5.9	8.1	17.6	12.7	15.1	16.8	14.7	15.6
5	9.0	6.0	7.5	12.8	9.2	10.7	16.9	13.7	15.1	14.7	13.4	13.7
6	7.0	5.0	5.8	12.2	10.7	11.3	16.7	12.1	14.4	16.6	13.8	15.2
7	7.7	5.0	6.2	10.7	6.9	8.6	14.1	10.6	11.5	19.0	15.5	17.0
8	7.4	4.8	5.9	11.7	5.7	8.5	10.7	9.9	10.5	20.7	16.8	18.7
9	7.6	4.6	5.8	14.1	8.5	10.9	10.5	9.6	10.0	21.5	17.6	19.4
10	7.2	5.8	6.3	12.2	7.9	9.8	10.0	9.0	9.4	21.9	18.5	20.2
11	8.2	4.3	6.2	10.5	6.6	8.3	10.7	9.6	10.0	20.8	19.0	19.8
12	8.8	5.1	6.6	13.4	6.3	9.6	14.7	9.5	11.7	20.2	16.9	18.4
13	7.7	3.5	5.6	14.8	8.9	11.7	15.4	10.2	12.6	18.9	14.9	16.8
14	7.0	4.8	6.0	13.5	9.9	11.8	16.6	10.8	13.3	18.8	13.7	16.2
15	8.2	6.8	7.5	10.1	8.6	9.4	17.7	11.9	14.6	17.4	15.7	16.6
16	6.8	1.4	4.4	11.2	9.5	10.3	18.5	12.9	15.4	18.7	15.9	17.2
17	3.9	0.9	2.7	13.2	10.9	11.8	18.3	13.3	15.5	17.9	15.6	16.6
18	6.4	3.9	5.1	13.9	11.7	12.6	14.7	12.1	12.7	15.6	14.3	14.9
19	8.2	4.3	6.1	12.5	10.6	11.6	12.9	11.6	12.2	15.3	13.9	14.4
20	9.3	6.4	7.7	10.6	9.2	9.8	15.0	11.7	13.2	17.6	13.4	15.6
21	8.1	6.5	7.5	13.0	9.9	11.0	15.5	12.5	13.9	16.8	15.3	16.2
22	10.1	7.9	8.6	13.9	9.8	11.7	17.0	13.9	15.1	17.0	15.8	16.3
23	10.8	7.7	9.5	14.8	9.4	11.9	16.2	11.4	13.7	16.1	15.7	15.9
24	11.0	6.4	8.5	15.9	10.2	12.7	15.4	10.5	13.0	17.6	15.5	16.4
25	10.5	7.6	9.0	16.5	9.6	12.8	14.2	13.0	13.6	17.4	16.1	17.0
26	8.7	6.4	7.3	17.5	11.3	14.1	16.1	13.7	14.7	18.4	16.6	17.4
27	6.4	5.2	5.7	16.6	12.2	14.0	17.0	13.2	14.9	17.7	16.2	17.0
28	---	---	---	17.4	11.6	14.3	18.1	12.9	15.4	18.2	14.6	16.4
29	---	---	---	18.4	14.7	16.1	18.9	14.5	16.6	17.8	15.7	16.6
30	---	---	---	16.1	9.9	12.3	19.5	15.4	17.4	18.9	15.0	16.9
31	---	---	---	12.7	8.5	10.2	---	---	---	19.6	16.1	17.2
MONTH	---	---	---	18.4	5.7	11.0	19.5	8.1	13.5	21.9	13.4	16.9

02097517 MORGAN CREEK NEAR CHAPEL HILL, NC

LOCATION.--Lat 35°53'37", long 79°01'09", Orange County, Hydrologic Unit 03030002, on left bank 2.5 mi southeast of Chapel Hill, and 3.8 mi downstream of U.S. Highway 501.

DRAINAGE AREA.--41.0 mi²

PERIOD OF RECORD.--November 1982 to current year.

GAGE.--Water-stage recorder. Datum of gage is 239.02 ft above NGVD of 1929. Satellite telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. The City of Chapel Hill diverted an average of 12.4 ft³/s for water supply upstream of station, and an average of 13.0 ft³/s was returned as treated effluent upstream of station. Considerable diurnal fluctuation and occasional slight regulation caused by small reservoir and treated effluent outfall upstream from station. Maximum discharge for period of record from rating curve extended above 1,700 ft³/s, by logarithmic plotting; maximum gage height, 16.18 ft, from floodmark. Maximum gage height for current water year, 15.19 ft, from high-water mark in well.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	33	20	59	70	234	107	42	54	76	24	e30
2	13	26	20	52	54	247	80	39	41	360	26	e22
3	13	24	20	56	47	165	66	37	38	272	34	21
4	12	23	21	51	56	123	56	35	41	85	25	58
5	11	23	265	42	49	127	54	39	38	55	32	32
6	10	68	177	38	51	258	49	63	34	43	32	23
7	11	45	150	35	226	182	272	44	50	39	24	21
8	12	31	98	31	131	121	205	39	84	33	98	27
9	12	26	80	31	82	102	1,050	36	54	30	52	24
10	24	24	55	29	90	91	e1,600	33	39	30	41	23
11	575	29	91	27	79	81	e700	31	34	32	106	22
12	122	86	90	26	64	76	e400	29	40	31	37	21
13	49	125	358	25	53	74	e200	24	35	27	29	21
14	39	65	297	25	49	75	e110	26	30	42	27	22
15	35	41	108	23	53	68	81	25	38	31	22	21
16	128	42	72	24	56	279	70	30	66	28	39	23
17	62	144	52	28	61	179	59	23	49	27	26	22
18	35	136	42	31	84	121	54	24	41	26	22	72
19	28	69	46	31	115	101	57	45	75	26	21	40
20	24	49	82	31	104	e1,200	52	35	113	23	20	26
21	24	37	65	31	87	461	49	31	77	22	19	24
22	38	32	46	32	349	183	48	193	47	46	19	26
23	26	27	39	34	346	124	40	189	38	80	20	109
24	23	24	87	31	132	97	36	99	34	43	37	27
25	22	23	252	30	94	78	38	236	30	30	21	28
26	21	22	127	30	80	67	69	131	28	25	20	24
27	20	21	76	31	391	62	72	79	26	22	19	22
28	77	19	57	30	609	55	49	62	24	22	19	21
29	84	19	46	32	---	61	47	52	24	20	19	20
30	89	19	42	76	---	400	43	48	53	25	e20	18
31	51	---	38	110	---	219	---	53	---	18	e80	---
TOTAL	1,703	1,352	3,019	1,162	3,662	5,711	5,813	1,872	1,375	1,669	1,030	890
MEAN	54.9	45.1	97.4	37.5	131	184	194	60.4	45.8	53.8	33.2	29.7
MAX	575	144	358	110	609	1,200	1,600	236	113	360	106	109
MIN	10	19	20	23	47	55	36	23	24	18	19	18
CFSM	1.34	1.10	2.38	0.91	3.19	4.49	4.73	1.47	1.12	1.31	0.81	0.72
IN.	1.55	1.23	2.74	1.05	3.32	5.18	5.27	1.70	1.25	1.51	0.93	0.81

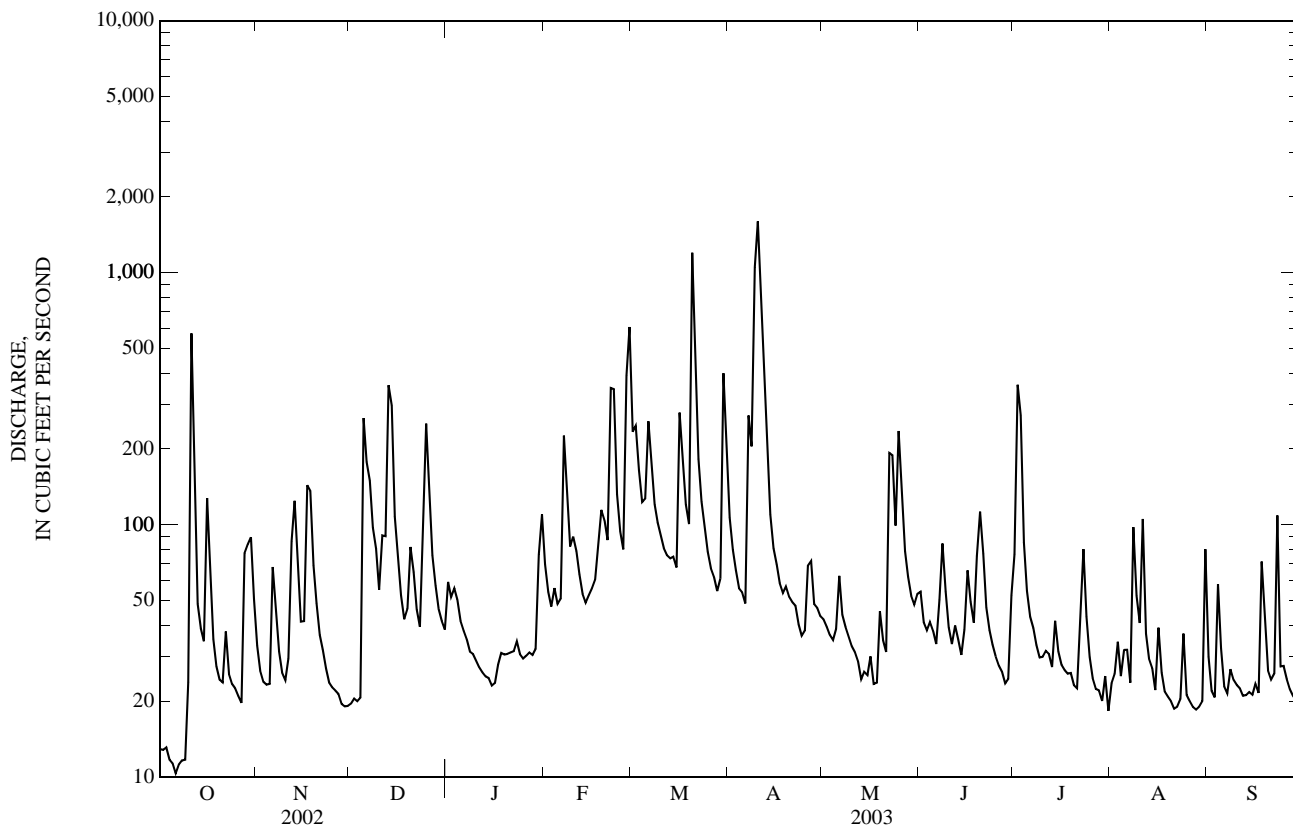
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 2003, BY WATER YEAR (WY)

MEAN	25.7	35.0	37.9	67.4	78.8	98.6	61.7	33.4	26.1	22.1	22.3	33.9
MAX	54.9	141	105	184	206	226	194	91.2	84.9	53.8	65.0	272
(WY)	(2003)	(1986)	(1984)	(1998)	(1998)	(1993)	(2003)	(1990)	(1992)	(2003)	(1985)	(1999)
MIN	12.9	10.5	12.9	15.2	17.2	18.0	17.5	14.5	11.1	8.93	12.1	8.77
(WY)	(1999)	(1983)	(1989)	(1989)	(1991)	(1988)	(1986)	(1986)	(1986)	(1988)	(1988)	(1983)

02097517 MORGAN CREEK NEAR CHAPEL HILL, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1983 - 2003	
ANNUAL TOTAL	12,660.1		29,258		44.4	
ANNUAL MEAN	34.7		80.2		80.2	
HIGHEST ANNUAL MEAN					2003	
LOWEST ANNUAL MEAN					1988	
HIGHEST DAILY MEAN	575	Oct 11	1,600	Apr 10	2,600	Sep 6, 1996
LOWEST DAILY MEAN	8.4	Aug 14	10	Oct 6	0.60	Nov 26, 1982
ANNUAL SEVEN-DAY MINIMUM	9.4	Aug 9	12	Oct 3	2.1	Nov 22, 1982
MAXIMUM PEAK FLOW			3,550	Mar 20	4210*	Sep 6, 1996
MAXIMUM PEAK STAGE			15.19*	Mar 20	16.18*	Sep 6, 1996
INSTANTANEOUS LOW FLOW			5.0	Oct 6	NOT DETERMINED	
ANNUAL RUNOFF (CFSM)	0.85		1.96		1.08	
ANNUAL RUNOFF (INCHES)	11.49		26.55		14.72	
10 PERCENT EXCEEDS	70		146		82	
50 PERCENT EXCEEDS	21		41		20	
90 PERCENT EXCEEDS	12		21		12	

e Estimated.
 * See REMARKS.



0209768310 B. EVERETT JORDAN LAKE AT BUOY 12 AT FARRINGTON, NC

LOCATION.--Lat 35°47'56", long 79°00'21", Chatham County, Hydrologic Unit 03030002, .02 mi above Secondary Road 1008, and 0.2 mi east of Farrington.

PERIOD OF RECORD.--Water years 1992 to current year.

REMARKS.--Station operated to define water quality as part of a six-county regional surface-water quality assessment. Samples for nutrient and chlorophyll a and b analyses were collected through a sampling zone equal to double the secchi disk depth using the depth-integration sampling technique.

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

Date	Time	Color, water, fltrd, Pt-Co units (00080)	Sam-pling depth, meters (00098)	Trans-parency Secchi disc, meters (00078)	Baro-metric pres-sure, mm Hg (00025)	Dis-solved oxygen, mg/L (00300)	Dis-solved oxygen, percent of sat-uration (00301)	pH, water, unfltrd field, std units (00400)	Specif. conduc-tance, wat unfltrd uS/cm (00095)	Temper-ature, water, deg C (00010)	Hard-ness, water, unfltrd mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes-ium, water, fltrd, mg/L (00925)	
Date		Potas-sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unfltrd, titr., field, mg/L as CaCO3 (00419)	Bicar-bonate, wat unfltrd, titr., field, mg/L (00450)	Chlor-ide, water, fltrd, mg/L (00940)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho-phos-phate, water, fltrd, mg/L as P (00671)
OCT														
02...	1115	E50	1.0	0.50	762	4.0	47	7.2	241	23.9	38	9.71	3.27	
02...	1120	--	2.0	--	762	4.0	48	7.2	240	23.8	--	--	--	
02...	1125	--	3.5	--	762	1.9	22	6.9	245	23.7	--	--	--	
MAY														
08...	1045	88	1.0	0.80	758	6.8	76	6.8	98	20.4	27	7.04	2.39	
08...	1050	--	2.0	--	758	5.9	65	6.6	100	20.1	--	--	--	
08...	1055	--	5.0	--	758	1.1	11	6.3	98	16.5	--	--	--	
JUN														
23...	1400	62	1.0	0.40	759	8.1	100	8.6	130	25.8	32	8.32	2.71	
23...	1405	--	3.0	--	759	5.6	68	6.7	129	25.0	--	--	--	
23...	1410	--	5.0	--	759	1.1	13	6.5	127	24.1	--	--	--	
AUG														
26...	1100	50	1.0	0.70	758	4.1	53	6.2	134	28.5	33	8.59	2.90	
26...	1105	--	3.0	--	758	3.2	41	6.1	138	28.4	--	--	--	
26...	1110	--	5.0	--	758	0.3	5	6.0	158	28.0	--	--	--	

0209768310 B. EVERETT JORDAN LAKE AT BUOY 12 AT FARRINGTON, NC—Continued

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

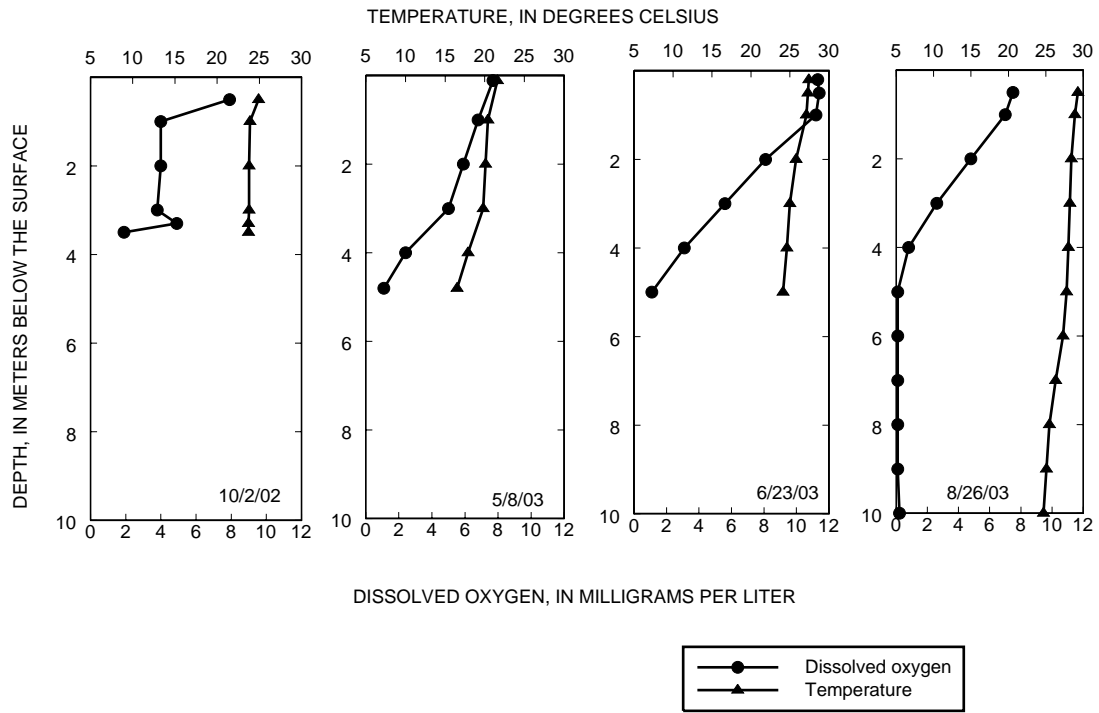
Date	Phosphorus, water, unfltrd mg/L (00665)	Organic carbon, water, unfltrd mg/L (00680)	Chlorophyll a phytoplankton, fluoro, ug/L (70953)	Chlorophyll b phytoplankton, fluoro, ug/L (70954)	Aluminum, water, unfltrd recover-able, ug/L (01105)	Arsenic water unfltrd ug/L (01002)	Cadmium water, unfltrd ug/L (01027)	Chromium, water, unfltrd recover-able, ug/L (01034)	Cobalt water, unfltrd recover-able, ug/L (01037)	Copper, water, unfltrd recover-able, ug/L (01042)	Iron, water, unfltrd recover-able, ug/L (01045)	Lead, water, unfltrd recover-able, ug/L (01051)	Manganese, water, unfltrd recover-able, ug/L (01055)
OCT													
02...	--	12.9	7.0	<0.1	120	<2	<0.2	<0.8	<3.4	1.5	280	<1	159
02...	--	--	--	--	--	--	--	--	--	--	220	--	141
02...	--	--	--	--	--	--	--	--	--	--	320	--	193
MAY													
08...	0.062	10.8	E14.3	<0.1	180	E1	<0.2	<0.8	<3.4	1.9	510	M	135
08...	0.060	--	--	--	--	--	--	--	--	--	540	--	157
08...	0.069	--	--	--	--	--	--	--	--	--	880	--	690
JUN													
23...	0.103	12.2	13.4	1.3	--	--	--	--	--	--	650	--	221
23...	0.108	--	--	--	--	--	--	--	--	--	700	--	230
23...	0.074	--	--	--	--	--	--	--	--	--	720	--	421
AUG													
26...	0.060	10.3	E18.1	<0.1	--	--	--	--	--	--	250	--	298
26...	0.069	--	--	--	--	--	--	--	--	--	330	--	491
26...	0.091	--	--	--	--	--	--	--	--	--	600	--	729

Date	Mercury water, unfltrd recover-able, ug/L (71900)	Molybdenum, water, unfltrd recover-able, ug/L (01062)	Nickel, water, unfltrd recover-able, ug/L (01067)	Selenium, water, unfltrd ug/L (01147)	Silver, water, unfltrd recover-able, ug/L (01077)	Zinc, water, unfltrd recover-able, ug/L (01092)
OCT						
02...	0.02	6	E1.2	<5	<0.3	E31
02...	--	--	--	--	--	--
02...	--	--	--	--	--	--
MAY						
08...	E.02	E1	<2.0	<3	<0.3	<25
08...	--	--	--	--	--	--
08...	--	--	--	--	--	--
JUN						
23...	--	--	--	--	--	--
23...	--	--	--	--	--	--
23...	--	--	--	--	--	--
AUG						
26...	--	--	--	--	--	--
26...	--	--	--	--	--	--
26...	--	--	--	--	--	--

Remark codes used in this table:
 < -- Less than
 E -- Estimated value
 M-- Presence verified, not quantified

CAPE FEAR RIVER BASIN

0209768310 B. EVERETT JORDAN LAKE AT BUOY 12 AT FARRINGTON, NC—Continued



0209782520 WHITE OAK CREEK AT GREEN LEVEL, NC

LOCATION.--Lat 35°46'33", long 78°54'10", Wake County, Hydrologic Unit 03030002, on left bank on Secondary Road 1603, 1.7 mi west of Green Level.

DRAINAGE AREA.--6.97 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1999 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 265 ft above NGVD of 1929, from topographic map. Satellite telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. No flow occurs at times most years.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.02	12	3.2	41	18	59	19	3.3	15	1.4	2.5	5.3
2	0.01	7.5	2.8	31	12	171	15	2.8	5.2	14	3.7	2.1
3	0.00	4.7	2.6	38	9.1	53	13	2.5	2.9	18	5.6	1.3
4	0.00	3.8	2.4	27	13	27	11	2.3	3.7	6.5	3.2	1.2
5	0.00	4.2	164	17	13	35	9.4	2.3	5.0	2.8	23	13
6	0.00	64	102	14	9.7	218	9.7	5.6	2.4	1.9	13	2.9
7	0.00	21	61	11	148	82	67	5.5	14	1.6	5.4	1.5
8	0.00	10	27	11	43	32	52	3.2	64	1.3	20	3.4
9	0.00	7.2	20	9.6	21	23	258	2.4	14	1.1	82	13
10	0.00	5.5	16	8.4	51	18	472	2.1	6.5	1.00	43	2.8
11	312	8.5	39	7.0	33	14	183	1.9	3.2	0.90	16	1.6
12	104	105	29	5.6	19	14	55	1.7	2.9	0.81	8.6	1.2
13	17	135	124	5.2	14	13	25	1.5	8.0	0.81	4.9	1.0
14	8.7	33	152	5.1	11	21	17	1.4	3.1	10	13	0.92
15	6.1	17	37	4.7	14	13	14	1.3	40	6.1	17	0.87
16	45	14	22	4.2	13	116	12	1.5	134	2.2	6.8	31
17	17	113	16	5.3	17	57	9.5	1.8	36	3.7	7.6	7.2
18	6.7	81	13	5.0	33	27	8.2	1.8	17	2.7	6.0	36
19	3.1	24	14	4.1	50	21	8.6	11	28	1.7	3.8	84
20	2.2	16	82	4.0	29	315	8.1	6.1	57	1.4	2.9	13
21	6.4	13	42	4.1	20	150	7.0	3.2	28	1.2	2.2	5.7
22	13	11	20	3.8	166	47	6.9	48	12	0.99	2.3	3.7
23	11	8.6	15	3.6	207	25	7.4	46	7.8	1.8	7.3	48
24	5.9	7.1	56	e5.0	47	20	4.6	19	4.8	2.3	2.5	15
25	4.1	6.2	155	3.4	24	17	6.1	19	3.2	1.3	1.6	6.2
26	3.4	5.3	52	3.8	20	15	13	20	2.4	0.99	1.3	3.5
27	2.8	4.6	23	3.5	139	13	15	9.5	2.0	0.84	1.0	2.5
28	9.8	4.1	18	3.0	244	12	7.5	6.9	1.6	0.73	0.88	2.0
29	62	3.7	15	3.4	---	13	4.9	5.5	1.5	0.72	0.74	1.6
30	76	3.6	12	14	---	64	3.8	12	1.4	23	0.63	1.4
31	23	---	11	47	---	44	---	6.4	---	6.5	0.78	---
TOTAL	739.23	753.6	1,348.0	352.8	1,437.8	1,749	1,342.7	257.5	526.6	120.29	309.23	312.89
MEAN	23.8	25.1	43.5	11.4	51.4	56.4	44.8	8.31	17.6	3.88	9.98	10.4
MAX	312	135	164	47	244	315	472	48	134	23	82	84
MIN	0.00	3.6	2.4	3.0	9.1	12	3.8	1.3	1.4	0.72	0.63	0.87
CFSM	3.42	3.60	6.24	1.63	7.37	8.09	6.42	1.19	2.52	0.56	1.43	1.50
IN.	3.95	4.02	7.19	1.88	7.67	9.33	7.17	1.37	2.81	0.64	1.65	1.67

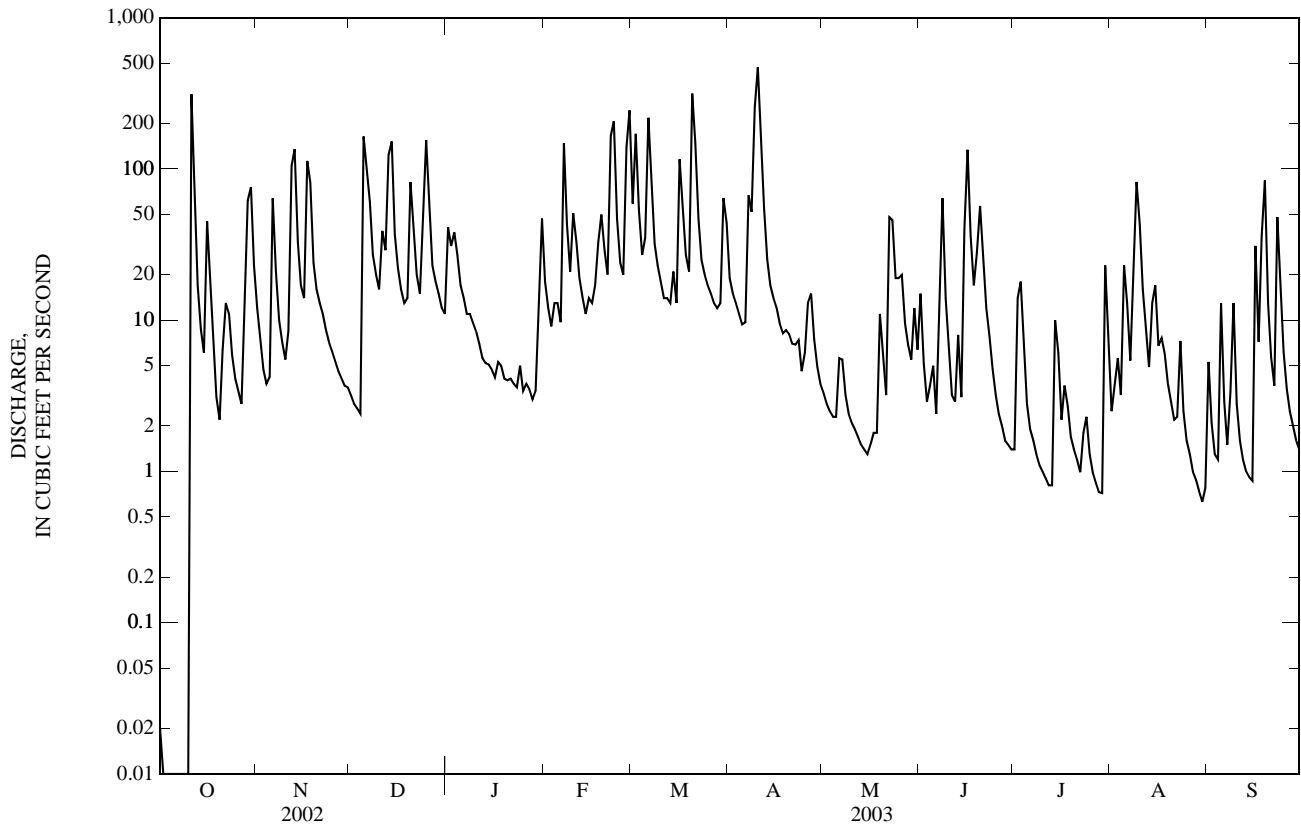
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2003, BY WATER YEAR (WY)

MEAN	9.20	8.25	14.5	17.7	25.0	27.5	22.0	2.54	8.79	3.34	7.88	8.05
MAX	23.8	25.1	43.5	28.6	51.4	56.4	44.8	8.31	17.6	5.19	10.9	18.9
(WY)	(2003)	(2003)	(2003)	(2000)	(2003)	(2003)	(2003)	(2003)	(2003)	(2001)	(2000)	(2000)
MIN	0.77	0.21	2.35	3.26	7.77	7.49	10.8	0.20	0.000	0.007	0.84	0.61
(WY)	(2002)	(2002)	(2001)	(2001)	(2002)	(2000)	(2000)	(2002)	(2002)	(2002)	(2002)	(2001)

0209782520 WHITE OAK CREEK AT GREEN LEVEL, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 2000 - 2003	
ANNUAL TOTAL	4,735.51		9,249.64		12.8	
ANNUAL MEAN	13.0		25.3		25.3	
HIGHEST ANNUAL MEAN					5.51	
LOWEST ANNUAL MEAN					2002	
HIGHEST DAILY MEAN	312	Oct 11	472	Apr 10	472	Apr 10, 2003
LOWEST DAILY MEAN	0.00	May 28	0.00	Oct 3	0.00	May 28, 2002
ANNUAL SEVEN-DAY MINIMUM	0.00	May 28	0.00	Oct 3	0.00	May 28, 2002
MAXIMUM PEAK FLOW			1,140	Oct 11	1,140	Oct 11, 2002
MAXIMUM PEAK STAGE			10.51	Oct 11	10.51	Oct 11, 2002
INSTANTANEOUS LOW FLOW			0.00*	Oct 3	0.00*	May 28, 2002
ANNUAL RUNOFF (CFSM)	1.86		3.64		1.84	
ANNUAL RUNOFF (INCHES)	25.27		49.37		24.96	
10 PERCENT EXCEEDS	31		60		27	
50 PERCENT EXCEEDS	1.8		8.7		2.8	
90 PERCENT EXCEEDS	0.00		1.4		0.02	

e Estimated.
 * See REMARKS.



CAPE FEAR RIVER BASIN

0209782520 WHITE OAK CREEK AT GREEN LEVEL, NC—Continued

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

Date	Selenium, water, unfltrd ug/L (01147)	Silver, water, unfltrd recover- able, ug/L (01077)	Zinc, water, unfltrd recover- able, ug/L (01092)	Sus- pended sedi- ment concen- tration mg/L (80154)	Sus- pended sedi- ment load, tons/d (80155)
OCT 11...	<3	<0.3	E19	81	224
NOV 04...	<3	<0.3	<25	8	0.08
DEC 16...	--	--	--	7	0.42
FEB 20...	--	--	--	9	0.65
APR 14...	<3	<0.3	<25	15	0.77
JUN 30...	--	--	--	5	0.04
AUG 21...	--	--	--	6	0.03

Remark codes used in this table:

< -- Less than

E -- Estimated value

M-- Presence verified, not quantified

0209799150 B. EVERETT JORDAN LAKE ABOVE U.S. HIGHWAY 64 NEAR WILSONVILLE, NC

LOCATION.--Lat 35°44'30", long 79°01'09", Chatham County, Hydrologic Unit 03030002, 0.2 mi above bridge on U.S. Highway 64, and 1.1 mi west of Wilsonville.

PERIOD OF RECORD.--Water years 1991 to current year.

REMARKS.-- Station operated to define water quality as part of a six-county regional surface-water quality assessment. Samples for nutrient and chlorophyll a and b analyses were collected through a sampling zone equal to double the secchi disk depth using the depth-integration sampling technique.

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

Date	Time	Color, water, fltrd, Pt-Co units (00080)	Sam-pling depth, meters (00098)	Trans-parency Secchi disc, meters (00078)	Baro-metric pres-sure, mm Hg (00025)	Dis-solved oxygen, mg/L (00300)	Dis-solved oxygen, percent of sat-uration (00301)	pH, water, unfltrd field, std units (00400)	Specif. conduc-tance, wat unfltrd uS/cm 25 degC (00095)	Temper-ature, water, deg C (00010)	Hard-ness, water, unfltrd mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes-ium, water, fltrd, mg/L (00925)
OCT													
30...	1300	30	1.0	0.40	754	4.5	47	6.9	204	16.9	31	7.60	2.83
30...	1305	--	5.0	--	754	4.5	47	6.9	204	16.8	--	--	--
30...	1310	--	9.2	--	754	4.8	49	6.9	200	16.4	--	--	--
MAY													
07...	1115	75	1.0	0.70	763	7.8	84	6.7	86	19.3	23	5.63	2.06
07...	1120	--	5.0	--	763	3.1	31	6.1	88	15.4	--	--	--
07...	1125	--	9.0	--	763	1.8	17	6.1	92	13.6	--	--	--
JUN													
25...	1000	22	1.0	1.00	760	8.5	109	8.8	109	28.3	28	7.03	2.42
25...	1005	--	5.0	--	760	1.5	18	6.4	105	23.9	--	--	--
25...	1010	--	11.0	--	760	0.2	2	6.8	143	19.9	--	--	--
AUG													
26...	1000	40	1.0	0.90	758	7.0	92	6.7	112	28.9	31	7.72	2.80
26...	1005	--	5.0	--	758	0.1	1	5.9	115	27.8	--	--	--
26...	1010	--	10.0	--	758	0.2	2	5.9	164	24.7	--	--	--

Date	Potas-sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unfltrd, field, mg/L as CaCO3 (00419)	Bicar-bonate, wat unfltrd, field, mg/L (00450)	Chlor-ide, water, fltrd, mg/L (00940)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho-phosphate, water, fltrd, mg/L as P (00671)
OCT													
30...	4.39	22.5	36	44	19.3	5.9	18.8	108	0.62	0.034	0.63	0.011	E.004
30...	--	--	--	--	--	--	--	--	0.60	0.033	0.63	0.010	E.005
30...	--	--	--	--	--	--	--	--	0.66	0.020	0.65	0.010	<0.007
MAY													
07...	2.22	7.39	16	20	6.96	3.7	8.2	71	0.65	0.035	0.130	0.006	<0.007
07...	--	--	--	--	--	--	--	--	0.64	0.147	0.172	0.007	<0.007
07...	--	--	--	--	--	--	--	--	0.98	0.288	0.206	0.008	E.006
JUN													
25...	2.36	8.39	26	31	7.95	3.9	8.1	63	0.70	<0.015	<0.022	<0.002	E.004
25...	--	--	--	--	--	--	--	--	0.61	0.096	0.087	0.006	<0.007
25...	--	--	--	--	--	--	--	--	1.3	0.513	<0.022	E.002	0.036
AUG													
26...	2.74	9.52	32	39	8.38	4.88	6.9	82	0.69	<0.015	<0.022	<0.002	<0.007
26...	--	--	--	--	--	--	--	--	0.68	0.046	<0.022	<0.002	<0.007
26...	--	--	--	--	--	--	--	--	1.3	0.603	<0.022	<0.002	0.036

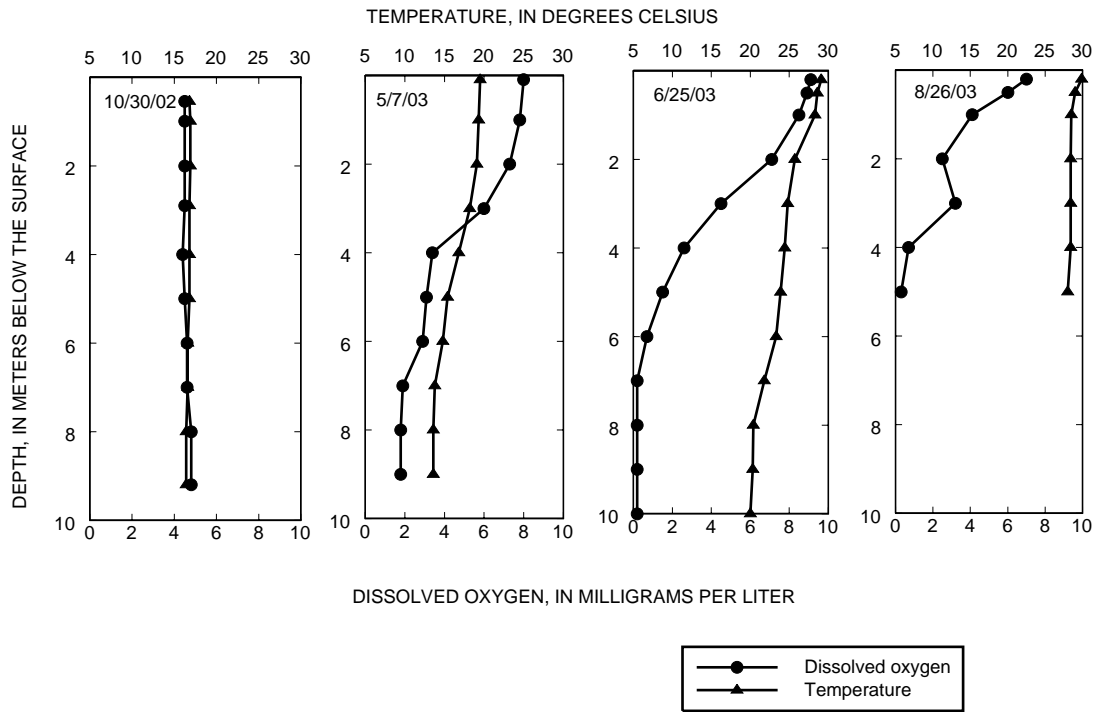
WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Phosphorus, water, unfltrd mg/L (00665)	Organic carbon, water, unfltrd mg/L (00680)	Chlorophyll a phytoplankton, fluoro, ug/L (70953)	Chlorophyll b phytoplankton, fluoro, ug/L (70954)	Aluminum, water, unfltrd recover-able, ug/L (01105)	Arsenic water unfltrd ug/L (01002)	Cadmium water, unfltrd ug/L (01027)	Chromium, water, unfltrd recover-able, ug/L (01034)	Cobalt water, unfltrd recover-able, ug/L (01037)	Copper, water, unfltrd recover-able, ug/L (01042)	Iron, water, unfltrd recover-able, ug/L (01045)	Lead, water, unfltrd recover-able, ug/L (01051)	Manganese, water, unfltrd recover-able, ug/L (01055)
OCT 30...	--	8.0	4.2	<0.1	190	<2	<0.2	<0.8	<3.4	E.8	320	<1	216
OCT 30...	--	--	--	--	--	--	--	--	--	--	300	--	215
OCT 30...	--	--	--	--	--	--	--	--	--	--	540	--	270
MAY 07...	0.064	9.7	E10.0	<0.1	130	<2	<0.2	<0.8	<3.4	1.6	380	M	47.8
MAY 07...	0.054	--	--	--	--	--	--	--	--	--	520	--	182
MAY 07...	0.082	--	--	--	--	--	--	--	--	--	890	--	802
JUN 25...	0.037	10.0	7.7	0.5	--	--	--	--	--	--	190	--	66.8
JUN 25...	0.042	--	--	--	--	--	--	--	--	--	400	--	401
JUN 25...	0.28	--	--	--	--	--	--	--	--	--	5,130	--	3,340
AUG 26...	0.040	9.6	E10.3	<0.1	--	--	--	--	--	--	70	--	85.0
AUG 26...	0.047	--	--	--	--	--	--	--	--	--	110	--	376
AUG 26...	0.115	--	--	--	--	--	--	--	--	--	1,570	--	2,800

Date	Mercury water, unfltrd recover-able, ug/L (71900)	Molybdenum, water, unfltrd recover-able, ug/L (01062)	Nickel, water, unfltrd recover-able, ug/L (01067)	Selenium, water, unfltrd ug/L (01147)	Silver, water, unfltrd recover-able, ug/L (01077)	Zinc, water, unfltrd recover-able, ug/L (01092)
OCT 30...	E.01	3	<2.0	<3	<0.3	<25
OCT 30...	--	--	--	--	--	--
OCT 30...	--	--	--	--	--	--
MAY 07...	0.12	<2	<2.0	<3	<0.3	E19
MAY 07...	--	--	--	--	--	--
MAY 07...	--	--	--	--	--	--
JUN 25...	--	--	--	--	--	--
JUN 25...	--	--	--	--	--	--
JUN 25...	--	--	--	--	--	--
AUG 26...	--	--	--	--	--	--
AUG 26...	--	--	--	--	--	--
AUG 26...	--	--	--	--	--	--

Remark codes used in this table:
 < -- Less than
 E -- Estimated value
 M -- Presence verified, not quantified

0209799150 B. EVERETT JORDAN LAKE ABOVE U.S. HIGHWAY 64 NEAR WILSONVILLE, NC—Continued



0209801100 B. EVERETT JORDAN LAKE AT BELLS LANDING NEAR GRIFFINS CROSSROADS, NC

LOCATION.--Lat 35°43'39", long 79°02'34", Chatham County, Hydrologic Unit 03030002, at Bells Landing and 2.0 mi southeast of Griffins Crossroads.

PERIOD OF RECORD.--Water years 1991-1995, 1999 to current year.

REMARKS.--Station operated to define water quality as part of a six-county regional surface-water quality assessment. A GC/FID scan for trace organic compounds was performed on samples collected in November 1994 and May 1995. Results may be obtained from the District office in Raleigh. Samples for nutrient and chlorophyll a and b analyses were collected through a sampling zone equal to double the secchi disk depth using the depth-integration sampling technique.

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

Date	Time	Color, water, fltrd, Pt-Co units (00080)	Sam-pling depth, meters (00098)	Trans-parency Secchi disc, meters (00078)	Baro-metric pres-sure, mm Hg (00025)	Dis-solved oxygen, mg/L (00300)	Dis-solved oxygen, percent of sat-uration (00301)	pH, water, unfltrd field, std units (00400)	Specif. conduc-tance, wat unf uS/cm 25 degC (00095)	Temper-ature, water, deg C (00010)	Hard-ness, water, unfltrd mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes-ium, water, fltrd, mg/L (00925)	
OCT														
30...	1215	25	0.99	0.70	754	4.3	45	6.8	199	16.9	30	7.31	2.80	
30...	1220	--	4.0	--	754	4.3	44	6.9	199	16.9	--	--	--	
30...	1225	--	7.7	--	754	4.2	44	6.9	200	16.7	--	--	--	
MAY														
07...	1030	75	1.0	0.70	763	8.8	97	7.0	85	20.2	22	5.54	2.08	
07...	1035	--	4.0	--	763	6.4	68	6.4	85	18.3	--	--	--	
07...	1040	--	7.0	--	763	2.3	22	6.1	88	13.9	--	--	--	
JUN														
25...	1100	15	1.0	1.00	760	9.8	123	8.7	100	26.6	27	6.65	2.42	
25...	1105	--	3.0	--	760	7.6	92	7.1	97	25.0	--	--	--	
25...	1110	--	6.0	--	760	1.7	20	6.4	102	23.4	--	--	--	
AUG														
20...	1130	35	1.0	0.90	763	6.1	78	7.0	111	28.4	29	7.31	2.68	
20...	1135	--	3.0	--	763	4.8	61	6.7	111	28.3	--	--	--	
20...	1140	--	7.0	--	763	0.1	1	6.6	124	25.5	--	--	--	
Date		Potas-sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf incrm. titr., field, mg/L as CaCO3 (00419)	Bicar-bonate, wat unf incrm. titr., field, mg/L (00450)	Chlor-ide, water, fltrd, mg/L (00940)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho-phosphate, water, fltrd, mg/L as P (00671)
OCT														
30...	4.32	21.5	36	44	20.5	5.8	18.3	109	0.65	0.037	0.64	0.010	E.006	
30...	--	--	--	--	--	--	--	--	0.60	0.034	0.62	0.010	E.004	
30...	--	--	--	--	--	--	--	--	0.62	0.044	0.61	0.010	<0.007	
MAY														
07...	2.18	7.45	19	23	7.72	2.9	8.7	65	0.58	E.010	0.150	0.007	<0.007	
07...	--	--	--	--	--	--	--	--	0.58	0.046	0.165	0.007	<0.007	
07...	--	--	--	--	--	--	--	--	0.68	0.186	0.230	0.007	E.006	
JUN														
25...	2.35	7.69	25	31	7.13	4.4	7.6	64	0.68	<0.015	<0.022	<0.002	<0.007	
25...	--	--	--	--	--	--	--	--	0.64	E.011	0.022	0.003	<0.007	
25...	--	--	--	--	--	--	--	--	0.63	0.102	0.071	0.005	<0.007	
AUG														
20...	2.55	8.39	28	34	7.44	6.1	6.8	62	0.68	<0.015	<0.022	<0.002	<0.007	
20...	--	--	--	--	--	--	--	--	0.65	<0.015	<0.022	<0.002	<0.007	
20...	--	--	--	--	--	--	--	--	0.83	0.164	<0.022	<0.002	<0.007	

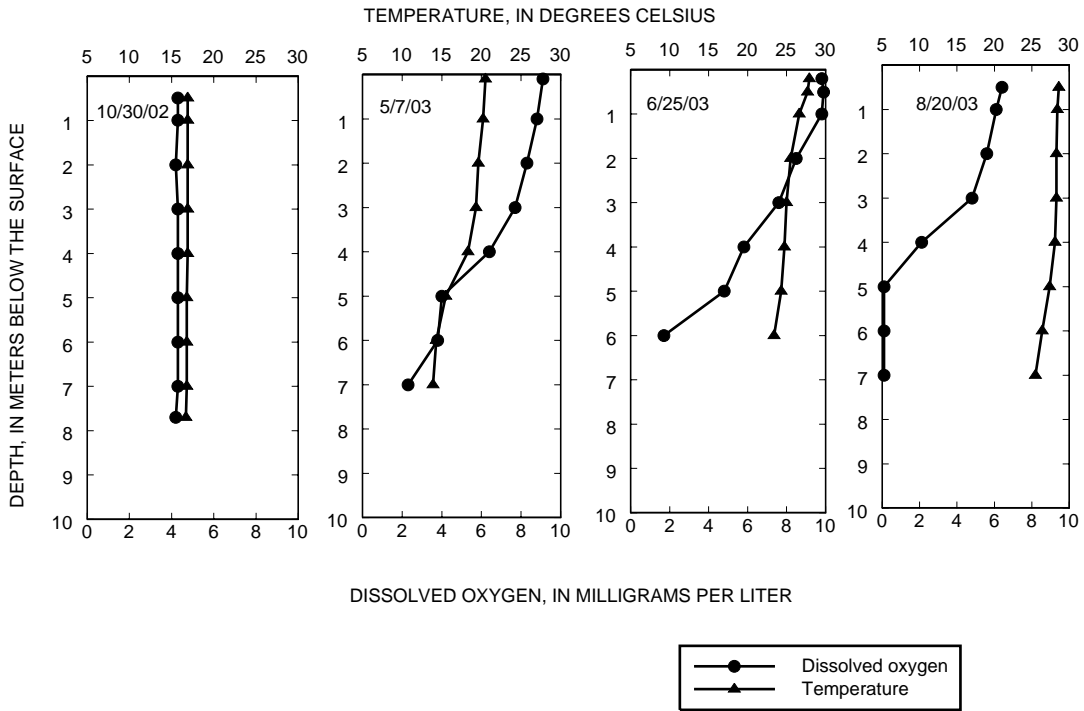
0209801100 B. EVERETT JORDAN LAKE AT BELLS LANDING NEAR GRIFFINS CROSSROADS, NC—Continued

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

Date	Phosphorus, water, unfltrd mg/L (00665)	Organic carbon, water, unfltrd mg/L (00680)	Chlorophyll a phytoplankton, fluoro, ug/L (70953)	Chlorophyll b phytoplankton, fluoro, ug/L (70954)	Aluminum, water, unfltrd recover-able, ug/L (01105)	Arsenic water unfltrd ug/L (01002)	Cadmium water, unfltrd ug/L (01027)	Chromium, water, unfltrd recover-able, ug/L (01034)	Cobalt water, unfltrd recover-able, ug/L (01037)	Copper, water, unfltrd recover-able, ug/L (01042)	Iron, water, unfltrd recover-able, ug/L (01045)	Lead, water, unfltrd recover-able, ug/L (01051)	Manganese, water, unfltrd recover-able, ug/L (01055)
OCT													
30...	--	8.0	4.6	<0.1	130	<2	<0.2	<0.8	<3.4	E1.0	250	<1	174
30...	--	--	--	--	--	--	--	--	--	--	240	--	173
30...	--	--	--	--	--	--	--	--	--	--	360	--	225
MAY													
07...	0.049	9.4	E8.2	<0.1	120	<2	<0.2	<0.8	<3.4	1.9	360	<1	38.8
07...	0.057	--	--	--	--	--	--	--	--	--	400	--	46.7
07...	0.073	--	--	--	--	--	--	--	--	--	720	--	289
JUN													
25...	0.033	9.4	7.6	0.6	--	--	--	--	--	--	160	--	45.6
25...	0.033	--	--	--	--	--	--	--	--	--	190	--	46.7
25...	0.046	--	--	--	--	--	--	--	--	--	440	--	298
AUG													
20...	0.037	8.9	E11.1	<0.1	--	--	--	--	--	--	510	--	54.1
20...	0.035	--	--	--	--	--	--	--	--	--	80	--	81.1
20...	0.051	--	--	--	--	--	--	--	--	--	70	--	80.2

Date	Mercury water, unfltrd recover-able, ug/L (71900)	Molybdenum, water, unfltrd recover-able, ug/L (01062)	Nickel, water, unfltrd recover-able, ug/L (01067)	Selenium, water, unfltrd ug/L (01147)	Silver, water, unfltrd recover-able, ug/L (01077)	Zinc, water, unfltrd recover-able, ug/L (01092)
OCT						
30...	E.01	3	<2.0	<3	<0.3	<25
30...	--	--	--	--	--	--
30...	--	--	--	--	--	--
MAY						
07...	0.15	<2	<2.0	<3	<0.3	<25
07...	--	--	--	--	--	--
07...	--	--	--	--	--	--
JUN						
25...	--	--	--	--	--	--
25...	--	--	--	--	--	--
25...	--	--	--	--	--	--
AUG						
20...	--	--	--	--	--	--
20...	--	--	--	--	--	--
20...	--	--	--	--	--	--

Remark codes used in this table:
 < -- Less than
 E -- Estimated value



02098197 B. EVERETT JORDAN LAKE AT DAM NEAR MONCURE, NC

LOCATION.--Lat 35°39'17", long 79°04'05", Chatham County, Hydrologic Unit 03030002, at B. Everett Jordan Dam on Haw River, 0.3 mi downstream of mouth of New Hope River, 2.5 mi north of Moncure, 4.2 mi upstream from mouth of Haw River, and 202.2 mi upstream from mouth of Cape Fear River.

DRAINAGE AREA.--1,689 mi².

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

GAGE.--Water-stage recorder. Datum of gage is at NGVD of 1929. U.S. Army Corps of Engineers satellite telemetry at station.

REMARKS.--Lake elevations controlled by reservoir operations at B. Everett Jordan Dam. Lake is used for flood control, water supply, low-flow augmentation, and recreation. Some storage was affected during construction and then operated temporarily as a "dry reservoir" January 1975 to August 1981. Reservoir began filling September 1981 and reached normal pool elevation, 216 ft, Feb. 4, 1982. Total capacity is 32,825,074,000 ft³ at 240.0 ft, of which 23,454,011,000 ft³ is controlled flood storage. (See station 02098198.)

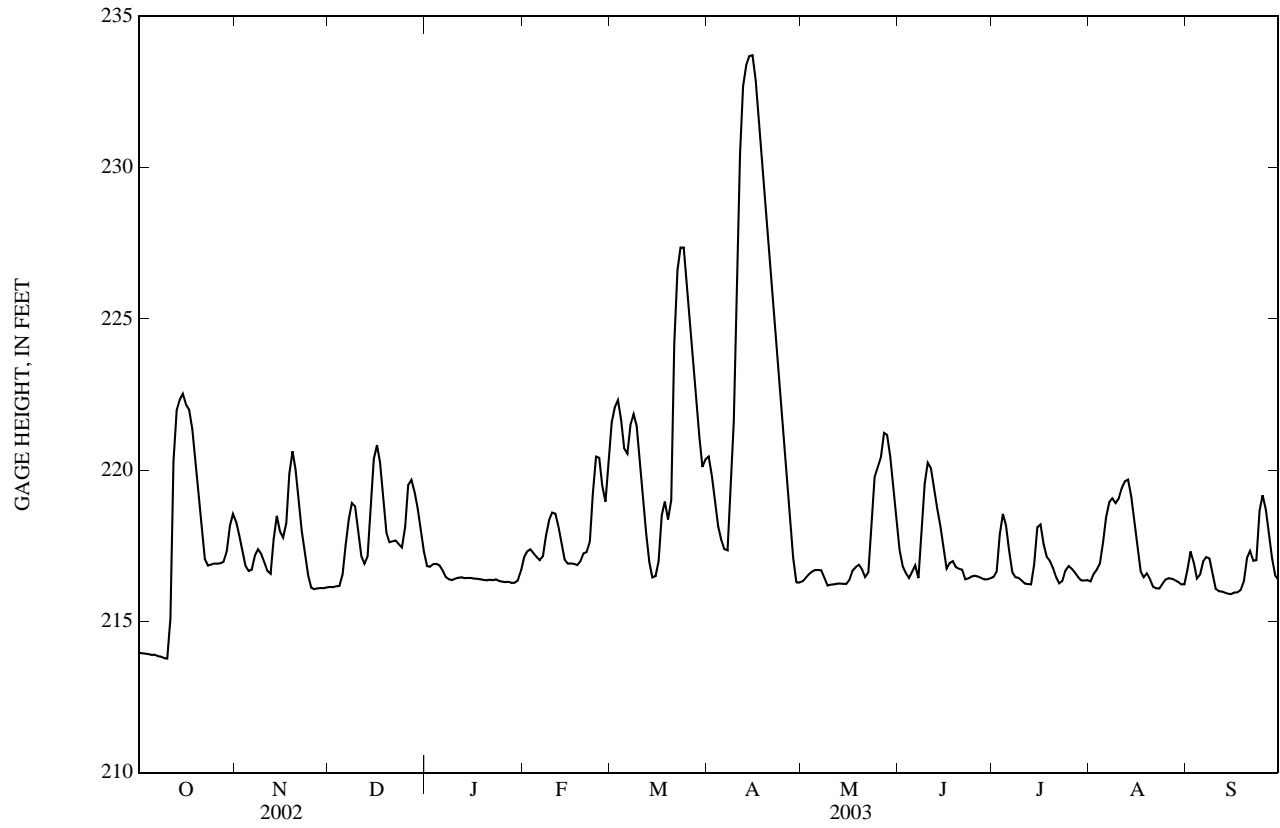
EXTREMES FOR PERIOD OF RECORD.--Maximum recorded elevation, 233.83 ft, Apr. 15, 2003; minimum recorded elevation, 207.85 ft, Nov. 12, 1986.

EXTREMES FOR CURRENT YEAR.--Maximum recorded elevation, 233.83, Apr. 15; minimum recorded elevation, 213.75 ft, Oct. 10.

COOPERATION.--Some records furnished by U.S. Army Corps of Engineers.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	213.97	218.29	216.14	216.83	217.11	221.58	220.45	216.33	217.36	216.47	216.32	216.73
2	213.95	217.85	216.13	216.81	217.31	222.07	219.81	216.44	216.82	216.65	216.56	217.31
3	213.93	217.33	216.16	216.89	217.38	222.31	219.01	216.55	216.59	217.86	216.71	216.95
4	213.92	216.84	216.17	216.90	217.26	221.64	218.15	216.64	216.43	218.55	216.91	216.42
5	213.89	216.66	216.56	216.85	217.14	220.72	217.71	216.70	216.64	218.18	217.62	216.54
6	213.90	216.71	217.52	216.68	217.02	220.54	217.39	216.70	216.85	217.33	218.44	216.99
7	213.85	217.18	218.38	216.47	217.15	221.48	217.35	216.69	216.43	216.62	218.94	217.12
8	213.84	217.38	218.91	216.39	217.83	221.85	219.24	216.44	217.77	216.46	219.06	217.08
9	213.79	217.23	218.81	216.37	218.35	221.46	221.62	216.18	219.54	216.44	218.91	216.59
10	213.77	216.96	218.01	216.41	218.60	220.39	225.66	216.21	220.25	216.35	219.06	216.08
11	215.10	216.67	217.17	216.44	218.56	219.19	230.45	216.23	220.06	216.25	219.40	216.00
12	220.29	216.57	216.91	216.46	218.14	217.93	232.69	216.25	219.39	216.24	219.63	215.99
13	221.97	217.71	217.14	216.43	217.59	216.96	233.39	216.25	218.74	216.22	219.69	215.94
14	222.33	218.49	218.99	216.44	217.04	216.45	233.68	216.24	218.15	216.87	219.13	215.91
15	222.53	217.98	220.37	216.43	216.91	216.49	233.72	216.24	217.42	218.11	218.35	215.90
16	222.17	217.77	220.83	216.42	216.92	216.99	232.88	216.37	216.74	218.20	217.46	215.96
17	221.99	218.24	220.26	216.41	216.90	218.52	231.79	216.68	216.93	217.56	216.65	215.96
18	221.34	219.87	219.09	216.39	216.86	218.96	230.65	216.80	216.99	217.13	216.46	216.03
19	220.34	220.62	217.93	216.37	216.98	218.37	229.45	216.87	216.80	217.01	216.59	216.32
20	219.25	220.01	217.62	216.35	217.24	219.01	228.22	216.72	216.74	216.77	216.40	217.10
21	218.12	219.02	217.65	216.38	217.28	224.19	226.96	216.47	216.71	216.47	216.14	217.33
22	217.07	217.97	217.67	216.36	217.62	226.61	225.65	216.62	216.39	216.26	216.09	217.01
23	216.84	217.23	217.55	216.39	219.22	227.36	224.27	218.34	216.42	216.34	216.09	217.02
24	216.88	216.52	217.44	216.34	220.44	227.36	222.74	219.76	216.48	216.68	216.24	218.66
25	216.91	216.11	218.12	216.32	220.40	226.31	221.01	220.08	216.51	216.83	216.38	219.17
26	216.91	216.06	219.51	216.30	219.48	225.07	219.67	220.41	216.48	216.74	216.43	218.71
27	216.92	216.09	219.68	216.31	218.96	223.79	218.35	221.23	216.44	216.62	216.41	217.94
28	216.97	216.10	219.27	216.27	220.14	222.41	217.10	221.16	216.39	216.47	216.36	217.09
29	217.31	216.10	218.74	216.28	---	221.09	216.29	220.44	216.39	216.36	216.31	216.51
30	218.16	216.12	218.04	216.35	---	220.11	216.28	219.41	216.42	216.35	216.22	216.38
31	218.56	---	217.31	216.67	---	220.36	---	218.29	---	216.36	216.23	---
MEAN	217.32	217.46	218.07	216.47	217.92	221.21	224.05	217.48	217.24	216.86	217.33	216.82
MAX	222.53	220.62	220.83	216.90	220.44	227.36	233.72	221.23	220.25	218.55	219.69	219.17
MIN	213.77	216.06	216.13	216.27	216.86	216.45	216.28	216.18	216.39	216.22	216.09	215.90



02098198 HAW RIVER BELOW B. EVERETT JORDAN LAKE DAM NEAR MONCURE, NC

LOCATION.--Lat 35°39'12", long 79°04'02", Chatham County, Hydrologic Unit 0303002, on right bank 300 ft downstream from B. Everett Jordan Lake Dam, 2.5 mi north of Moncure, and 4.2 mi upstream from mouth.

DRAINAGE AREA.--1,689 mi².

GAGE-HEIGHT RECORDS

PERIOD OF RECORD.--October 1965 to current year. Discharge records, October 1965 to September 1992. Gage height records only, October 1992 to current year. October 1965 to September 1978, published as "Haw River nr Haywood, NC" (02098200).

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

GAGE.--Water-stage recorder. Datum of gage is 155.00 ft above NGVD of 1929 (U.S. Corps of Engineers bench mark). Prior to Oct. 1, 1978, water-stage recorder at site 0.3 mi. downstream at same datum. U.S. Army Corps of Engineers satellite telemetry at station.

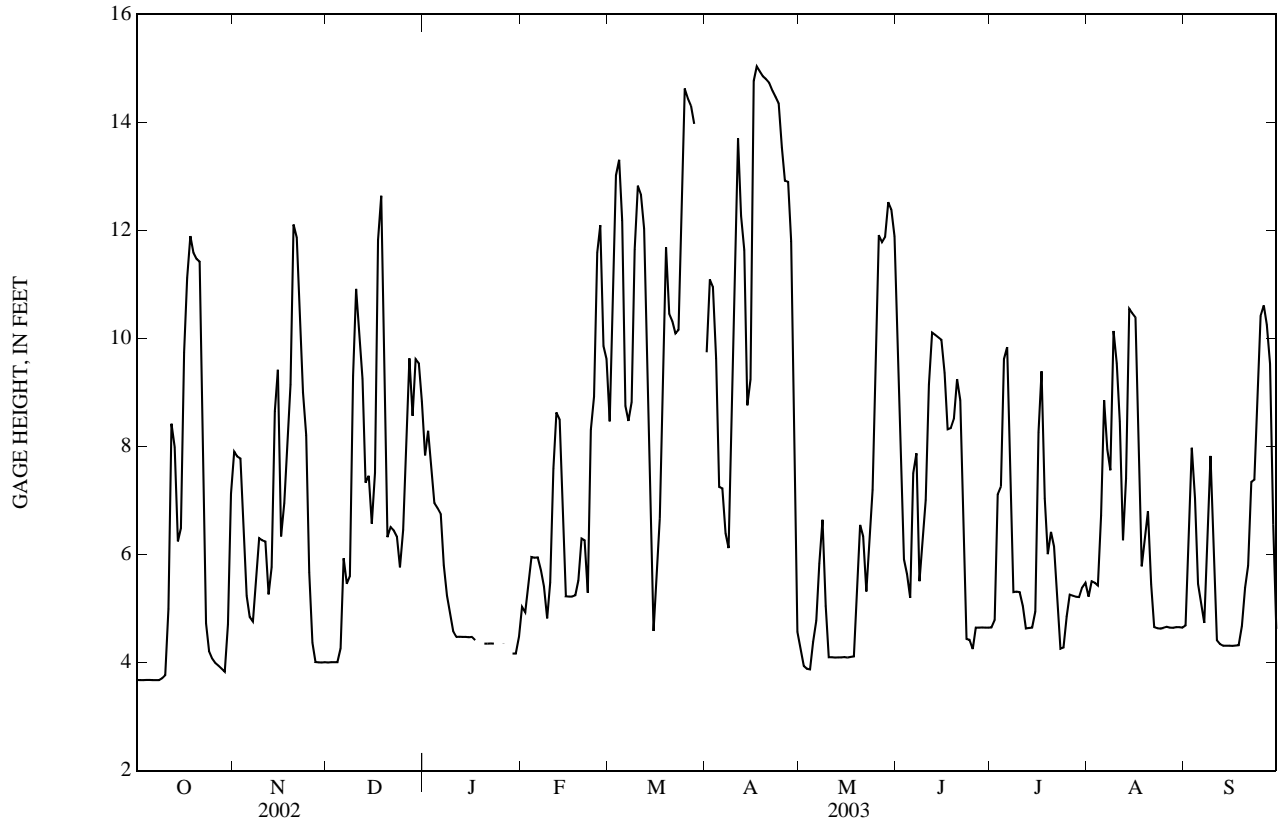
EXTREMES FOR PERIOD OF RECORD.--Maximum, 22.41 ft, Oct. 25, 1971 at site 0.3 mi downstream; minimum not determined.

EXTREMES FOR CURRENT YEAR.--Maximum, 15.20 ft, Apr. 16; minimum, 3.42 ft, June 25.

REMARKS.--Stage regulated by B. Everett Jordan Lake Dam (Station 02098197).

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.68	7.91	4.00	7.84	5.03	8.46	9.74	4.25	10.39	4.65	5.22	4.69
2	3.68	7.82	4.01	8.29	4.93	11.39	11.09	3.94	7.68	4.79	5.51	6.21
3	3.68	7.78	4.01	7.67	5.42	13.02	10.96	3.89	5.91	7.11	5.48	7.98
4	3.68	6.49	4.01	6.96	5.96	13.31	9.63	3.87	5.64	7.26	5.43	7.04
5	3.68	5.24	4.27	6.86	5.94	12.18	7.25	4.38	5.20	9.62	6.72	5.46
6	3.68	4.84	5.93	6.75	5.95	8.75	7.22	4.78	7.51	9.84	8.86	5.10
7	3.68	4.76	5.46	5.80	5.71	8.48	6.40	5.84	7.87	7.57	7.94	4.73
8	3.68	5.47	5.60	5.24	5.41	8.82	6.12	6.65	5.51	5.31	7.56	6.58
9	3.71	6.30	9.31	4.92	4.82	11.65	9.21	5.05	6.32	5.31	10.14	7.83
10	3.77	6.26	10.92	4.58	5.48	12.83	11.59	4.10	7.01	5.30	9.54	6.11
11	4.99	6.24	10.15	4.48	7.59	12.67	13.70	4.10	9.15	5.05	8.47	4.41
12	8.42	5.26	9.25	4.48	8.63	12.03	12.27	4.09	10.11	4.63	6.27	4.34
13	7.99	5.77	7.33	4.48	8.50	9.64	11.64	4.10	10.07	4.64	7.40	4.31
14	6.24	8.66	7.46	4.47	7.24	6.50	8.76	4.10	10.02	4.65	10.55	4.31
15	6.49	9.42	6.57	4.47	5.23	4.59	9.24	4.10	9.98	4.95	10.47	4.31
16	9.75	6.34	7.51	4.48	5.22	5.50	14.77	4.09	9.36	8.27	10.39	4.31
17	11.12	6.95	11.82	4.42	5.22	6.67	15.04	4.11	8.32	9.39	8.28	4.32
18	11.89	7.92	12.64	---	5.25	9.71	14.94	4.11	8.34	7.04	5.78	4.32
19	11.59	9.14	10.16	---	5.52	11.69	14.85	5.48	8.51	6.01	6.30	4.67
20	11.47	12.11	6.32	4.35	6.30	10.46	14.80	6.55	9.25	6.42	6.81	5.39
21	11.42	11.87	6.51	4.35	6.26	10.33	14.73	6.34	8.86	6.15	5.45	5.79
22	8.59	10.57	6.45	4.35	5.29	10.09	14.59	5.32	6.65	5.20	4.66	7.34
23	4.73	9.00	6.33	4.35	8.31	10.16	14.47	6.28	4.44	4.26	4.64	7.38
24	4.21	8.21	5.77	---	8.92	11.81	14.36	7.20	4.42	4.28	4.63	9.05
25	4.07	5.67	6.46	---	11.59	14.63	13.54	9.70	4.25	4.85	4.64	10.41
26	3.99	4.37	8.11	4.35	12.10	14.44	12.92	11.91	4.65	5.26	4.66	10.61
27	3.94	4.01	9.63	---	9.86	14.31	12.90	11.78	4.65	5.24	4.65	10.25
28	3.89	4.01	8.57	---	9.62	13.97	11.80	11.88	4.65	5.22	4.65	9.53
29	3.83	4.00	9.62	4.17	---	---	7.17	12.52	4.65	5.21	4.66	6.55
30	4.71	4.01	9.54	4.17	---	---	4.57	12.39	4.65	5.39	4.66	4.62
31	7.13	---	8.83	4.48	---	---	---	11.89	---	5.48	4.65	---
MEAN	6.04	6.88	7.50	---	6.83	---	11.34	6.41	7.13	5.95	6.62	6.26
MAX	11.89	12.11	12.64	---	12.10	---	15.04	12.52	10.39	9.84	10.55	10.61
MIN	3.68	4.00	4.00	---	4.82	---	4.57	3.87	4.25	4.26	4.63	4.31



02098198 HAW RIVER BELOW B. EVERETT JORDAN DAM NEAR MONCURE, NC—Continued

PRECIPITATION RECORDS

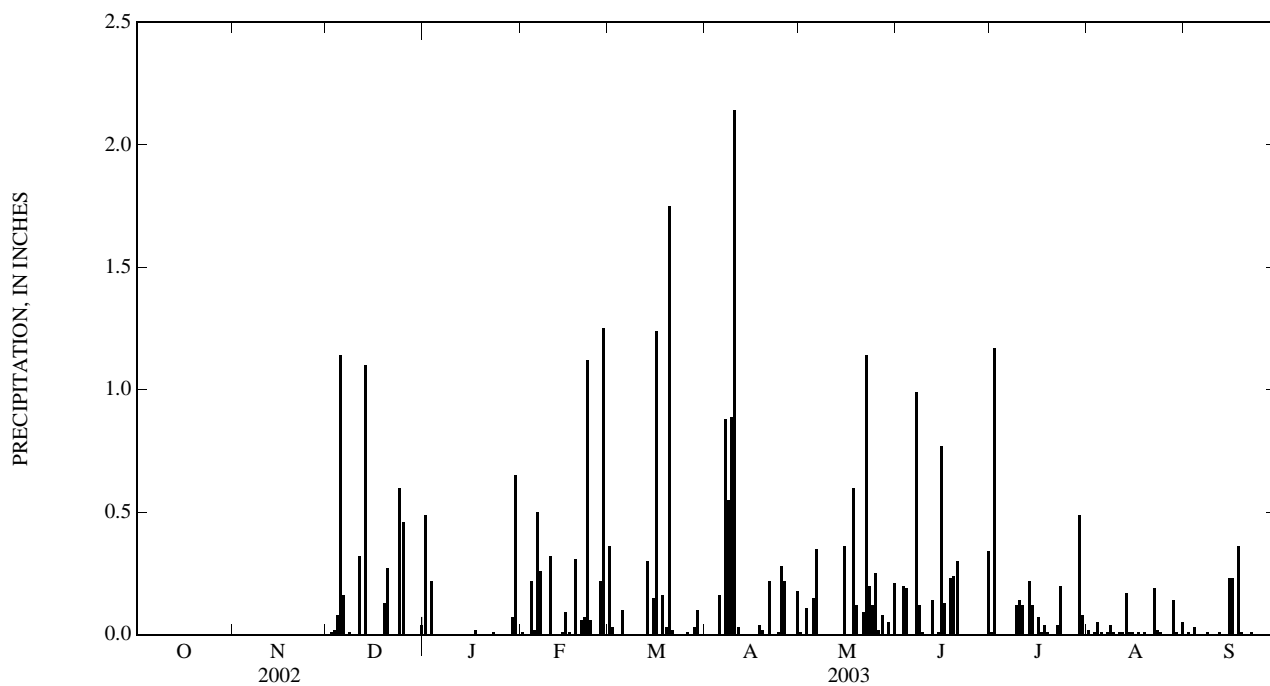
PERIOD OF RECORD.--October 1998 to current year.

GAGE.--Tipping-bucket raingage and data collection platform. Satellite telemetry at station.

REMARKS.--Record poor. Precipitation data collected during freezing periods may not be accurately reflected in daily record; consequently, winter record is poor.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.49	0.01	0.36	0.00	0.01	0.00	0.01	0.02	0.00
2	0.00	0.00	0.01	0.00	0.00	0.03	0.00	0.00	0.00	1.17	0.00	0.01
3	0.00	0.00	0.02	0.22	0.00	0.00	0.00	0.11	0.20	0.00	0.01	0.00
4	0.00	0.00	0.08	0.00	0.22	0.00	0.00	0.00	0.19	0.00	0.05	0.03
5	0.00	0.00	1.14	0.00	0.02	0.10	0.16	0.15	0.00	0.00	0.01	0.00
6	0.00	0.00	0.16	0.00	0.50	---	0.00	0.35	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.26	---	0.88	0.00	0.99	0.00	0.01	0.00
8	0.00	0.00	0.01	0.00	0.00	0.00	0.55	0.00	0.12	0.00	0.04	0.01
9	0.00	0.00	0.00	0.00	0.00	0.00	0.89	0.00	0.01	0.12	0.01	0.00
10	0.00	0.00	0.00	0.00	0.32	0.00	2.14	0.00	0.00	0.14	0.00	0.00
11	0.00	0.00	0.32	0.00	0.00	0.00	0.03	0.00	0.00	0.12	0.01	0.00
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.01	0.01
13	0.00	0.00	1.10	0.00	0.00	0.30	0.00	0.00	0.00	0.22	0.17	0.00
14	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.12	0.01	0.00
15	0.00	0.00	0.00	0.00	0.09	0.15	0.00	0.36	0.77	0.00	0.01	0.23
16	0.00	0.00	0.00	0.00	0.01	1.24	0.00	0.00	0.13	0.07	0.00	0.23
17	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00
18	0.00	0.00	0.00	0.00	0.31	0.16	0.04	0.60	0.23	0.04	0.00	0.36
19	0.00	0.00	0.13	0.00	0.00	0.03	0.02	0.12	0.24	0.01	0.01	0.01
20	0.00	0.00	0.27	0.00	0.06	1.75	0.00	0.00	0.30	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.07	0.02	0.22	0.09	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	1.12	0.00	0.00	1.14	0.00	0.04	0.19	0.01
23	0.00	0.00	0.00	0.01	0.06	0.00	0.00	0.20	0.00	0.20	0.02	0.00
24	0.00	0.00	0.60	0.00	0.00	0.00	0.01	0.12	0.00	0.00	0.01	0.00
25	0.00	0.00	0.46	0.00	0.00	0.00	0.28	0.25	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.22	0.01	0.22	0.02	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	1.25	0.00	0.00	0.08	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.14	0.00
29	0.00	0.00	0.00	0.07	---	0.10	0.00	0.05	0.00	0.49	0.01	0.00
30	0.00	0.00	0.00	0.65	---	---	0.18	0.00	0.34	0.08	0.00	0.00
31	0.00	---	0.04	0.00	---	0.00	---	0.21	---	0.00	0.05	---
TOTAL	0.00	0.00	4.34	1.46	4.53	---	5.62	3.86	3.67	2.84	0.80	0.90



02099000 EAST FORK DEEP RIVER NEAR HIGH POINT, NC

LOCATION.--Lat 36°02'15", long 79°56'45", Guilford County, Hydrologic Unit 03030003, on right bank on downstream side of culvert on Secondary Road 1541, 3.3 mi upstream from High Point Dam, and 5.2 mi northeast of High Point College, High Point.

DRAINAGE AREA.--14.8 mi².

PERIOD OF RECORD.--July 1928 to March 1994, October 1997 to current year.

REVISED RECORDS.--WSP 1723: 1929(M). WDR NC-80-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 764.02 ft above NGVD of 1929. Satellite telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Maximum discharge, 6,300 ft³/s, gage height, 10.87 ft, from floodmark, from rating curve extended above 1,600 ft³/s on basis of contracted-opening measurement of peak flow. Minimum discharge for period of record and current water year also occurred on Aug. 8, 2002. Minimum discharge for current water year also occurred Oct. 9.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	17	9.7	100	14	54	21	29	14	8.5	40	14
2	2.4	13	10	29	11	90	17	19	9.3	76	15	10
3	2.2	11	10	57	9.2	28	16	15	87	27	128	9.9
4	2.1	12	11	25	33	19	15	13	81	13	278	130
5	2.1	38	83	15	16	18	22	22	29	11	33	27
6	1.8	79	46	12	11	110	17	38	15	21	27	13
7	1.7	23	31	10	55	29	264	20	466	29	16	9.4
8	1.6	15	24	9.8	25	18	49	15	85	11	32	8.5
9	1.6	13	23	9.4	13	15	227	13	63	9.1	78	8.4
10	1.7	12	19	8.7	12	13	796	12	23	9.0	73	7.7
11	262	26	143	8.1	10	12	85	12	19	7.4	148	7.6
12	36	206	38	7.6	9.0	12	39	11	16	7.0	72	7.5
13	162	42	186	7.5	8.3	17	28	10	14	9.7	23	7.6
14	46	22	47	7.6	8.5	28	21	9.9	13	19	22	7.8
15	26	17	21	7.4	11	15	19	66	12	9.3	25	7.2
16	208	189	15	7.2	11	92	18	28	18	8.5	14	6.6
17	36	147	12	8.0	e9.3	29	17	15	19	7.8	134	6.2
18	18	38	11	7.2	26	30	25	39	15	6.8	71	162
19	14	23	10	6.9	24	21	44	41	15	6.8	22	70
20	12	17	46	7.1	15	e896	22	19	16	6.9	17	17
21	13	15	17	7.1	12	64	18	23	12	6.0	15	11
22	18	14	12	7.0	e484	35	18	230	11	31	13	52
23	12	12	9.9	e7.3	64	25	15	64	10	24	12	e806
24	11	11	132	e7.2	30	20	14	23	9.7	12	11	43
25	13	11	101	6.9	22	18	15	27	9.4	7.7	10	22
26	20	10	25	7.7	24	18	29	188	9.2	6.9	10	16
27	13	9.8	15	e7.4	123	17	21	24	9.0	5.9	9.2	15
28	48	9.4	12	e12	76	16	15	16	9.8	5.5	8.7	28
29	82	9.5	11	16	---	17	13	17	9.1	108	8.9	12
30	61	9.7	9.5	51	---	122	15	15	8.6	138	17	9.1
31	25	---	9.3	24	---	34	---	16	---	26	18	---
TOTAL	1,156.0	1,071.4	1,149.4	504.1	1,166.3	1,932	1,935	1,089.9	1,127.1	674.8	1,400.8	1,551.5
MEAN	37.3	35.7	37.1	16.3	41.7	62.3	64.5	35.2	37.6	21.8	45.2	51.7
MAX	262	206	186	100	484	896	796	230	466	138	278	806
MIN	1.6	9.4	9.3	6.9	8.3	12	13	9.9	8.6	5.5	8.7	6.2
CFSM	2.52	2.41	2.51	1.10	2.81	4.21	4.36	2.38	2.54	1.47	3.05	3.49
IN.	2.91	2.69	2.89	1.27	2.93	4.86	4.86	2.74	2.83	1.70	3.52	3.90

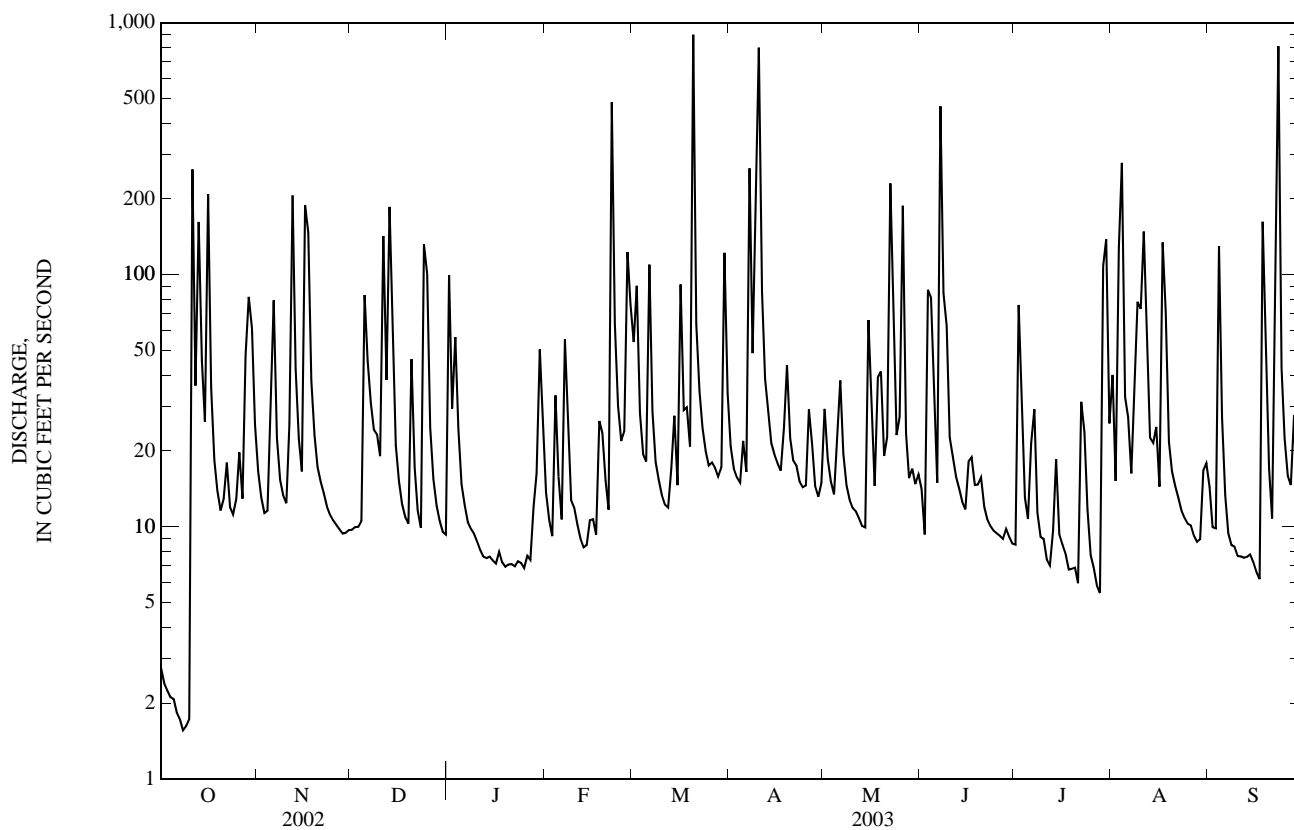
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 2003, BY WATER YEAR (WY)

	MEAN	MAX	MIN	CFSM	IN.
(WY)	12.1	79.5	1.88	2.52	2.91
(WY)	11.9	39.2	2.35	2.41	2.69
(WY)	16.4	48.6	3.53	2.51	2.89
(WY)	24.4	82.9	4.32	1.10	1.27
(WY)	27.7	83.0	6.48	2.81	2.93
(WY)	27.1	106	6.76	4.21	4.86
(WY)	21.5	71.6	5.52	4.36	4.86
(WY)	15.7	58.8	4.57	2.38	2.74
(WY)	12.7	61.5	3.41	2.54	2.83
(WY)	12.9	97.5	2.93	1.47	1.70
(WY)	12.9	55.9	2.87	3.05	3.52
(WY)	15.0	124	1.74	3.49	3.90

02099000 EAST FORK DEEP RIVER NEAR HIGH POINT, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1929 - 2003	
ANNUAL TOTAL	6,410.85		14,758.3		17.4	
ANNUAL MEAN	17.6		40.4		40.4	
HIGHEST ANNUAL MEAN					7.28	
LOWEST ANNUAL MEAN					1967	
HIGHEST DAILY MEAN	262	Oct 11	896	Mar 20	1,670	Sep 24, 1947
LOWEST DAILY MEAN	0.61	Aug 8	1.6	Oct 8	0.61	Aug 8, 2002
ANNUAL SEVEN-DAY MINIMUM	0.65	Aug 7	1.8	Oct 4	0.65	Aug 7, 2002
MAXIMUM PEAK FLOW			NOT DETERMINED		6,300*	Sep 24, 1947
MAXIMUM PEAK STAGE			13.46	Sep 23	13.46	Sep 23, 2003
INSTANTANEOUS LOW FLOW			1.4*	Oct 8	0.41*	Aug 7, 2002
ANNUAL RUNOFF (CFSM)	1.19		2.73		1.18	
ANNUAL RUNOFF (INCHES)	16.11		37.10		16.01	
10 PERCENT EXCEEDS	41		84		26	
50 PERCENT EXCEEDS	6.9		16		7.1	
90 PERCENT EXCEEDS	1.6		7.6		3.6	

e Estimated.
 * See REMARKS.



LOCATION.--Lat 35°59'53", long 79°55'36", Guilford County, Hydrologic Unit 03030003, at NC Highway 29/70, .5 mi east of Jamestown, 4 mi northeast of High Point.

DRAINAGE AREA.--6.88 mi².

GAGE-HEIGHT RECORDS

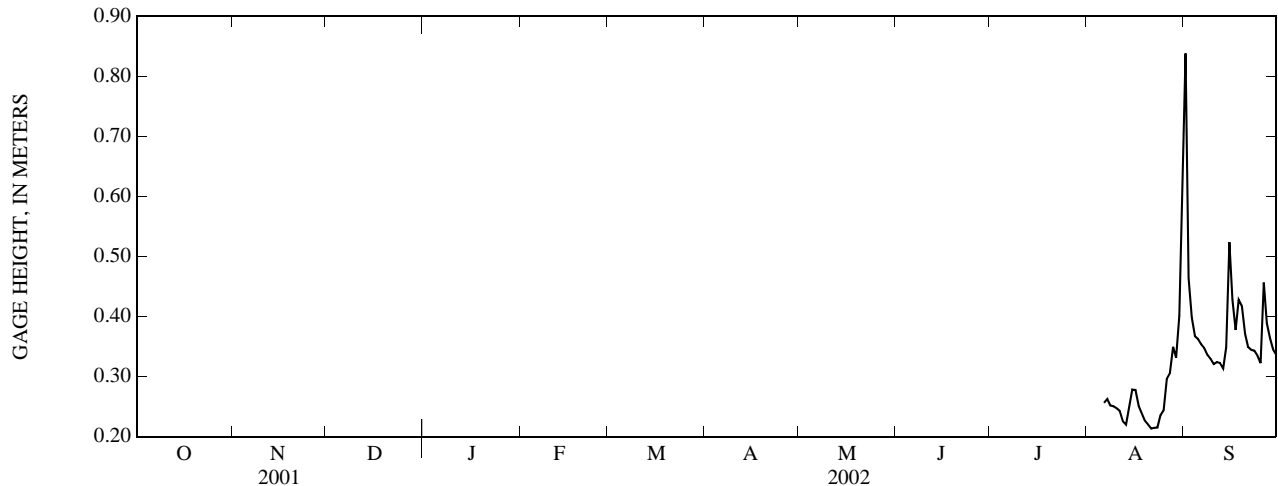
PERIOD OF RECORD.--August 2002 to November 2003 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 725 ft above NGVD of 1929, from topographic map.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height recorded, 3.55 m, September 23, 2003; minimum gage height recorded, 0.19 m, Aug. 13, 21, 22, 2002.

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

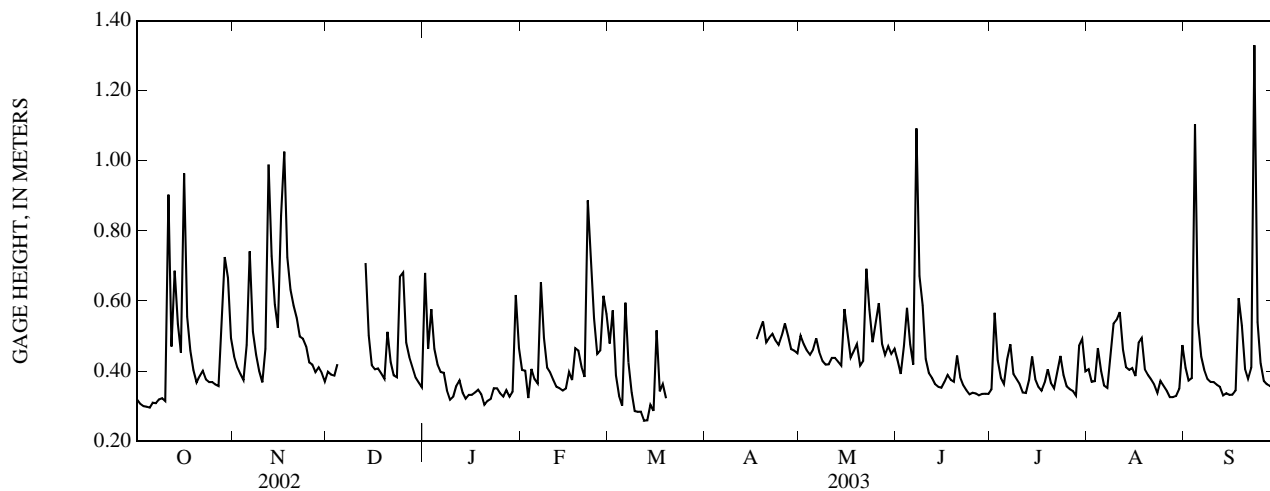
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	---	0.84
2	---	---	---	---	---	---	---	---	---	---	---	0.46
3	---	---	---	---	---	---	---	---	---	---	---	0.40
4	---	---	---	---	---	---	---	---	---	---	---	0.37
5	---	---	---	---	---	---	---	---	---	---	---	0.36
6	---	---	---	---	---	---	---	---	---	---	0.26	0.35
7	---	---	---	---	---	---	---	---	---	---	0.26	0.35
8	---	---	---	---	---	---	---	---	---	---	0.25	0.34
9	---	---	---	---	---	---	---	---	---	---	0.25	0.33
10	---	---	---	---	---	---	---	---	---	---	0.25	0.32
11	---	---	---	---	---	---	---	---	---	---	0.24	0.32
12	---	---	---	---	---	---	---	---	---	---	0.23	0.32
13	---	---	---	---	---	---	---	---	---	---	0.22	0.31
14	---	---	---	---	---	---	---	---	---	---	0.25	0.35
15	---	---	---	---	---	---	---	---	---	---	0.28	0.52
16	---	---	---	---	---	---	---	---	---	---	0.28	0.43
17	---	---	---	---	---	---	---	---	---	---	0.25	0.38
18	---	---	---	---	---	---	---	---	---	---	0.24	0.43
19	---	---	---	---	---	---	---	---	---	---	0.23	0.42
20	---	---	---	---	---	---	---	---	---	---	0.22	0.37
21	---	---	---	---	---	---	---	---	---	---	0.21	0.35
22	---	---	---	---	---	---	---	---	---	---	0.21	0.34
23	---	---	---	---	---	---	---	---	---	---	0.22	0.34
24	---	---	---	---	---	---	---	---	---	---	0.24	0.33
25	---	---	---	---	---	---	---	---	---	---	0.24	0.32
26	---	---	---	---	---	---	---	---	---	---	0.30	0.46
27	---	---	---	---	---	---	---	---	---	---	0.31	0.39
28	---	---	---	---	---	---	---	---	---	---	0.35	0.36
29	---	---	---	---	---	---	---	---	---	---	0.33	0.34
30	---	---	---	---	---	---	---	---	---	---	0.40	0.34
31	---	---	---	---	---	---	---	---	---	---	0.56	---
MEAN	---	---	---	---	---	---	---	---	---	---	---	0.38
MAX	---	---	---	---	---	---	---	---	---	---	---	0.84
MIN	---	---	---	---	---	---	---	---	---	---	---	0.31



02099238 BULL RUN AT NC 29/70 NEAR JAMESTOWN, NC—Continued

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.32	0.44	0.40	0.68	0.40	0.48	---	0.50	0.43	0.35	0.41	0.41
2	0.31	0.41	0.39	0.46	0.40	0.57	---	0.48	0.39	0.57	0.37	0.37
3	0.30	0.39	0.39	0.58	0.32	0.39	---	0.46	0.47	0.43	0.37	0.38
4	0.30	0.37	0.42	0.46	0.41	0.33	---	0.45	0.58	0.38	0.47	1.10
5	0.30	0.47	---	0.42	0.38	0.30	---	0.46	0.48	0.36	0.40	0.54
6	0.31	0.74	---	0.40	0.36	0.59	---	0.49	0.42	0.43	0.36	0.44
7	0.31	0.51	---	0.39	0.65	0.42	---	0.45	1.09	0.48	0.35	0.40
8	0.32	0.45	---	0.34	0.49	0.34	---	0.43	0.67	0.39	0.44	0.38
9	0.32	0.40	---	0.32	0.41	0.29	---	0.42	0.59	0.38	0.54	0.37
10	0.31	0.37	---	0.33	0.40	0.28	---	0.42	0.43	0.36	0.55	0.37
11	0.90	0.46	---	0.36	0.37	0.28	---	0.44	0.39	0.34	0.57	0.36
12	0.47	0.99	---	0.37	0.35	0.26	---	0.44	0.38	0.34	0.46	0.35
13	0.69	0.73	0.71	0.34	0.35	0.26	---	0.43	0.36	0.37	0.41	0.33
14	0.53	0.59	0.50	0.32	0.34	0.30	---	0.42	0.35	0.44	0.40	0.34
15	0.45	0.52	0.42	0.33	0.35	0.29	---	0.58	0.35	0.38	0.41	0.33
16	0.96	0.84	0.40	0.33	0.40	0.52	---	0.51	0.37	0.35	0.39	0.33
17	0.56	1.03	0.41	0.34	0.37	0.34	0.49	0.44	0.39	0.34	0.48	0.34
18	0.46	0.72	0.39	0.35	0.46	0.36	0.52	0.46	0.37	0.37	0.49	0.61
19	0.40	0.63	0.38	0.33	0.46	0.32	0.54	0.48	0.37	0.40	0.40	0.53
20	0.37	0.59	0.51	0.30	0.41	---	0.48	0.42	0.44	0.37	0.39	0.41
21	0.39	0.55	0.43	0.31	0.38	---	0.49	0.43	0.38	0.35	0.38	0.38
22	0.40	0.50	0.39	0.32	0.89	---	0.51	0.69	0.36	0.40	0.36	0.41
23	0.38	0.49	0.38	0.35	0.71	---	0.49	0.58	0.34	0.44	0.34	1.33
24	0.37	0.47	0.67	0.35	0.55	---	0.47	0.48	0.33	0.39	0.37	0.54
25	0.37	0.42	0.68	0.34	0.45	---	0.50	0.53	0.34	0.36	0.36	0.42
26	0.36	0.42	0.48	0.33	0.46	---	0.54	0.59	0.34	0.35	0.34	0.37
27	0.36	0.40	0.44	0.35	0.61	---	0.50	0.48	0.33	0.34	0.33	0.36
28	0.55	0.41	0.41	0.33	0.56	---	0.46	0.45	0.33	0.33	0.33	0.36
29	0.72	0.39	0.38	0.34	---	---	0.46	0.47	0.34	0.47	0.33	0.35
30	0.67	0.37	0.37	0.62	---	---	0.45	0.45	0.33	0.49	0.35	0.36
31	0.49	---	0.35	0.46	---	---	---	0.46	---	0.40	0.47	---
MEAN	0.45	0.54	---	0.38	0.45	---	---	0.48	0.42	0.39	0.41	0.45
MAX	0.96	1.03	---	0.68	0.89	---	---	0.69	1.09	0.57	0.57	1.33
MIN	0.30	0.37	---	0.30	0.32	---	---	0.42	0.33	0.33	0.33	0.33

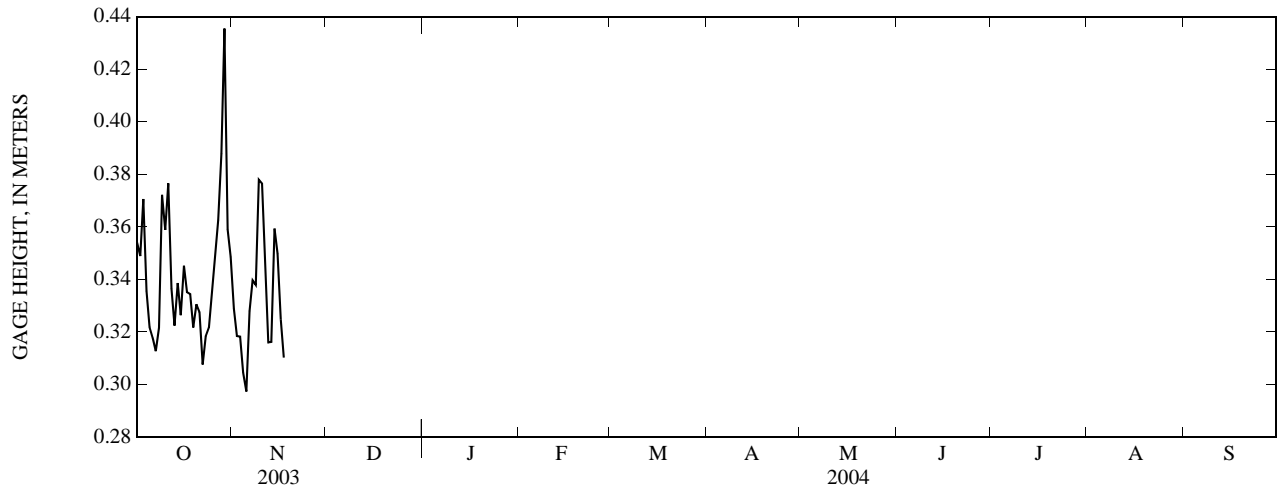


CAPE FEAR RIVER BASIN

02099238 BULL RUN AT NC 29/70 NEAR JAMESTOWN, NC—Continued

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.35	0.33	---	---	---	---	---	---	---	---	---	---
2	0.35	0.32	---	---	---	---	---	---	---	---	---	---
3	0.37	0.32	---	---	---	---	---	---	---	---	---	---
4	0.34	0.30	---	---	---	---	---	---	---	---	---	---
5	0.32	0.30	---	---	---	---	---	---	---	---	---	---
6	0.32	0.33	---	---	---	---	---	---	---	---	---	---
7	0.31	0.34	---	---	---	---	---	---	---	---	---	---
8	0.32	0.34	---	---	---	---	---	---	---	---	---	---
9	0.37	0.38	---	---	---	---	---	---	---	---	---	---
10	0.36	0.38	---	---	---	---	---	---	---	---	---	---
11	0.38	0.35	---	---	---	---	---	---	---	---	---	---
12	0.34	0.32	---	---	---	---	---	---	---	---	---	---
13	0.32	0.32	---	---	---	---	---	---	---	---	---	---
14	0.34	0.36	---	---	---	---	---	---	---	---	---	---
15	0.33	0.35	---	---	---	---	---	---	---	---	---	---
16	0.35	0.32	---	---	---	---	---	---	---	---	---	---
17	0.34	0.31	---	---	---	---	---	---	---	---	---	---
18	0.33	---	---	---	---	---	---	---	---	---	---	---
19	0.32	---	---	---	---	---	---	---	---	---	---	---
20	0.33	---	---	---	---	---	---	---	---	---	---	---
21	0.33	---	---	---	---	---	---	---	---	---	---	---
22	0.31	---	---	---	---	---	---	---	---	---	---	---
23	0.32	---	---	---	---	---	---	---	---	---	---	---
24	0.32	---	---	---	---	---	---	---	---	---	---	---
25	0.33	---	---	---	---	---	---	---	---	---	---	---
26	0.35	---	---	---	---	---	---	---	---	---	---	---
27	0.36	---	---	---	---	---	---	---	---	---	---	---
28	0.39	---	---	---	---	---	---	---	---	---	---	---
29	0.44	---	---	---	---	---	---	---	---	---	---	---
30	0.36	---	---	---	---	---	---	---	---	---	---	---
31	0.35	---	---	---	---	---	---	---	---	---	---	---
MEAN	0.34	---	---	---	---	---	---	---	---	---	---	---
MAX	0.44	---	---	---	---	---	---	---	---	---	---	---
MIN	0.31	---	---	---	---	---	---	---	---	---	---	---



02099238 BULL RUN AT NC 29/70 NEAR JAMESTOWN, NC—Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: August 2002 to November 2003.

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

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

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum recorded, 28.1°C, July 28, 2003; minimum recorded, 0.1°C, Dec. 4, 5, 2002.

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

Date	Time	Medium code	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Chloride, water, fltrd, mg/L (00940)	Sulfate water, fltrd, mg/L (00945)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)
FEB 20...	1030	9	--	--	--	--	--	--	--	--	--	--	--
20...	1400	9	E7.8	747	12.7	106	7.5	185	6.6	25.6	11.0	0.41	E.04
MAY 15...	0830	D	E1.4	--	7.6	--	7.0	164	16.2	--	--	--	--
JUN 10...	1430	9	--	--	7.3	--	6.8	90	22.8	--	--	--	--
JUL 01...	0830	9	--	--	--	--	--	--	--	--	--	--	--
08...	1430	9	5.7	743	6.8	85	6.9	117	25.4	6.05	5.2	0.60	<0.04

Date	Nitrate water, fltrd, mg/L (71851)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L (71856)	Nitrite water, fltrd, mg/L as N (00613)	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Particulate nitrogen, susp, water, mg/L (49570)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inorganic carbon, suspnd total, mg/L (00688)	Organic carbon, suspnd total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)
FEB 20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	0.31	--	<0.008	<0.02	0.14	0.046	0.72	0.8	<0.1	0.8	4.3
MAY 15...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 10...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 01...	--	--	--	--	--	--	--	--	--	--	--	--	--
08...	0.536	0.12	0.14	0.053	0.016	<0.02	0.12	0.070	0.74	0.6	<0.1	0.6	6.7

Date	Biomass periphyton, ashfree drymass g/m2 (49954)	Periphyton biomass ash weight, g/m2 (00572)	Periphyton biomass dry weight, g/m2 (00573)	Biomass chlorophyll ratio, periphyton, number (70950)	Pheophytin a, periphyton, mg/m2 (62359)	E coli, modif. m-TEC, water, col/100 mL (90902)	Chlorophyll a periphyton, chromo-fluoro, mg/m2 (70957)	1-Naphthol, water, fltrd 0.7u GF (49295)	2,6-Diethyl-aniline water, fltrd 0.7u GF (82660)	2-[(2-Et-6-Me-Ph)-amino]propan-1-ol, ug/L (61615)	2Chloro-2,6-' diethyl acetanilide wat flt ug/L (61618)	CIAT, water, fltrd, ug/L (04040)	2-Ethyl-6-methyl-aniline water, fltrd, ug/L (61620)
FEB 20...	--	--	--	--	--	160	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	<0.09	<0.006	<0.1	<0.005	<0.006	<0.004
MAY 15...	1.0	11	12.30	294	1.5	--	3.4	--	--	--	--	--	--
JUN 10...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 01...	--	--	--	--	--	110	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	<0.09	<0.006	<0.1	<0.005	<0.006	<0.004

02099238 BULL RUN AT NC 29/70 NEAR JAMESTOWN, NC—Continued

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

Date	3,4-Di-chloro-aniline water fltrd, ug/L (61625)	4Chloro 2methyl phenol, water, fltrd, ug/L (61633)	Aceto-chlor, water, fltrd, ug/L (49260)	Ala-chlor, water, fltrd, ug/L (46342)	Atra-zine, water, fltrd, ug/L (39632)	Azin-phos-methyl oxon, water, fltrd, ug/L (61635)	Azin-phos-methyl, water, fltrd, 0.7u GF ug/L (82686)	Ben-flur-alin, water, fltrd, 0.7u GF ug/L (82673)	Car-baryl, water, fltrd, 0.7u GF ug/L (82680)	Chlor-pyrifos oxon, water, fltrd, ug/L (61636)	Chlor-pyrifos water, fltrd, ug/L (38933)	cis-Per-methrin water fltrd 0.7u GF ug/L (82687)	Cyflu-thrin, water, fltrd, ug/L (61585)
FEB 20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	<0.004	E.005	<0.006	<0.004	0.007	<0.02	<0.050	<0.010	E.003	<0.06	<0.005	<0.006	<0.008
MAY 15...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 10...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 01...	--	--	--	--	--	--	--	--	--	--	--	--	--
08...	<0.004	<0.006	<0.006	<0.004	E.007	<0.02	<0.050	<0.010	E.029	<0.06	<0.005	<0.006	<0.008
Date	Cypermethrin water, fltrd, ug/L (61586)	DCPA, water fltrd 0.7u GF (82682)	Desulf-inyl fipronil, water, fltrd, ug/L (62170)	Diaz-inon oxon, water, fltrd, ug/L (61638)	Diazi-non, water, fltrd, ug/L (39572)	Dicro-tophos, water, fltrd, ug/L (38454)	Diel-drin, water, fltrd, ug/L (39381)	Dimeth-oate, water, fltrd, 0.7u GF (82662)	Ethion monoxon, water, fltrd, ug/L (61644)	Ethion, water, fltrd, ug/L (82346)	Fenami-phos sulfone water, fltrd, ug/L (61645)	Fenami-phos sulf-oxide, water, fltrd, ug/L (61646)	Fenami-phos, water, fltrd, ug/L (61591)
FEB 20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	<0.009	<0.003	<0.004	<0.04	<0.005	<0.08	<0.005	<0.006	<0.03	<0.004	<0.008	<0.03	<0.03
MAY 15...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 10...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 01...	--	--	--	--	--	--	--	--	--	--	--	--	--
08...	<0.009	<0.003	<0.004	<0.01	0.044	<0.08	<0.005	<0.006	<0.03	<0.004	<0.031	<0.03	<0.03
Date	Desulf-inyl-fipronil amide, wat flt ug/L (62169)	Fipronil sulfide water, fltrd, ug/L (62167)	Fipronil sulfone water, fltrd, ug/L (62168)	Fipronil, water, fltrd, ug/L (62166)	Fonofos oxon, water, fltrd, ug/L (61649)	Fonofos water, fltrd, ug/L (04095)	Hexa-zinone, water, fltrd, ug/L (04025)	Ipro-dione, water, fltrd, ug/L (61593)	Isofen-phos, water, fltrd, ug/L (61594)	Malax-on, water, fltrd, ug/L (61652)	Malathion, water, fltrd, ug/L (39532)	Meta-laxyl, water, fltrd, ug/L (61596)	Methi-althion water, fltrd, ug/L (61598)
FEB 20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	<0.009	<0.005	<0.005	E.005	<0.002	<0.003	--	<1	<0.003	<0.008	<0.027	0.008	<0.006
MAY 15...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 10...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 01...	--	--	--	--	--	--	--	--	--	--	--	--	--
08...	<0.009	<0.005	<0.006	E.006	<0.002	<0.003	<0.013	<1	<0.003	<0.008	<0.027	<0.005	<0.006
Date	Methyl para-oxon, water, fltrd, ug/L (61664)	Methyl para-thion, water, fltrd 0.7u GF (82667)	Metola-chlor, water, fltrd, ug/L (39415)	Metri-buzin, water, fltrd, ug/L (82630)	Myclo-butanil water, fltrd, ug/L (61599)	Pendi-meth-alin, water, fltrd 0.7u GF (82683)	Phorate oxon, water, fltrd, ug/L (61666)	Phorate water fltrd 0.7u GF (82664)	Phosmet oxon, water, fltrd, ug/L (61668)	Phosmet water, fltrd, ug/L (61601)	Prome-ton, water, fltrd, ug/L (04037)	Prome-tryn, water, fltrd, ug/L (04036)	Pron-amide, water, fltrd 0.7u GF (82676)
FEB 20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	<0.03	<0.006	<0.013	<0.006	E.007	<0.022	<0.10	<0.011	<0.06	<0.008	E.01	<0.005	<0.004
MAY 15...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 10...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 01...	--	--	--	--	--	--	--	--	--	--	--	--	--
08...	<0.03	<0.006	E.011	0.030	0.019	<0.022	<0.10	<0.011	<0.06	<0.008	0.03	<0.005	0.018

02099238 BULL RUN AT NC 29/70 NEAR JAMESTOWN, NC—Continued

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

Date	Sima- zine, water, fltrd, ug/L (04035)	Tebu- thiuron water fltrd 0.7u GF ug/L (82670)	Ter- bufos oxon sulfone water, fltrd, ug/L (61674)	Terbu- fos, water, fltrd 0.7u GF ug/L (82675)	Ter- buthyl- azine, water, fltrd, ug/L (04022)	Tri- flur- alin, water, fltrd 0.7u GF ug/L (82661)	Di- chlor- vos, water fltrd, ug/L (38775)	Suspnd. sedi- ment, sieve diametr percent <.063mm (70331)	Sus- pended sedi- ment concen- tration mg/L (80154)	Sus- pended sedi- ment load, tons/d (80155)
FEB 20...	--	--	--	--	--	--	--	--	--	--
20...	0.428	<0.02	<0.07	<0.02	<0.01	<0.009	<0.01	88	6	--
MAY 15...	--	--	--	--	--	--	--	--	--	--
JUN 10...	--	--	--	--	--	--	--	--	--	--
JUL 01...	--	--	--	--	--	--	--	--	--	--
08...	0.010	<0.02	<0.07	<0.02	0.13	<0.009	<0.01	95	16	0.25

Remark codes used in this table:

- < -- Less than
- E -- Estimated value

Medium codes used in this table:

- 9 -- Surface water
- D -- Plant tissue

TEMPERATURE, WATER, DEGREES CELSIUS
AUGUST TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	SEPTEMBER		
										MAX	MIN	MEAN
JUNE			JULY			AUGUST			MAX	MIN	MEAN	
1	---	---	---	---	---	---	---	---	---	21.0	19.8	20.6
2	---	---	---	---	---	---	---	---	---	21.1	20.1	20.6
3	---	---	---	---	---	---	---	---	---	22.1	19.3	20.7
4	---	---	---	---	---	---	---	---	---	23.6	20.7	22.0
5	---	---	---	---	---	---	---	---	---	23.0	20.8	21.9
6	---	---	---	---	---	---	24.6	22.2	23.3	22.0	18.8	20.4
7	---	---	---	---	---	---	22.2	19.5	21.0	21.8	19.0	20.3
8	---	---	---	---	---	---	21.0	17.5	19.5	20.9	18.0	19.4
9	---	---	---	---	---	---	21.2	17.2	19.3	20.7	18.1	19.3
10	---	---	---	---	---	---	21.6	17.2	19.5	20.9	18.9	19.8
11	---	---	---	---	---	---	22.2	17.8	20.2	21.3	18.5	19.9
12	---	---	---	---	---	---	23.9	19.7	21.8	20.3	17.5	18.4
13	---	---	---	---	---	---	24.1	20.2	22.2	19.2	16.4	17.8
14	---	---	---	---	---	---	24.2	20.6	22.4	22.4	18.8	19.9
15	---	---	---	---	---	---	24.1	22.7	23.3	22.5	20.9	21.8
16	---	---	---	---	---	---	24.1	22.3	23.1	23.2	21.9	22.5
17	---	---	---	---	---	---	24.7	22.5	23.5	22.9	21.3	22.1
18	---	---	---	---	---	---	24.8	22.3	23.6	23.9	21.6	22.3
19	---	---	---	---	---	---	24.9	22.1	23.5	23.1	22.3	22.6
20	---	---	---	---	---	---	24.9	21.9	23.4	22.9	21.6	22.1
21	---	---	---	---	---	---	24.6	21.5	23.0	22.8	21.0	21.8
22	---	---	---	---	---	---	25.1	22.2	23.6	22.8	21.2	22.0
23	---	---	---	---	---	---	25.9	22.6	24.3	22.2	20.3	21.3
24	---	---	---	---	---	---	25.8	22.6	24.3	20.3	18.1	19.1
25	---	---	---	---	---	---	24.8	21.9	23.5	19.2	18.3	18.6
26	---	---	---	---	---	---	23.1	21.7	22.4	20.1	18.0	18.9
27	---	---	---	---	---	---	21.9	20.7	21.3	22.0	20.1	21.1
28	---	---	---	---	---	---	20.7	19.6	20.0	21.7	20.2	20.9
29	---	---	---	---	---	---	20.3	19.1	19.7	20.2	18.6	19.4
30	---	---	---	---	---	---	20.3	19.9	20.1	19.6	16.9	18.3
31	---	---	---	---	---	---	20.7	19.8	20.2	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	23.9	16.4	20.5

02099238 BULL RUN AT NC 29/70 NEAR JAMESTOWN, NC—Continued

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	20.7	18.1	19.1	11.2	9.6	10.5	6.8	3.9	5.3	11.4	9.0	9.9
2	21.6	18.6	19.9	10.0	8.4	9.2	5.3	2.5	4.0	10.2	9.1	9.7
3	21.8	19.4	20.5	9.9	8.6	9.2	6.7	4.1	5.3	9.9	8.6	9.6
4	22.1	19.8	20.9	11.3	9.5	10.3	4.9	0.1	2.6	8.6	6.4	7.5
5	22.4	20.4	21.3	11.5	10.8	11.1	---	---	---	7.3	5.5	6.4
6	21.4	18.5	19.4	12.2	11.0	11.5	---	---	---	7.1	5.6	6.4
7	19.4	17.5	18.5	11.0	9.7	10.4	---	---	---	5.8	4.0	5.0
8	18.7	15.8	16.7	10.7	8.3	9.7	---	---	---	7.1	4.7	5.9
9	16.0	15.0	15.6	12.3	9.3	10.9	---	---	---	8.7	5.9	7.3
10	17.0	15.3	16.1	14.8	11.9	13.2	---	---	---	8.5	6.4	7.4
11	19.3	17.0	18.7	16.0	14.8	15.4	---	---	---	6.4	4.3	5.2
12	19.9	18.8	19.3	15.6	14.2	14.9	---	---	---	4.9	3.1	4.0
13	20.7	19.4	19.8	14.2	11.9	13.4	7.0	6.1	6.4	4.5	2.0	3.3
14	19.7	16.5	17.9	12.4	10.1	11.4	7.6	6.3	6.8	5.4	2.5	4.0
15	16.5	14.7	15.3	12.3	9.8	11.2	7.1	5.2	6.2	5.2	2.5	3.8
16	15.9	14.6	15.2	12.5	12.2	12.3	7.8	5.5	6.6	4.0	2.1	2.9
17	15.3	14.1	14.7	12.3	11.1	12.0	7.3	5.7	6.6	4.8	1.9	3.2
18	14.5	12.6	13.6	11.1	9.5	10.4	7.8	6.5	7.1	2.4	0.8	1.3
19	14.3	12.2	13.3	10.7	8.6	9.6	8.4	7.5	7.9	2.2	0.7	1.1
20	15.5	13.9	14.6	10.8	8.5	9.7	11.6	8.4	9.6	4.9	1.0	2.6
21	15.6	14.2	15.1	11.6	10.2	10.7	8.7	7.1	7.9	4.1	2.8	3.5
22	14.2	13.3	13.8	10.3	8.9	9.9	9.2	6.6	7.8	5.0	1.6	3.1
23	14.3	12.5	13.3	9.1	7.3	8.3	8.4	6.4	7.5	3.2	0.7	1.5
24	13.7	12.9	13.2	9.6	6.8	8.2	7.8	7.3	7.6	1.5	0.6	0.8
25	13.2	12.6	12.7	9.8	7.2	8.7	7.7	6.3	7.2	2.1	0.7	1.0
26	14.2	12.4	13.2	9.4	7.4	8.5	6.7	5.4	6.1	2.3	0.7	1.3
27	14.4	13.5	14.0	8.6	6.5	8.0	6.0	4.2	5.1	2.1	0.7	1.1
28	14.8	14.1	14.3	6.5	4.4	5.4	6.0	3.7	4.9	2.5	0.7	1.4
29	14.1	12.6	13.1	5.9	3.1	4.6	6.5	4.2	5.3	5.4	1.9	3.6
30	12.7	12.0	12.2	8.4	5.6	6.8	7.0	4.4	5.8	5.7	4.4	4.9
31	12.1	11.1	11.6	---	---	---	9.0	5.6	7.0	5.1	4.2	4.6
MONTH	22.4	11.1	16.0	16.0	3.1	10.2	---	---	---	11.4	0.6	4.3
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	6.6	4.9	5.6	7.2	5.4	6.1	---	---	---	20.7	18.3	19.6
2	6.9	4.0	5.3	9.0	6.5	7.5	---	---	---	22.0	18.2	19.7
3	8.2	4.7	6.6	9.7	6.2	7.8	---	---	---	20.3	17.7	18.7
4	10.3	7.4	9.0	10.4	6.0	8.2	---	---	---	17.7	15.0	16.4
5	7.7	5.4	6.7	12.9	9.3	11.0	---	---	---	15.0	13.8	14.3
6	6.6	4.6	5.7	12.5	10.8	11.7	---	---	---	17.1	14.3	15.9
7	6.9	4.1	5.7	11.6	7.7	9.7	---	---	---	19.2	16.1	17.4
8	6.3	4.4	5.3	11.6	6.2	8.9	---	---	---	22.9	17.2	19.4
9	6.6	3.9	5.1	13.5	9.1	11.3	---	---	---	24.1	18.4	20.6
10	6.7	5.3	5.9	12.1	8.9	10.5	---	---	---	24.3	19.4	21.4
11	7.1	3.6	5.4	9.5	7.3	8.4	---	---	---	23.5	19.5	21.0
12	7.6	4.3	5.7	12.5	6.5	9.5	---	---	---	23.1	17.0	19.2
13	6.7	2.7	4.7	14.2	9.2	11.9	---	---	---	22.9	13.9	17.3
14	6.0	4.1	5.1	13.8	11.6	12.7	---	---	---	22.2	12.8	16.7
15	7.6	6.0	6.8	11.6	9.8	10.4	---	---	---	18.7	14.8	16.7
16	6.2	0.8	3.5	11.7	9.6	10.9	---	---	---	18.9	17.4	18.0
17	2.9	0.8	1.7	13.6	11.5	12.5	18.7	14.8	16.7	18.9	16.4	17.8
18	5.7	2.9	4.1	13.7	12.6	13.2	15.9	11.8	13.1	16.4	15.2	15.7
19	7.1	3.7	5.2	13.2	11.2	12.5	12.7	11.8	12.3	15.4	14.8	15.1
20	8.0	5.7	6.8	---	---	---	15.4	12.2	13.5	17.2	14.0	15.6
21	7.6	6.2	7.0	---	---	---	15.1	13.8	14.4	17.3	15.9	16.6
22	8.1	7.1	7.5	---	---	---	17.1	14.2	15.3	17.3	15.9	16.4
23	9.7	7.6	8.6	---	---	---	17.2	11.6	14.0	16.2	15.6	15.9
24	10.7	6.7	8.5	---	---	---	15.5	10.7	13.2	17.0	15.8	16.3
25	9.2	7.4	8.5	---	---	---	14.2	13.5	13.9	19.2	16.5	17.5
26	8.2	5.6	6.8	---	---	---	17.2	14.1	15.4	20.2	17.9	19.0
27	5.7	4.5	5.1	---	---	---	19.0	15.9	17.2	19.7	17.8	18.8
28	5.5	4.8	5.1	---	---	---	19.9	14.8	17.1	18.9	16.3	17.6
29	---	---	---	---	---	---	20.4	15.2	17.5	18.1	16.8	17.5
30	---	---	---	---	---	---	21.0	16.1	18.2	19.2	16.4	17.7
31	---	---	---	---	---	---	---	---	---	19.3	17.0	18.0
MONTH	10.7	0.8	6.0	---	---	---	---	---	---	24.3	12.8	17.7

LOCATION.--Lat 35°56'28", long 79°55'56", Guilford County, Hydrologic Unit 03030003, at bridge on Secondary Road 1154, .4 mi below Mile Branch, and 2.9 mi northeast of Archdale.

DRAINAGE AREA.--12.5 mi².

GAGE-HEIGHT RECORDS

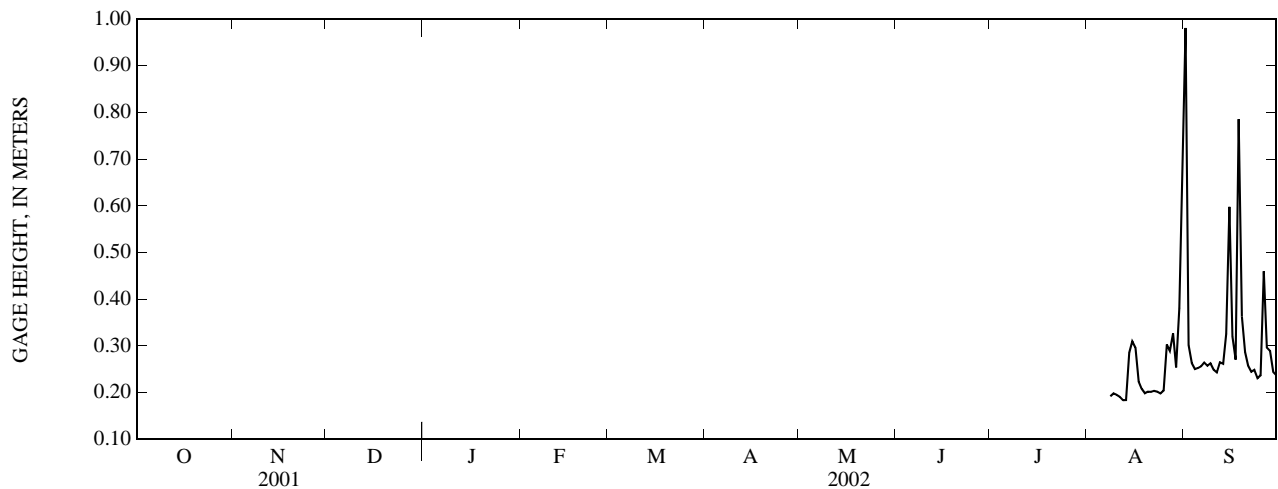
PERIOD OF RECORD.--August 2002 to September 2003 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 690 ft above NGVD of 1929, from topographic map.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height recorded, 5.19 m, Sept. 23, 2003; minimum gage height recorded, 0.15 m, Aug. 12, 2002.

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

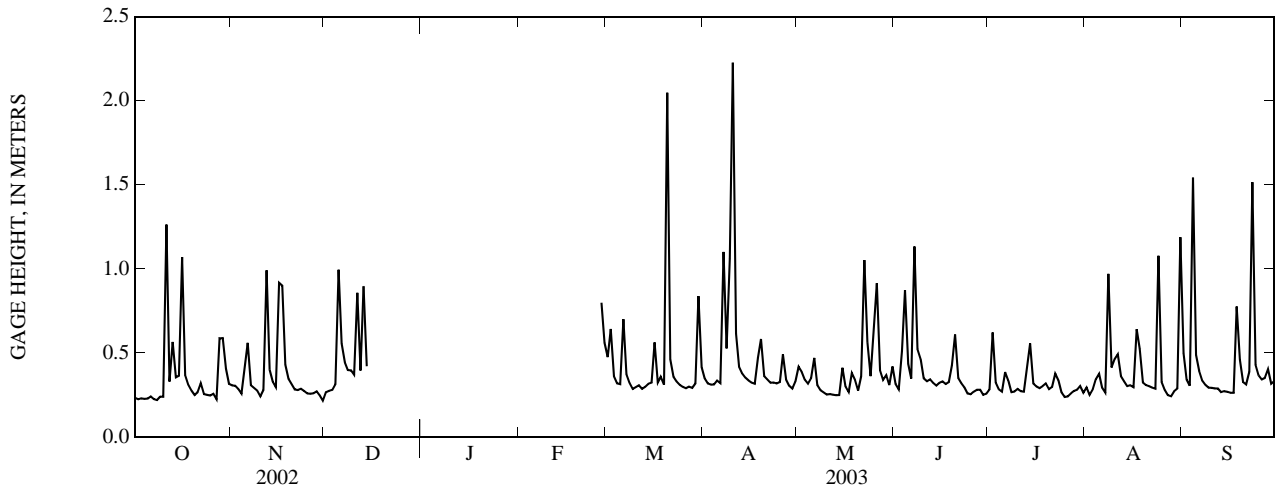
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	---	0.98
2	---	---	---	---	---	---	---	---	---	---	---	0.30
3	---	---	---	---	---	---	---	---	---	---	---	0.26
4	---	---	---	---	---	---	---	---	---	---	---	0.25
5	---	---	---	---	---	---	---	---	---	---	---	0.25
6	---	---	---	---	---	---	---	---	---	---	---	0.26
7	---	---	---	---	---	---	---	---	---	---	---	0.26
8	---	---	---	---	---	---	---	---	---	---	0.19	0.26
9	---	---	---	---	---	---	---	---	---	---	0.20	0.26
10	---	---	---	---	---	---	---	---	---	---	0.20	0.25
11	---	---	---	---	---	---	---	---	---	---	0.19	0.24
12	---	---	---	---	---	---	---	---	---	---	0.18	0.26
13	---	---	---	---	---	---	---	---	---	---	0.18	0.26
14	---	---	---	---	---	---	---	---	---	---	0.29	0.33
15	---	---	---	---	---	---	---	---	---	---	0.31	0.60
16	---	---	---	---	---	---	---	---	---	---	0.30	0.32
17	---	---	---	---	---	---	---	---	---	---	0.22	0.27
18	---	---	---	---	---	---	---	---	---	---	0.21	0.79
19	---	---	---	---	---	---	---	---	---	---	0.20	0.36
20	---	---	---	---	---	---	---	---	---	---	0.20	0.29
21	---	---	---	---	---	---	---	---	---	---	0.20	0.26
22	---	---	---	---	---	---	---	---	---	---	0.20	0.24
23	---	---	---	---	---	---	---	---	---	---	0.20	0.25
24	---	---	---	---	---	---	---	---	---	---	0.20	0.23
25	---	---	---	---	---	---	---	---	---	---	0.20	0.24
26	---	---	---	---	---	---	---	---	---	---	0.30	0.46
27	---	---	---	---	---	---	---	---	---	---	0.29	0.30
28	---	---	---	---	---	---	---	---	---	---	0.33	0.29
29	---	---	---	---	---	---	---	---	---	---	0.25	0.24
30	---	---	---	---	---	---	---	---	---	---	0.38	0.24
31	---	---	---	---	---	---	---	---	---	---	0.59	---
MEAN	---	---	---	---	---	---	---	---	---	---	---	0.33
MAX	---	---	---	---	---	---	---	---	---	---	---	0.98
MIN	---	---	---	---	---	---	---	---	---	---	---	0.23



02099480 RICHLAND CREEK NEAR ARCHDALE, NC—Continued

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.23	0.31	0.27	---	---	0.48	0.35	0.42	0.32	0.28	0.30	0.50
2	0.22	0.30	0.27	---	---	0.64	0.32	0.39	0.28	0.62	0.25	0.34
3	0.23	0.28	0.28	---	---	0.36	0.31	0.34	0.51	0.33	0.28	0.30
4	0.23	0.26	0.31	---	---	0.32	0.31	0.32	0.87	0.28	0.34	1.54
5	0.23	0.42	1.00	---	---	0.31	0.34	0.35	0.44	0.27	0.38	0.49
6	0.24	0.56	0.56	---	---	0.70	0.32	0.47	0.35	0.39	0.29	0.39
7	0.23	0.31	0.44	---	---	0.37	1.10	0.31	1.13	0.34	0.26	0.34
8	0.22	0.29	0.40	---	---	0.32	0.53	0.28	0.52	0.27	0.97	0.31
9	0.24	0.28	0.40	---	---	0.29	1.06	0.27	0.46	0.27	0.41	0.29
10	0.24	0.24	0.37	---	---	0.30	2.23	0.25	0.35	0.29	0.47	0.29
11	1.26	0.28	0.86	---	---	0.31	0.61	0.26	0.33	0.27	0.49	0.29
12	0.33	0.99	0.40	---	---	0.29	0.42	0.25	0.34	0.27	0.36	0.29
13	0.57	0.40	0.90	---	---	0.30	0.38	0.25	0.32	0.42	0.33	0.27
14	0.35	0.33	0.42	---	---	0.32	0.35	0.25	0.31	0.56	0.30	0.27
15	0.36	0.30	---	---	---	0.32	0.34	0.41	0.32	0.32	0.31	0.27
16	1.07	0.92	---	---	---	0.56	0.32	0.30	0.33	0.30	0.30	0.26
17	0.37	0.90	---	---	---	0.32	0.32	0.27	0.32	0.29	0.64	0.26
18	0.31	0.43	---	---	---	0.36	0.47	0.38	0.33	0.30	0.53	0.78
19	0.28	0.35	---	---	---	0.31	0.58	0.34	0.42	0.32	0.32	0.46
20	0.25	0.32	---	---	---	2.05	0.36	0.28	0.61	0.28	0.31	0.33
21	0.27	0.28	---	---	---	0.46	0.34	0.36	0.35	0.30	0.30	0.31
22	0.32	0.28	---	---	---	0.36	0.32	1.05	0.32	0.38	0.29	0.39
23	0.26	0.29	---	---	---	0.33	0.32	0.56	0.29	0.34	0.29	1.52
24	0.25	0.27	---	---	---	0.31	0.32	0.36	0.26	0.27	1.08	0.43
25	0.25	0.26	---	---	---	0.30	0.33	0.62	0.25	0.24	0.33	0.37
26	0.26	0.26	---	---	---	0.29	0.49	0.91	0.27	0.24	0.28	0.34
27	0.22	0.26	---	---	---	0.80	0.30	0.34	0.28	0.26	0.25	0.35
28	0.59	0.27	---	---	---	0.56	0.29	0.31	0.28	0.27	0.24	0.40
29	0.59	0.25	---	---	---	---	0.32	0.29	0.37	0.25	0.28	0.32
30	0.41	0.22	---	---	---	---	0.84	0.33	0.31	0.26	0.29	0.33
31	0.32	---	---	---	---	---	0.42	---	0.42	---	1.19	---
MEAN	0.36	0.37	---	---	---	0.43	0.48	0.39	0.39	0.32	0.41	0.43
MAX	1.26	0.99	---	---	---	2.05	2.23	1.05	1.13	0.62	1.19	1.54
MIN	0.22	0.22	---	---	---	0.29	0.29	0.25	0.25	0.24	0.24	0.26



WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: August 2002 to September 2003.

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

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

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum recorded, 29.0°C, Aug. 23, 2002; minimum recorded, 0.1°C, Dec. 5, 2002.

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

Date	Time	Medium code	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Chloride, water, fltrd, mg/L (00940)	Sulfate water, fltrd, mg/L (00945)	Ammonia + org-N, water, unfltrd mg/L (00625)	Ammonia water, fltrd, mg/L (71846)
FEB													
20...	0955	9	--	--	--	--	--	--	--	--	--	--	--
20...	1600	9	E14	753	12.0	102	7.4	251	7.6	41.1	16.3	0.57	0.14
MAY													
16...	0915	D	E11	--	7.5	--	6.6	107	16.5	--	--	--	--
JUN													
11...	1515	9	--	--	7.3	--	7.2	184	23.0	--	--	--	--
JUL													
01...	0850	9	--	--	--	--	--	--	--	--	--	--	--
08...	1300	9	E8.2	745	7.6	94	7.0	177	25.0	10.0	12.0	0.81	0.21
Date	Ammonia water, fltrd, mg/L as N (00608)	Nitrate water, fltrd, mg/L (71851)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L (71856)	Nitrite water, fltrd, mg/L as N (00613)	Organic nitrogen, water, unfltrd mg/L (00605)	Orthophosphate, water, fltrd, mg/L as P (00671)	Particulate nitrogen, susp, water, mg/L (49570)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inorganic carbon, suspnd sedimnt total, mg/L (00688)
FEB													
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	0.11	2.29	0.52	0.53	0.026	0.008	0.46	<0.02	0.03	0.024	1.1	0.3	<0.1
MAY													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
01...	--	--	--	--	--	--	--	--	--	--	--	--	--
08...	0.17	2.11	0.48	0.49	0.056	0.017	0.64	<0.02	0.05	0.034	1.3	0.3	<0.1
Date	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	Biomass periphyton, ashfree drymass g/m2 (49954)	Periphyton biomass ash weight, g/m2 (00572)	Periphyton biomass dry weight, g/m2 (00573)	Biomass chlorophyll ratio, periphyton, number (70950)	Pheophytin a, periphyton, mg/m2 (62359)	E coli, modif. m-TEC, water, col/100 mL (90902)	Chlorophyll a periphyton, chromofluoro, mg/m2 (70957)	1-Naphthol, water, fltrd, 0.7u GF (49295)	2,6-Diethyl-aniline water fltrd 0.7u GF (82660)	2-[(2-Et-6-Me-Ph)-amino]propan-1-ol, ug/L (61615)	2Chloro-2,6'-diethyl acetanilide wat flt ug/L (61618)
FEB													
20...	--	--	--	--	--	--	--	150	--	--	--	--	--
20...	0.3	3.1	--	--	--	--	--	--	--	<0.09	<0.006	<0.1	<0.005
MAY													
16...	--	--	2.500	36	38.10	1,610	0.9	--	1.6	--	--	--	--
JUN													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
01...	--	--	--	--	--	--	--	1,200	--	--	--	--	--
08...	0.3	4.6	--	--	--	--	--	--	--	<0.09	<0.006	<0.1	<0.005

02099480 RICHLAND CREEK NEAR ARCHDALE, NC—Continued

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

Date	CIAT, water, fltrd, ug/L (04040)	2-Ethyl -6- methyl- aniline water, fltrd, ug/L (61620)	3,4-Di- chloro- aniline water, fltrd, ug/L (61625)	4Chloro 2methyl phenol, water, fltrd, ug/L (61633)	Aceto- chlor, water, fltrd, ug/L (49260)	Ala- chlor, water, fltrd, ug/L (46342)	Atra- zine, water, fltrd, ug/L (39632)	Azin- phos- methyl oxon, water, fltrd, ug/L (61635)	Azin- phos- methyl, water, fltrd 0.7u GF ug/L (82686)	Ben- flur- alin, water, fltrd 0.7u GF ug/L (82673)	Car- baryl, water, fltrd 0.7u GF ug/L (82680)	Chlor- pyrifos oxon, water, fltrd, ug/L (61636)	Chlor- pyrifos water, fltrd, ug/L (38933)
FEB 20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	<0.006	<0.004	<0.004	<0.006	<0.006	<0.004	<0.007	<0.02	<0.050	<0.010	<0.041	<0.06	<0.005
MAY 16...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 01...	--	--	--	--	--	--	--	--	--	--	--	--	--
08...	<0.006	<0.004	0.005	<0.006	<0.006	<0.004	0.013	<0.02	<0.050	<0.010	E.008	<0.06	<0.005
Date	cis- Per- methrin water fltrd 0.7u GF ug/L (82687)	Cyflu- thrin, water, fltrd, ug/L (61585)	Cyper- methrin water, fltrd, ug/L (61586)	DCPA, water fltrd 0.7u GF ug/L (82682)	Desulf- inyl fipron- nil, water, fltrd, ug/L (62170)	Diaz- inon oxon, water, fltrd, ug/L (61638)	Diazi- non, water, fltrd, ug/L (39572)	Dicro- tophos, water, fltrd, ug/L (38454)	Diel- drin, water, fltrd, ug/L (39381)	Dimeth- oate, water, fltrd 0.7u GF ug/L (82662)	Ethion monoxon water, fltrd, ug/L (61644)	Ethion, water, fltrd, ug/L (82346)	Fenami- phos sulfone water, fltrd, ug/L (61645)
FEB 20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	<0.006	<0.008	<0.009	<0.003	<0.004	<0.04	<0.005	<0.08	<0.005	<0.006	<0.03	<0.004	<0.008
MAY 16...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 01...	--	--	--	--	--	--	--	--	--	--	--	--	--
08...	<0.006	<0.008	<0.009	<0.003	<0.004	<0.01	0.007	<0.08	<0.005	<0.006	<0.03	<0.004	<0.031
Date	Fenami- phos sulf- oxide, water, fltrd, ug/L (61646)	Fenami- phos, water, fltrd, ug/L (61591)	Desulf- inyl- fipron- amide wat flt ug/L (62169)	Fipron- il sulfide fltrd, ug/L (62167)	Fipron- il sulfone water, fltrd, ug/L (62168)	Fipron- il, water, fltrd, ug/L (62166)	Fonofos oxon, water, fltrd, ug/L (61649)	Fonofos water, fltrd, ug/L (04095)	Hexa- zinone, water, fltrd, ug/L (04025)	Ipro- dione, water, fltrd, ug/L (61593)	Isofen- phos, water, fltrd, ug/L (61594)	Malax- oxon, water, fltrd, ug/L (61652)	Malax- thion, water, fltrd, ug/L (39532)
FEB 20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	<0.03	<0.03	<0.009	<0.005	<0.005	<0.007	<0.002	<0.003	--	<1	<0.003	<0.008	<0.027
MAY 16...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 01...	--	--	--	--	--	--	--	--	--	--	--	--	--
08...	<0.03	<0.03	<0.009	<0.005	<0.005	<0.007	<0.002	<0.003	0.072	<1	<0.003	<0.008	<0.027
Date	Meta- laxyl, water, fltrd, ug/L (61596)	Methi- althion, water, fltrd, ug/L (61598)	Methyl para- oxon, water, fltrd, ug/L (61664)	Methyl para- thion, water, fltrd 0.7u GF ug/L (82667)	Metola- chlor, water, fltrd, ug/L (39415)	Metri- buzin, water, fltrd, ug/L (82630)	Myclo- butanil water, fltrd, ug/L (61599)	Pendi- meth- alin, water, fltrd 0.7u GF ug/L (82683)	Phorate oxon, water, fltrd, ug/L (61666)	Phorate water fltrd 0.7u GF ug/L (82664)	Phosmet water, fltrd, ug/L (61668)	Phosmet water, fltrd, ug/L (61601)	Prome- ton, water, fltrd, ug/L (04037)
FEB 20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	<0.005	<0.006	<0.03	<0.006	E.002	<0.006	<0.008	<0.022	<0.10	<0.011	<0.06	<0.008	<0.01
MAY 16...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 01...	--	--	--	--	--	--	--	--	--	--	--	--	--
08...	<0.005	<0.006	<0.03	<0.006	<0.013	<0.006	<0.008	<0.022	<0.10	<0.011	<0.06	<0.008	0.10

CAPE FEAR RIVER BASIN

02099480 RICHLAND CREEK NEAR ARCHDALE, NC—Continued

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

Date	Prometryn, water, fltrd, ug/L (04036)	Pronamide, water, fltrd, 0.7u GF ug/L (82676)	Simazine, water, fltrd, ug/L (04035)	Tebu-thiuron water fltrd, 0.7u GF ug/L (82670)	Terbufos oxon sulfone water, fltrd, ug/L (61674)	Terbufos, water, fltrd, 0.7u GF ug/L (82675)	Terbutylazine, water, fltrd, ug/L (04022)	Tri-fluralin, water, fltrd, 0.7u GF ug/L (82661)	Di-chlorvos, water fltrd, ug/L (38775)	Suspnd. sedi-ment, sieve diametr percent <.063mm (70331)	Suspended sedi-ment concen-tration mg/L (80154)
FEB 20...	--	--	--	--	--	--	--	--	--	--	--
FEB 20...	<0.005	<0.004	0.008	<0.02	<0.07	<0.02	<0.01	<0.009	<0.01	93	11
MAY 16...	--	--	--	--	--	--	--	--	--	--	--
JUN 11...	--	--	--	--	--	--	--	--	--	--	--
JUL 01...	--	--	--	--	--	--	--	--	--	--	--
JUL 08...	<0.005	<0.004	0.017	E.03	<0.07	<0.02	<0.01	<0.009	<0.01	96	9

Remark codes used in this table:

- < -- Less than
- E -- Estimated value

Medium codes used in this table:

- 9 -- Surface water
- D -- Plant tissue

TEMPERATURE, WATER, DEGREES CELSIUS
AUGUST TO SEPTEMBER 2002

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	---	---	---	21.1	19.6	20.4
2	---	---	---	---	---	---	---	---	---	22.3	20.4	21.1
3	---	---	---	---	---	---	---	---	---	23.8	20.3	21.9
4	---	---	---	---	---	---	---	---	---	25.8	21.6	23.4
5	---	---	---	---	---	---	---	---	---	25.9	22.3	23.8
6	---	---	---	---	---	---	---	---	---	24.9	20.5	22.6
7	---	---	---	---	---	---	---	---	---	24.4	20.7	22.4
8	---	---	---	---	---	---	25.3	20.0	22.7	23.9	19.6	21.6
9	---	---	---	---	---	---	24.6	19.6	22.2	23.8	19.6	21.6
10	---	---	---	---	---	---	25.4	19.6	22.5	23.7	20.6	22.0
11	---	---	---	---	---	---	26.0	20.5	23.2	24.4	20.3	22.2
12	---	---	---	---	---	---	26.8	22.3	24.5	23.0	19.1	21.1
13	---	---	---	---	---	---	27.2	23.2	25.2	22.5	18.1	20.4
14	---	---	---	---	---	---	25.8	23.2	24.7	22.8	20.4	21.3
15	---	---	---	---	---	---	26.2	24.3	25.0	23.1	22.2	22.6
16	---	---	---	---	---	---	26.4	24.4	25.2	24.0	22.4	23.1
17	---	---	---	---	---	---	27.6	23.9	25.5	24.8	22.2	23.3
18	---	---	---	---	---	---	28.2	23.9	25.9	24.5	22.6	23.2
19	---	---	---	---	---	---	28.6	24.0	26.1	23.6	22.4	22.9
20	---	---	---	---	---	---	28.3	24.1	26.1	23.8	22.2	23.0
21	---	---	---	---	---	---	27.1	23.7	25.5	24.4	22.2	23.2
22	---	---	---	---	---	---	28.0	24.5	26.1	24.3	22.8	23.4
23	---	---	---	---	---	---	29.0	25.0	26.9	23.2	21.8	22.8
24	---	---	---	---	---	---	28.6	25.1	27.0	22.3	19.7	21.1
25	---	---	---	---	---	---	27.4	24.5	26.0	21.1	19.7	20.3
26	---	---	---	---	---	---	26.0	23.5	24.4	20.1	19.0	19.5
27	---	---	---	---	---	---	23.5	22.6	23.0	21.8	19.8	20.9
28	---	---	---	---	---	---	22.6	21.1	21.7	22.0	20.5	21.3
29	---	---	---	---	---	---	22.0	20.6	21.2	21.2	19.3	20.2
30	---	---	---	---	---	---	21.7	21.0	21.2	21.0	17.4	19.2
31	---	---	---	---	---	---	21.2	20.5	20.9	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	25.9	17.4	21.9

02099480 RICHLAND CREEK NEAR ARCHDALE, NC—Continued

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	21.6	18.4	19.8	10.9	9.1	10.1	5.8	3.3	4.8	---	---	---
2	22.7	18.9	20.6	10.0	7.8	8.9	4.5	2.1	3.5	---	---	---
3	22.9	19.9	21.3	10.1	8.4	9.1	6.0	4.0	4.9	---	---	---
4	23.2	20.4	21.8	11.6	9.5	10.4	4.9	0.7	2.9	---	---	---
5	24.1	21.0	22.4	11.5	10.8	11.1	3.5	0.1	1.9	---	---	---
6	22.0	20.1	21.0	12.0	10.4	11.2	4.5	2.9	3.6	---	---	---
7	21.2	18.6	19.9	10.5	8.8	9.7	4.2	2.0	3.2	---	---	---
8	19.6	17.0	17.8	10.2	7.5	9.0	5.2	2.8	4.1	---	---	---
9	17.1	16.1	16.6	11.6	8.6	10.3	5.5	4.5	5.0	---	---	---
10	17.6	15.7	16.6	14.6	11.6	13.0	5.2	4.1	4.7	---	---	---
11	18.9	17.1	18.2	16.5	14.6	15.7	5.6	3.0	4.7	---	---	---
12	19.8	18.3	19.1	15.8	13.6	15.0	8.1	5.4	6.8	---	---	---
13	20.2	18.7	19.2	13.6	10.8	12.7	7.1	5.8	6.5	---	---	---
14	19.1	15.7	17.1	11.0	8.9	10.2	8.1	6.6	7.3	---	---	---
15	15.7	13.8	14.5	11.4	8.7	10.2	---	---	---	---	---	---
16	15.7	13.5	14.5	12.3	11.4	11.8	---	---	---	---	---	---
17	15.0	13.6	14.4	12.0	10.2	11.6	---	---	---	---	---	---
18	14.0	11.8	13.0	10.2	8.6	9.4	---	---	---	---	---	---
19	14.0	11.5	12.8	9.5	7.2	8.5	---	---	---	---	---	---
20	15.3	13.4	14.3	9.7	7.3	8.7	---	---	---	---	---	---
21	15.5	14.3	15.2	11.1	9.3	10.1	---	---	---	---	---	---
22	14.3	13.1	13.8	10.2	8.3	9.4	---	---	---	---	---	---
23	14.3	12.4	13.2	8.3	6.4	7.3	---	---	---	---	---	---
24	13.4	13.0	13.2	8.3	5.6	7.1	---	---	---	---	---	---
25	13.1	12.5	12.7	9.2	6.5	7.8	---	---	---	---	---	---
26	14.4	12.2	13.2	8.8	6.6	7.8	---	---	---	---	---	---
27	14.7	13.5	14.0	8.4	6.4	7.6	---	---	---	---	---	---
28	14.8	13.6	14.3	6.4	3.7	5.1	---	---	---	---	---	---
29	13.6	11.8	12.5	5.2	2.5	3.8	---	---	---	---	---	---
30	11.9	11.3	11.6	7.8	4.4	6.0	---	---	---	---	---	---
31	11.9	10.5	11.3	---	---	---	---	---	---	---	---	---
MONTH	24.1	10.5	16.1	16.5	2.5	9.6	---	---	---	---	---	---
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	8.0	6.0	6.9	14.4	8.0	11.3	21.3	18.2	19.8
2	---	---	---	10.4	7.3	8.6	17.6	11.5	14.6	22.5	18.6	20.4
3	---	---	---	10.1	6.5	8.4	18.9	13.0	16.2	20.5	17.8	19.1
4	---	---	---	10.6	6.2	8.5	18.5	14.4	16.8	19.1	16.6	17.6
5	---	---	---	13.2	9.6	11.3	18.1	15.6	16.8	16.6	14.7	15.4
6	---	---	---	13.3	11.8	12.4	18.1	13.9	16.1	17.6	14.7	16.4
7	---	---	---	11.9	7.3	9.4	16.8	10.0	11.9	20.0	16.4	18.1
8	---	---	---	11.3	5.5	8.5	10.8	10.0	10.5	22.9	18.4	20.6
9	---	---	---	14.0	9.4	11.7	10.2	8.8	9.5	23.5	20.0	21.8
10	---	---	---	12.4	9.2	11.0	9.8	7.8	8.8	24.3	21.0	22.8
11	---	---	---	10.1	7.5	8.6	11.7	9.3	10.2	23.3	21.1	22.1
12	---	---	---	12.4	6.7	9.7	16.2	9.9	12.8	22.2	18.8	20.4
13	---	---	---	14.5	9.7	12.2	17.3	11.4	14.3	20.7	16.9	18.7
14	---	---	---	14.4	12.2	13.3	18.1	12.0	15.2	20.6	16.0	18.2
15	---	---	---	12.3	9.9	10.7	19.7	14.1	17.0	18.5	17.0	17.9
16	---	---	---	11.4	9.5	10.5	20.1	15.2	17.8	19.7	16.7	18.0
17	---	---	---	13.8	11.3	12.5	18.9	15.6	17.7	19.2	16.8	18.1
18	---	---	---	13.8	12.8	13.3	17.6	12.0	14.1	16.8	15.2	15.7
19	---	---	---	13.3	11.3	12.6	12.5	11.2	11.8	15.3	14.5	14.9
20	---	---	---	11.3	8.3	9.1	16.4	12.3	14.0	18.8	14.1	16.4
21	---	---	---	14.8	9.6	12.0	15.8	14.4	15.1	18.4	17.1	17.6
22	---	---	---	15.9	11.7	13.8	17.8	14.8	16.2	18.2	15.8	16.9
23	---	---	---	14.8	10.8	13.0	17.2	12.6	15.1	16.8	16.0	16.4
24	---	---	---	16.1	11.0	13.7	16.2	12.2	14.7	17.9	16.1	16.8
25	---	---	---	16.6	11.2	14.2	15.8	14.7	15.0	19.0	16.8	17.9
26	---	---	---	18.0	13.4	15.7	17.9	14.8	16.1	20.4	17.8	19.1
27	5.7	4.0	4.5	17.5	14.3	15.9	19.5	14.9	17.1	19.1	17.6	18.1
28	6.2	4.4	5.4	17.9	13.5	15.8	19.8	15.1	17.7	19.5	15.7	17.7
29	---	---	---	19.9	16.4	18.0	20.4	16.2	18.5	18.9	17.0	18.0
30	---	---	---	18.5	9.5	12.3	21.0	17.5	19.4	20.0	16.2	18.2
31	---	---	---	11.9	7.8	9.9	---	---	---	20.8	17.3	18.8
MONTH	---	---	---	19.9	5.5	11.7	21.0	7.8	14.7	24.3	14.1	18.3

CAPE FEAR RIVER BASIN

02099480 RICHLAND CREEK NEAR ARCHDALE, NC—Continued

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	20.3	17.3	18.9	22.7	21.4	22.0	23.4	21.9	22.6	24.8	22.7	23.6
2	19.6	15.7	17.9	21.9	19.7	20.6	24.1	22.4	23.2	24.8	22.5	23.7
3	19.7	17.4	18.3	21.6	20.1	20.8	25.1	22.9	23.9	24.9	23.0	24.0
4	22.4	18.6	20.0	24.2	19.7	21.9	25.4	23.0	24.0	24.2	22.3	23.3
5	20.9	18.7	19.8	25.6	21.8	23.7	24.5	21.9	23.2	22.8	20.7	21.8
6	20.6	16.8	18.8	25.9	22.9	23.9	24.7	22.1	23.3	21.8	20.0	20.7
7	20.6	19.8	20.1	24.1	22.0	23.0	26.3	22.9	24.1	20.9	19.1	20.1
8	20.6	18.5	19.5	25.8	22.1	23.9	24.2	22.9	23.5	21.4	19.8	20.5
9	22.0	18.8	20.4	26.7	23.2	24.7	24.6	22.5	23.6	20.6	19.0	19.9
10	22.6	18.8	20.6	26.2	22.9	24.5	24.4	22.6	23.2	20.9	19.0	19.8
11	23.0	19.3	21.2	26.2	23.4	24.6	23.8	21.5	22.6	20.7	17.7	19.2
12	23.3	20.7	22.0	25.6	22.1	23.9	24.8	22.4	23.6	19.9	18.5	19.2
13	23.1	20.8	22.0	24.6	21.1	23.2	25.2	22.8	24.0	21.1	19.1	20.1
14	24.2	21.1	22.5	22.8	20.8	21.6	26.0	23.2	24.5	22.2	20.4	21.1
15	23.7	21.7	22.6	24.0	20.8	22.4	26.3	23.3	24.6	22.7	20.4	21.4
16	22.6	21.2	21.9	24.3	21.6	22.9	25.8	23.9	24.7	22.9	20.2	21.4
17	21.2	19.6	20.1	25.3	22.2	23.6	26.0	22.8	24.4	21.3	18.1	19.7
18	20.9	19.1	19.9	25.5	22.1	23.7	24.4	21.9	23.1	19.4	18.2	18.8
19	23.3	20.0	21.3	24.4	21.8	22.9	23.7	22.2	22.9	21.1	18.1	19.4
20	22.1	19.8	21.0	25.2	21.6	23.3	24.2	22.1	23.1	21.2	18.2	19.9
21	20.8	17.8	19.5	25.8	22.7	24.1	25.0	22.1	23.5	22.0	19.2	20.6
22	21.7	17.5	19.6	26.1	22.8	24.1	26.0	23.3	24.5	22.0	20.1	20.9
23	22.6	18.2	20.4	23.7	21.9	22.6	26.2	23.2	24.6	22.2	20.1	21.1
24	23.8	19.1	21.3	23.9	20.5	22.1	24.2	22.5	23.2	20.5	18.0	19.4
25	24.6	19.9	22.0	24.8	20.8	22.7	24.0	21.2	22.7	20.5	17.7	19.3
26	24.9	20.8	22.7	25.1	21.4	23.1	25.4	22.3	23.8	20.9	18.3	19.8
27	24.8	21.8	23.2	26.0	22.3	24.0	26.4	23.3	24.8	21.5	18.6	20.1
28	23.2	21.7	22.3	26.7	23.3	24.8	26.7	24.1	25.3	21.4	19.6	20.5
29	24.2	20.7	22.3	25.9	23.8	24.7	27.3	24.6	25.7	19.6	16.6	17.8
30	24.5	21.6	22.8	24.4	22.2	22.9	26.9	24.0	25.5	17.1	14.4	15.9
31	---	---	---	22.8	21.8	22.2	26.0	23.3	24.5	---	---	---
MONTH	24.9	15.7	20.8	26.7	19.7	23.2	27.3	21.2	23.9	24.9	14.4	20.4

02099500 DEEP RIVER NEAR RANDLEMAN, NC

LOCATION.--Lat 35°54'06", long 79°51'04". Randolph County, Hydrologic Unit 03030003, on left bank 500 ft downstream of bridge on Secondary Road 1929, 0.2 mi downstream of Coltranés Mill, 0.5 mi south of Guilford County line, 4.8 mi upstream from Muddy Creek, and 7 mi north of Randleman.

DRAINAGE AREA.--125 mi².

PERIOD OF RECORD.--October 1928 to current year.

REVISED RECORDS.--WSP 782: 1929-30. WSP 1383: 1934-35, 1941. WSP 1723: 1929(M). WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 638.11 ft above NGVD of 1929 (levels by U.S. Army Corps of Engineers). Satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Diurnal fluctuation at times during periods of low flow caused by Coltranés Mill. Some regulation by Oak Hollow Reservoir (station 02098495) and High Point Lake (station 02099096). City of High Point diverted an average of 20.0 ft³/s for municipal water supply, 23.4 ft³/s was discharged as treated effluent into Richland Creek upstream from station and 8.41 ft³/s into Rich Fork Creek in Pee Dee River basin. Maximum discharge for period of record from rating curve extended above 7,100 ft³/s on basis of contracted-opening measurement of peak flow at bridge 1.5 mi upstream; maximum gage height for period of record from floodmarks. Minimum discharge for current water year also occurred Oct. 7, 8, 9, 10.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	112	43	824	170	628	252	242	275	61	310	801
2	21	78	41	501	124	1,000	171	177	123	717	183	204
3	19	63	39	493	92	464	143	190	190	434	153	116
4	19	51	36	350	133	241	123	126	1,070	176	937	1,860
5	19	56	731	181	159	193	118	115	923	106	473	1,180
6	18	609	572	137	98	806	142	285	297	89	253	295
7	18	196	418	117	449	496	1,330	206	2,300	536	124	159
8	18	102	262	92	351	242	794	141	2,030	188	488	114
9	19	75	220	81	166	172	1,730	113	882	106	367	93
10	18	65	178	e76	127	137	4,390	99	374	86	630	81
11	1,170	67	934	69	110	113	3,120	90	211	68	844	70
12	353	1,100	617	64	87	102	720	83	168	57	475	63
13	372	700	1,020	60	77	101	392	78	162	168	225	59
14	722	219	974	56	68	170	274	70	115	1,130	143	54
15	164	125	350	54	72	116	219	126	100	179	139	53
16	1,310	548	191	e55	80	548	185	665	126	125	106	64
17	485	1,810	136	56	90	325	165	202	130	111	109	92
18	153	675	107	54	154	269	160	138	121	78	1,000	306
19	92	244	95	e54	248	212	513	288	164	109	257	989
20	67	149	462	e52	177	5,280	276	153	519	75	139	242
21	59	113	263	50	130	2,330	203	121	193	59	98	142
22	63	93	152	e50	1,140	539	179	1,010	112	107	79	101
23	54	81	115	e50	1,590	300	147	1,130	85	531	68	5,330
24	47	68	684	49	412	212	125	461	73	177	855	1,320
25	42	63	1,220	e47	208	158	117	649	63	103	247	293
26	44	56	485	44	155	134	227	1,480	56	72	110	170
27	47	52	218	43	652	130	325	545	63	60	75	130
28	243	46	150	e42	926	112	164	273	143	52	60	173
29	490	42	122	57	---	121	132	195	66	62	55	117
30	471	43	101	380	---	703	117	204	57	538	76	91
31	208	---	91	383	---	578	---	252	---	245	1,090	---
TOTAL	6,847	7,701	11,027	4,621	8,245	16,932	16,953	9,907	11,191	6,605	10,168	14,762
MEAN	221	257	356	149	294	546	565	320	373	213	328	492
MAX	1,310	1,810	1,220	824	1,590	5,280	4,390	1,480	2,300	1,130	1,090	5,330
MIN	18	42	36	42	68	101	117	70	56	52	55	53
CFSM	1.77	2.05	2.85	1.19	2.36	4.37	4.52	2.56	2.98	1.70	2.62	3.94
IN.	2.04	2.29	3.28	1.38	2.45	5.04	5.05	2.95	3.33	1.97	3.03	4.39

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

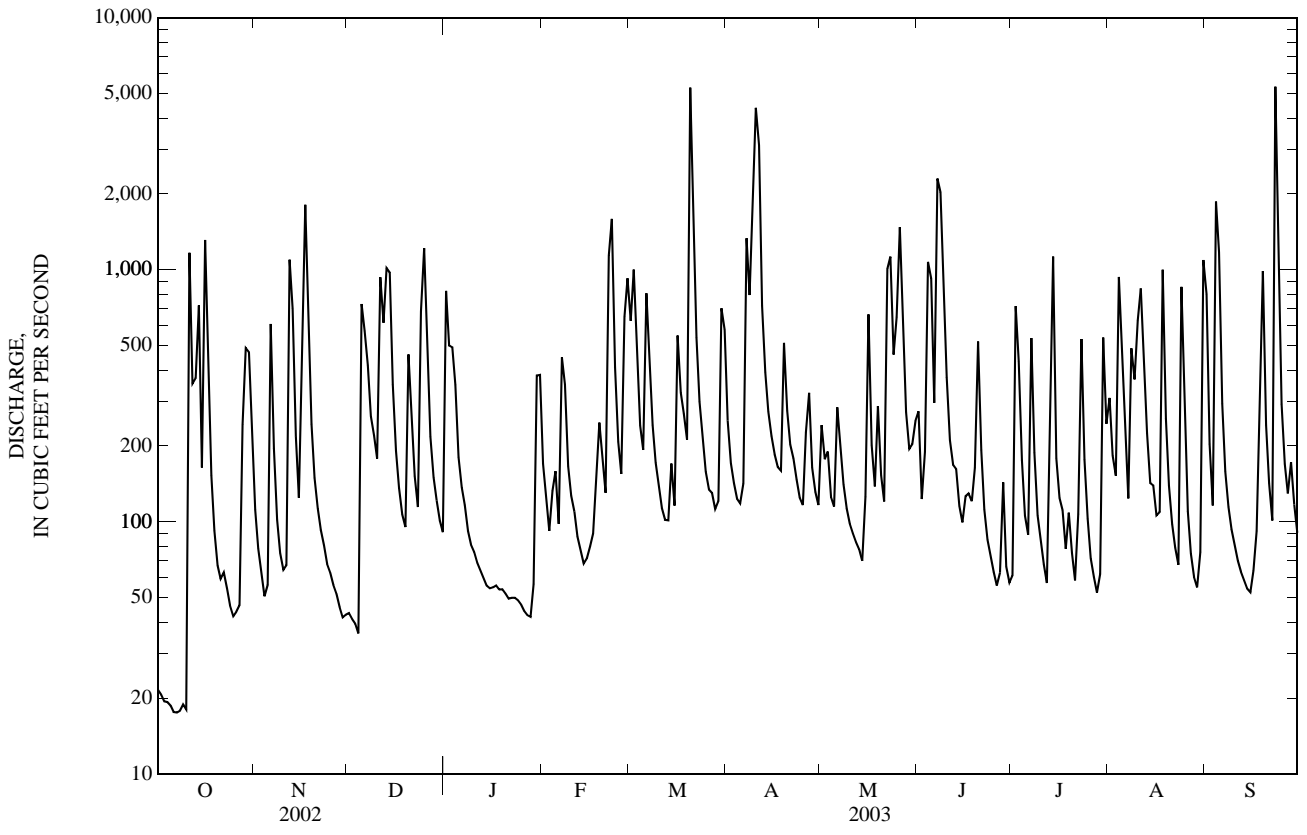
MEAN	78.7	82.0	126	197	228	229	178	107	80.2	80.9	76.9	91.3
MAX	474	354	389	645	584	697	565	445	373	465	328	831
(WY)	(1991)	(1986)	(1933)	(1937)	(1960)	(1975)	(2003)	(1978)	(2003)	(1975)	(2003)	(1996)
MIN	5.78	9.56	16.8	15.8	38.7	54.4	27.6	23.5	16.7	17.2	17.1	10.5
(WY)	(1931)	(1932)	(1934)	(1942)	(1986)	(1967)	(1985)	(1977)	(1933)	(1947)	(1945)	(1941)

CAPE FEAR RIVER BASIN

02099500 DEEP RIVER NEAR RANDLEMAN, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1929 - 2003	
ANNUAL TOTAL	38,972		124,959		129	
ANNUAL MEAN	107		342		342	
HIGHEST ANNUAL MEAN					42.8	
LOWEST ANNUAL MEAN					2002	
HIGHEST DAILY MEAN	1,810	Nov 17	5,330	Sep 23	12,000	Sep 25, 1947
LOWEST DAILY MEAN	14	Jul 8	18	Oct 6	1.2	Nov 12, 1933
ANNUAL SEVEN-DAY MINIMUM	14	Aug 7	18	Oct 4	3.9	Sep 30, 1930
MAXIMUM PEAK FLOW			7,980	Sep 23	20,000*	Sep 25, 1947
MAXIMUM PEAK STAGE			22.94	Sep 23	32.20*	Sep 25, 1947
INSTANTANEOUS LOW FLOW			17*	Oct 6	0.50	Nov 28, 1931
ANNUAL RUNOFF (CFSM)	0.85		2.74		1.03	
ANNUAL RUNOFF (INCHES)	11.60		37.19		14.03	
10 PERCENT EXCEEDS	243		848		244	
50 PERCENT EXCEEDS	34		150		52	
90 PERCENT EXCEEDS	16		54		17	

e Estimated.
 * See REMARKS.



02100294 HASKETTS CREEK BELOW PENWOOD BRANCH NEAR ASHEBORO, NC

LOCATION.--Lat 35°46'04", long 79°46'44", Randolph County, Hydrologic Unit 03030003, .2 mi upstream of Asheboro Waste Water Treatment Plant, 3.5 mi north of Asheboro.

DRAINAGE AREA.--9.9 mi².

GAGE-HEIGHT RECORDS

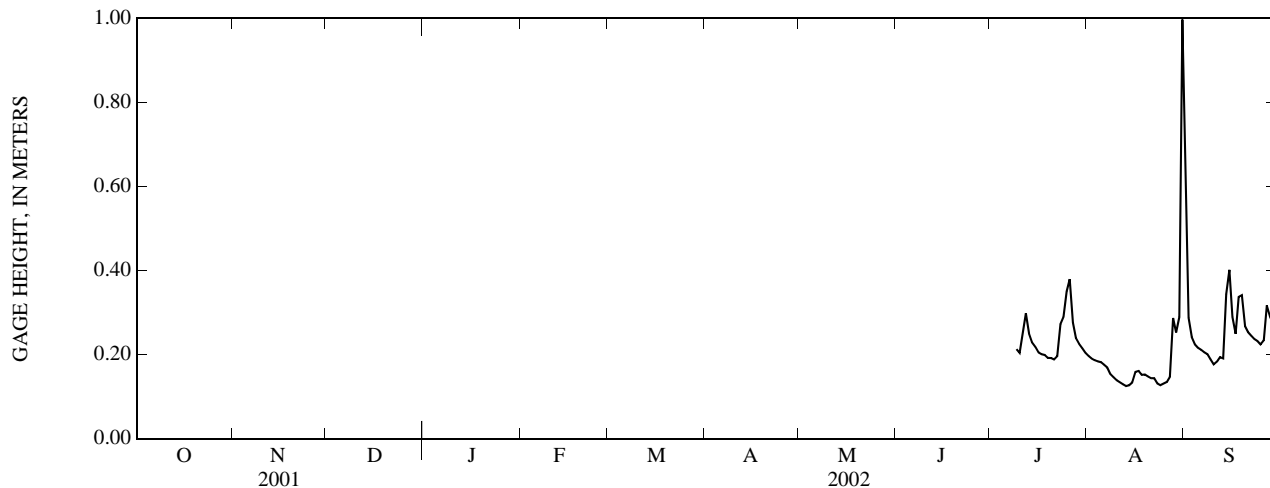
PERIOD OF RECORD.--July 2002 to November 2003 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 605 ft above NGVD of 1929, from topographic map.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height recorded, 3.36 m, Oct. 11, 2002; minimum gage height recorded, 0.10 m, Aug. 13, 24, 2002.

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

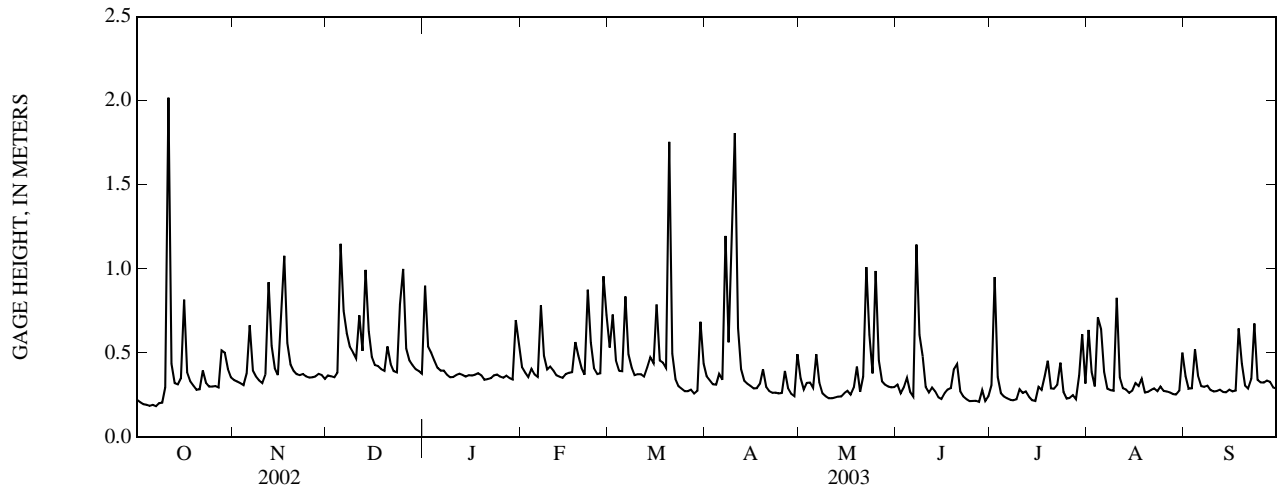
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	0.20	0.68
2	---	---	---	---	---	---	---	---	---	---	0.19	0.29
3	---	---	---	---	---	---	---	---	---	---	0.19	0.24
4	---	---	---	---	---	---	---	---	---	---	0.18	0.22
5	---	---	---	---	---	---	---	---	---	---	0.18	0.22
6	---	---	---	---	---	---	---	---	---	---	0.18	0.21
7	---	---	---	---	---	---	---	---	---	---	0.17	0.21
8	---	---	---	---	---	---	---	---	---	---	0.15	0.20
9	---	---	---	---	---	---	---	---	---	0.21	0.15	0.19
10	---	---	---	---	---	---	---	---	---	0.20	0.14	0.18
11	---	---	---	---	---	---	---	---	---	0.25	0.13	0.18
12	---	---	---	---	---	---	---	---	---	0.30	0.13	0.19
13	---	---	---	---	---	---	---	---	---	0.25	0.13	0.19
14	---	---	---	---	---	---	---	---	---	0.23	0.13	0.34
15	---	---	---	---	---	---	---	---	---	0.22	0.13	0.40
16	---	---	---	---	---	---	---	---	---	0.21	0.16	0.29
17	---	---	---	---	---	---	---	---	---	0.20	0.16	0.25
18	---	---	---	---	---	---	---	---	---	0.20	0.15	0.34
19	---	---	---	---	---	---	---	---	---	0.19	0.15	0.34
20	---	---	---	---	---	---	---	---	---	0.19	0.15	0.27
21	---	---	---	---	---	---	---	---	---	0.19	0.14	0.25
22	---	---	---	---	---	---	---	---	---	0.20	0.14	0.24
23	---	---	---	---	---	---	---	---	---	0.27	0.13	0.24
24	---	---	---	---	---	---	---	---	---	0.29	0.13	0.23
25	---	---	---	---	---	---	---	---	---	0.35	0.13	0.22
26	---	---	---	---	---	---	---	---	---	0.38	0.14	0.23
27	---	---	---	---	---	---	---	---	---	0.28	0.15	0.32
28	---	---	---	---	---	---	---	---	---	0.24	0.29	0.29
29	---	---	---	---	---	---	---	---	---	0.23	0.25	0.27
30	---	---	---	---	---	---	---	---	---	0.22	0.29	0.25
31	---	---	---	---	---	---	---	---	---	0.20	1.00	---
MEAN	---	---	---	---	---	---	---	---	---	---	0.19	0.27
MAX	---	---	---	---	---	---	---	---	---	---	1.00	0.68
MIN	---	---	---	---	---	---	---	---	---	---	0.13	0.18



02100294 HASKETTS CREEK BELOW PENWOOD BRANCH NEAR ASHEBORO, NC—Continued

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

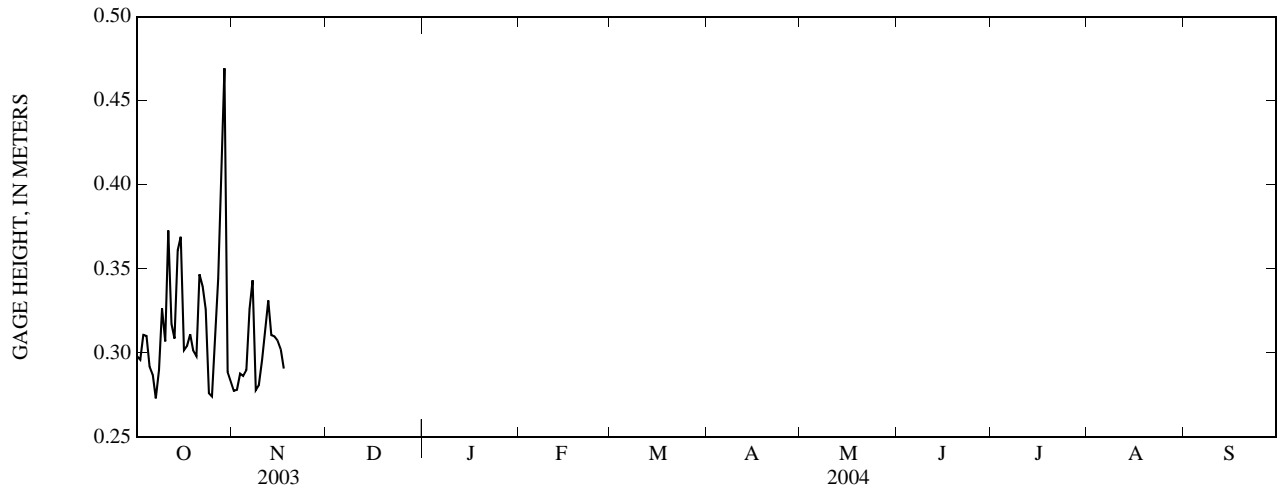
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.22	0.34	0.37	0.90	0.42	0.53	0.36	0.35	0.31	0.31	0.64	0.36
2	0.21	0.33	0.36	0.54	0.38	0.73	0.34	0.28	0.26	0.95	0.39	0.29
3	0.20	0.32	0.36	0.50	0.36	0.46	0.31	0.32	0.30	0.36	0.30	0.29
4	0.19	0.31	0.38	0.46	0.41	0.39	0.31	0.32	0.35	0.26	0.71	0.52
5	0.18	0.38	1.15	0.41	0.37	0.39	0.38	0.29	0.27	0.24	0.64	0.36
6	0.19	0.66	0.75	0.39	0.36	0.84	0.34	0.49	0.24	0.23	0.39	0.30
7	0.18	0.40	0.62	0.40	0.78	0.49	1.20	0.32	1.14	0.22	0.29	0.30
8	0.20	0.36	0.54	0.37	0.48	0.41	0.56	0.26	0.61	0.22	0.28	0.30
9	0.20	0.34	0.50	0.36	0.40	0.37	1.31	0.24	0.48	0.22	0.28	0.28
10	0.30	0.32	0.47	0.36	0.42	0.37	1.81	0.23	0.30	0.28	0.83	0.27
11	2.02	0.37	0.72	0.37	0.40	0.37	0.65	0.23	0.26	0.26	0.36	0.27
12	0.44	0.92	0.51	0.38	0.37	0.36	0.40	0.23	0.29	0.27	0.29	0.28
13	0.32	0.54	0.99	0.37	0.36	0.41	0.33	0.24	0.27	0.24	0.28	0.27
14	0.31	0.41	0.63	0.36	0.35	0.47	0.32	0.24	0.24	0.22	0.26	0.27
15	0.35	0.37	0.48	0.37	0.37	0.44	0.30	0.26	0.23	0.21	0.28	0.28
16	0.82	0.69	0.43	0.37	0.38	0.79	0.29	0.27	0.26	0.30	0.32	0.27
17	0.39	1.08	0.42	0.37	0.39	0.46	0.29	0.25	0.28	0.28	0.30	0.28
18	0.33	0.56	0.40	0.38	0.56	0.44	0.32	0.30	0.29	0.36	0.35	0.65
19	0.31	0.43	0.39	0.37	0.48	0.41	0.40	0.42	0.40	0.45	0.26	0.43
20	0.28	0.39	0.54	0.34	0.41	1.76	0.30	0.27	0.43	0.29	0.27	0.31
21	0.28	0.37	0.43	0.34	0.37	0.50	0.27	0.36	0.27	0.29	0.28	0.29
22	0.40	0.37	0.39	0.35	0.88	0.34	0.26	1.01	0.24	0.31	0.29	0.34
23	0.32	0.37	0.38	0.37	0.56	0.30	0.26	0.61	0.23	0.44	0.27	0.67
24	0.30	0.36	0.79	0.37	0.41	0.29	0.26	0.38	0.21	0.27	0.30	0.34
25	0.30	0.35	1.00	0.36	0.37	0.27	0.26	0.99	0.21	0.23	0.27	0.32
26	0.30	0.36	0.53	0.35	0.38	0.27	0.39	0.46	0.22	0.23	0.27	0.32
27	0.29	0.36	0.46	0.37	0.96	0.28	0.29	0.33	0.21	0.25	0.26	0.34
28	0.51	0.38	0.43	0.35	0.73	0.26	0.26	0.31	0.28	0.23	0.26	0.33
29	0.50	0.37	0.40	0.34	---	0.27	0.24	0.30	0.21	0.37	0.25	0.29
30	0.40	0.35	0.39	0.70	---	0.69	0.49	0.30	0.24	0.61	0.28	0.29
31	0.35	---	0.38	0.55	---	0.44	---	0.30	---	0.32	0.50	---
MEAN	0.37	0.44	0.54	0.41	0.47	0.48	0.45	0.36	0.32	0.31	0.35	0.34
MAX	2.02	1.08	1.15	0.90	0.96	1.76	1.81	1.01	1.14	0.95	0.83	0.67
MIN	0.18	0.31	0.36	0.34	0.35	0.26	0.24	0.23	0.21	0.21	0.25	0.27



02100294 HASKETTS CREEK BELOW PENWOOD BRANCH NEAR ASHEBORO, NC—Continued

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.30	0.28	---	---	---	---	---	---	---	---	---	---
2	0.30	0.28	---	---	---	---	---	---	---	---	---	---
3	0.31	0.29	---	---	---	---	---	---	---	---	---	---
4	0.31	0.29	---	---	---	---	---	---	---	---	---	---
5	0.29	0.29	---	---	---	---	---	---	---	---	---	---
6	0.29	0.33	---	---	---	---	---	---	---	---	---	---
7	0.27	0.34	---	---	---	---	---	---	---	---	---	---
8	0.29	0.28	---	---	---	---	---	---	---	---	---	---
9	0.33	0.28	---	---	---	---	---	---	---	---	---	---
10	0.31	0.30	---	---	---	---	---	---	---	---	---	---
11	0.37	0.31	---	---	---	---	---	---	---	---	---	---
12	0.32	0.33	---	---	---	---	---	---	---	---	---	---
13	0.31	0.31	---	---	---	---	---	---	---	---	---	---
14	0.36	0.31	---	---	---	---	---	---	---	---	---	---
15	0.37	0.31	---	---	---	---	---	---	---	---	---	---
16	0.30	0.30	---	---	---	---	---	---	---	---	---	---
17	0.30	0.29	---	---	---	---	---	---	---	---	---	---
18	0.31	---	---	---	---	---	---	---	---	---	---	---
19	0.30	---	---	---	---	---	---	---	---	---	---	---
20	0.30	---	---	---	---	---	---	---	---	---	---	---
21	0.35	---	---	---	---	---	---	---	---	---	---	---
22	0.34	---	---	---	---	---	---	---	---	---	---	---
23	0.33	---	---	---	---	---	---	---	---	---	---	---
24	0.28	---	---	---	---	---	---	---	---	---	---	---
25	0.27	---	---	---	---	---	---	---	---	---	---	---
26	0.31	---	---	---	---	---	---	---	---	---	---	---
27	0.34	---	---	---	---	---	---	---	---	---	---	---
28	0.41	---	---	---	---	---	---	---	---	---	---	---
29	0.47	---	---	---	---	---	---	---	---	---	---	---
30	0.29	---	---	---	---	---	---	---	---	---	---	---
31	0.28	---	---	---	---	---	---	---	---	---	---	---
MEAN	0.32	---	---	---	---	---	---	---	---	---	---	---
MAX	0.47	---	---	---	---	---	---	---	---	---	---	---
MIN	0.27	---	---	---	---	---	---	---	---	---	---	---



02100294 HASKETTS CREEK BELOW PENWOOD BRANCH NEAR ASHEBORO, NC—Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: July 2002 to November 2003.

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

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

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum recorded, 28.0°C, July 29, Aug. 23, 2002; minimum recorded, 0.9°C, Dec. 5, 2002.

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

Date	Time	Medium code	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Chloride, water, fltrd, mg/L (00940)	Sulfate water, fltrd, mg/L (00945)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)
Date	Nitrate water, fltrd, mg/L (71851)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L (71856)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Particulate nitrogen, susp, water, mg/L (49570)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inorganic carbon, suspnd total, mg/L (00688)	Organic carbon, suspnd total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)
FEB 19...			8.6	753	12.3	97	7.0	258	4.7	59.3	9.1	0.44	<0.04
FEB 20...			--	--	--	--	--	--	--	--	--	--	--
MAY 13...			2.5	--	7.3	--	7.0	113	18.4	--	--	--	--
JUN 11...			--	--	7.0	--	6.8	102	20.0	--	--	--	--
JUL 01...			--	--	--	--	--	--	--	--	--	--	--
JUL 08...			2.7	745	6.7	80	6.7	121	23.1	7.74	4.6	0.34	<0.04
FEB 19...			0.40	--	E.004	<0.02	0.09	0.046	0.84	0.7	<0.1	0.7	6.4
FEB 20...			--	--	--	--	--	--	--	--	--	--	--
MAY 13...			--	--	--	--	--	--	--	--	--	--	--
JUN 11...			--	--	--	--	--	--	--	--	--	--	--
JUL 01...			--	--	--	--	--	--	--	--	--	--	--
JUL 08...	0.385	0.09	0.11	0.076	0.023	E.01	0.04	0.059	0.45	0.3	<0.1	0.3	5.7
FEB 19...			--	--	--	--	--	<0.09	<0.006	<0.1	<0.005	<0.006	<0.004
FEB 20...			--	--	--	85	--	--	--	--	--	--	--
MAY 13...	2.000	32	33.50	413	2.5	--	4.8	--	--	--	--	--	--
JUN 11...			--	--	--	--	--	--	--	--	--	--	--
JUL 01...			--	--	--	2,600	--	--	--	--	--	--	--
JUL 08...			--	--	--	--	--	<0.09	<0.006	<0.1	<0.005	<0.006	<0.004

02100294 HASKETTS CREEK BELOW PENWOOD BRANCH NEAR ASHEBORO, NC—Continued

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

Date	3,4-Di-chloro-aniline water fltrd, ug/L (61625)	4Chloro 2methyl phenol, water, fltrd, ug/L (61633)	Aceto-chlor, water, fltrd, ug/L (49260)	Ala-chlor, water, fltrd, ug/L (46342)	Atra-zine, water, fltrd, ug/L (39632)	Azin-phos-methyl oxon, water, fltrd, ug/L (61635)	Azin-phos-methyl, water, fltrd, 0.7u GF ug/L (82686)	Ben-flur-alin, water, fltrd, 0.7u GF ug/L (82673)	Car-baryl, water, fltrd, 0.7u GF ug/L (82680)	Chlor-pyri-fos oxon, water, fltrd, ug/L (61636)	Chlor-pyri-fos water, fltrd, ug/L (38933)	cis-Per-methrin water fltrd, 0.7u GF ug/L (82687)	Cyflu-thrin, water, fltrd, ug/L (61585)
FEB 19...	<0.004	<0.006	<0.006	<0.004	E.002	<0.02	<0.050	<0.010	E.004	<0.06	<0.005	<0.006	<0.008
FEB 20...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY 13...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 01...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 08...	<0.004	<0.006	<0.006	<0.004	<0.007	<0.02	<0.050	<0.010	E.005	<0.06	<0.005	<0.006	<0.008
Date	Cypermethrin water, fltrd, ug/L (61586)	DCPA, water fltrd, 0.7u GF (82682)	Desulf-inyl fipronil, water, fltrd, ug/L (62170)	Diaz-inon oxon, water, fltrd, ug/L (61638)	Diazi-non, water, fltrd, ug/L (39572)	Dicro-tophos, water, fltrd, ug/L (38454)	Diel-drin, water, fltrd, ug/L (39381)	Dimeth-oate, water, fltrd, 0.7u GF (82662)	Ethion monoxon, water, fltrd, ug/L (61644)	Ethion, water, fltrd, ug/L (82346)	Fenami-phos sulfone water, fltrd, ug/L (61645)	Fenami-phos sulf-oxide, water, fltrd, ug/L (61646)	Fenami-phos, water, fltrd, ug/L (61591)
FEB 19...	<0.009	<0.003	E.003	<0.04	E.004	<0.08	<0.005	<0.006	<0.03	<0.004	<0.008	<0.03	<0.03
FEB 20...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY 13...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 01...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 08...	<0.009	<0.003	<0.004	<0.01	0.009	<0.08	<0.005	<0.006	<0.03	<0.004	<0.031	<0.03	<0.03
Date	Desulf-inyl-fipronil amide, wat flt ug/L (62169)	Fipronil sulfide water, fltrd, ug/L (62167)	Fipronil sulfone water, fltrd, ug/L (62168)	Fipronil, water, fltrd, ug/L (62166)	Fonofos oxon, water, fltrd, ug/L (61649)	Fonofos water, fltrd, ug/L (04095)	Hexa-zinone, water, fltrd, ug/L (04025)	Ipro-dione, water, fltrd, ug/L (61593)	Isofen-phos, water, fltrd, ug/L (61594)	Mal-a-oxon, water, fltrd, ug/L (61652)	Mal-a-thion, water, fltrd, ug/L (39532)	Meta-laxyl, water, fltrd, ug/L (61596)	Methi-althion water, fltrd, ug/L (61598)
FEB 19...	<0.009	<0.005	E.005	E.017	<0.002	<0.003	--	<1	<0.003	<0.008	<0.027	<0.005	<0.006
FEB 20...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY 13...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 01...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 08...	<0.009	E.004	<0.006	E.008	<0.002	<0.003	0.049	<1	<0.003	<0.008	<0.027	<0.005	<0.006
Date	Methyl para-oxon, water, fltrd, ug/L (61664)	Methyl para-thion, water, fltrd, 0.7u GF (82667)	Metola-chlor, water, fltrd, ug/L (39415)	Metri-buzin, water, fltrd, ug/L (82630)	Myclo-butanil water, fltrd, ug/L (61599)	Pendi-meth-alin, water, fltrd, 0.7u GF (82683)	Phorate oxon, water, fltrd, ug/L (61666)	Phorate water fltrd, 0.7u GF (82664)	Phosmet oxon, water, fltrd, ug/L (61668)	Phosmet water, fltrd, ug/L (61601)	Prome-ton, water, fltrd, ug/L (04037)	Prome-tryn, water, fltrd, ug/L (04036)	Pron-amide, water, fltrd, 0.7u GF (82676)
FEB 19...	<0.03	<0.006	<0.013	<0.006	<0.008	<0.022	<0.10	<0.011	<0.06	<0.008	0.04	<0.005	<0.004
FEB 20...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY 13...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 01...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 08...	<0.03	<0.006	<0.013	<0.006	<0.008	<0.022	<0.10	<0.011	<0.06	<0.008	0.03	<0.005	<0.004

02100294 HASKETTS CREEK BELOW PENWOOD BRANCH NEAR ASHEBORO, NC—Continued

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

Date	Sima- zine, water, fltrd, ug/L (04035)	Tebu- thiuron water fltrd, 0.7u GF ug/L (82670)	Ter- bufos oxon sulfone water, fltrd, ug/L (61674)	Terbu- fos, water, fltrd, 0.7u GF ug/L (82675)	Ter- buthyl- azine, water, fltrd, ug/L (04022)	Tri- flur- alin, water, fltrd, 0.7u GF ug/L (82661)	Di- chlor- vos, water fltrd, ug/L (38775)	Suspnd. sedi- ment, sieve diametr percent <.063mm (70331)	Sus- pended sedi- ment concen- tration mg/L (80154)	Sus- pended sedi- ment load, tons/d (80155)
FEB 19...	E.005	<0.02	<0.07	<0.02	<0.01	<0.009	<0.01	96	19	0.44
20...	--	--	--	--	--	--	--	--	--	--
MAY 13...	--	--	--	--	--	--	--	--	--	--
JUN 11...	--	--	--	--	--	--	--	--	--	--
JUL 01...	--	--	--	--	--	--	--	--	--	--
08...	E.004	<0.02	<0.07	<0.02	<0.01	<0.009	<0.01	96	9	0.07

Remark codes used in this table:

- < -- Less than
- E -- Estimated value

Medium codes used in this table:

- 9 -- Surface water
- D -- Plant tissue

TEMPERATURE, WATER, DEGREES CELSIUS
JULY TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	JUNE			JULY			AUGUST			SEPTEMBER		
				MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	26.2	22.4	24.3	20.0	19.2	19.6			
2	---	---	---	---	---	---	25.8	22.1	23.9	20.4	19.3	19.8			
3	---	---	---	---	---	---	25.7	21.2	23.4	22.3	18.5	20.2			
4	---	---	---	---	---	---	25.5	20.7	23.1	24.3	19.9	21.8			
5	---	---	---	---	---	---	25.8	20.6	23.2	23.8	20.5	21.9			
6	---	---	---	---	---	---	25.7	21.2	23.1	22.8	18.0	20.4			
7	---	---	---	---	---	---	25.6	17.7	20.3	22.0	18.3	20.1			
8	---	---	---	---	---	---	22.0	15.6	18.9	21.5	17.3	19.4			
9	---	---	---	24.3	20.6	22.3	22.5	15.5	19.0	21.6	18.0	19.6			
10	---	---	---	25.1	22.0	23.3	23.3	15.9	19.5	22.6	18.9	20.5			
11	---	---	---	22.8	20.1	21.4	24.8	17.5	20.9	22.6	18.4	20.3			
12	---	---	---	21.4	19.8	20.5	26.0	19.7	22.6	19.8	16.4	18.2			
13	---	---	---	22.0	19.3	20.6	26.2	21.0	23.5	20.3	15.6	18.1			
14	---	---	---	23.7	21.2	22.1	24.6	20.3	22.9	22.2	18.6	20.1			
15	---	---	---	24.0	21.3	22.4	24.9	22.4	23.1	21.7	21.0	21.3			
16	---	---	---	25.1	21.1	23.0	24.7	21.6	22.6	22.0	21.0	21.4			
17	---	---	---	25.0	20.8	23.0	25.2	21.6	23.2	22.5	20.8	21.5			
18	---	---	---	25.4	21.4	23.4	25.9	21.9	23.6	22.3	21.1	21.5			
19	---	---	---	25.8	21.8	23.8	26.0	21.6	23.6	22.4	21.7	22.0			
20	---	---	---	24.8	21.6	23.0	26.1	21.3	23.5	22.7	21.2	21.8			
21	---	---	---	25.6	20.8	23.2	25.4	20.7	23.0	22.7	20.7	21.6			
22	---	---	---	25.2	21.0	22.7	26.5	21.8	24.0	23.3	20.9	21.9			
23	---	---	---	23.9	22.0	22.9	28.0	22.6	25.1	21.9	20.2	21.2			
24	---	---	---	24.3	22.4	23.2	27.9	22.5	24.4	20.5	18.1	19.3			
25	---	---	---	25.4	23.1	23.8	26.0	21.1	23.3	19.3	18.2	18.8			
26	---	---	---	24.5	23.4	23.8	22.9	20.8	21.9	19.6	18.0	18.7			
27	---	---	---	25.8	23.1	24.1	21.5	19.9	20.5	21.2	19.3	20.3			
28	---	---	---	27.5	22.7	24.7	20.6	19.5	20.2	21.2	20.5	20.9			
29	---	---	---	28.0	23.7	25.6	20.4	19.7	20.0	20.8	18.9	19.9			
30	---	---	---	27.1	23.8	25.3	20.2	19.6	19.9	19.8	17.1	18.5			
31	---	---	---	26.4	22.8	24.6	20.1	19.3	19.9	---	---	---			
MONTH	---	---	---	---	---	---	28.0	15.5	22.3	24.3	15.6	20.4			

02100294 HASKETTS CREEK BELOW PENWOOD BRANCH NEAR ASHEBORO, NC—Continued

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	21.3	18.3	19.5	10.6	9.3	9.9	5.9	3.9	5.1	11.1	7.9	9.8
2	21.8	18.3	20.0	9.7	8.2	8.9	5.2	3.1	4.1	11.0	10.1	10.3
3	21.9	19.2	20.6	9.6	8.0	8.7	5.8	3.5	4.5	10.1	9.5	10
4	22.0	19.4	20.7	10.5	8.8	9.6	4.1	1.8	3.1	9.5	7.8	8.5
5	22.5	20.3	21.3	11.0	9.9	10.2	3.8	0.9	2.3	7.8	7.0	7.3
6	20.8	18.3	19.3	11.8	10.9	11.3	4.3	3.5	3.9	7.3	7.0	7.2
7	20.1	17.3	18.6	10.9	9.1	9.9	3.9	2.8	3.5	7.1	6.4	6.6
8	18.3	15.2	16.3	9.5	8.0	8.8	4.3	2.9	3.6	6.9	6.1	6.5
9	16.1	14.6	15.3	10.7	8.6	9.7	4.9	4.1	4.4	7.8	6.9	7.3
10	18.3	14.9	16.1	13.2	10.5	11.9	4.8	4.0	4.4	8.2	7.7	7.9
11	19.1	18.2	18.6	15.3	13.2	14.5	5.2	4.2	4.7	7.7	6.5	7.1
12	19.5	18.6	19.0	15.8	13.9	15.1	7.4	5.2	6.3	6.5	5.4	5.9
13	19.2	18.5	18.9	13.9	11.5	12.9	7.1	6.4	6.7	5.4	4.9	5.2
14	18.5	15.7	17.1	11.5	9.7	10.4	8.0	7.1	7.6	5.4	4.6	5.0
15	15.7	13.8	14.6	10.8	9.0	10	7.6	6.5	6.9	5.4	4.6	5.0
16	15.3	13.8	14.6	12.2	10.8	11.5	7.4	6.1	6.8	4.7	4.2	4.5
17	14.9	13.7	14.2	12.2	10.9	11.9	7.3	6.6	7.0	4.8	4.3	4.5
18	13.9	12.1	12.8	10.9	8.9	9.7	7.5	6.7	7.1	4.3	3.1	3.7
19	13.2	11.4	12.3	9.0	7.6	8.4	8.1	7.5	7.7	3.4	2.8	3.0
20	14.1	12.6	13.4	9.2	7.6	8.5	10.8	8.1	9.7	4.1	2.9	3.4
21	14.4	13.4	14.0	10.2	9.1	9.6	9.9	7.8	8.6	4.0	3.6	3.8
22	13.5	13.0	13.3	9.8	8.5	9.5	8.1	7.2	7.7	4.2	3.4	3.8
23	13.6	12.6	13.0	8.5	7.1	7.7	7.9	7.0	7.4	3.8	2.8	3.3
24	13.2	12.5	12.9	8.0	6.2	7.1	7.7	7.0	7.4	2.9	2.4	2.6
25	12.8	12.3	12.5	8.4	6.5	7.3	7.8	7.1	7.5	2.9	2.2	2.5
26	13.5	12.3	12.8	8.3	6.6	7.3	7.2	6.1	6.4	2.9	2.4	2.6
27	13.9	13.0	13.4	7.9	6.1	7.2	6.2	5.3	5.7	2.8	2.3	2.6
28	14.4	13.6	13.9	6.2	4.1	5.4	5.6	4.9	5.3	2.9	2.1	2.5
29	14.0	12.1	12.9	5.2	3.4	4.2	6.2	5.3	5.8	3.6	2.6	3.2
30	12.1	11.2	11.5	6.8	4.3	5.5	6.6	5.8	6.2	4.5	3.6	4.0
31	11.2	10.3	10.7	---	---	---	7.9	6.5	7.0	4.7	4.3	4.5
MONTH	22.5	10.3	15.6	15.8	3.4	9.4	10.8	0.9	5.9	11.1	2.1	5.3
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	5.5	4.7	5.1	7.0	5.5	6.2	12.2	7.7	9.9	18.2	17.1	17.7
2	5.7	5.1	5.4	9.1	6.9	7.8	15.2	11.0	13.1	19.1	16.8	17.9
3	6.6	5.5	5.9	9.0	6.9	8.0	16.7	12.9	14.9	18.9	17.6	18.3
4	8.9	6.6	7.7	9.2	6.3	7.8	16.9	14.4	15.8	18.4	16.7	17.3
5	8.5	7.1	7.7	11.3	9.0	10.1	16.4	15.3	15.8	16.7	14.8	15.4
6	7.1	6.2	6.6	11.5	10.7	11.0	16.3	13.8	15.2	16.6	14.8	15.7
7	6.3	5.4	5.7	11.2	7.8	9.4	15.5	10.1	11.4	18.2	16.3	17.1
8	6.0	5.2	5.6	9.3	6.3	7.9	10.3	9.5	9.9	20.0	17.6	18.7
9	5.8	5.2	5.5	11.7	8.7	10.1	9.5	8.4	9.0	21.1	19.3	20.2
10	6.0	5.8	5.9	11.0	9.3	10.2	9.2	7.5	8.3	21.8	20.2	21.0
11	6.0	5.4	5.7	9.6	8.0	8.8	10.0	8.7	9.2	21.5	20.3	21.0
12	6.3	5.8	6.0	10.5	7.3	8.9	13.4	9.3	11.1	20.4	18.6	19.5
13	6.0	5.5	5.8	12.0	9.3	10.5	14.9	11.1	12.9	19.1	16.7	18.0
14	5.9	5.5	5.7	12.4	11.3	11.9	15.6	11.7	13.6	18.5	15.6	17.1
15	6.7	5.9	6.3	11.3	9.4	10.2	17.1	13.1	15.1	17.7	16.6	17.2
16	6.6	4.8	6.0	10.3	9.2	9.6	18.0	14.4	16.3	18.4	17.2	17.7
17	4.8	4.1	4.3	12.0	10.3	11.1	17.8	15.0	16.5	18.1	16.5	17.4
18	5.1	4.0	4.4	12.6	11.8	12.1	16.1	13.0	14.1	16.5	15.4	15.8
19	5.8	4.7	5.2	12.4	11.2	11.9	13.4	12.4	12.8	15.8	14.7	15.0
20	6.9	5.8	6.3	11.2	8.2	9.1	15.2	12.7	13.8	16.7	14.2	15.5
21	7.1	6.7	6.8	12.3	9.2	10.6	15.5	14.6	15.0	18.2	16.2	16.7
22	8.6	7.1	7.7	13.7	10.8	12.2	17.0	15.1	15.8	18.1	16.6	17.0
23	9.4	8.6	9.1	13.7	10.5	12.2	16.0	13.3	14.8	16.8	16.4	16.6
24	8.8	7.6	8.3	14.6	10.9	12.7	15.0	12.2	13.9	17.4	16.4	16.8
25	8.8	8.2	8.5	15.3	10.8	13.1	14.6	14.1	14.4	19.1	17.0	18.0
26	8.5	7.1	7.9	16.5	13.0	14.6	16.0	14.4	15.1	19.2	18.2	18.7
27	7.1	4.6	6.0	16.0	13.6	14.7	17.0	14.7	15.8	18.9	17.6	18.1
28	5.7	5.2	5.5	16.4	13.0	14.8	17.7	14.6	16.2	18.0	16.1	17.1
29	---	---	---	18.0	15.4	16.6	18.4	15.9	17.2	17.8	16.7	17.3
30	---	---	---	17.0	9.5	12.4	19.0	16.4	17.7	18.3	16.3	17.4
31	---	---	---	10.4	8.0	9.2	---	---	---	19.0	17.2	18.0
MONTH	9.4	4.0	6.3	18.0	5.5	10.8	19.0	7.5	13.8	21.8	14.2	17.6

02100500 DEEP RIVER AT RAMSEUR, NC

LOCATION.--Lat 35°43'34", long 79°39'19", Randolph County, Hydrologic Unit 03030003, on right bank 0.2 mi downstream of Main Street bridge in Ramseur, 0.5 mi downstream of mill dam, and 1.5 mi downstream of Sandy Creek.

DRAINAGE AREA.--349 mi².

PERIOD OF RECORD.--November 1922 to current year.

REVISED RECORDS.--WSP 1032: 1923-24, 1925(M), 1926, 1927-28(M), 1929, 1930(M), 1932-33, 1934(M), 1935, 1936-37(M), 1944(M). WSP 1383: 1923(m), 1925, 1927, 1930, 1936. WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 419.50 ft above NGVD of 1929. Satellite telemetry at station.

REMARKS.--No estimated daily discharges. Records good. Flow slightly regulated by Oak Hollow Reservoir (station 02098495), High Point Municipal Lake (station 02099096), and small power plant reservoirs. Prior to January 1963, diurnal fluctuation caused by power plant immediately upstream from station. Town of Asheboro diverted an average of 7.6 ft³/s from Yadkin River Basin for water supply and discharged an average of 9.1 ft³/s of treated effluent upstream from the station. Maximum discharge for period of record from rating curve extended above 18,000 ft³/s, on basis of slope-area measurement of peak flow; gage height, 34.04 ft. Minimum discharge for period of record occurred frequently in 1941.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in August 1901 reached a stage of 28.75 ft, from floodmarks, 0.2 mi upstream; discharge, 30,000 ft³/s.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	382	136	1,920	570	1,800	679	479	573	245	1,550	2,780
2	38	258	132	1,910	380	2,440	459	376	392	2,300	908	628
3	39	209	129	923	290	1,380	383	371	280	1,820	524	365
4	38	175	124	892	257	703	333	304	778	673	1,300	1,710
5	38	147	2,340	527	329	530	303	253	1,840	423	2,910	3,610
6	36	1,220	1,970	402	300	1,810	310	382	620	304	1,050	974
7	34	722	1,400	335	849	1,590	3,030	523	2,760	696	513	451
8	33	380	806	304	1,130	711	3,190	343	6,180	555	414	332
9	33	263	609	247	532	513	6,070	271	3,910	353	838	294
10	47	217	510	241	388	419	9,830	193	1,180	285	2,380	239
11	8,990	196	1,340	206	352	350	7,660	180	608	237	1,110	214
12	3,220	1,910	1,540	190	285	319	4,170	174	466	255	904	202
13	566	2,670	2,090	177	239	287	1,490	175	512	223	597	183
14	1,180	773	3,230	173	224	434	611	150	406	2,310	466	142
15	507	446	1,030	169	208	413	490	158	320	896	312	175
16	2,460	543	564	164	216	1,360	428	538	387	424	309	165
17	1,500	5,350	420	151	247	1,140	370	436	413	916	267	171
18	530	2,460	327	140	269	674	339	276	381	393	1,200	461
19	319	821	284	147	690	653	589	343	531	348	685	2,850
20	234	507	512	147	513	9,020	580	409	1,770	362	394	797
21	181	386	779	144	407	6,650	427	269	918	259	288	442
22	169	314	432	147	1,300	3,890	364	2,200	469	235	227	307
23	201	265	324	136	3,910	977	321	3,360	339	1,440	197	3,830
24	200	237	972	138	1,130	562	266	1,330	279	731	1,190	4,140
25	124	177	3,880	133	585	454	239	2,840	237	409	693	2,130
26	126	186	1,560	129	439	379	282	3,170	174	280	343	452
27	130	173	668	139	1,460	351	595	1,520	183	200	256	325
28	226	161	465	127	3,060	324	409	664	310	193	189	281
29	1,550	146	377	131	---	294	292	468	276	205	160	288
30	1,220	140	309	348	---	1,030	283	511	217	834	154	218
31	633	---	282	1,370	---	1,670	---	399	---	617	796	---
TOTAL	24,631	21,834	29,541	12,307	20,559	43,127	44,792	23,065	27,709	19,421	23,124	29,156
MEAN	795	728	953	397	734	1,391	1,493	744	924	626	746	972
MAX	8,990	5,350	3,880	1,920	3,910	9,020	9,830	3,360	6,180	2,310	2,910	4,140
MIN	29	140	124	127	208	287	239	150	174	193	154	142
CFSM	2.28	2.09	2.73	1.14	2.10	3.99	4.28	2.13	2.65	1.80	2.14	2.78
IN.	2.63	2.33	3.15	1.31	2.19	4.60	4.77	2.46	2.95	2.07	2.46	3.11

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1923 - 2003, BY WATER YEAR (WY)

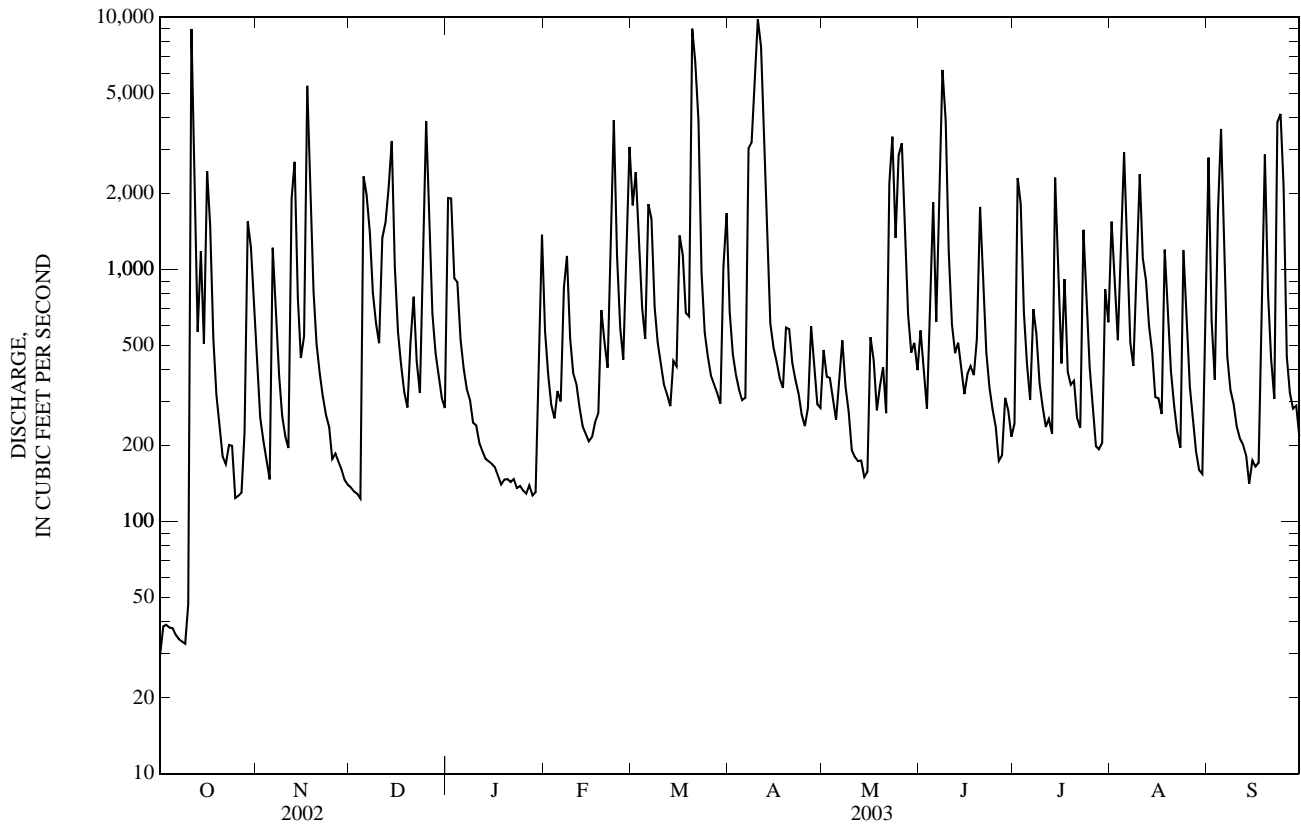
MEAN	212	217	344	550	650	650	501	292	218	222	208	250
MAX	1,193	1,237	1,050	1,660	1,642	1,842	1,493	944	978	1,434	896	1,934
(WY)	(1991)	(1986)	(1933)	(1937)	(1979)	(1975)	(2003)	(1978)	(1982)	(1975)	(1939)	(1928)
MIN	8.69	14.1	39.1	40.8	119	144	97.8	45.6	48.1	36.5	32.4	17.7
(WY)	(1942)	(1942)	(1934)	(1942)	(2002)	(1967)	(2002)	(2002)	(1933)	(1986)	(1956)	(1954)

CAPE FEAR RIVER BASIN

02100500 DEEP RIVER AT RAMSEUR, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1923 - 2003	
ANNUAL TOTAL	114,745		319,266			
ANNUAL MEAN	314		875		358	
HIGHEST ANNUAL MEAN					875 2003	
LOWEST ANNUAL MEAN					116 2002	
HIGHEST DAILY MEAN	8,990	Oct 11	9,830	Apr 10	27,800	Sep 18, 1945
LOWEST DAILY MEAN	13	May 17	29	Oct 1	0.70	Nov 29, 1941
ANNUAL SEVEN-DAY MINIMUM	24	Aug 10	36	Oct 3	3.6	Oct 19, 1941
MAXIMUM PEAK FLOW			15,500	Oct 11	43,000*	Sep 18, 1945
MAXIMUM PEAK STAGE			21.65	Oct 11	34.04*	Sep 18, 1945
INSTANTANEOUS LOW FLOW			23	Oct 1	0.40	May 27, 1941
ANNUAL RUNOFF (CFSM)	0.90		2.51		1.03	
ANNUAL RUNOFF (INCHES)	12.23		34.03		13.93	
10 PERCENT EXCEEDS	619		2,240		692	
50 PERCENT EXCEEDS	84		406		150	
90 PERCENT EXCEEDS	27		156		36	

* See REMARKS.



02100634 VESTAL CREEK NEAR ASHEBORO, NC

LOCATION.--Lat 35°39'33", long 79°46'37", Randolph County, Hydrologic Unit 03030003, at bridge on Secondary Road 2824, .8 mi above mouth, and 3.9 mi southeast of Asheboro.

DRAINAGE AREA.--6.33 mi².

GAGE-HEIGHT RECORDS

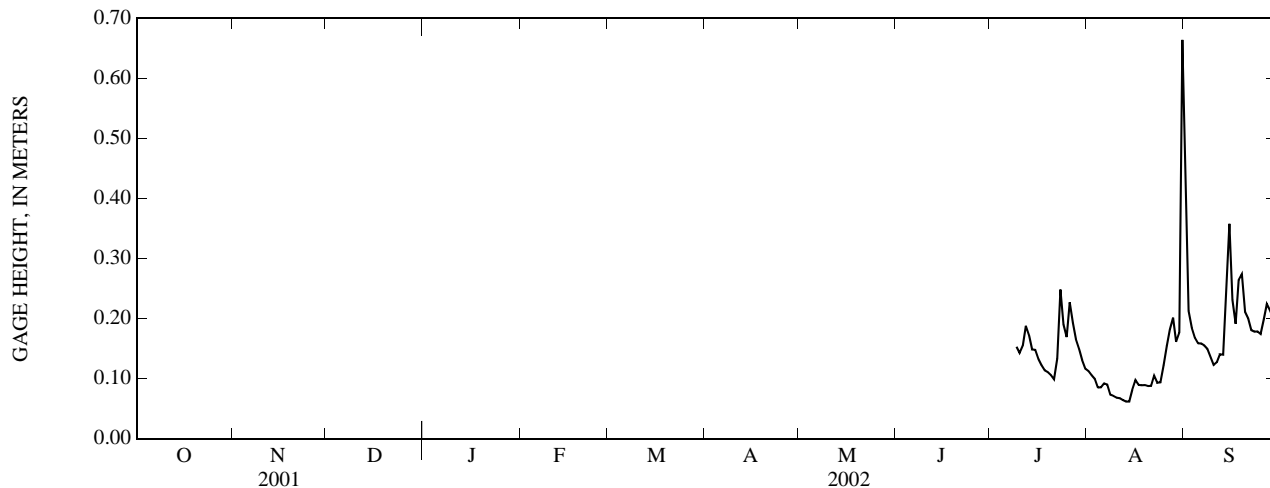
PERIOD OF RECORD.--July 2002 to November 2003 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 575 ft above NGVD of 1929, from topographic map.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height recorded, 2.64 m, Jan. 24, 2003; Minimum gage height recorded, 0.03 m, Jan. 25, 26, 28, 29, 2003.

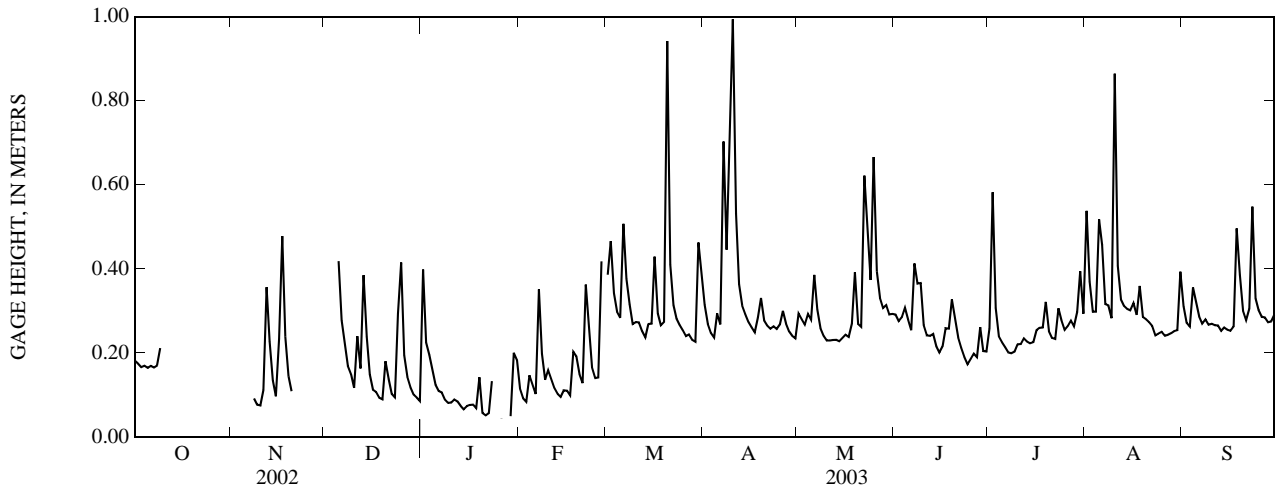
GAGE HEIGHT, ABOVE DATUM, METERS
JULY TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	0.11	0.37
2	---	---	---	---	---	---	---	---	---	---	0.11	0.21
3	---	---	---	---	---	---	---	---	---	---	0.10	0.18
4	---	---	---	---	---	---	---	---	---	---	0.09	0.17
5	---	---	---	---	---	---	---	---	---	---	0.09	0.16
6	---	---	---	---	---	---	---	---	---	---	0.09	0.16
7	---	---	---	---	---	---	---	---	---	---	0.09	0.16
8	---	---	---	---	---	---	---	---	---	---	0.07	0.15
9	---	---	---	---	---	---	---	---	---	0.15	0.07	0.14
10	---	---	---	---	---	---	---	---	---	0.14	0.07	0.12
11	---	---	---	---	---	---	---	---	---	0.16	0.07	0.13
12	---	---	---	---	---	---	---	---	---	0.19	0.06	0.14
13	---	---	---	---	---	---	---	---	---	0.17	0.06	0.14
14	---	---	---	---	---	---	---	---	---	0.15	0.06	0.26
15	---	---	---	---	---	---	---	---	---	0.15	0.08	0.36
16	---	---	---	---	---	---	---	---	---	0.13	0.10	0.23
17	---	---	---	---	---	---	---	---	---	0.12	0.09	0.19
18	---	---	---	---	---	---	---	---	---	0.11	0.09	0.26
19	---	---	---	---	---	---	---	---	---	0.11	0.09	0.27
20	---	---	---	---	---	---	---	---	---	0.11	0.09	0.21
21	---	---	---	---	---	---	---	---	---	0.10	0.09	0.20
22	---	---	---	---	---	---	---	---	---	0.13	0.11	0.18
23	---	---	---	---	---	---	---	---	---	0.25	0.09	0.18
24	---	---	---	---	---	---	---	---	---	0.19	0.09	0.18
25	---	---	---	---	---	---	---	---	---	0.17	0.12	0.17
26	---	---	---	---	---	---	---	---	---	0.23	0.15	0.20
27	---	---	---	---	---	---	---	---	---	0.19	0.18	0.22
28	---	---	---	---	---	---	---	---	---	0.17	0.20	0.21
29	---	---	---	---	---	---	---	---	---	0.15	0.16	0.20
30	---	---	---	---	---	---	---	---	---	0.13	0.18	0.20
31	---	---	---	---	---	---	---	---	---	0.12	0.66	---
MEAN	---	---	---	---	---	---	---	---	---	---	0.12	0.20
MAX	---	---	---	---	---	---	---	---	---	---	0.66	0.37
MIN	---	---	---	---	---	---	---	---	---	---	0.06	0.12



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

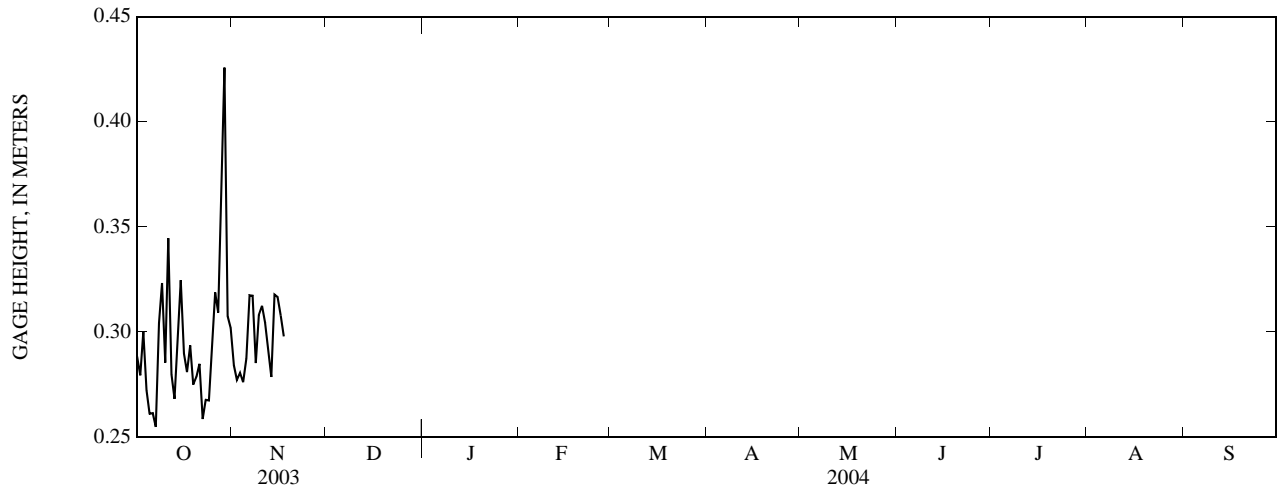
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.18	---	---	0.40	0.12	0.39	0.31	0.29	0.29	0.26	0.54	0.31
2	0.17	---	---	0.22	0.09	0.47	0.27	0.28	0.28	0.58	0.37	0.27
3	0.17	---	---	0.20	0.08	0.34	0.25	0.27	0.29	0.31	0.30	0.26
4	0.17	---	---	0.16	0.15	0.30	0.24	0.29	0.31	0.24	0.30	0.36
5	0.16	---	0.42	0.12	0.13	0.28	0.29	0.28	0.28	0.23	0.52	0.32
6	0.17	---	0.28	0.11	0.10	0.51	0.27	0.39	0.25	0.21	0.46	0.29
7	0.17	---	0.22	0.11	0.35	0.38	0.70	0.30	0.41	0.20	0.32	0.27
8	0.17	0.09	0.17	0.09	0.20	0.32	0.45	0.26	0.37	0.20	0.31	0.28
9	0.21	0.08	0.15	0.08	0.14	0.27	0.72	0.24	0.37	0.20	0.28	0.27
10	---	0.08	0.12	0.08	0.16	0.27	0.99	0.23	0.27	0.22	0.86	0.27
11	---	0.11	0.24	0.09	0.14	0.27	0.53	0.23	0.24	0.22	0.41	0.27
12	---	0.36	0.16	0.08	0.12	0.25	0.36	0.23	0.24	0.23	0.33	0.27
13	---	0.23	0.39	0.07	0.10	0.24	0.31	0.23	0.25	0.23	0.31	0.25
14	---	0.13	0.24	0.07	0.10	0.27	0.29	0.23	0.22	0.22	0.30	0.26
15	---	0.10	0.15	0.07	0.11	0.27	0.27	0.24	0.20	0.23	0.30	0.26
16	---	0.23	0.11	0.08	0.11	0.43	0.26	0.24	0.22	0.25	0.32	0.25
17	---	0.48	0.11	0.08	0.10	0.29	0.25	0.24	0.26	0.26	0.29	0.26
18	---	0.24	0.09	0.07	0.20	0.27	0.28	0.27	0.26	0.26	0.36	0.50
19	---	0.15	0.09	0.14	0.19	0.27	0.33	0.39	0.33	0.32	0.29	0.39
20	---	0.11	0.18	0.06	0.15	0.94	0.28	0.27	0.28	0.25	0.28	0.30
21	---	---	0.14	0.05	0.13	0.41	0.26	0.26	0.24	0.24	0.27	0.28
22	---	---	0.10	0.06	0.36	0.31	0.26	0.62	0.21	0.23	0.26	0.31
23	---	---	0.09	0.13	0.26	0.28	0.26	0.51	0.19	0.31	0.24	0.55
24	---	---	0.29	---	0.17	0.27	0.26	0.37	0.17	0.28	0.25	0.33
25	---	---	0.42	---	0.14	0.25	0.27	0.67	0.19	0.25	0.25	0.30
26	---	---	0.19	0.04	0.14	0.24	0.30	0.39	0.20	0.26	0.24	0.29
27	---	---	0.14	---	0.42	0.24	0.27	0.33	0.19	0.28	0.24	0.28
28	---	---	0.12	---	---	0.23	0.25	0.31	0.26	0.26	0.25	0.27
29	---	---	0.10	0.05	---	0.23	0.24	0.31	0.20	0.30	0.25	0.28
30	---	---	0.09	0.20	---	0.46	0.23	0.29	0.20	0.39	0.25	0.29
31	---	---	0.09	0.18	---	0.38	---	0.29	---	0.29	0.39	---
MEAN	---	---	---	---	---	0.33	0.34	0.31	0.26	0.26	0.33	0.30
MAX	---	---	---	---	---	0.94	0.99	0.67	0.41	0.58	0.86	0.55
MIN	---	---	---	---	---	0.23	0.23	0.23	0.17	0.20	0.24	0.25



02100634 VESTAL CREEK NEAR ASHEBORO, NC—Continued

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.29	0.28	---	---	---	---	---	---	---	---	---	---
2	0.28	0.28	---	---	---	---	---	---	---	---	---	---
3	0.30	0.28	---	---	---	---	---	---	---	---	---	---
4	0.27	0.28	---	---	---	---	---	---	---	---	---	---
5	0.26	0.29	---	---	---	---	---	---	---	---	---	---
6	0.26	0.32	---	---	---	---	---	---	---	---	---	---
7	0.25	0.32	---	---	---	---	---	---	---	---	---	---
8	0.30	0.29	---	---	---	---	---	---	---	---	---	---
9	0.32	0.31	---	---	---	---	---	---	---	---	---	---
10	0.29	0.31	---	---	---	---	---	---	---	---	---	---
11	0.34	0.30	---	---	---	---	---	---	---	---	---	---
12	0.28	0.29	---	---	---	---	---	---	---	---	---	---
13	0.27	0.28	---	---	---	---	---	---	---	---	---	---
14	0.29	0.32	---	---	---	---	---	---	---	---	---	---
15	0.32	0.32	---	---	---	---	---	---	---	---	---	---
16	0.29	0.31	---	---	---	---	---	---	---	---	---	---
17	0.28	0.30	---	---	---	---	---	---	---	---	---	---
18	0.29	---	---	---	---	---	---	---	---	---	---	---
19	0.27	---	---	---	---	---	---	---	---	---	---	---
20	0.28	---	---	---	---	---	---	---	---	---	---	---
21	0.28	---	---	---	---	---	---	---	---	---	---	---
22	0.26	---	---	---	---	---	---	---	---	---	---	---
23	0.27	---	---	---	---	---	---	---	---	---	---	---
24	0.27	---	---	---	---	---	---	---	---	---	---	---
25	0.29	---	---	---	---	---	---	---	---	---	---	---
26	0.32	---	---	---	---	---	---	---	---	---	---	---
27	0.31	---	---	---	---	---	---	---	---	---	---	---
28	0.36	---	---	---	---	---	---	---	---	---	---	---
29	0.43	---	---	---	---	---	---	---	---	---	---	---
30	0.31	---	---	---	---	---	---	---	---	---	---	---
31	0.30	---	---	---	---	---	---	---	---	---	---	---
MEAN	0.29	---	---	---	---	---	---	---	---	---	---	---
MAX	0.43	---	---	---	---	---	---	---	---	---	---	---
MIN	0.25	---	---	---	---	---	---	---	---	---	---	---



WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: July 2002 to November 2003.

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

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

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum recorded, 32.8°C, Aug. 5, 2002; minimum recorded, 0.0°C, Jan. 13, 18, 19, 22-27, 2003.

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

Date	Time	Medium code	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Chloride, water, fltrd, mg/L (00940)	Sulfate water, fltrd, mg/L (00945)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)
FEB 19...	1030	9	E7.9	753	11.8	91	7.0	182	4.1	36.5	9.1	0.52	<0.04
FEB 20...	0830	9	--	--	--	--	--	--	--	--	--	--	--
MAY 13...	1000	D	E1.7	--	6.6	--	7.0	129	17.3	--	--	--	--
JUN 11...	0850	9	--	--	6.5	--	6.9	109	20.3	--	--	--	--
JUL 01...	1020	9	--	--	--	--	--	--	--	--	--	--	--
JUL 08...	0915	9	E1.4	747	6.2	73	6.5	130	22.3	6.01	4.4	0.33	<0.04

Date	Nitrate water, fltrd, mg/L (71851)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L (71856)	Nitrite water, fltrd, mg/L as N (00613)	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Particulate nitrogen, susp, water, mg/L (49570)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inorganic carbon, suspnd total, mg/L (00688)	Organic carbon, suspnd total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)
FEB 19...	--	--	0.32	--	E.004	<0.02	0.08	0.054	0.84	0.7	<0.1	0.7	6.4
FEB 20...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY 13...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 01...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 08...	0.593	0.13	0.15	0.049	0.015	<0.02	0.07	0.044	0.48	0.6	<0.1	0.6	4.8

Date	Biomass periphyton, ashfree drymass g/m2 (49954)	Periphyton biomass ash weight, g/m2 (00572)	Periphyton biomass dry weight, g/m2 (00573)	Biomass chlorophyll ratio, periphyton, number (70950)	Pheophytin a, periphyton, mg/m2 (62359)	E coli, modif. m-TEC, water, col/100 mL (90902)	Chlorophyll a periphyton, chromofluoro, mg/m2 (70957)	1-Naphthol, water, fltrd 0.7u GF (49295)	2,6-Diethyl-aniline water, fltrd 0.7u GF (82660)	2-[(2-Et-6-Me-Ph)-amino]propan-1-ol, ug/L (61615)	2Chloro-2,6-diethyl acetanilide wat flt ug/L (61618)	CIAT, water, fltrd, ug/L (04040)	2-Ethyl-6-methyl-aniline water, fltrd, ug/L (61620)
FEB 19...	--	--	--	--	--	--	--	<0.09	<0.006	<0.1	<0.005	<0.006	<0.004
FEB 20...	--	--	--	--	--	130	--	--	--	--	--	--	--
MAY 13...	4.800	51	56.00	140	17	--	34.2	--	--	--	--	--	--
JUN 11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 01...	--	--	--	--	--	810	--	--	--	--	--	--	--
JUL 08...	--	--	--	--	--	--	--	<0.09	<0.006	<0.1	<0.005	<0.006	<0.004

02100634 VESTAL CREEK NEAR ASHEBORO, NC—Continued

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

Date	3,4-Di-chloro-aniline water fltrd, ug/L (61625)	4Chloro 2methyl phenol, water, fltrd, ug/L (61633)	Aceto-chlor, water, fltrd, ug/L (49260)	Ala-chlor, water, fltrd, ug/L (46342)	Atra-zine, water, fltrd, ug/L (39632)	Azin-phos-methyl oxon, water, fltrd, ug/L (61635)	Azin-phos-methyl, water, fltrd, 0.7u GF ug/L (82686)	Ben-flur-alin, water, fltrd, 0.7u GF ug/L (82673)	Car-baryl, water, fltrd, 0.7u GF ug/L (82680)	Chlor-pyri-fos oxon, water, fltrd, ug/L (61636)	Chlor-pyri-fos water, fltrd, ug/L (38933)	cis-Per-methrin water fltrd 0.7u GF ug/L (82687)	Cyflu-thrin, water, fltrd, ug/L (61585)
FEB 19...	<0.004	<0.006	<0.006	<0.004	E.005	<0.02	<0.050	<0.010	E.003	<0.06	<0.005	<0.006	<0.008
FEB 20...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY 13...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 01...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 08...	<0.004	<0.006	<0.006	<0.004	<0.008	<0.02	<0.050	<0.010	<0.041	<0.06	<0.005	<0.006	<0.008
Date	Cy-per-methrin water, fltrd, ug/L (61586)	DCPA, water fltrd 0.7u GF (82682)	Desulf-inyl fipro-nil, water, fltrd, ug/L (62170)	Diaz-inon oxon, water, fltrd, ug/L (61638)	Diazi-non, water, fltrd, ug/L (39572)	Dicro-tophos, water, fltrd, ug/L (38454)	Diel-drin, water, fltrd, ug/L (39381)	Dimeth-oate, water, fltrd 0.7u GF (82662)	Ethion monoxon water, fltrd, ug/L (61644)	Ethion, water, fltrd, ug/L (82346)	Fenami-phos sulfone water, fltrd, ug/L (61645)	Fenami-phos sulf-oxide, water, fltrd, ug/L (61646)	Fenami-phos, water, fltrd, ug/L (61591)
FEB 19...	<0.009	<0.003	<0.004	<0.04	0.010	<0.08	<0.005	<0.006	<0.03	<0.004	<0.008	<0.03	<0.03
FEB 20...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY 13...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 01...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 08...	<0.009	<0.003	<0.004	<0.01	<0.005	<0.08	<0.005	<0.006	<0.03	<0.004	<0.031	<0.03	<0.03
Date	Desulf-inyl-fipro-nil amide, wat flt ug/L (62169)	Fipro-nil sulfide water, fltrd, ug/L (62167)	Fipro-nil sulfone water, fltrd, ug/L (62168)	Fipro-nil, water, fltrd, ug/L (62166)	Fonofos oxon, water, fltrd, ug/L (61649)	Fonofos water, fltrd, ug/L (04095)	Hexa-zinone, water, fltrd, ug/L (04025)	Ipro-dione, water, fltrd, ug/L (61593)	Isofen-phos, water, fltrd, ug/L (61594)	Mal-a-oxon, water, fltrd, ug/L (61652)	Mal-a-thion, water, fltrd, ug/L (39532)	Meta-laxyl, water, fltrd, ug/L (61596)	Methi-althion water, fltrd, ug/L (61598)
FEB 19...	<0.009	<0.005	<0.005	E.005	<0.002	<0.003	--	<1	<0.003	<0.008	<0.027	<0.005	<0.006
FEB 20...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY 13...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 01...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 08...	<0.009	<0.005	<0.006	E.005	<0.002	<0.003	0.039	<1	<0.003	<0.008	<0.027	<0.005	<0.006
Date	Methyl para-oxon, water, fltrd, ug/L (61664)	Methyl para-thion, water, fltrd 0.7u GF (82667)	Metola-chlor, water, fltrd, ug/L (39415)	Metri-buzin, water, fltrd, ug/L (82630)	Myclo-butanil water, fltrd, ug/L (61599)	Pendi-meth-alin, water, fltrd 0.7u GF (82683)	Phorate oxon, water, fltrd, ug/L (61666)	Phorate water fltrd 0.7u GF (82664)	Phosmet oxon, water, fltrd, ug/L (61668)	Phosmet water, fltrd, ug/L (61601)	Prome-ton, water, fltrd, ug/L (04037)	Prome-tryn, water, fltrd, ug/L (04036)	Pron-amide, water, fltrd 0.7u GF (82676)
FEB 19...	<0.03	<0.006	E.012	<0.006	<0.008	<0.022	<0.10	<0.011	<0.06	<0.008	<0.01	<0.005	<0.004
FEB 20...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY 13...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 01...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 08...	<0.03	<0.006	<0.013	<0.006	<0.008	<0.022	<0.10	<0.011	<0.06	<0.008	0.03	<0.005	<0.004

CAPE FEAR RIVER BASIN

02100634 VESTAL CREEK NEAR ASHEBORO, NC—Continued

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

Date	Sima- zine, water, fltrd, ug/L (04035)	Tebu- thiuron water, fltrd, 0.7u GF ug/L (82670)	Ter- bufos oxon sulfone water, fltrd, ug/L (61674)	Terbu- fos, water, fltrd, 0.7u GF ug/L (82675)	Ter- buthyl- azine, water, fltrd, ug/L (04022)	Tri- flur- alin, water, fltrd, 0.7u GF ug/L (82661)	Di- chlor- vos, water, fltrd, ug/L (38775)	Suspnd. sedi- ment, sieve diametr percent <.063mm (70331)	Sus- pended sedi- ment concen- tration mg/L (80154)
FEB 19...	<0.005	<0.02	<0.07	<0.02	<0.01	<0.009	<0.01	94	17
20...	--	--	--	--	--	--	--	--	--
MAY 13...	--	--	--	--	--	--	--	--	--
JUN 11...	--	--	--	--	--	--	--	--	--
JUL 01...	--	--	--	--	--	--	--	--	--
08...	E.005	<0.02	<0.07	<0.02	<0.01	<0.009	<0.01	94	6

Remark codes used in this table:

- < -- Less than
- E -- Estimated value

Medium codes used in this table:

- 9 -- Surface water
- D -- Plant tissue

TEMPERATURE, WATER, DEGREES CELSIUS
JULY TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	JUNE			JULY			AUGUST			SEPTEMBER		
				MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	30.7	23.2	26.0	20.2	19.3	19.7			
2	---	---	---	---	---	---	31.3	22.6	25.2	20.4	19.4	19.9			
3	---	---	---	---	---	---	31.7	21.4	25.0	21.7	19.0	20.3			
4	---	---	---	---	---	---	32.0	20.8	25.2	22.9	20.0	21.5			
5	---	---	---	---	---	---	32.8	20.9	25.5	22.8	21.0	22.0			
6	---	---	---	---	---	---	31.3	21.5	25.1	22.2	19.0	20.7			
7	---	---	---	---	---	---	27.4	17.5	21.9	21.7	19.1	20.5			
8	---	---	---	---	---	---	27.0	17.0	20.8	21.5	18.1	19.9			
9	---	---	---	28.1	20.5	23.7	26.1	16.8	20.5	22.0	19.0	20.2			
10	---	---	---	29.1	22.4	24.9	28.0	17.1	21.2	23.0	19.3	20.9			
11	---	---	---	24.1	20.0	21.9	28.0	18.3	22.3	23.0	19.4	21.0			
12	---	---	---	22.4	19.7	20.9	29.6	19.9	23.8	21.2	18.3	19.5			
13	---	---	---	24.2	19.6	21.6	30.3	20.7	24.5	20.7	17.0	18.9			
14	---	---	---	26.4	21.7	23.3	26.4	20.8	23.6	22.1	19.0	20.2			
15	---	---	---	27.4	21.9	23.7	29.5	22.8	24.4	21.6	21.1	21.3			
16	---	---	---	30.3	21.5	24.8	26.4	22.5	23.8	22.1	21.0	21.5			
17	---	---	---	29.1	21.6	25.0	28.2	22.4	24.4	22.4	21.0	21.7			
18	---	---	---	30.0	22.3	25.7	28.7	22.7	24.9	22.3	21.4	21.8			
19	---	---	---	32.0	22.8	26.2	27.2	22.9	24.6	22.3	21.8	22.0			
20	---	---	---	29.5	22.6	24.8	28.3	22.5	24.6	22.6	21.2	21.8			
21	---	---	---	30.8	21.2	25.1	27.3	22.1	24.2	22.4	20.9	21.7			
22	---	---	---	31.7	21.1	24.4	27.4	23.2	24.9	22.3	21.1	21.8			
23	---	---	---	26.2	23.7	24.7	28.7	23.5	25.5	21.8	20.5	21.3			
24	---	---	---	25.2	23.6	24.4	28.1	23.6	25.2	20.6	19.2	20.0			
25	---	---	---	25.4	23.1	24.0	27.5	23.0	24.3	19.8	19.0	19.4			
26	---	---	---	24.9	23.0	23.9	23.7	22.1	22.9	19.5	18.8	19.2			
27	---	---	---	26.6	23.5	24.8	22.1	21.4	21.8	21.9	19.4	20.6			
28	---	---	---	29.0	23.2	25.7	21.5	20.3	20.8	21.7	20.5	20.9			
29	---	---	---	30.5	24.1	26.5	20.5	19.9	20.3	20.8	19.6	20.2			
30	---	---	---	31.8	23.9	26.7	20.4	19.9	20.1	21.4	18.1	19.6			
31	---	---	---	31.0	23.5	26.3	20.0	19.3	19.8	---	---	---			
MONTH	---	---	---	---	---	---	32.8	16.8	23.5	23.0	17.0	20.7			

02100634 VESTAL CREEK NEAR ASHEBORO, NC—Continued

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	21.3	19.6	20.4	---	---	---	---	---	---	12.6	8.5	11.0
2	21.8	19.4	20.7	---	---	---	---	---	---	11.0	9.7	10.1
3	22.4	20.2	21.3	---	---	---	---	---	---	10.1	8.8	9.8
4	22.5	20.5	21.6	---	---	---	---	---	---	8.8	5.2	7.1
5	23.4	21.2	22.2	---	---	---	4.8	0.9	3.1	7.1	3.9	5.2
6	21.9	19.8	20.8	---	---	---	5.2	4.2	4.7	9.0	4.2	5.9
7	21.3	18.6	20.0	---	---	---	4.9	3.4	4.3	7.4	2.6	4.1
8	19.7	16.4	17.8	15.9	6.5	9.5	5.3	3.6	4.6	8.0	3.6	5.8
9	17.4	16.1	16.8	17.9	7.5	11.1	6.0	4.9	5.4	13.3	5.5	8.4
10	---	---	---	17.6	10.5	14.2	5.4	4.4	4.9	13.6	4.9	7.8
11	---	---	---	17.7	14.9	16.3	6.0	4.5	5.3	10.7	2.7	4.9
12	---	---	---	16.4	14.4	15.6	8.0	6.0	6.9	8.2	1.1	3.0
13	---	---	---	14.4	11.7	13.5	7.3	6.6	6.9	5.6	0.0	2.5
14	---	---	---	13.3	9.3	11.0	8.4	7.2	7.7	6.1	0.5	3.1
15	---	---	---	13.8	7.8	10.7	7.4	5.6	6.5	9.6	0.1	2.9
16	---	---	---	12.9	11.4	12.1	8.6	4.8	6.7	3.7	0.1	1.8
17	---	---	---	13.0	11.6	12.6	8.5	4.6	6.2	8.0	0.2	2.4
18	---	---	---	11.6	9.2	10.4	9.0	5.5	6.9	6.6	0.0	1.4
19	---	---	---	10.4	7.6	9.1	8.2	6.7	7.4	6.9	0.0	1.9
20	---	---	---	10.8	7.1	9.0	11.4	8.2	10.5	11.4	0.5	3.8
21	---	---	---	---	---	---	10.0	6.1	8.1	3.1	0.6	2.0
22	---	---	---	---	---	---	11.0	6.2	7.8	8.6	0.0	2.2
23	---	---	---	---	---	---	10.0	4.9	6.9	4.0	0.0	1.6
24	---	---	---	---	---	---	7.7	5.9	6.8	6.3	0.0	2.6
25	---	---	---	---	---	---	7.8	6.6	7.3	8.7	0.0	2.7
26	---	---	---	---	---	---	6.6	4.7	5.7	5.0	0.0	1.6
27	---	---	---	---	---	---	5.5	3.1	4.3	6.3	0.0	1.3
28	---	---	---	---	---	---	6.9	2.2	3.9	7.9	0.1	2.5
29	---	---	---	---	---	---	7.9	2.7	4.8	6.2	0.9	4.2
30	---	---	---	---	---	---	8.2	2.9	5.3	4.4	2.5	3.5
31	---	---	---	---	---	---	10.3	4.7	7.4	4.4	3.8	4.1
MONTH	---	---	---	---	---	---	---	---	---	13.6	0.0	4.2
	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	8.2	4.2	5.4	7.8	6.5	7.1	14.6	8.1	11.3	21.0	17.7	19.0
2	8.3	3.0	5.2	10.0	7.7	8.8	18.5	11.2	14.9	21.1	17.5	19.1
3	12.3	4.1	7.8	10.3	7.6	8.9	20.5	12.7	16.8	20.3	17.9	19.0
4	13.7	8.5	10.1	11.0	6.7	9.0	20.3	14.7	17.9	18.2	16.1	17.4
5	10.4	5.0	7.4	12.7	9.9	11.2	18.1	16.0	16.9	16.1	14.3	15.0
6	6.7	3.7	4.8	12.7	11.5	12.1	18.5	14.0	16.4	16.5	14.7	15.7
7	6.4	3.8	5.2	12.1	8.0	10	16.0	11.0	12.3	18.6	16.2	17.2
8	6.0	4.2	5.1	11.6	6.2	8.9	11.3	10.5	10.9	21.7	17.4	19.4
9	6.4	3.6	4.7	14.7	9.1	11.8	10.5	9.6	10.1	23.1	19.4	21.1
10	5.9	4.6	5.2	13.5	8.6	10.9	10.1	8.5	9.3	24.2	19.9	22.0
11	7.2	3.2	5.1	11.2	7.1	9.0	11.2	9.5	10.2	23.3	20.4	21.7
12	9.6	3.8	5.9	14.8	6.4	10.7	15.0	10.1	12.3	22.6	18.2	20.1
13	9.3	1.6	4.8	16.1	9.6	12.6	16.8	12.0	14.2	21.6	15.3	18.4
14	6.1	2.8	4.5	13.8	11.4	12.8	18.2	12.2	15.3	21.8	13.9	17.6
15	8.2	5.2	6.5	11.4	9.5	10.1	19.8	13.7	16.8	19.2	16.0	17.5
16	5.4	1.1	3.0	11.4	9.8	10.5	20.8	14.8	18.0	20.0	16.6	18.1
17	1.9	0.4	1.3	13.7	11.4	12.5	20.6	15.4	18.3	18.3	16.2	17.3
18	5.4	1.8	3.6	14.2	13.0	13.5	16.6	13.4	14.2	16.2	15.0	15.5
19	6.3	3.9	5.1	13.6	11.4	12.5	13.4	12.3	12.8	15.2	14.3	14.6
20	8.3	5.9	6.9	11.4	9.3	10.0	16.2	12.5	14.1	18.2	13.8	16.0
21	7.7	6.0	7.0	13.3	10.2	11.6	16.0	14.6	15.3	17.4	15.6	16.6
22	9.8	7.5	8.4	15.3	11.4	13.3	17.9	15.0	16.3	16.8	16.3	16.5
23	10.8	8.4	9.9	15.7	11.3	13.6	17.1	12.5	15.1	16.7	16.1	16.4
24	10.6	6.4	8.5	17.1	11.8	14.3	16.6	11.3	14.5	17.3	16.3	16.7
25	10.0	7.0	8.7	18.4	11.0	14.8	15.0	14.1	14.6	18.5	16.9	17.7
26	8.2	5.7	6.6	19.7	13.5	16.5	16.4	14.5	15.3	19.3	17.9	18.5
27	6.3	4.4	5.1	18.3	14.0	16.0	18.3	14.5	16.3	18.6	17.6	18.0
28	---	---	---	19.5	13.6	16.4	19.5	14.1	17.0	18.8	15.9	17.4
29	---	---	---	20.8	17.0	18.5	21.0	15.4	18.3	18.5	16.5	17.6
30	---	---	---	18.1	10.4	13.2	21.9	16.8	19.4	19.4	16.3	17.8
31	---	---	---	11.9	8.8	10.2	---	---	---	19.0	17.0	18.1
MONTH	---	---	---	20.8	6.2	12.0	21.9	8.1	14.8	24.2	13.8	17.8

0210166029 ROCKY RIVER NEAR CRUTCHFIELD CROSSROADS, NC

LOCATION.--Lat 35°48'25", long 79°31'40", Chatham County, Hydrologic Unit 03030003, on right bank at downstream side of culvert on Secondary Road 1300, and 5.5 mi west of Crutchfield Crossroads.

DRAINAGE AREA.--7.42 mi².

REVISIONS.--WDR NC-98-1(M).

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

GAGE.--Water-stage recorder. Elevation of gage is 620 ft above NGVD of 1929, from topographic map. Satellite telemetry at station.

REMARKS.--No estimated daily discharges. Records fair. No flow occurred several days in Aug. 1988, July, Aug. 2002.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.16	4.6	2.2	92	7.9	57	16	3.3	5.0	5.6	40	2.2
2	0.13	3.6	2.1	36	5.5	108	8.7	3.0	3.4	111	38	1.1
3	0.11	2.8	2.1	22	4.7	39	7.2	2.7	3.0	33	79	0.84
4	0.17	2.0	2.9	12	5.0	12	6.3	2.9	5.0	6.6	147	9.2
5	0.17	2.1	117	7.7	4.2	14	5.5	2.8	3.6	3.3	294	15
6	0.13	27	56	6.6	3.1	94	6.4	5.4	2.7	2.2	83	2.5
7	0.09	6.2	36	5.5	62	40	154	4.0	31	2.2	15	1.3
8	0.11	4.1	21	4.8	23	12	69	3.3	65	1.9	34	1.0
9	0.10	3.2	14	4.4	7.3	7.3	207	2.9	27	1.2	14	1.0
10	3.7	3.0	9.1	3.9	7.6	5.1	381	2.7	7.1	2.5	68	0.75
11	371	6.7	39	3.4	6.1	4.1	98	2.3	4.9	7.7	17	0.61
12	29	57	21	3.0	4.4	3.3	34	2.2	5.3	7.0	6.2	0.53
13	6.7	32	116	2.9	3.5	3.8	15	1.9	5.1	4.5	4.4	0.50
14	3.8	9.2	53	2.9	2.9	18	9.7	1.9	3.1	6.2	3.2	0.49
15	3.6	5.8	16	3.3	3.8	6.2	7.6	2.1	2.5	4.6	2.2	0.49
16	44	31	9.0	3.3	5.4	80	6.2	11	3.6	4.7	1.8	0.42
17	7.7	97	6.6	3.2	4.6	46	5.1	4.3	3.6	5.5	3.5	0.33
18	4.2	31	5.5	2.7	24	44	4.5	3.3	3.9	3.3	17	45
19	3.2	11	5.3	2.5	16	23	8.8	5.8	22	2.9	3.5	76
20	1.6	7.0	18	2.6	7.3	425	6.0	4.0	49	2.4	2.4	9.1
21	1.8	5.6	8.8	2.6	5.4	80	5.3	3.6	14	0.84	1.7	3.2
22	5.6	4.7	6.3	2.5	92	33	5.0	100	5.6	15	1.3	1.9
23	3.2	3.7	5.3	2.5	61	11	4.0	76	4.2	69	1.0	95
24	2.2	3.3	48	2.5	13	6.7	3.5	34	3.4	17	0.84	14
25	1.9	3.2	104	2.5	6.4	4.6	3.4	137	2.5	5.2	0.72	4.2
26	2.3	2.9	25	2.6	5.3	4.5	11	44	1.9	3.0	0.68	4.1
27	2.0	2.6	10	2.5	134	3.6	7.4	13	1.7	1.5	0.59	3.3
28	21	2.5	7.7	2.3	112	2.7	4.3	8.0	1.8	0.77	0.52	2.6
29	36	2.4	6.6	2.4	---	3.2	3.5	6.2	2.2	5.8	0.47	2.9
30	18	2.4	5.7	30	---	74	3.5	5.9	3.5	29	0.43	1.9
31	7.2	---	4.9	27	---	50	---	5.1	---	5.6	9.2	---
TOTAL	580.87	379.6	784.1	304.1	637.4	1,315.1	1,106.9	504.6	296.6	371.01	890.65	301.46
MEAN	18.7	12.7	25.3	9.81	22.8	42.4	36.9	16.3	9.89	12.0	28.7	10.0
MAX	371	97	117	92	134	425	381	137	65	111	294	95
MIN	0.09	2.0	2.1	2.3	2.9	2.7	3.4	1.9	1.7	0.77	0.43	0.33
CFSM	2.53	1.71	3.41	1.32	3.07	5.72	4.97	2.19	1.33	1.61	3.87	1.35
IN.	2.91	1.90	3.93	1.52	3.20	6.59	5.55	2.53	1.49	1.86	4.47	1.51

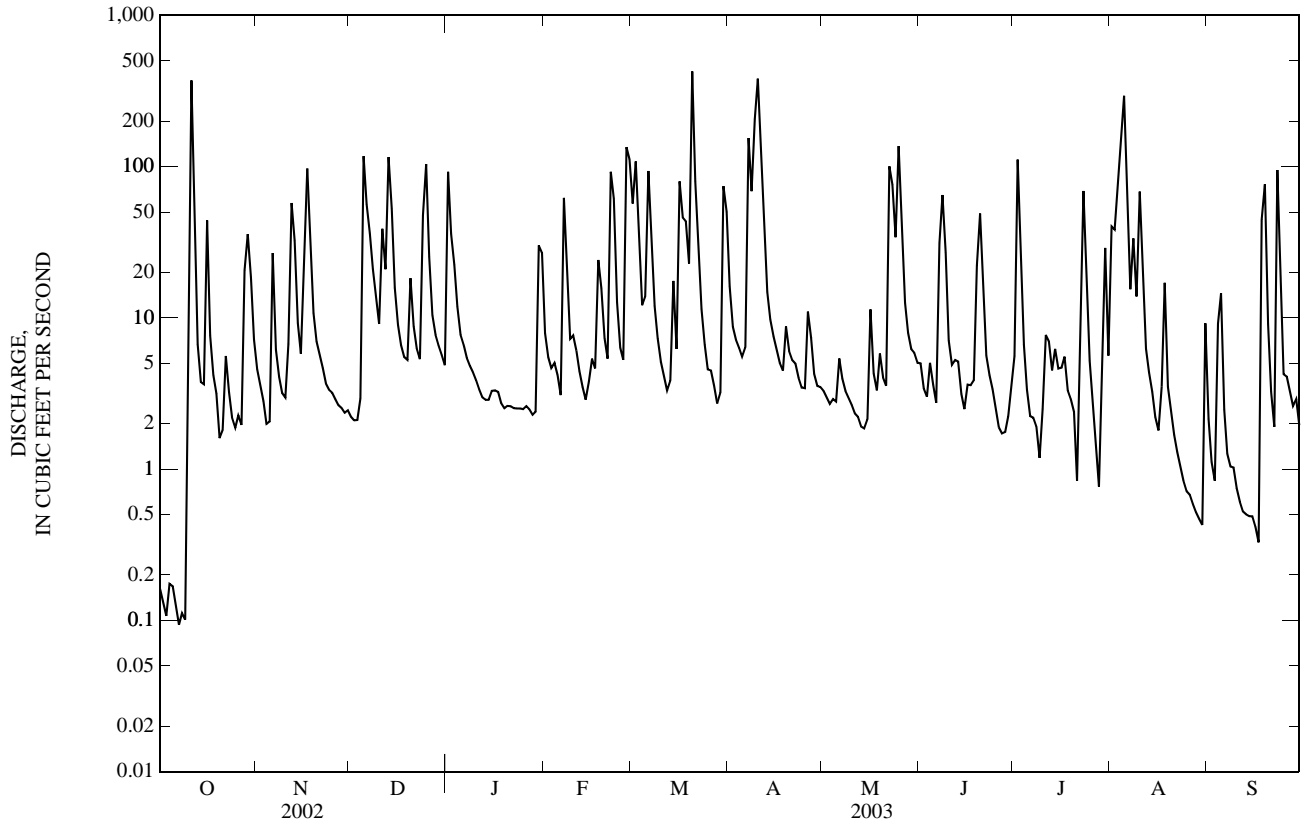
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 2003, BY WATER YEAR (WY)

	5.99	5.14	6.04	13.1	13.5	17.4	10.9	5.61	3.94	3.68	3.43	5.17
MEAN	5.99	5.14	6.04	13.1	13.5	17.4	10.9	5.61	3.94	3.68	3.43	5.17
MAX	18.7	18.2	25.3	37.3	32.9	42.4	36.9	19.2	20.5	14.8	28.7	23.7
(WY)	(2003)	(1996)	(2003)	(1998)	(1998)	(2003)	(2003)	(1990)	(1995)	(1989)	(2003)	(1996)
MIN	0.28	0.17	0.46	2.33	2.26	4.46	1.80	0.54	0.37	0.096	0.33	0.25
(WY)	(1999)	(2002)	(2002)	(2001)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(1998)	(2001)

0210166029 ROCKY RIVER NEAR CRUTCHFIELD CROSSROADS, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1988 - 2003	
ANNUAL TOTAL	2,468.07		7,472.39		7.87	
ANNUAL MEAN	6.76		20.5		20.5	
HIGHEST ANNUAL MEAN					2.06	2003
LOWEST ANNUAL MEAN					2.06	2002
HIGHEST DAILY MEAN	371	Oct 11	425	Mar 20	531	Sep 6, 1996
LOWEST DAILY MEAN	0.00	Jul 17	0.09	Oct 7	0.00	Aug 20, 1988
ANNUAL SEVEN-DAY MINIMUM	0.00	Jul 17	0.13	Oct 3	0.00	Jul 17, 2002
MAXIMUM PEAK FLOW			947	Aug 5	1,670	Sep 6, 1996
MAXIMUM PEAK STAGE			9.34	Aug 5	11.91	Sep 6, 1996
INSTANTANEOUS LOW FLOW			0.07	Oct 7	0.00*	Aug 19, 1988
ANNUAL RUNOFF (CFSM)	0.91		2.76		1.06	
ANNUAL RUNOFF (INCHES)	12.37		37.46		14.42	
10 PERCENT EXCEEDS	11		57		15	
50 PERCENT EXCEEDS	1.2		5.0		2.2	
90 PERCENT EXCEEDS	0.03		1.7		0.31	

* See REMARKS.



02101800 TICK CREEK NEAR MOUNT VERNON SPRINGS, NC

LOCATION.--Lat 35°39'38", long 79°24'07", Chatham County, Hydrologic Unit 03030003, on right bank 200 ft upstream from bridge on U.S. Highway 421, 1.5 mi east of Mount Vernon Springs, and 4 mi upstream from mouth.

DRAINAGE AREA.--15.5 mi²

PERIOD OF RECORD.--June 1958 to September 1981, January 1994 to current year.

GAGE.--Water-stage recorder and v-notch sharp-crested weir. Datum of gage is 455 ft above NGVD of 1929, by barometer. Satellite telemetry at station.

REMARKS.--No estimated daily discharges. Records fair. Maximum discharge for period of record from rating curve extended above 2,200 ft³/s, on basis of contracted-opening measurement of peak flow. No flow occurs at times most years.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.01	4.2	3.7	15	11	42	16	5.2	9.8	3.4	65	2.3
2	0.00	2.9	3.4	15	8.6	88	12	5.0	6.0	139	67	2.2
3	0.00	2.3	3.3	15	7.5	35	9.8	4.5	5.3	50	20	1.8
4	0.00	2.1	3.3	12	11	22	8.4	5.0	7.2	13	13	2.3
5	0.00	2.1	123	9.0	13	24	8.1	4.8	5.9	7.3	36	5.6
6	0.00	25	60	8.1	10	421	7.9	17	4.4	5.3	547	3.0
7	0.00	10	43	7.1	94	56	93	12	8.3	4.3	37	2.4
8	0.00	5.6	25	6.8	28	28	48	8.2	21	3.7	38	2.2
9	0.00	4.2	18	6.5	16	19	509	6.7	9.5	3.1	19	2.1
10	0.00	3.8	14	6.0	27	14	895	5.9	5.8	2.9	34	1.9
11	512	5.7	32	5.4	22	11	166	5.2	4.4	2.9	27	1.7
12	29	51	24	4.9	14	9.6	46	5.0	6.8	2.8	13	1.4
13	5.7	47	210	4.7	10	11	25	4.2	5.4	2.6	9.4	1.3
14	3.0	16	71	4.6	9.0	28	18	4.6	4.0	2.7	13	1.3
15	1.8	9.6	26	4.6	9.6	14	13	3.9	3.6	2.5	15	1.3
16	17	14	16	4.3	10	85	12	6.1	27	2.3	8.0	1.9
17	7.5	98	11	4.1	12	36	10	5.3	19	4.6	6.7	1.6
18	3.5	42	9.2	3.8	37	28	8.9	8.9	10	2.5	6.1	15
19	2.3	18	8.5	3.7	45	20	13	32	62	2.5	5.0	31
20	1.7	12	25	3.6	34	644	10	11	61	2.2	4.6	5.6
21	1.4	9.9	15	3.6	23	84	8.9	7.2	18	1.7	4.1	3.3
22	4.3	8.6	10	3.5	258	33	8.4	139	9.2	3.8	6.6	3.3
23	3.3	6.7	8.2	3.4	91	21	7.0	93	6.4	9.6	7.8	124
24	2.2	5.7	66	3.1	28	16	6.8	28	4.9	5.5	4.5	16
25	1.8	5.0	104	3.0	19	13	6.9	355	4.1	3.8	3.6	7.4
26	1.5	4.4	31	3.4	15	11	9.7	61	3.4	3.0	3.2	5.2
27	1.5	4.4	18	3.4	144	9.9	16	22	3.0	2.8	2.9	4.3
28	1.8	4.2	13	2.9	108	8.7	7.8	14	2.9	2.5	2.6	3.7
29	11	4.0	11	3.2	---	8.8	6.2	13	2.9	101	2.2	3.1
30	13	4.0	9.0	7.5	---	57	5.4	15	2.8	468	2.0	2.6
31	6.6	---	8.1	19	---	32	---	9.7	---	18	2.2	---
TOTAL	631.91	432.4	1,022.7	200.2	1,114.7	1,930.0	2,012.2	917.4	344.0	879.3	1,025.5	260.8
MEAN	20.4	14.4	33.0	6.46	39.8	62.3	67.1	29.6	11.5	28.4	33.1	8.69
MAX	512	98	210	19	258	644	895	355	62	468	547	124
MIN	0.00	2.1	3.3	2.9	7.5	8.7	5.4	3.9	2.8	1.7	2.0	1.3
CFSM	1.32	0.93	2.13	0.42	2.57	4.02	4.33	1.91	0.74	1.83	2.13	0.56
IN.	1.52	1.04	2.45	0.48	2.68	4.63	4.83	2.20	0.83	2.11	2.46	0.63

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 2003,@ BY WATER YEAR (WY)

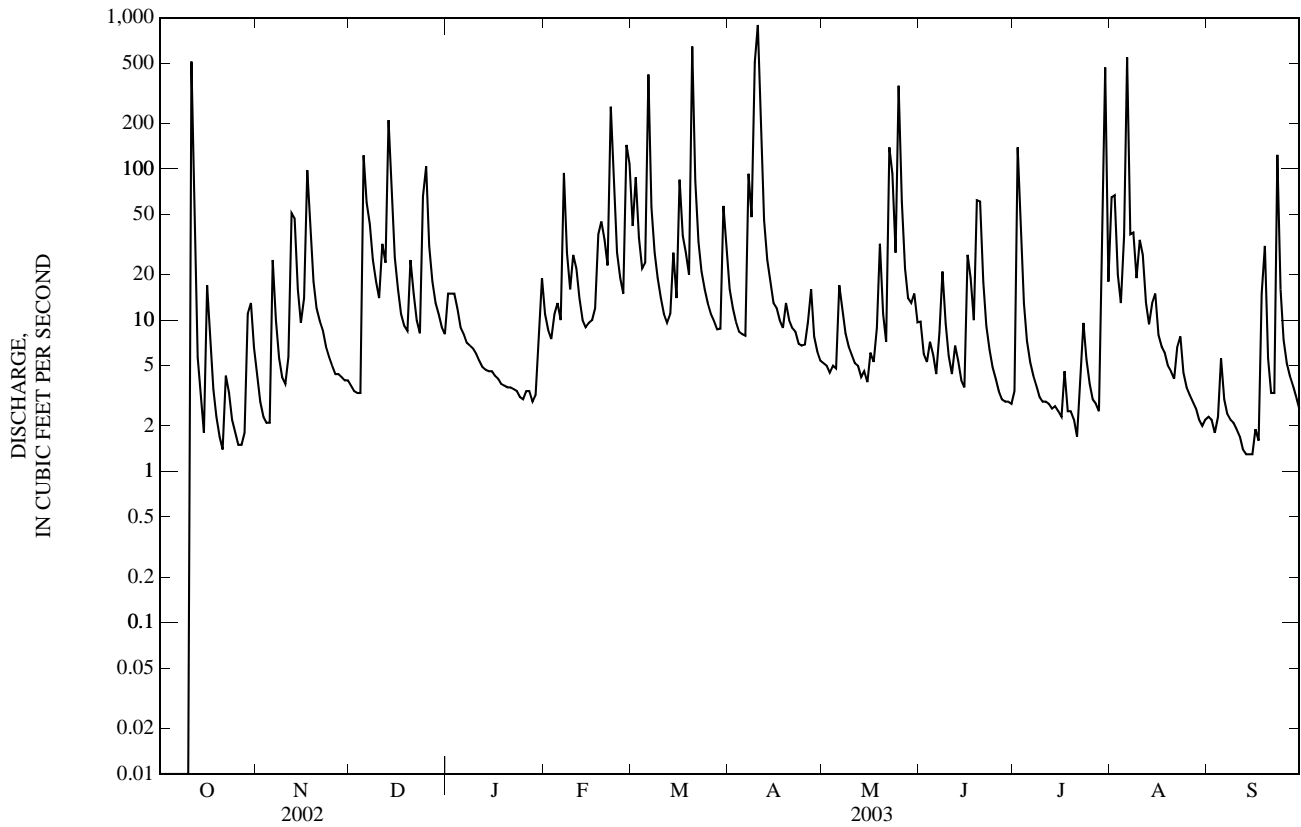
MEAN	7.76	6.82	11.4	25.7	32.0	30.5	18.9	9.30	7.39	8.39	7.71	7.28
MAX	56.6	33.0	53.4	80.4	81.0	74.8	67.1	39.1	48.0	66.6	55.3	75.2
(WY)	(1972)	(1980)	(1973)	(1978)	(1960)	(1998)	(2003)	(1978)	(1973)	(1975)	(1964)	(1996)
MIN	0.003	0.16	0.59	1.27	5.11	4.80	2.45	0.38	0.024	0.035	0.003	0.000
(WY)	(1964)	(1974)	(2002)	(1981)	(2001)	(1981)	(1981)	(2002)	(2002)	(2002)	(1977)	(1980)

02101800 TICK CREEK NEAR MOUNT VERNON SPRINGS, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1958 - 2003@	
ANNUAL TOTAL	3,466.41		10,771.11			
ANNUAL MEAN	9.50		29.5		14.5	
HIGHEST ANNUAL MEAN					29.5	2003
LOWEST ANNUAL MEAN					3.84	1981
HIGHEST DAILY MEAN	512	Oct 11	895	Apr 10	1,570	Sep 6, 1996
LOWEST DAILY MEAN	0.00	Jun 25	0.00	Oct 2	0.00	Sep 2, 1962
ANNUAL SEVEN-DAY MINIMUM	0.00	Jul 9	0.00	Oct 2	0.00	Sep 2, 1962
MAXIMUM PEAK FLOW			1,710	Apr 10	4010*	Sep 6, 1996
MAXIMUM PEAK STAGE			7.66	Apr 10	13.41	Sep 6, 1996
INSTANTANEOUS LOW FLOW			0.00*	Oct 2	0.00*	Sep 2, 1962
ANNUAL RUNOFF (CFSM)	0.61		1.90		0.94	
ANNUAL RUNOFF (INCHES)	8.32		25.85		12.75	
10 PERCENT EXCEEDS	18		56		26	
50 PERCENT EXCEEDS	1.8		8.2		3.7	
90 PERCENT EXCEEDS	0.00		2.2		0.10	

@ See PERIOD OF RECORD.

* See REMARKS.



02102000 DEEP RIVER AT MONCURE, NC

LOCATION.--Lat 35°37'39", long 79°06'57", Lee County, Hydrologic Unit 03030003, on right bank 1.0 mi upstream from Lockville Dam, 1.2 mi upstream from bridge on U.S. Highway 1, 1.5 mi northwest of Moncure, 2.2 mi downstream of Rocky River, and 4.5 mi upstream from confluence with Haw River.

DRAINAGE AREA.--1,434 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1930 to current year. Records for May 1898 to December 1899 published in 21st Annual Report, Part 4, and in Bulletins 34 and 39 of North Carolina Department of Conservation and Development have been found to be unreliable and should not be used.

REVISED RECORDS.--WSP 1082: (1930-46 not previously published). WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 185.06 ft above NGVD of 1929. Satellite telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Diurnal fluctuation and some regulation at low flow caused by small power plants upstream from station. Minimum discharge for current water year, due to regulation. Minimum discharge for the current water year also occurred Oct. 7, 8, 9, 10.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	90	1,630	256	1,030	2,720	10,900	4,120	878	2,670	632	1,730	1,790
2	78	950	322	4,320	1,790	8,850	2,300	1,190	2,520	2,080	3,930	3,130
3	57	648	340	4,020	1,190	8,210	1,660	1,040	1,520	11,300	3,350	1,460
4	44	519	e365	2,700	922	4,420	1,320	917	1,100	6,430	3,250	747
5	41	347	e2,600	2,260	869	2,700	1,160	937	1,560	2,170	5,300	1,760
6	38	1,380	8,130	1,590	984	8,270	1,080	1,020	2,640	1,270	11,400	4,370
7	38	3,420	6,210	1,220	3,590	13,300	1,790	2,770	1,690	921	12,000	2,030
8	37	2,250	3,660	1,020	5,360	8,670	8,000	2,250	4,590	816	6,480	932
9	38	1,130	2,330	908	3,270	3,310	16,500	1,400	9,860	1,110	9,010	720
10	41	727	1,690	831	2,200	2,230	25,000	1,020	6,360	818	7,350	550
11	5,200	558	1,550	729	2,630	1,720	29,000	828	2,690	655	9,990	489
12	14,800	1,240	3,040	654	2,070	1,420	26,900	691	1,470	616	5,770	420
13	14,800	7,340	5,640	583	1,440	1,250	23,900	586	1,270	528	2,920	373
14	8,440	6,780	12,100	517	1,080	1,840	14,200	546	1,160	725	2,130	350
15	1,740	2,530	9,310	545	936	2,140	3,170	514	1,060	1,900	1,880	323
16	1,650	1,420	e3,250	506	917	5,120	1,950	321	889	1,990	1,600	284
17	4,050	5,470	1,930	474	1,060	6,160	1,620	618	2,160	921	1,070	292
18	3,010	11,900	1,360	505	1,410	3,960	1,400	945	2,150	1,070	1,290	331
19	1,270	7,840	1,080	500	3,540	2,960	1,270	872	3,350	993	1,920	3,220
20	730	2,610	1,400	417	4,160	12,600	1,520	1,390	6,990	822	1,650	6,020
21	598	1,580	2,700	417	3,540	18,800	1,750	1,270	5,050	673	1,020	2,370
22	771	1,180	2,400	465	5,140	18,800	1,440	2,000	2,700	576	782	1,120
23	743	935	1,520	398	13,600	17,100	1,240	9,610	1,490	518	662	1,630
24	645	750	1,430	382	11,100	6,700	1,080	9,060	1,060	1,160	605	7,510
25	528	620	8,070	456	4,370	2,170	932	5,920	833	1,460	981	6,160
26	454	567	10,400	324	2,220	1,690	902	11,400	722	816	1,460	3,440
27	377	494	4,830	470	3,880	1,420	1,640	9,580	582	560	778	1,280
28	349	434	2,330	345	13,100	1,230	1,720	3,880	519	476	589	784
29	629	407	1,620	375	---	1,150	1,350	2,130	273	428	480	658
30	2,210	442	1,300	405	---	e2,130	985	1,770	556	3,140	384	613
31	2,760	---	1,060	1,050	---	e5,470	---	1,700	---	3,460	418	---
TOTAL	66,256	68,098	104,223	30,416	99,088	186,690	180,899	79,053	71,484	51,034	102,179	55,156
MEAN	2,137	2,270	3,362	981	3,539	6,022	6,030	2,550	2,383	1,646	3,296	1,839
MAX	14,800	11,900	12,100	4,320	13,600	18,800	29,000	11,400	9,860	11,300	12,000	7,510
MIN	37	347	256	324	869	1,150	902	321	273	428	384	284
CFSM	1.49	1.58	2.34	0.68	2.47	4.20	4.20	1.78	1.66	1.15	2.30	1.28
IN.	1.72	1.77	2.70	0.79	2.57	4.84	4.69	2.05	1.85	1.32	2.65	1.43

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 2003, BY WATER YEAR (WY)

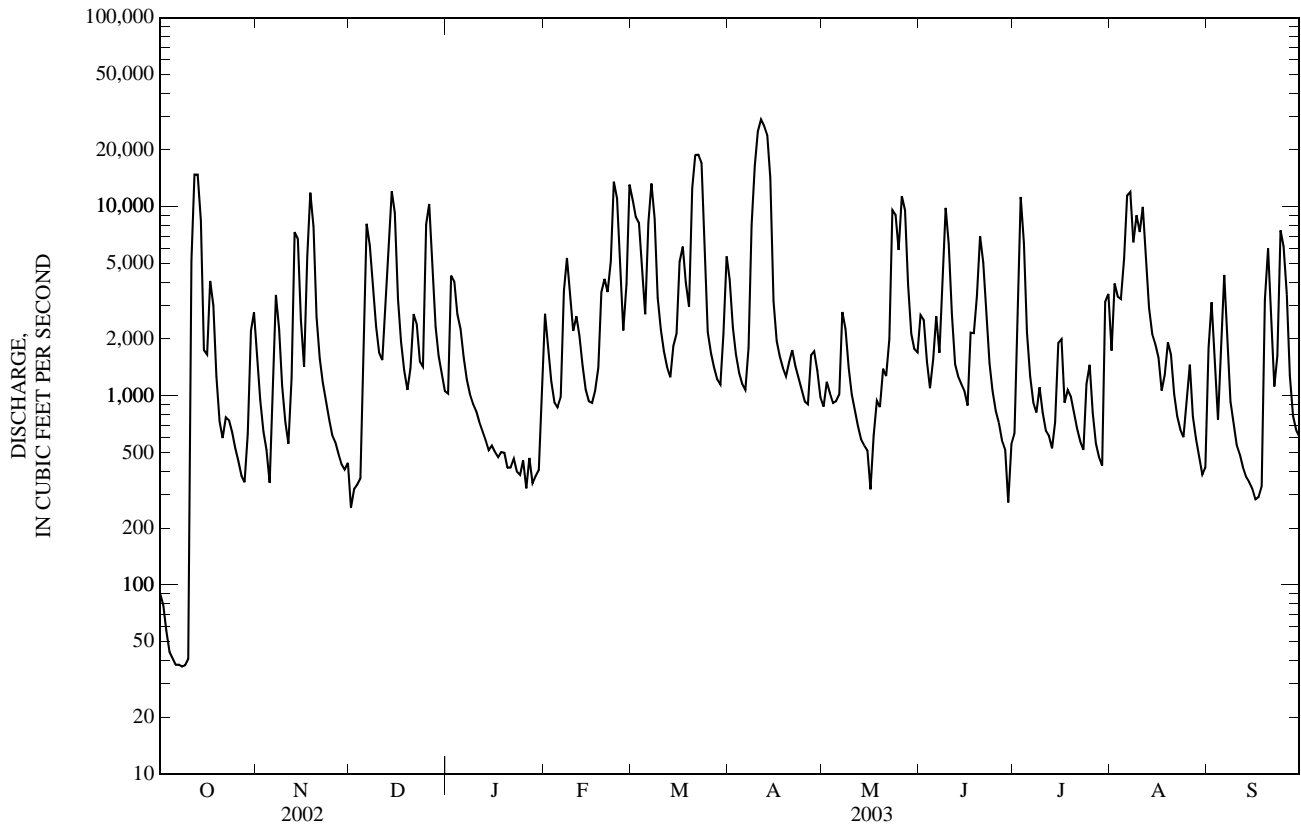
MEAN	743	842	1,307	2,384	2,854	2,879	2,082	1,116	795	840	829	818
MAX	3,590	4,789	4,765	7,182	7,945	7,582	6,455	3,590	4,147	5,528	3,861	10,580
(WY)	(1965)	(1986)	(1973)	(1978)	(1960)	(1998)	(1936)	(1989)	(1982)	(1975)	(1931)	(1945)
MIN	28.2	14.1	34.6	130	424	566	393	125	68.6	79.7	46.9	24.1
(WY)	(1931)	(1942)	(1934)	(1934)	(1931)	(1981)	(1981)	(2002)	(2002)	(1986)	(2002)	(1968)

CAPE FEAR RIVER BASIN

02102000 DEEP RIVER AT MONCURE, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1930 - 2003	
ANNUAL TOTAL	372,721		1,094,576		1,452	
ANNUAL MEAN	1,021		2,999		2,999	
HIGHEST ANNUAL MEAN					391	2003
LOWEST ANNUAL MEAN					391	2002
HIGHEST DAILY MEAN	14,800	Oct 12	29,000	Apr 11	66,400	Sep 18, 1945
LOWEST DAILY MEAN	22	Aug 26	37	Oct 8	6.0	Oct 9, 1954
ANNUAL SEVEN-DAY MINIMUM	25	Aug 21	40	Oct 4	6.6	Oct 8, 1954
MAXIMUM PEAK FLOW			36,700	Apr 11	80,300	Sep 18, 1945
MAXIMUM PEAK STAGE			11.37	Apr 11	17.20	Sep 18, 1945
INSTANTANEOUS LOW FLOW			37*	Oct 6	5.5	Oct 10, 1954
ANNUAL RUNOFF (CFSM)	0.71		2.09		1.01	
ANNUAL RUNOFF (INCHES)	9.67		28.39		13.76	
10 PERCENT EXCEEDS	2,650		8,160		3,330	
50 PERCENT EXCEEDS	268		1,430		534	
90 PERCENT EXCEEDS	46		419		97	

e Estimated.
 * See REMARKS.



02102000 DEEP RIVER AT MONCURE, NC—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1955, 1957 to 1965, 1968 to 1970, 1972, 1976 to 1978, 1981 to 1983, 2002, to current year.

REMARKS.--Station operated in cooperation with the Upper Cape Fear River Basin Association to assess constituent loads.

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

Date	Time	Instantaneous discharge, cfs (00061)	Turbidity, wat unf lab, Hach 2100AN NTU (99872)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	pH, water, unfltd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf incr. titr., field, mg/L as CaCO3 (00419)	Chloride, water, fltrd, mg/L (00940)
OCT													
01...	0915	94	--	766	6.1	7.0	218	23.5	--	--	--	37	--
07...	1315	37	--	760	7.0	7.2	208	25.4	--	--	--	40	--
12...	1130	12,700	320	763	8.0	6.3	81	19.8	4.79	1.72	5.08	13	6.09
15...	1130	1,690	--	760	8.4	6.4	97	18.5	--	--	--	13	--
22...	1030	828	--	764	7.4	7.8	101	15.2	--	--	--	18	--
29...	1115	514	--	--	8.5	8.4	132	14.6	--	--	--	23	--
NOV													
05...	0915	379	--	762	8.8	7.1	116	12.2	--	--	--	--	--
12...	1030	818	--	754	9.2	7.4	134	14.4	--	--	--	24	--
19...	1330	7,250	--	765	8.2	6.4	81	11.5	--	--	--	14	--
26...	1115	554	--	764	10.8	7.3	103	8.6	--	--	--	20	--
DEC													
03...	1030	324	--	765	11.3	6.7	104	6.4	--	--	--	24	--
09...	1100	2,360	--	--	11.8	5.7	92	3.9	--	--	--	15	--
17...	1100	1,970	--	762	12.6	6.0	79	6.2	--	--	--	14	--
JAN													
08...	1100	1,020	--	753	11.9	7.4	97	5.5	--	--	--	14	--
14...	1045	514	--	755	12.5	7.3	101	4.5	--	--	--	19	--
21...	1030	412	--	757	13.7	7.2	123	2.5	--	--	--	25	--
30...	1130	405	--	765	13.0	6.9	141	2.4	--	--	--	56	--
FEB													
05...	1115	883	--	763	12.6	7.0	134	5.8	--	--	--	48	--
11...	1100	2,700	--	759	11.7	6.8	93	5.2	--	--	--	16	--
21...	1000	3,640	--	760	11.8	6.8	89	5.2	--	--	--	18	--
25...	1030	4,200	--	766	11.3	6.3	82	8.4	--	--	--	15	--
MAR													
06...	1445	11,700	150	752	11.8	6.8	89	5.2	3.94	1.77	4.28	15	4.71
21...	1030	16,900	220	754	10.9	6.4	51	10.3	3.82	1.53	3.00	12	3.31
24...	0945	7,030	--	760	10.1	6.0	57	12.1	--	--	--	11	--
APR													
01...	1030	4,200	--	766	10.3	6.4	81	12.0	--	--	--	17	--
08...	1115	8,510	--	766	10.1	6.6	83	13.9	--	--	--	20	--
10...	1145	22,600	--	746	11.8	6.3	51	9.8	3.86	1.62	2.95	11	3.17
15...	1015	2,940	--	767	9.7	6.1	64	13.4	--	--	--	13	--
22...	1115	1,440	--	753	9.8	6.9	90	16.1	--	--	--	21	--
MAY													
02...	0945	1,230	--	757	8.8	7.0	112	19.5	--	--	--	26	--
09...	0900	1,440	--	758	8.7	6.7	80	18.8	--	--	--	18	--
14...	1300	546	--	759	8.1	7.1	111	21.7	--	--	--	27	--
28...	1100	3,770	--	756	8.7	6.6	73	18.8	--	--	--	17	--
JUN													
02...	0945	2,570	--	762	8.8	6.8	84	18.9	--	--	--	22	--
13...	1100	1,260	--	759	8.4	6.9	88	23.4	--	--	--	24	--
20...	1100	6,480	--	755	8.2	6.6	74	22.2	--	--	--	18	--
24...	1030	1,070	--	761	8.5	6.9	96	22.6	--	--	--	24	--
JUL													
03...	0915	11,800	120	755	8.4	6.6	88	23.6	6.14	2.47	5.69	25	7.55
10...	1045	818	--	759	7.2	7.0	91	27.4	--	--	--	24	--
16...	1000	2,140	--	759	7.6	7.1	132	26.5	--	--	--	31	--
23...	1030	468	--	757	7.0	7.1	110	26.8	--	--	--	25	--
29...	1130	418	--	752	8.1	7.3	144	27.8	--	--	--	32	--
AUG													
05...	1030	5,190	--	--	8.0	6.8	67	24.5	--	--	--	19	--
27...	1015	786	--	758	8.0	6.6	104	26.6	--	--	--	28	--
SEP													
03...	1045	1,430	--	761	7.2	7.0	130	26.4	--	--	--	31	--
12...	1045	425	--	760	8.3	6.8	95	21.9	--	--	--	24	--
17...	1030	285	--	760	8.4	7.6	114	22.9	--	--	--	14	--
24...	1030	8,000	--	762	8.5	7.1	92	21.9	--	--	--	24	--

02102000 DEEP RIVER AT MONCURE, NC—Continued

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

Date	Sulfate water, fltrd, mg/L (00945)	Ammonia	Ammonia water, fltrd, mg/L as N (00608)	Nitrite	Nitrite water, fltrd, mg/L as N (00613)	Ortho-	Phos- phorus, water, unfltrd mg/L (00665)	Alum- inum, water, fltrd, ug/L (01106)	Arsenic water, fltrd, ug/L (01000)	Cadmium water, fltrd, ug/L (01025)	Chrom- ium, water, fltrd, ug/L (01030)	Copper, water, fltrd, ug/L (01040)	Iron, water, fltrd, ug/L (01046)
		+ org-N, water, unfltrd mg/L as N (00625)		+ nitrate water fltrd, mg/L as N (00631)		phos- phate, water, fltrd, mg/L as P (00671)							
OCT													
01...	--	0.60	0.019	1.82	0.011	0.518	--	--	--	--	--	--	--
07...	--	0.55	0.016	0.92	0.007	0.389	--	--	--	--	--	--	--
12...	6.8	2.7	0.155	1.20	0.020	0.138	--	93	1.1	<0.04	<0.8	4.4	409
15...	--	1.2	0.184	1.09	0.022	0.128	--	--	--	--	--	--	--
22...	--	0.70	0.057	0.86	0.011	0.124	--	--	--	--	--	--	--
29...	--	0.64	0.019	1.22	0.009	0.159	--	--	--	--	--	--	--
NOV													
05...	--	0.90	0.021	0.93	0.009	0.152	--	--	--	--	--	--	--
12...	--	0.75	0.022	1.08	0.013	0.151	--	--	--	--	--	--	--
19...	--	0.91	0.032	0.59	0.007	0.118	0.22	--	--	--	--	--	--
26...	--	0.53	E.014	0.88	0.005	0.096	0.13	--	--	--	--	--	--
DEC													
03...	--	0.48	E.011	1.15	0.004	0.129	0.17	--	--	--	--	--	--
09...	--	0.80	0.045	0.91	0.006	0.100	0.17	--	--	--	--	--	--
17...	--	0.63	0.047	0.72	0.006	0.072	0.15	--	--	--	--	--	--
JAN													
08...	--	0.50	0.040	0.79	0.010	0.112	0.18	--	--	--	--	--	--
14...	--	0.39	0.028	0.99	0.011	0.100	0.14	--	--	--	--	--	--
21...	--	0.33	E.012	1.17	0.005	0.092	0.12	--	--	--	--	--	--
30...	--	0.35	E.011	1.73	0.011	0.216	0.25	--	--	--	--	--	--
FEB													
05...	--	0.75	0.301	0.96	0.015	0.109	0.16	--	--	--	--	--	--
11...	--	0.52	0.050	0.69	0.012	0.053	0.12	--	--	--	--	--	--
21...	--	0.60	0.051	0.74	0.008	0.090	0.17	--	--	--	--	--	--
25...	--	0.82	0.094	0.57	0.009	0.048	0.19	--	--	--	--	--	--
MAR													
06...	5.9	1.0	0.029	0.46	0.006	0.070	0.30	134	0.3	<0.04	<0.8	2.0	198
21...	4.8	1.7	0.096	0.39	0.008	0.128	0.54	164	0.6	<0.04	<0.8	3.6	437
24...	--	0.70	0.074	0.35	0.008	0.048	0.16	--	--	--	--	--	--
APR													
01...	--	1.3	0.058	0.64	0.009	0.086	0.19	--	--	--	--	--	--
08...	--	0.81	0.050	0.46	0.006	0.064	0.21	--	--	--	--	--	--
10...	5.0	1.0	0.070	0.33	0.006	0.116	0.30	100	0.5	E.03	<0.8	3.4	222
15...	--	0.70	0.113	0.39	0.008	0.051	0.12	--	--	--	--	--	--
22...	--	0.39	0.022	0.66	0.004	0.055	0.08	--	--	--	--	--	--
MAY													
02...	--	0.44	<0.015	0.86	0.006	0.095	0.13	--	--	--	--	--	--
09...	--	0.85	0.071	0.58	0.012	0.111	0.19	--	--	--	--	--	--
14...	--	0.55	E.008	0.81	0.009	0.137	0.18	--	--	--	--	--	--
28...	--	0.77	0.045	0.47	0.012	0.095	0.21	--	--	--	--	--	--
JUN													
02...	--	0.65	0.019	0.57	0.008	0.079	0.18	--	--	--	--	--	--
13...	--	0.68	0.020	0.53	0.008	0.134	0.22	--	--	--	--	--	--
20...	--	1.1	0.062	0.51	0.011	0.108	0.31	--	--	--	--	--	--
24...	--	0.71	0.019	0.78	0.009	0.154	0.24	--	--	--	--	--	--
JUL													
03...	5.3	1.1	0.058	0.58	0.010	0.162	0.41	40	0.8	<0.04	<0.8	3.4	293
10...	--	0.55	<0.015	0.78	0.005	0.156	0.23	--	--	--	--	--	--
16...	--	0.58	0.015	0.80	0.004	0.103	0.18	--	--	--	--	--	--
23...	--	0.59	0.016	0.88	0.005	0.143	0.21	--	--	--	--	--	--
29...	--	0.61	<0.015	1.30	0.006	0.163	0.26	--	--	--	--	--	--
AUG													
05...	--	0.88	0.060	0.46	0.009	0.125	0.27	--	--	--	--	--	--
27...	--	0.51	<0.015	0.70	0.003	0.114	0.19	--	--	--	--	--	--
SEP													
03...	--	0.62	0.029	1.19	0.010	0.119	0.23	--	--	--	--	--	--
12...	--	0.57	<0.015	0.72	0.004	0.156	0.24	--	--	--	--	--	--
17...	--	0.51	<0.015	0.81	0.004	0.140	0.23	--	--	--	--	--	--
24...	--	1.2	<0.015	0.53	0.004	0.098	0.41	--	--	--	--	--	--

02102000 DEEP RIVER AT MONCURE, NC—Continued

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

Date	Lead, water, fltrd, ug/L (01049)	Mangan- ese, water, fltrd, ug/L (01056)	Mercury water, fltrd, ug/L (71890)	Nickel, water, fltrd, ug/L (01065)	Sus- pended sedi- ment concen- tration mg/L (80154)	Sus- pend sedi men load tons (8015)	Sus- pended sedi- ment load, tons/d (80155)
OCT							
01...	--	--	--	--	6	1.6	1.6
07...	--	--	--	--	2	.2	0.22
12...	0.24	94.5	<0.02	1.18	468	16100	16,100
15...	--	--	--	--	27	124	124
22...	--	--	--	--	20	46	46
29...	--	--	--	--	10	14	14
NOV							
05...	--	--	--	--	7	6.9	6.9
12...	--	--	--	--	8	19	19
19...	--	--	--	--	38	748	748
26...	--	--	--	--	4	6.7	6.7
DEC							
03...	--	--	--	--	4	3.4	3.4
09...	--	--	--	--	17	108	108
17...	--	--	--	--	19	102	102
JAN							
08...	--	--	--	--	9	26	26
14...	--	--	--	--	6	8.7	8.7
21...	--	--	--	--	3	3.8	3.8
30...	--	--	--	--	4	4.0	4.0
FEB							
05...	--	--	--	--	15	36	36
11...	--	--	--	--	16	115	115
21...	--	--	--	--	18	178	178
25...	--	--	--	--	66	745	745
MAR							
06...	0.11	34.0	<0.02	0.69	205	6470	6,470
21...	0.25	42.2	<0.02	0.76	309	14100	14,100
24...	--	--	--	--	45	850	850
APR							
01...	--	--	--	--	31	348	348
08...	--	--	--	--	91	2090	2,090
10...	0.15	18.6	E.01	0.86	125	7630	7,630
15...	--	--	--	--	148	1180	1,180
22...	--	--	--	--	9	36	36
MAY							
02...	--	--	--	--	4	14	14
09...	--	--	--	--	20	77	77
14...	--	--	--	--	20	30	30
28...	--	--	--	--	61	618	618
JUN							
02...	--	--	--	--	31	212	212
13...	--	--	--	--	30	103	103
20...	--	--	--	--	120	2110	2,110
24...	--	--	--	--	12	35	35
JUL							
03...	0.33	11.1	<0.02	0.99	197	6290	6,290
10...	--	--	--	--	9	19	19
16...	--	--	--	--	27	156	156
23...	--	--	--	--	15	19	19
29...	--	--	--	--	12	14	14
AUG							
05...	--	--	--	--	53	743	743
27...	--	--	--	--	10	21	21
SEP							
03...	--	--	--	--	40	154	154
12...	--	--	--	--	17	20	20
17...	--	--	--	--	10	7.7	7.7
24...	--	--	--	--	195	4210	4,210

Remark codes used in this table:
 < -- Less than
 E -- Estimated value

0210215985 CAPE FEAR RIVER AT STATE HIGHWAY 42 NEAR BRICKHAVEN, NC—Continued

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

Date	Selenium, water, unfltrd ug/L (01147)	Silver, water, unfltrd recover- able, ug/L (01077)	Zinc, water, unfltrd recover- able, ug/L (01092)	Sus- pended sedi- ment concen- tration mg/L (80154)	Sus- pended sedi- ment load, tons/d (80155)
OCT 02...	<3	<0.3	37	4	2.6
DEC 13...	--	--	--	16	283
FEB 24...	--	--	--	176	7,300
APR 03...	<3	<0.3	E18	24	688
JUN 23...	--	--	--	18	117

Remark codes used in this table:

< -- Less than

E -- Estimated value

M-- Presence verified, not quantified

02102192 BUCKHORN CREEK NEAR CORINTH, NC

LOCATION.--Lat 35°33'35", long 78°58'24", Chatham County, Hydrologic Unit 03030004, on left bank at upstream side of bridge on State Highway 42, 0.2 mi downstream of White Oak Creek, 1.2 mi downstream of Harris Lake, and 2 mi east of Corinth.

DRAINAGE AREA.--76.3 mi².

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

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

GAGE.--Water-stage recorder. Datum of gage is 154.63 ft above NGVD of 1929. Satellite telemetry at station.

REMARKS.--No estimated daily discharges. Records fair. Since Dec. 1, 1980, considerable regulation by Harris Lake (station 02102190). Maximum discharge prior to regulation: 6,920 ft³/s, Feb. 2, 1973; gage height: 20.02 ft. Minimum discharge prior to regulation: 0.01 ft³/s, Sept. 2, 1976. Minimum discharge for period of record also occurred June 22, 23, 2002. Minimum discharge for current water year also occurred Oct. 21.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.57	0.99	23	182	45	510	205	107	61	37	8.7	90
2	0.56	0.80	19	197	44	596	184	96	52	96	28	74
3	0.54	0.75	17	199	42	530	165	87	43	230	33	65
4	0.52	0.72	14	192	43	464	147	80	39	220	28	58
5	0.51	0.78	62	176	43	418	133	70	36	197	43	58
6	0.44	7.8	98	162	43	598	127	72	30	173	48	49
7	0.44	9.6	106	145	114	562	139	67	32	149	47	41
8	0.44	8.7	101	129	123	488	154	61	55	129	387	48
9	0.46	8.4	96	117	118	430	298	56	58	114	634	50
10	0.49	8.5	88	107	132	379	820	51	51	102	593	42
11	137	9.7	93	95	143	333	982	43	42	83	583	34
12	5.0	39	99	84	137	295	833	38	41	75	499	32
13	0.90	122	168	73	127	265	699	32	50	67	431	26
14	0.56	112	248	67	118	261	591	26	46	65	414	23
15	0.45	101	231	62	114	235	506	22	48	58	399	20
16	1.1	96	212	55	116	312	438	23	55	49	349	29
17	0.73	134	192	53	121	291	382	23	54	45	322	27
18	0.50	167	174	47	116	271	335	23	48	41	345	46
19	0.41	149	162	42	135	251	294	30	99	37	318	67
20	0.37	133	195	37	148	466	257	27	143	31	291	60
21	2.1	118	212	36	148	558	228	24	140	26	257	54
22	2.3	103	199	33	300	499	209	63	123	22	230	49
23	1.2	86	185	37	463	440	182	107	107	19	213	80
24	0.84	73	200	31	417	388	155	109	91	17	190	78
25	0.75	63	268	28	374	337	141	104	78	14	162	69
26	0.79	55	271	26	335	296	146	106	65	11	141	62
27	0.69	48	250	27	408	267	150	100	55	8.8	122	55
28	0.76	37	228	23	563	236	135	87	46	6.5	106	48
29	1.5	31	208	22	---	215	124	75	39	5.6	93	41
30	1.9	26	188	28	---	229	124	68	33	13	77	32
31	1.6	---	169	45	---	230	---	62	---	8.8	107	---
TOTAL	166.42	1,749.74	4,776	2,557	5,030	11,650	9,283	1,939	1,860	2,149.7	7,498.7	1,507
MEAN	5.37	58.3	154	82.5	180	376	309	62.5	62.0	69.3	242	50.2
MAX	137	167	271	199	563	598	982	109	143	230	634	90
MIN	0.37	0.72	14	22	42	215	124	22	30	5.6	8.7	20

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 2003,® BY WATER YEAR (WY)

MEAN	20.1	24.0	36.4	68.2	104	135	95.8	39.9	28.2	27.8	33.9	29.0
MAX	137	146	154	241	348	421	312	184	138	182	242	335
(WY)	(2000)	(1996)	(2003)	(1984)	(1998)	(1998)	(1993)	(1989)	(1984)	(2001)	(2003)	(1996)
MIN	0.70	0.81	1.40	2.07	1.37	1.66	1.13	1.48	0.67	0.34	0.33	0.70
(WY)	(1982)	(1992)	(1992)	(2001)	(1992)	(1992)	(1992)	(2002)	(1981)	(1981)	(2002)	(2002)

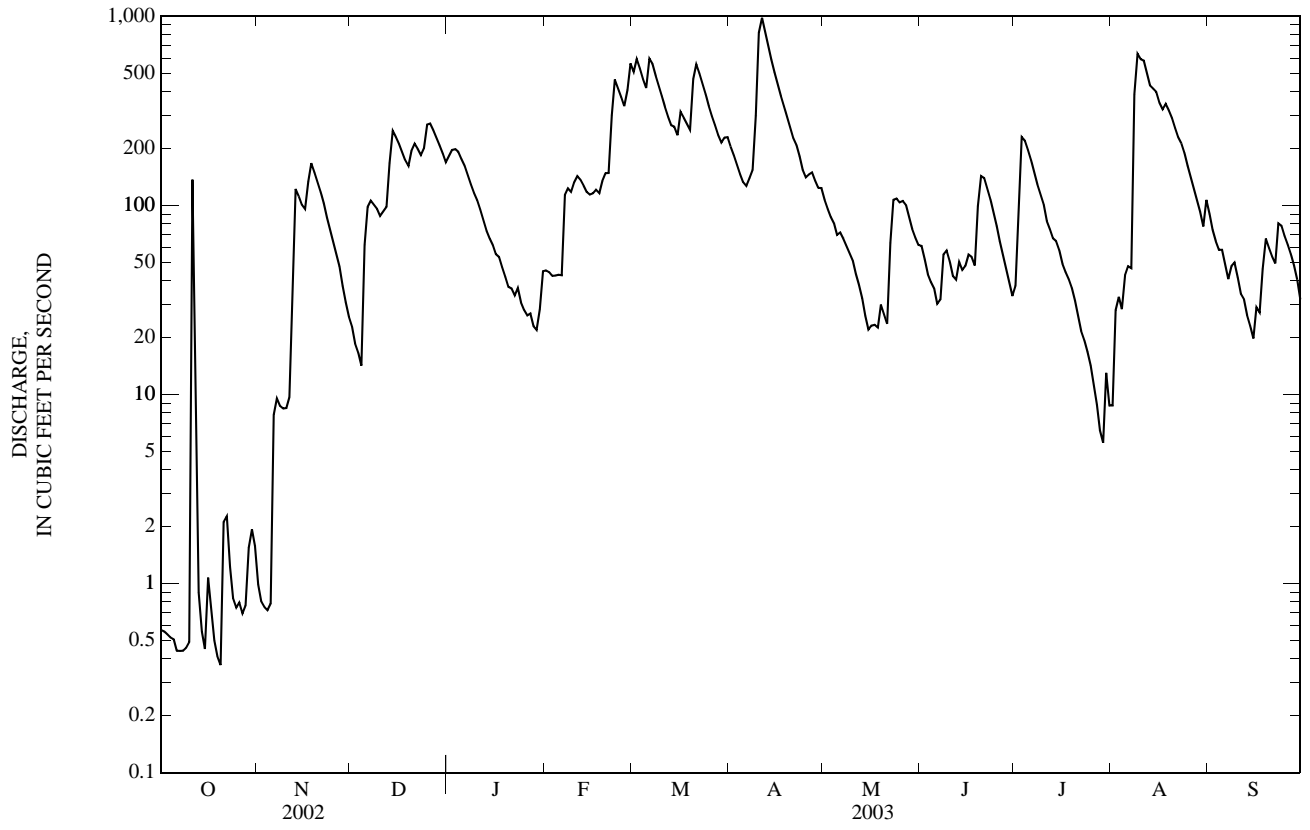
SUMMARY STATISTICS

	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1981 - 2003®	
ANNUAL TOTAL	12,752.03		50,166.56			
ANNUAL MEAN	34.9		137		53.2	
HIGHEST ANNUAL MEAN					137	
LOWEST ANNUAL MEAN					2.47	
HIGHEST DAILY MEAN	347	Jan 25	982	Apr 11	1,940	Sep 6, 1996
LOWEST DAILY MEAN	0.06	Jun 22	0.37	Oct 20	0.06	Jun 22, 2002
ANNUAL SEVEN-DAY MINIMUM	0.07	Jun 18	0.47	Oct 4	0.07	Jun 18, 2002
MAXIMUM PEAK FLOW			1,490	Apr 10	4,300	Sep 6, 1996
MAXIMUM PEAK STAGE			9.55	Apr 10	16.79	Sep 6, 1996
INSTANTANEOUS LOW FLOW			0.36*	Oct 20	0.05*	May 10, 1988
10 PERCENT EXCEEDS	134		359		162	
50 PERCENT EXCEEDS	2.2		80		8.5	
90 PERCENT EXCEEDS	0.32		6.1		0.70	

® Regulated period only (1981-2003).

* See REMARKS.

02102192 BUCKHORN CREEK NEAR CORINTH, NC—Continued



02102500 CAPE FEAR RIVER AT LILLINGTON, NC

LOCATION.--Lat 35°24'23", long 78°48'47", Harnett County, Hydrologic Unit 03030004, on right bank 60 ft downstream of downstream bridge on U.S. Highway 401, 1,860 ft downstream of Southern Railway bridge, 0.5 mi north of Lillington, 1 mile downstream of Neal Creek, and at mile 178.

DRAINAGE AREA.--3,464 mi².

PERIOD OF RECORD.--December 1923 to current year.

REVISED RECORDS.--WSP 1002: 1930(M). WSP 1032: 1942(m). WSP 1303: 1944(M). WSP 1333: 1945. WSP 1383:

GAGE.--Water-stage recorder. Datum of gage is 104.62 ft above NGVD of 1929. Dec. 6, 1923, to Oct. 7, 1927, nonrecording gage and Oct. 8, 1927, to Dec. 2, 1975, water-stage recorder at site 60 ft upstream in bridge pier at same datum. Satellite telemetry at station.

REMARKS.--No estimated daily discharges. Records good. Some regulation at high flows, December 1972 to August 1981, caused by temporary storage in B. Everett Jordan Lake. Flow regulated since Sept. 1981 by B. Everett Jordan Lake (station 02098197). Diurnal fluctuation and slight regulation at low flow caused by power plants upstream from station. Fluctuation and regulation by Buckhorn Reservoir, 13 mi upstream from station, ended in December 1962. Prior to regulation, maximum discharge: 150,000 ft³/s, Sept. 19, 1945, from rating curve extended above 76,000 ft³/s; gage height: 33.19 ft, from floodmark; minimum discharge: 11 ft³/s, Oct. 14, 15, 1954; gage height: -0.17 ft. Minimum discharge for period of record also occurred on Aug. 7, 2002. Minimum discharge for current water year also occurred on Oct. 7, 8, 9.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	243	7,160	1,000	6,910	3,830	14,200	11,000	1,950	11,400	1,750	3,770	2,670
2	295	6,350	879	8,780	3,560	17,200	11,900	1,630	8,600	2,870	6,310	4,280
3	287	5,880	948	9,810	2,940	18,900	11,000	1,570	4,410	12,400	7,300	7,360
4	267	5,060	990	7,290	3,760	17,600	10,200	1,500	3,670	10,600	5,210	5,960
5	250	2,220	1,680	6,560	3,610	14,800	6,070	1,540	2,850	9,520	6,800	3,660
6	241	2,660	8,280	5,790	3,680	14,100	5,730	2,470	5,290	9,690	16,000	5,270
7	238	4,140	8,350	4,680	5,580	16,600	5,750	4,040	8,280	7,400	14,300	3,970
8	239	4,100	5,440	3,000	7,540	14,300	7,900	6,100	5,120	2,970	13,100	3,310
9	243	4,490	8,220	2,690	5,310	13,000	16,300	4,350	9,910	2,920	18,000	6,250
10	259	3,960	10,800	2,130	4,230	14,400	25,400	1,710	9,250	3,020	15,400	5,180
11	2,740	3,700	10,100	1,810	6,800	13,600	38,300	1,480	9,040	2,660	15,900	1,490
12	16,800	3,820	9,620	1,720	8,520	13,000	28,100	1,340	9,700	1,800	10,300	1,290
13	14,100	7,470	9,510	1,660	7,750	9,800	26,400	1,200	9,520	1,720	7,080	1,170
14	11,800	10,700	13,000	1,600	6,940	7,340	19,100	1,130	9,240	1,960	11,100	1,090
15	4,120	11,600	11,500	1,560	3,040	3,570	9,310	1,070	9,120	2,120	10,800	1,080
16	8,570	5,170	7,300	1,540	2,860	6,520	16,300	1,010	8,850	6,270	10,500	1,080
17	11,500	6,510	11,600	1,510	3,050	10,000	17,100	1,010	7,580	9,190	8,970	1,050
18	13,500	13,600	13,100	1,390	3,350	10,500	16,600	1,300	7,920	6,530	4,170	1,160
19	11,500	12,200	11,700	1,390	5,340	13,200	16,400	2,080	8,910	3,600	4,670	2,120
20	10,800	13,600	5,120	1,360	7,000	15,500	16,300	4,600	13,000	4,160	6,070	7,510
21	11,000	12,200	6,430	1,320	7,780	24,100	16,500	4,740	11,500	4,000	4,450	4,570
22	9,550	11,100	6,250	1,340	5,400	19,800	16,200	4,090	8,250	2,880	2,130	5,970
23	2,900	7,970	5,200	1,350	15,600	20,100	15,700	8,600	2,730	1,370	1,950	6,060
24	1,540	7,560	4,530	1,240	14,400	16,300	15,400	11,100	2,010	1,290	1,880	11,000
25	1,280	4,250	8,330	1,290	14,300	17,000	14,500	10,900	1,630	2,400	1,860	13,300
26	1,150	1,780	12,500	1,240	14,100	16,400	13,200	17,300	1,700	2,580	2,620	12,400
27	975	1,290	12,600	1,290	11,000	15,800	13,500	18,200	1,660	2,270	2,060	9,960
28	859	1,120	8,950	1,270	18,500	15,300	12,800	14,000	1,590	2,090	1,740	8,980
29	1,000	1,080	9,220	1,060	---	14,100	8,260	13,500	1,490	2,100	1,690	5,690
30	2,160	1,060	8,920	1,210	---	12,500	2,250	12,900	1,430	3,850	1,540	2,180
31	6,390	---	8,370	1,630	---	10,100	---	12,600	---	6,100	1,660	---
TOTAL	146,796	183,800	240,437	87,420	199,770	439,630	443,470	171,010	195,650	134,080	219,330	147,060
MEAN	4,735	6,127	7,756	2,820	7,135	14,180	14,780	5,516	6,522	4,325	7,075	4,902
MAX	16,800	13,600	13,100	9,810	18,500	24,100	38,300	18,200	13,000	12,400	18,000	13,300
MIN	238	1,060	879	1,060	2,860	3,570	2,250	1,010	1,430	1,290	1,540	1,050

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 2003,* BY WATER YEAR (WY)

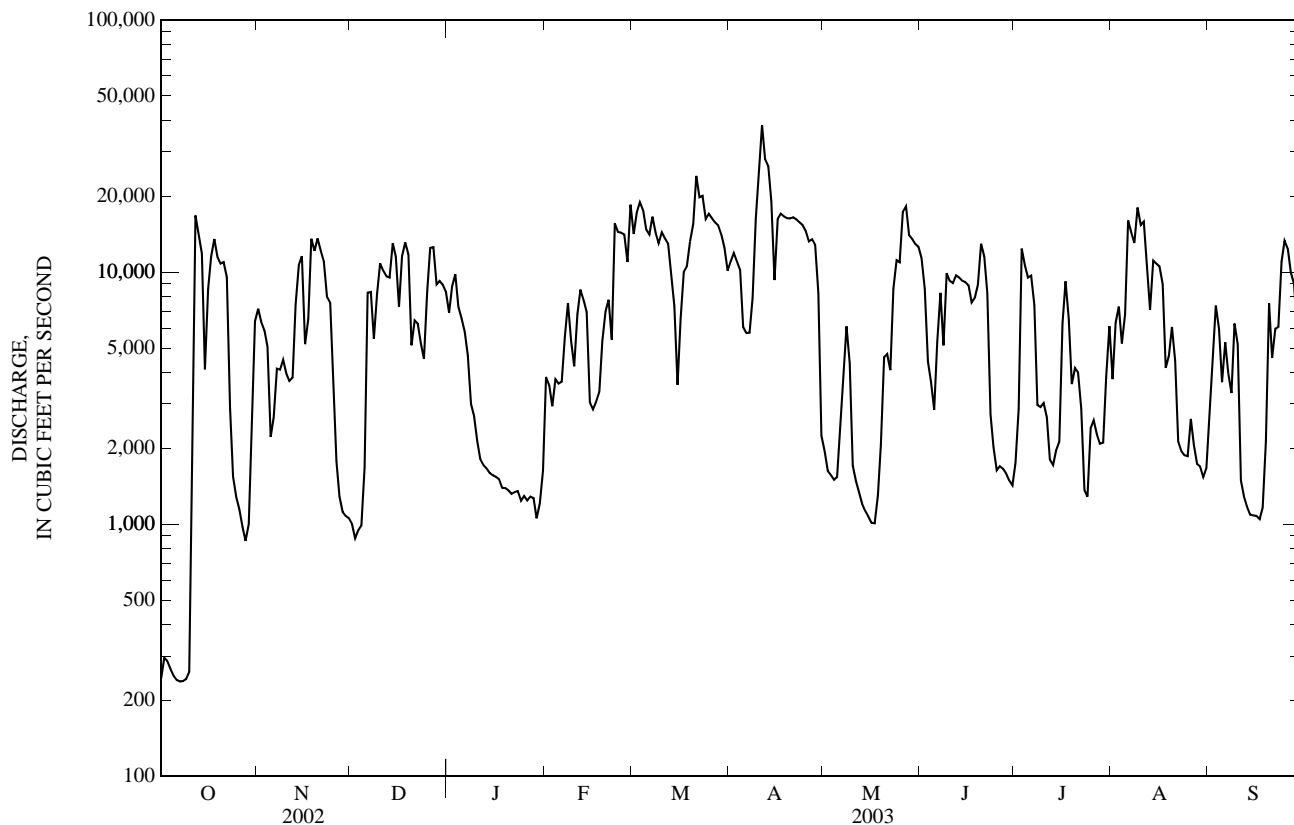
MEAN	2,048	2,064	2,761	5,114	6,236	7,468	5,237	2,633	2,357	1,790	1,779	2,014
MAX	6,442	7,919	8,595	11,750	16,440	15,710	14,780	7,784	12,510	5,694	7,075	13,920
(WY)	(1990)	(1986)	(1984)	(1998)	(1998)	(1993)	(2003)	(1989)	(1982)	(1995)	(2003)	(1996)
MIN	621	522	612	707	1,617	1,628	969	642	551	360	274	596
(WY)	(1999)	(1999)	(2002)	(2001)	(2002)	(1988)	(1985)	(2002)	(1999)	(2002)	(2002)	(1990)

02102500 CAPE FEAR RIVER AT LILLINGTON, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1982 - 2003*	
ANNUAL TOTAL	884,126		2,608,453		3,443	
ANNUAL MEAN	2,422		7,146		7,146	
HIGHEST ANNUAL MEAN					1,013	
LOWEST ANNUAL MEAN					2002	
HIGHEST DAILY MEAN	16,800	Oct 12	38,300	Apr 11	41,400	Sep 6, 1996
LOWEST DAILY MEAN	155	Aug 6	238	Oct 7	155	Aug 6, 2002
ANNUAL SEVEN-DAY MINIMUM	227	Aug 2	248	Oct 4	223	Oct 2, 1981
MAXIMUM PEAK FLOW			41,200	Apr 11	51,800	Sep 7, 1996
MAXIMUM PEAK STAGE			17.07	Apr 11	18.97	Sep 7, 1996
INSTANTANEOUS LOW FLOW			237*	Oct 6	141*	Aug 6, 2002
10 PERCENT EXCEEDS	8,300		15,300		10,200	
50 PERCENT EXCEEDS	753		5,970		1,250	
90 PERCENT EXCEEDS	272		1,260		596	

e Estimated.

* Regulated period only (1981-2003). See REMARKS.



CAPE FEAR RIVER BASIN

02102897 LOWER LITTLE RIVER NEAR LOBELIA, NC

LOCATION.--Lat 35°12'14", long 79°12'58", Moore County, Hydrologic Unit 03030004, at downstream side bridge on Secondary Road 2023, 0.5 mi above James Creek and 1.0 mi southwest of Lobelia.

DRAINAGE AREA.--110 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 210 ft above NGVD of 1929, from topographic map. Satellite telemetry at station.

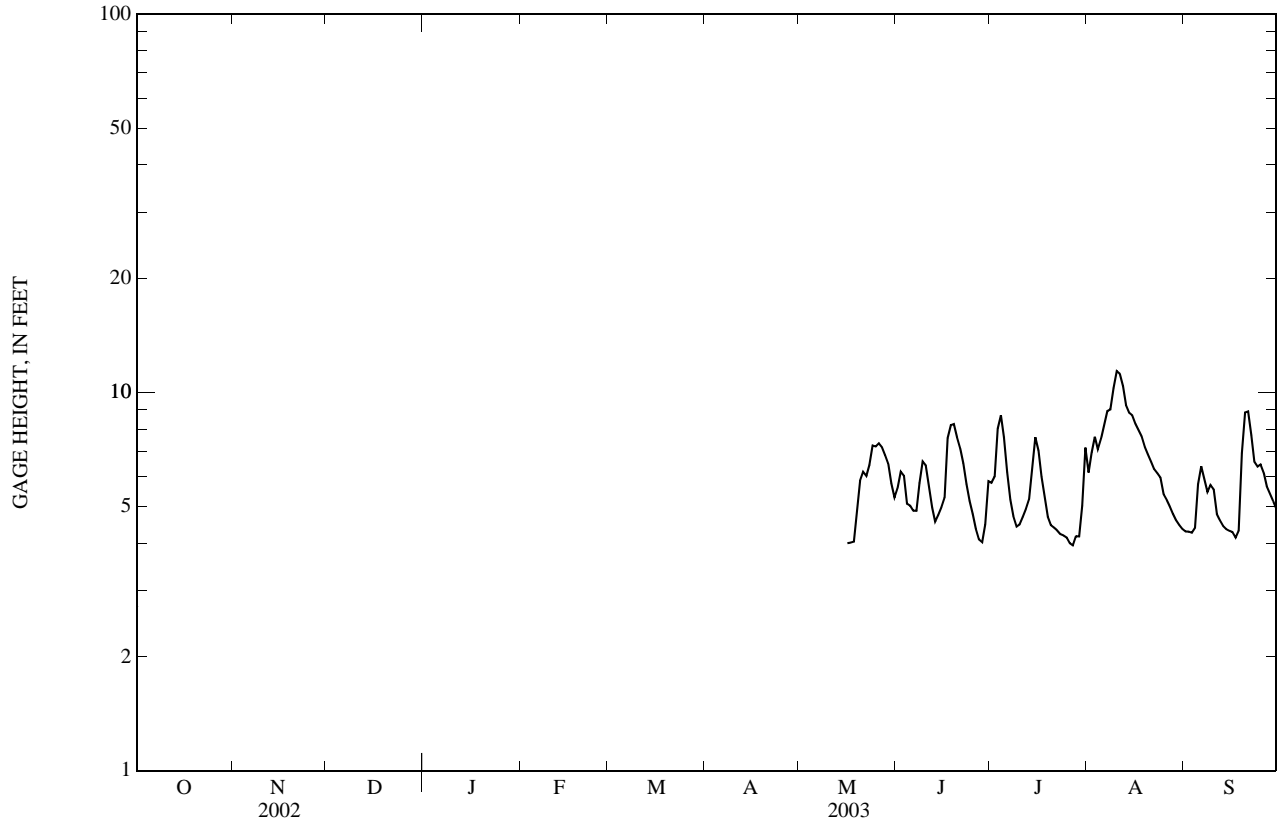
EXTREMES FOR PERIOD OF RECORD.--Maximum, 11.22 ft, Aug. 9, 11, 2003; minimum, 3.29 ft, July 27, 2003.

EXTREMES FOR CURRENT YEAR.--Maximum, 11.22 ft, Aug. 9, 11; minimum, 3.29 ft, July 27.

GAGE HEIGHT, FEET
FOR PERIOD MAY TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	5.58	5.77	6.14	4.29
2	---	---	---	---	---	---	---	---	6.18	5.99	6.93	4.29
3	---	---	---	---	---	---	---	---	6.02	8.03	7.64	4.26
4	---	---	---	---	---	---	---	---	5.08	8.70	7.08	4.39
5	---	---	---	---	---	---	---	---	5.02	7.61	7.55	5.72
6	---	---	---	---	---	---	---	---	4.87	6.16	8.21	6.38
7	---	---	---	---	---	---	---	---	4.87	5.20	8.93	5.92
8	---	---	---	---	---	---	---	---	5.75	4.71	9.02	5.46
9	---	---	---	---	---	---	---	---	6.58	4.42	10.27	5.69
10	---	---	---	---	---	---	---	---	6.42	4.48	11.38	5.55
11	---	---	---	---	---	---	---	---	5.65	4.69	11.21	4.77
12	---	---	---	---	---	---	---	---	4.97	4.91	10.40	4.59
13	---	---	---	---	---	---	---	---	4.55	5.22	9.26	4.44
14	---	---	---	---	---	---	---	---	4.75	6.26	8.84	4.36
15	---	---	---	---	---	---	---	---	4.97	7.61	8.70	4.31
16	---	---	---	---	---	---	---	4.00	5.27	7.02	8.27	4.28
17	---	---	---	---	---	---	---	4.01	7.58	5.98	7.95	4.13
18	---	---	---	---	---	---	---	4.03	8.20	5.31	7.66	4.31
19	---	---	---	---	---	---	---	4.76	8.25	4.70	7.18	6.92
20	---	---	---	---	---	---	---	5.85	7.61	4.46	6.86	8.85
21	---	---	---	---	---	---	---	6.17	7.11	4.39	6.56	8.91
22	---	---	---	---	---	---	---	6.02	6.50	4.32	6.28	7.71
23	---	---	---	---	---	---	---	6.44	5.72	4.22	6.12	6.56
24	---	---	---	---	---	---	---	7.24	5.17	4.19	5.96	6.37
25	---	---	---	---	---	---	---	7.20	4.77	4.14	5.38	6.45
26	---	---	---	---	---	---	---	7.34	4.37	4.00	5.20	6.13
27	---	---	---	---	---	---	---	7.17	4.09	3.94	4.99	5.65
28	---	---	---	---	---	---	---	6.83	4.02	4.17	4.77	5.39
29	---	---	---	---	---	---	---	6.48	4.48	4.16	4.59	5.16
30	---	---	---	---	---	---	---	5.75	5.82	5.01	4.46	4.93
31	---	---	---	---	---	---	---	5.27	---	7.15	4.36	---
MEAN	---	---	---	---	---	---	---	---	5.67	5.38	7.36	5.54

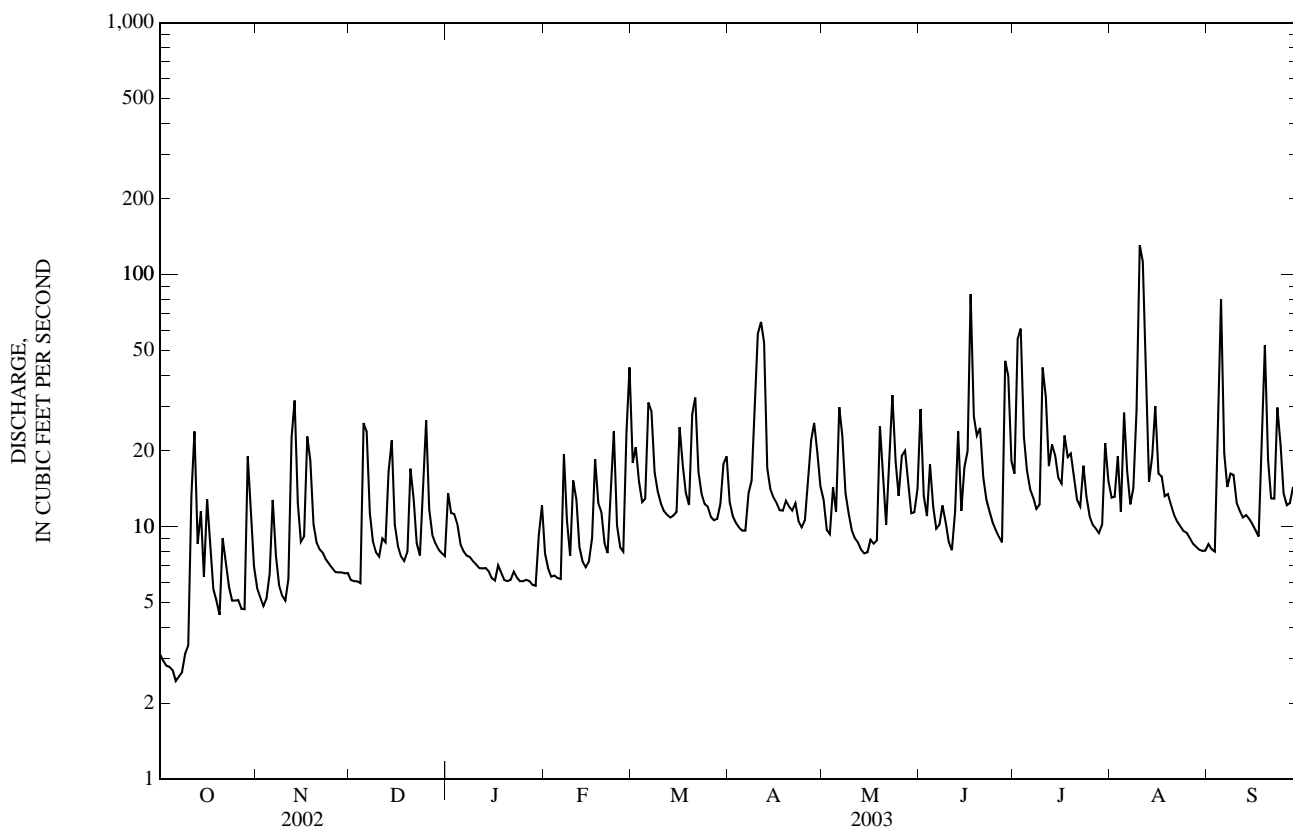
02102897 LOWER LITTLE RIVER NEAR LOBELIA, NC—Continued



02102908 FLAT CREEK NEAR INVERNESS, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1968 - 2003	
ANNUAL TOTAL	2,202.04		5,284.5		11.9	
ANNUAL MEAN	6.03		14.5		5.00	
HIGHEST ANNUAL MEAN					20.2	1973
LOWEST ANNUAL MEAN					5.00	2002
HIGHEST DAILY MEAN	32	Nov 13	131	Aug 10	200	Apr 1, 1973
LOWEST DAILY MEAN	0.94	Aug 13	2.4	Oct 6	0.94	Aug 13, 2002
ANNUAL SEVEN-DAY MINIMUM	1.3	Aug 8	2.7	Oct 2	1.3	Aug 8, 2002
MAXIMUM PEAK FLOW			172	Jun 17	394	Apr 1, 1973
MAXIMUM PEAK STAGE			3.81	Jun 17	7.30	Apr 1, 1973
INSTANTANEOUS LOW FLOW			2.2*	Oct 6	0.38*	Aug 14, 2002
ANNUAL RUNOFF (CFSM)	0.79		1.90		1.56	
ANNUAL RUNOFF (INCHES)	10.74		25.76		21.17	
10 PERCENT EXCEEDS	11		25		20	
50 PERCENT EXCEEDS	5.3		11		9.7	
90 PERCENT EXCEEDS	2.0		6.2		5.4	

e Estimated.
 * See REMARKS.



PRECIPITATION RECORDS

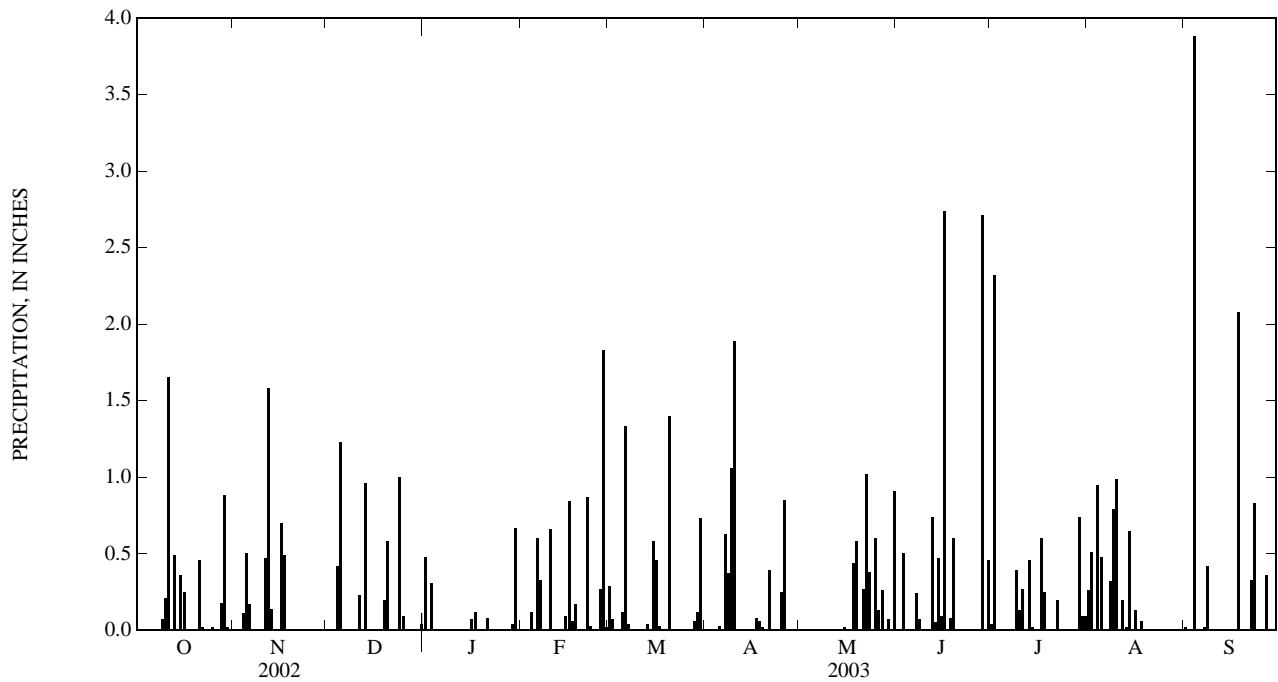
PERIOD OF RECORD.--April 2000 to current year.

GAGE.--Tipping-bucket raingage and data collection platform. Satellite telemetry at station.

REMARKS.--Precipitation data collected during freezing periods may not be accurately reflected in daily record; consequently, winter record is poor.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.48	0.01	0.29	0.00	---	0.00	0.04	0.26	0.02
2	0.00	0.00	0.01	0.01	0.00	0.07	0.00	---	0.00	2.32	0.51	0.00
3	0.00	0.00	0.00	0.31	0.00	0.00	0.00	---	0.50	0.00	0.00	0.00
4	0.00	0.11	0.42	0.00	0.12	0.00	0.00	---	0.01	0.00	0.95	3.88
5	0.00	0.50	1.23	0.00	0.00	0.12	0.03	---	0.00	0.00	0.48	0.00
6	0.00	0.17	0.01	0.00	0.60	1.33	0.01	---	0.00	0.01	0.01	0.00
7	0.00	0.00	0.00	0.00	0.33	0.04	0.63	---	0.24	0.00	0.00	0.02
8	0.01	0.00	0.00	0.00	0.00	0.00	0.37	---	0.07	0.00	0.32	0.42
9	0.07	0.00	0.00	0.00	0.00	0.00	1.06	---	0.00	0.39	0.79	0.00
10	0.21	0.00	0.01	0.00	0.66	0.00	1.89	0.00	0.00	0.13	0.99	0.00
11	1.65	0.47	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.27	0.01	0.00
12	0.00	1.58	0.00	0.00	0.00	0.01	0.00	0.00	0.74	0.00	0.20	0.00
13	0.49	0.14	0.96	0.00	0.00	0.04	0.00	0.00	0.05	0.46	0.02	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.02	0.65	0.00
15	0.36	0.00	0.00	0.00	0.09	0.58	0.00	0.02	0.09	0.00	0.00	0.00
16	0.25	0.70	0.00	0.07	0.84	0.46	0.00	0.00	2.74	0.00	0.13	0.00
17	0.00	0.49	0.00	0.12	0.06	0.03	0.08	0.00	0.01	0.60	0.01	0.00
18	0.00	0.00	0.00	0.00	0.17	0.01	0.06	0.44	0.08	0.25	0.06	2.08
19	0.00	0.00	0.20	0.00	0.00	0.01	0.02	0.58	0.60	0.01	0.00	0.00
20	0.00	0.00	0.58	0.00	0.00	1.40	0.00	0.00	0.01	0.00	0.00	0.00
21	0.46	0.00	0.00	0.08	0.01	0.00	0.39	0.27	0.00	0.00	0.00	0.00
22	0.02	0.00	0.00	0.00	0.87	0.00	0.00	1.02	0.00	0.20	0.00	0.33
23	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.38	0.00	0.00	0.00	0.83
24	0.01	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00
25	0.02	0.00	0.09	0.00	0.00	0.00	0.25	0.60	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.27	0.00	0.85	0.13	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	1.83	0.00	---	0.26	0.00	0.00	0.00	0.36
28	0.18	0.00	0.00	0.00	0.02	0.06	---	0.00	2.71	0.00	0.00	0.00
29	0.88	0.00	0.00	0.04	---	0.12	---	0.07	0.00	0.74	0.00	0.00
30	0.02	0.00	0.00	0.67	---	0.73	0.00	0.01	0.46	0.09	0.00	0.00
31	0.00	---	0.04	0.00	---	0.01	---	0.91	---	0.09	0.00	---
TOTAL	4.63	4.16	4.78	1.78	5.91	5.31	---	---	8.78	5.63	5.39	7.94



02103000 LITTLE RIVER AT MANCHESTER, NC

LOCATION.--Lat 35°11'36.4", long 78°59'07.4", Cumberland County, Hydrologic Unit 03030004, on left bank 5 ft downstream from bridge on Secondary Road 1451 (East Manchester Road), 0.3 mi above Tank Creek and 0.2 mi downstream from bridge on Highway 87/24 North of Manchester.

DRAINAGE AREA.--348 mi².

PERIOD OF RECORD.--October 1938 to September 1950, July 2002 to current year. Occasional discharge measurements September 1968 to June 2002.

GAGE.--Water-stage recorder. Elevation of gage is 122.16 ft above NGVD of 1929. Satellite telemetry at station.

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

DISCHARGE, CUBIC FEET PER SECOND
FOR PERIOD JULY TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	70	50	99
2	---	---	---	---	---	---	---	---	---	52	57	96
3	---	---	---	---	---	---	---	---	---	38	43	81
4	---	---	---	---	---	---	---	---	---	33	34	66
5	---	---	---	---	---	---	---	---	---	29	29	57
6	---	---	---	---	---	---	---	---	---	44	24	47
7	---	---	---	---	---	---	---	---	---	29	25	40
8	---	---	---	---	---	---	---	---	---	25	24	35
9	---	---	---	---	---	---	---	---	---	24	22	33
10	---	---	---	---	---	---	---	---	---	25	21	36
11	---	---	---	---	---	---	---	---	---	25	19	30
12	---	---	---	---	---	---	---	---	---	23	20	26
13	---	---	---	---	---	---	---	---	---	23	19	25
14	---	---	---	---	---	---	---	---	---	34	21	80
15	---	---	---	---	---	---	---	---	---	30	24	91
16	---	---	---	---	---	---	---	---	---	35	22	112
17	---	---	---	---	---	---	---	---	---	31	50	102
18	---	---	---	---	---	---	---	---	---	28	44	100
19	---	---	---	---	---	---	---	---	---	24	37	102
20	---	---	---	---	---	---	---	---	---	23	37	96
21	---	---	---	---	---	---	---	---	---	24	29	86
22	---	---	---	---	---	---	---	---	---	24	26	75
23	---	---	---	---	---	---	---	---	---	35	24	64
24	---	---	---	---	---	---	---	---	---	66	25	65
25	---	---	---	---	---	---	---	---	---	131	28	61
26	---	---	---	---	---	---	---	---	---	86	42	61
27	---	---	---	---	---	---	---	---	---	60	56	65
28	---	---	---	---	---	---	---	---	---	45	97	74
29	---	---	---	---	---	---	---	---	---	38	80	81
30	---	---	---	---	---	---	---	---	---	32	67	75
31	---	---	---	---	---	---	---	---	---	28	69	---
TOTAL	---	---	---	---	---	---	---	---	---	1,214	1,165	2,061
MEAN	---	---	---	---	---	---	---	---	---	39.2	37.6	68.7
MAX	---	---	---	---	---	---	---	---	---	131	97	112
MIN	---	---	---	---	---	---	---	---	---	23	19	25
CFSM	---	---	---	---	---	---	---	---	---	0.11	0.11	0.20
IN.	---	---	---	---	---	---	---	---	---	0.13	0.12	0.22

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 2002, BY WATER YEAR (WY)

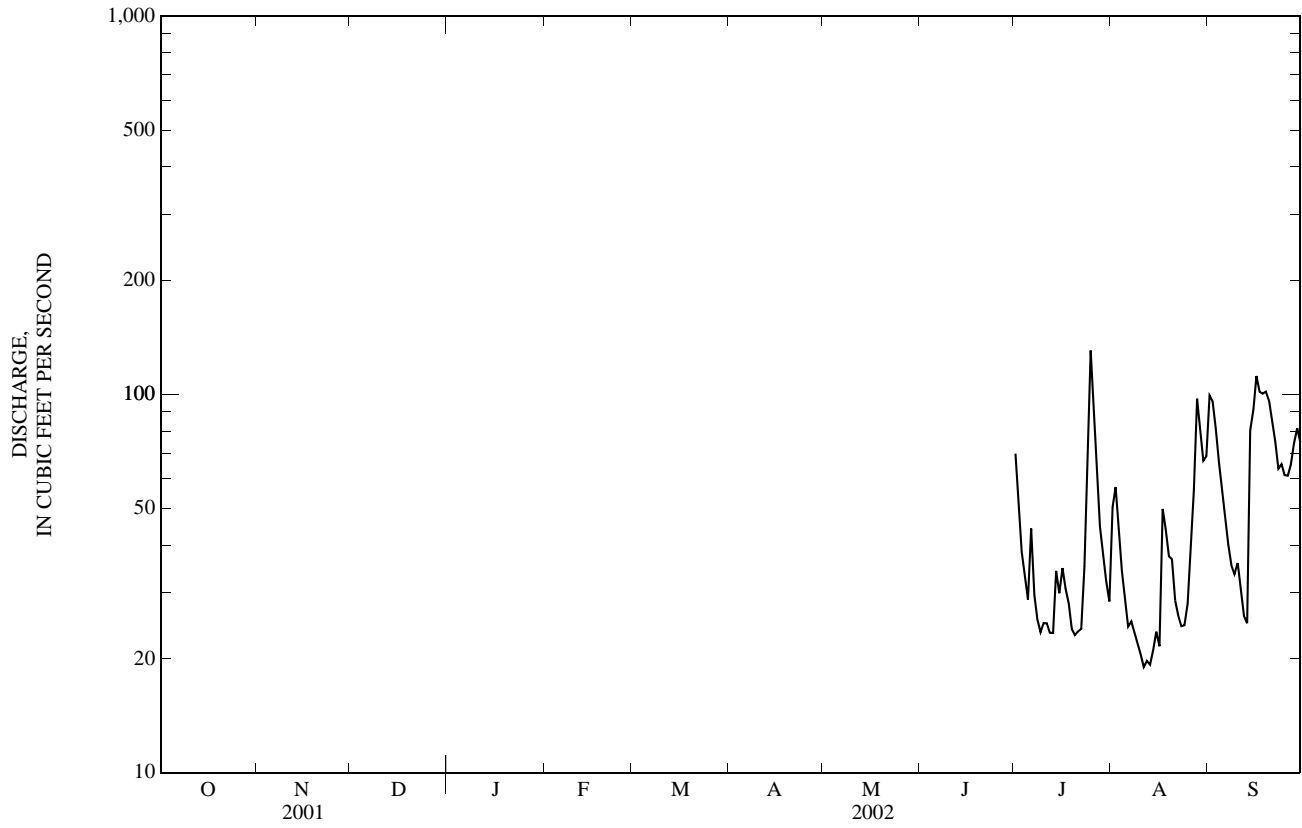
	273	352	445	549	664	700	542	328	174	386	363	341
MEAN	273	352	445	549	664	700	542	328	174	386	363	341
MAX	547	946	942	949	1,340	1,420	1,135	624	318	843	804	1,532
(WY)	(1946)	(1948)	(1949)	(1946)	(1948)	(1944)	(1944)	(1946)	(1948)	(1943)	(1949)	(1945)
MIN	33.7	70.2	166	192	218	402	265	145	91.1	39.2	37.6	46.2
(WY)	(1941)	(1942)	(1941)	(1942)	(1941)	(1941)	(1950)	(1941)	(1941)	(2002)	(2002)	(1940)

SUMMARY STATISTICS

FOR PERIOD
JULY TO SEPTEMBER 2002

MAXIMUM PEAK FLOW	220	Sep 14 2002
MAXIMUM PEAK STAGE	6.88	Sep 14 2002
INSTANTANEOUS LOW FLOW	16	Aug 13 2002

02103000 LITTLE RIVER AT MANCHESTER, NC—Continued



02103000 LITTLE RIVER AT MANCHESTER, NC—Continued

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	69	223	227	522	399	1,760	894	531	941	1,010	1,170	319
2	70	196	228	536	393	1,840	914	466	696	1,380	811	314
3	58	172	468	615	380	1,630	823	353	868	2,360	1,430	338
4	53	165	400	887	520	1,160	697	408	587	2,420	1,180	398
5	50	175	607	779	471	1,220	604	541	504	1,850	1,400	1,040
6	49	227	755	527	348	1,500	475	771	466	887	e1,870	964
7	48	262	802	454	507	1,790	522	1,190	459	603	e2,170	799
8	48	281	789	415	879	2,300	798	1,220	621	506	e2,400	657
9	50	264	580	396	919	2,480	1,100	756	771	558	2,560	657
10	55	220	461	383	873	1,430	1,980	574	912	903	3,770	651
11	152	222	424	370	646	1,100	3,110	446	519	978	5,010	484
12	336	431	420	357	579	917	3,810	370	413	732	4,520	400
13	403	657	551	e309	536	1,020	3,820	326	589	931	3,380	376
14	470	613	961	e311	501	914	2,230	294	532	948	2,240	354
15	471	579	e1,080	e314	720	819	1,290	270	472	1,310	2,040	340
16	466	577	961	e317	648	971	755	482	556	938	1,780	331
17	e351	683	620	e313	579	1,050	688	274	1,560	775	1,460	313
18	e277	727	482	e310	578	1,130	816	267	2,100	663	1,240	406
19	e174	772	429	e311	687	1,060	918	463	1,920	663	1,050	876
20	e146	863	682	e310	911	1,130	693	573	1,100	567	940	1,140
21	e148	680	755	e312	725	1,500	576	668	1,100	444	884	1,660
22	e185	559	795	e316	733	1,800	747	1,170	988	401	664	1,040
23	e247	466	774	e319	1,050	1,880	711	1,040	751	419	584	881
24	e192	351	793	e324	1,230	1,410	654	1,040	422	406	585	776
25	e152	318	987	e308	1,270	881	613	1,140	354	377	730	703
26	e193	276	1,000	306	916	646	631	1,480	312	351	484	634
27	e178	261	838	307	966	582	665	1,190	275	323	438	559
28	e168	246	1,010	526	1,600	568	897	1,240	842	325	402	553
29	249	242	877	279	---	e607	688	693	974	392	376	479
30	247	233	710	306	---	e671	615	590	905	768	352	421
31	231	---	465	381	---	e763	---	658	---	1,010	326	---
TOTAL	5,986	11,941	20,931	12,420	20,564	38,529	33,734	21,484	23,509	26,198	48,246	18,863
MEAN	193	398	675	401	734	1,243	1,124	693	784	845	1,556	629
MAX	471	863	1,080	887	1,600	2,480	3,820	1,480	2,100	2,420	5,010	1,660
MIN	48	165	227	279	348	568	475	267	275	323	326	313
CFSM	0.55	1.14	1.94	1.15	2.11	3.57	3.23	1.99	2.25	2.43	4.47	1.81
IN.	0.64	1.28	2.24	1.33	2.20	4.12	3.61	2.30	2.51	2.80	5.16	2.02

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 2003, BY WATER YEAR (WY)

	MEAN	MAX	(WY)	MIN	(WY)
	267	547	(1946)	33.7	(1941)
	355	946	(1948)	70.2	(1942)
	463	942	(1949)	166	(1941)
	538	949	(1946)	192	(1942)
	669	1,340	(1948)	218	(1941)
	742	1,420	(1944)	402	(1941)
	587	1,135	(1944)	265	(1950)
	356	693	(2003)	145	(1941)
	221	784	(2003)	91.1	(1941)
	419	845	(2003)	39.2	(2002)
	448	1,556	(2003)	37.6	(2002)
	361	1,532	(1945)	46.2	(1940)

SUMMARY STATISTICS

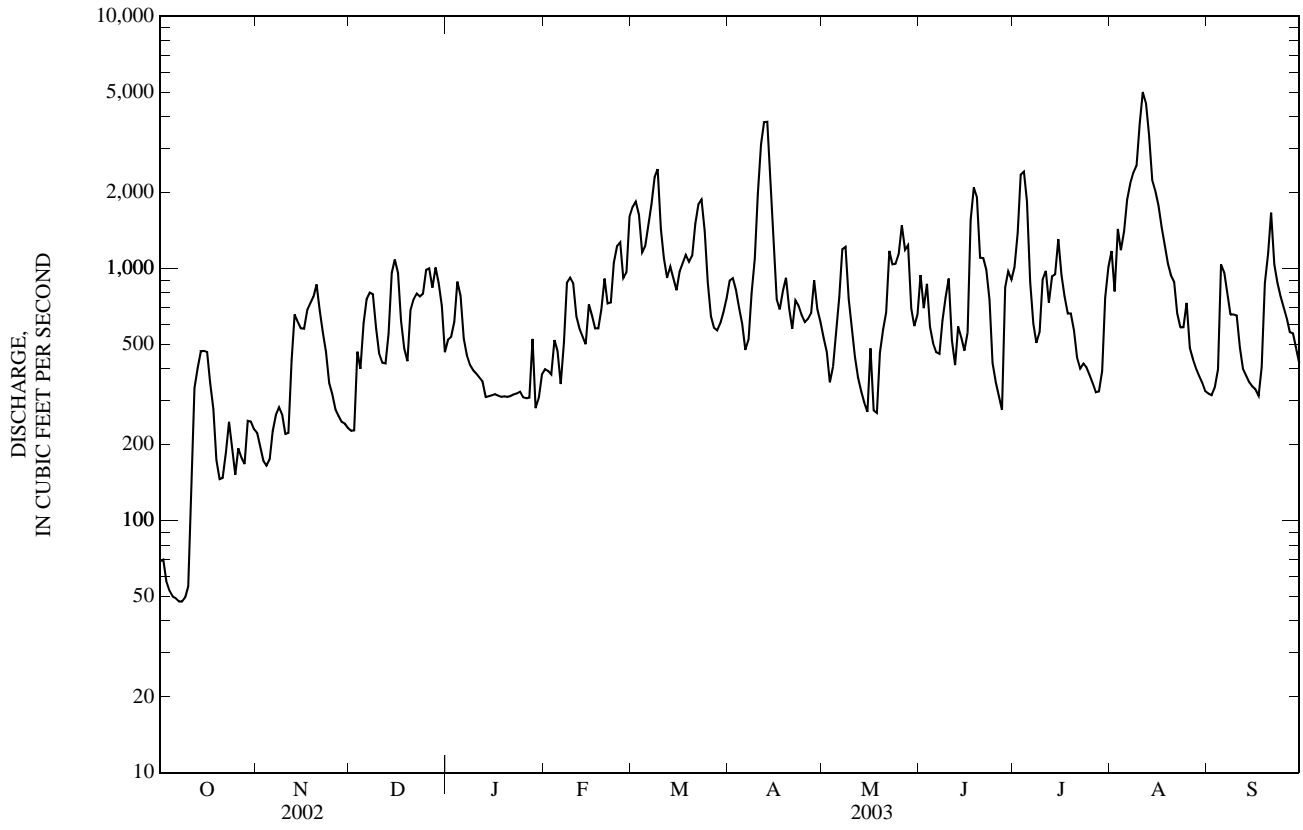
FOR 2003 WATER YEAR

WATER YEARS 1939 - 2003

ANNUAL TOTAL	282,405	
ANNUAL MEAN	774	458
HIGHEST ANNUAL MEAN		774
LOWEST ANNUAL MEAN		229
HIGHEST DAILY MEAN	5,010	9,000
LOWEST DAILY MEAN	48	19
ANNUAL SEVEN-DAY MINIMUM	50	21
MAXIMUM PEAK FLOW	5,090	5,090
MAXIMUM PEAK STAGE	24.72	24.72
INSTANTANEOUS LOW FLOW	42	16
ANNUAL RUNOFF (CFSM)	2.22	1.32
ANNUAL RUNOFF (INCHES)	30.19	17.90
10 PERCENT EXCEEDS	1,440	950
50 PERCENT EXCEEDS	613	338
90 PERCENT EXCEEDS	248	100

e Estimated.

02103000 LITTLE RIVER AT MANCHESTER, NC—Continued



02104000 CAPE FEAR RIVER AT FAYETTEVILLE, NC

LOCATION.--Lat 35°03'01.6", long 78°51'29.7", Cumberland County, Hydrologic Unit 03030004, at State Highway 24 bridge at Fayetteville, 0.3 mi upstream of Atlantic Coast Railroad bridge, 0.1 mi downstream of Cross Creek.

DRAINAGE AREA.--4,395 mi².

PERIOD OF RECORD.-- Discharge records January 1889 to September 1917, and October 1928 to September 1940. October 1986 to current year.

GAGE.--Water-stage recorder. Datum of gage is 20.52 ft above NGVD of 1929. Prior to March 4, 2003, at site 0.2 mi downstream at same datum. Satellite telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum, 48.3 ft, Sept. 24, 1945.

EXTREMES FOR PERIOD OF RECORD.--Maximum, 46.17 ft, Sept. 7, 1996; minimum not determined.

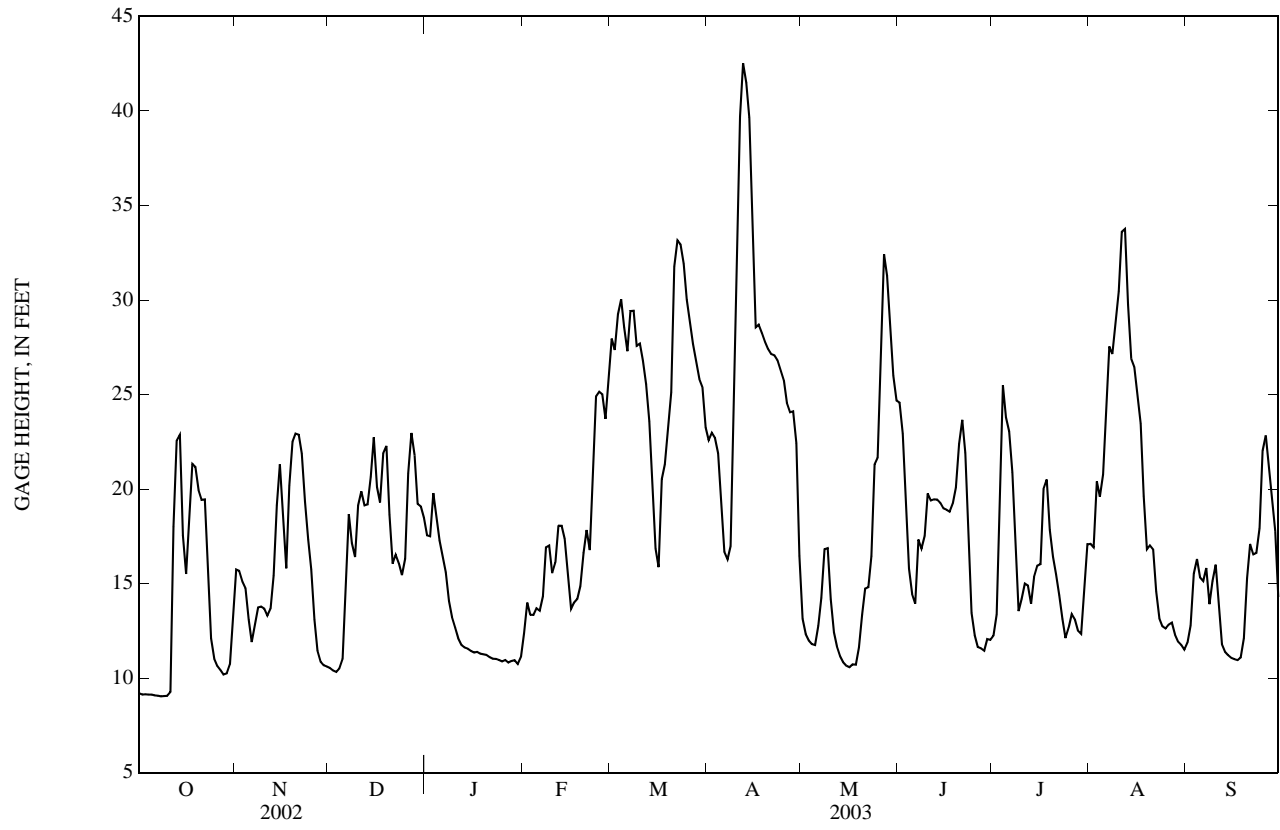
EXTREMES FOR CURRENT YEAR.--Maximum, 43.01 ft, Apr. 12; minimum, 9.02 ft, Oct. 8.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.20	15.74	10.53	17.55	12.36	27.96	22.58	13.14	24.58	12.25	17.10	11.89
2	9.13	15.67	10.40	17.50	13.99	27.36	22.97	12.32	22.93	13.37	16.92	12.78
3	9.14	15.11	10.33	19.78	13.36	29.24	22.71	11.99	18.87	20.67	20.40	15.53
4	9.13	14.76	10.51	18.59	13.35	30.04	21.89	11.79	15.79	25.48	19.60	16.30
5	9.13	13.11	11.01	17.28	13.69	28.54	19.23	11.74	14.44	23.79	20.76	15.33
6	9.09	11.90	14.30	16.43	13.57	27.29	16.68	12.76	13.94	23.05	24.22	15.14
7	9.07	12.78	18.68	15.60	14.32	29.41	16.29	14.24	17.33	20.89	27.55	15.82
8	9.04	13.74	17.14	14.07	16.91	29.43	16.99	16.82	16.86	16.62	27.15	13.91
9	9.06	13.78	16.40	13.22	17.01	27.58	22.09	16.87	17.53	13.55	28.75	15.14
10	9.06	13.67	19.14	12.66	15.56	27.69	30.81	14.17	19.77	14.19	30.46	16.00
11	9.26	13.31	19.88	12.10	16.12	26.79	39.71	12.42	19.39	15.00	33.60	13.88
12	18.00	13.68	19.13	11.75	18.06	25.54	42.52	11.66	19.46	14.90	33.75	11.80
13	22.56	15.42	19.19	11.62	18.06	23.58	41.49	11.15	19.45	13.93	29.76	11.39
14	22.87	19.14	20.64	11.56	17.37	20.67	39.64	10.84	19.27	15.36	26.90	11.21
15	17.54	21.32	22.73	11.44	15.44	16.84	33.10	10.66	18.98	15.94	26.47	11.06
16	15.51	18.75	20.11	11.36	13.66	15.86	28.55	10.57	18.90	16.02	25.05	11.00
17	18.49	15.81	19.29	11.39	14.00	20.52	28.70	10.73	18.80	20.01	23.47	10.95
18	21.33	20.18	21.89	11.29	14.19	21.31	28.26	10.71	19.24	20.50	19.62	11.09
19	21.17	22.50	22.28	11.26	14.86	23.40	27.79	11.60	20.07	17.84	16.81	12.11
20	19.94	22.93	18.64	11.23	16.62	25.11	27.40	13.35	22.38	16.41	17.01	15.29
21	19.43	22.87	16.05	11.11	17.83	31.76	27.14	14.73	23.66	15.49	16.80	17.10
22	19.45	21.87	16.52	11.02	16.77	33.15	27.07	14.81	21.91	14.38	14.58	16.55
23	15.78	19.33	16.07	11.02	20.58	32.94	26.80	16.45	17.20	13.12	13.16	16.62
24	12.10	17.33	15.45	10.96	24.90	31.91	26.28	21.30	13.45	12.12	12.74	17.93
25	11.02	15.75	16.31	10.88	25.15	30.03	25.75	21.65	12.26	12.66	12.63	22.02
26	10.64	13.10	20.83	10.96	25.01	28.86	24.56	27.62	11.64	13.38	12.83	22.84
27	10.42	11.45	22.96	10.82	23.71	27.67	24.06	32.42	11.58	13.10	12.94	21.32
28	10.18	10.87	21.79	10.91	25.85	26.74	24.11	31.28	11.44	12.52	12.29	19.49
29	10.24	10.67	19.22	10.95	---	25.82	22.43	28.26	12.06	12.33	11.93	17.77
30	10.73	10.61	19.08	10.75	---	25.39	16.47	25.99	12.03	14.41	11.75	14.29
31	13.20	---	18.49	11.13	---	23.26	---	24.68	---	17.08	11.51	---
MEAN	13.58	15.90	17.58	12.84	17.23	26.51	26.47	16.41	17.51	16.14	20.27	15.12
MAX	22.87	22.93	22.96	19.78	25.85	33.15	42.52	32.42	24.58	25.48	33.75	22.84
MIN	9.04	10.61	10.33	10.75	12.36	15.86	16.29	10.57	11.44	12.12	11.51	10.95

CAPE FEAR RIVER BASIN

02104000 CAPE FEAR RIVER AT FAYETTEVILLE, NC—Continued



02104220 ROCKFISH CREEK AT RAEFORD, NC

LOCATION.--Lat 34°59'56", long 79°12'54", Hoke County, Hydrologic Unit 03030004, at upstream side of bridge on U.S. Highway 401, 1.0 mi downstream of Nicholson's Creek, and 1.0 mile north of Raeford.

DRAINAGE AREA.--93.1 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 178 ft above NGVD of 1929, from topographic map. Satellite telemetry at station.

REMARKS.--Records good, except those for estimated daily discharges, which are fair. Minimum discharge for period of record also occurred July 23, 2002.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40	85	75	102	121	204	165	108	179	120	291	103
2	36	73	73	118	104	243	151	103	200	178	227	102
3	34	67	73	115	93	226	126	98	197	374	184	100
4	32	65	73	115	88	178	115	111	177	466	171	108
5	32	70	106	107	87	144	109	118	154	292	209	175
6	31	95	155	98	84	167	109	124	129	203	220	259
7	29	105	156	93	122	249	112	145	113	129	204	276
8	29	86	139	89	141	273	136	149	120	112	200	210
9	33	73	106	88	127	250	169	134	130	103	179	182
10	40	69	93	86	121	195	274	106	117	125	213	173
11	67	68	92	84	141	144	482	94	100	138	403	178
12	136	123	99	82	132	127	500	88	100	140	498	147
13	151	213	109	81	111	121	332	82	171	150	288	125
14	179	231	153	81	98	135	243	78	194	236	239	119
15	e184	198	148	80	94	135	189	76	159	282	248	114
16	203	137	126	80	98	158	155	81	181	237	251	110
17	170	149	103	86	142	e183	140	85	225	188	218	104
18	120	176	93	89	151	e170	131	84	227	142	187	128
19	87	174	90	85	144	155	130	106	216	129	193	389
20	70	149	107	83	127	166	131	152	186	161	202	586
21	71	110	127	82	111	248	129	176	157	159	219	362
22	92	97	120	88	111	263	133	181	129	133	190	251
23	83	91	102	87	158	245	126	189	110	131	148	219
24	71	85	103	83	172	194	117	215	99	137	132	229
25	68	83	152	81	162	143	112	227	90	121	123	213
26	67	81	161	81	126	126	126	566	84	108	117	191
27	65	80	147	82	131	119	148	386	79	101	112	161
28	63	77	116	80	178	115	145	276	100	96	108	164
29	104	76	102	79	---	115	127	208	140	98	105	166
30	123	76	96	92	---	130	115	153	129	243	102	149
31	114	---	92	124	---	165	---	137	---	259	100	---
TOTAL	2,624	3,262	3,487	2,801	3,475	5,486	5,177	4,836	4,392	5,491	6,281	5,793
MEAN	84.6	109	112	90.4	124	177	173	156	146	177	203	193
MAX	203	231	161	124	178	273	500	566	227	466	498	586
MIN	29	65	73	79	84	115	109	76	79	96	100	100
CFSM	0.91	1.17	1.21	0.97	1.33	1.90	1.85	1.68	1.57	1.90	2.18	2.07
IN.	1.05	1.30	1.39	1.12	1.39	2.19	2.07	1.93	1.75	2.19	2.51	2.31

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 2003, BY WATER YEAR (WY)

MEAN	113	115	113	140	142	153	137	107	92.7	95.0	99.2	111
MAX	207	169	186	209	291	289	305	182	175	224	203	247
(WY)	(2000)	(1990)	(1990)	(1998)	(1998)	(1998)	(1998)	(1989)	(1989)	(1989)	(2003)	(1996)
MIN	60.0	62.4	68.0	90.4	84.7	78.4	72.0	51.9	31.2	28.8	39.1	47.4
(WY)	(2002)	(2002)	(2002)	(2003)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)

SUMMARY STATISTICS

FOR 2002 CALENDAR YEAR

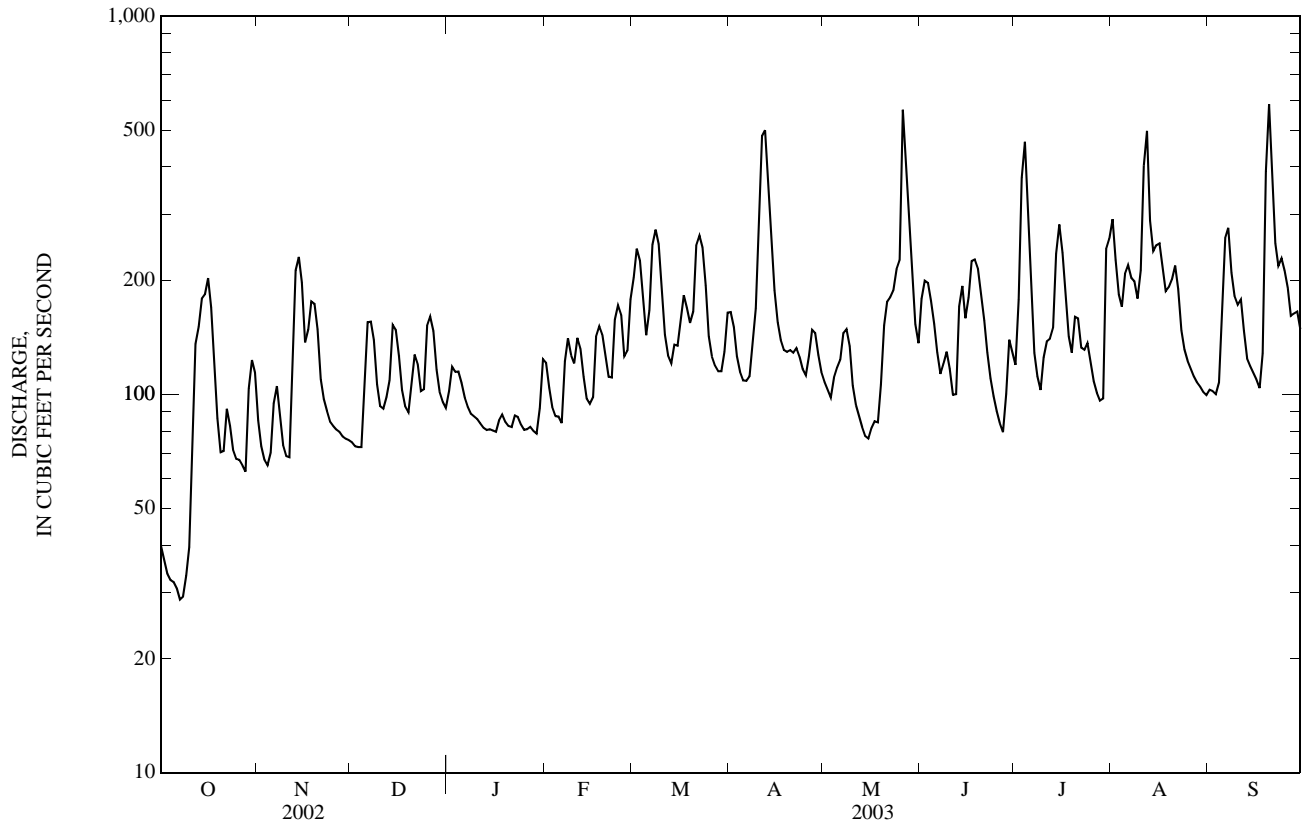
FOR 2003 WATER YEAR

WATER YEARS 1988 - 2003

ANNUAL TOTAL	25,710		53,105		
ANNUAL MEAN	70.4		145		118
HIGHEST ANNUAL MEAN					167
LOWEST ANNUAL MEAN					60.8
HIGHEST DAILY MEAN	231	Nov 14	586	Sep 20	884
LOWEST DAILY MEAN	20	Jul 22	29	Oct 7	20
ANNUAL SEVEN-DAY MINIMUM	22	Aug 10	31	Oct 3	22
MAXIMUM PEAK FLOW			668	May 26	1,030
MAXIMUM PEAK STAGE			7.55	May 26	8.29
INSTANTANEOUS LOW FLOW			28	Oct 7	19*
ANNUAL RUNOFF (CFSM)	0.76		1.56		1.27
ANNUAL RUNOFF (INCHES)	10.27		21.22		17.26
10 PERCENT EXCEEDS	127		233		198
50 PERCENT EXCEEDS	68		127		98
90 PERCENT EXCEEDS	26		80		57

e Estimated.

* See REMARKS.



02105500 CAPE FEAR RIVER AT WILLIAM O. HUSKE LOCK NEAR TARHEEL, NC

LOCATION.--Lat 34°50'06", long 78°49'26", Bladen County, Hydrologic Unit 03030005, on right bank 100 ft upstream from William O. Huske Lock, 1 mi downstream of Cumberland-Bladen County line, 7 mi north of Tar Heel, 9 mi upstream from Phillips Creek, and at river mile 123.

DRAINAGE AREA.--4,852 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1937 to current year. Prior to October 1964, published as "Cape Fear River at Lock 3 near Tarheel".

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

GAGE.--Water-stage recorder and concrete lock and dam contro1. Datum of gage is 28.97 ft above NGVD of 1929. Prior to Jan. 8, 1939, nonrecording gage on upper lock wall 100 ft downstream at same datum. Auxiliary water-stage recorder 1.8 mi downstream of base gage; prior to Jan. 14, 1943, auxiliary nonrecording gage 400 ft downstream on lower end of lock wall; Jan. 14, 1943, to Sept. 30, 1953, auxiliary water-stage recorder at site 600 ft downstream. U.S. Army Corps of Engineers satellite telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Slight regulation at high flow, December 1972 to August 1981, caused by temporary storage in B. Everett Jordan Lake. Flow regulated since September 1981 by B. Everett Jordan Lake (station 02098197). Slight diurnal fluctuation and some regulation for short periods at low flow caused by power plants above station. Prior to regulation, maximum discharge not determined; minimum discharge, 170 ft³/s, Sep. 20, 1950. Minimum discharge during regulation from unknown source. Minimum discharge for current water year due to fish lockage.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	646	7,070	1,660	9,400	3,020	21,400	13,900	4,010	15,900	3,040	8,780	2,640
2	588	7,150	1,550	8,980	5,040	20,300	15,000	3,070	12,600	4,390	8,160	3,600
3	605	6,500	1,460	11,700	4,500	22,700	14,800	2,810	10,700	12,600	13,700	6,350
4	598	6,070	1,590	11,100	4,180	23,600	12,900	2,630	7,130	23,400	13,200	7,530
5	608	4,440	e2,210	9,020	4,740	21,800	8,280	2,540	5,520	15,300	14,300	6,560
6	583	2,910	4,780	7,990	4,580	19,900	7,580	3,380	4,720	13,700	21,300	6,110
7	555	3,660	10,300	7,020	5,200	22,700	7,090	5,060	8,100	9,380	22,800	7,040
8	532	4,840	9,000	5,390	8,090	23,000	7,610	7,670	8,370	7,910	20,200	5,060
9	547	4,900	7,630	4,250	8,870	20,300	14,300	8,180	8,350	4,450	21,900	5,950
10	551	4,860	10,600	3,720	7,150	20,500	27,600	5,400	11,600	5,030	23,900	7,170
11	708	4,440	12,400	3,130	7,330	19,200	35,100	3,290	11,200	6,020	27,400	5,160
12	9,160	4,830	11,400	2,750	9,490	17,400	40,200	2,490	11,000	6,110	28,600	2,670
13	18,500	6,840	11,200	2,600	10,000	14,500	38,500	1,980	11,200	4,940	23,400	2,260
14	19,700	11,000	13,000	2,570	9,190	10,300	35,900	1,670	10,900	6,920	18,400	2,100
15	9,610	14,700	18,000	2,450	7,280	7,170	27,000	1,490	10,400	7,910	18,200	1,960
16	6,660	11,100	11,600	2,310	4,810	6,780	20,800	1,440	10,400	7,420	15,700	1,900
17	9,980	7,290	10,400	2,350	5,050	12,200	20,700	1,650	11,500	11,800	13,100	1,860
18	14,400	11,900	15,800	2,290	5,360	14,000	19,700	1,620	11,300	14,400	12,600	1,950
19	15,800	17,800	16,700	2,300	5,870	16,700	18,800	2,370	12,400	9,120	8,280	2,960
20	12,000	16,800	9,710	2,260	7,900	18,600	18,200	4,050	16,400	7,670	8,050	6,090
21	11,700	16,200	7,370	2,170	9,400	25,200	17,900	5,660	18,400	6,690	7,970	8,660
22	11,700	13,700	7,930	2,050	8,770	27,800	18,100	5,820	12,500	5,420	5,770	7,810
23	7,850	9,660	7,540	2,060	11,900	27,200	17,900	7,250	7,300	4,070	4,080	7,930
24	3,300	8,770	6,790	2,010	21,300	26,200	17,100	13,800	4,460	2,970	3,620	8,920
25	2,140	7,310	7,390	1,930	18,200	23,400	16,500	15,900	3,090	3,490	3,450	15,000
26	1,770	4,350	13,000	2,030	17,500	21,800	14,400	25,500	2,460	4,320	3,630	17,700
27	1,590	2,530	18,500	1,950	15,800	19,700	14,000	27,700	2,340	4,060	3,850	e12,600
28	1,370	1,950	14,800	1,930	18,100	18,300	14,700	26,300	2,260	3,310	3,180	e8,580
29	1,400	1,750	9,520	2,010	---	17,300	11,300	21,300	2,790	3,030	2,770	e8,270
30	1,810	1,700	11,400	1,830	---	e16,300	9,540	16,900	2,900	5,620	2,600	e6,000
31	4,020	---	10,500	2,090	---	13,800	---	15,200	---	8,510	2,380	---
TOTAL	170,981	227,020	295,730	125,640	248,620	590,050	555,400	248,130	268,190	233,000	385,270	188,390
MEAN	5,516	7,567	9,540	4,053	8,879	19,030	18,510	8,004	8,940	7,516	12,430	6,280
MAX	19,700	17,800	18,500	11,700	21,300	27,800	40,200	27,700	18,400	23,400	28,600	17,700
MIN	532	1,700	1,460	1,830	3,020	6,780	7,090	1,440	2,260	2,970	2,380	1,860

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 2003,* BY WATER YEAR (WY)

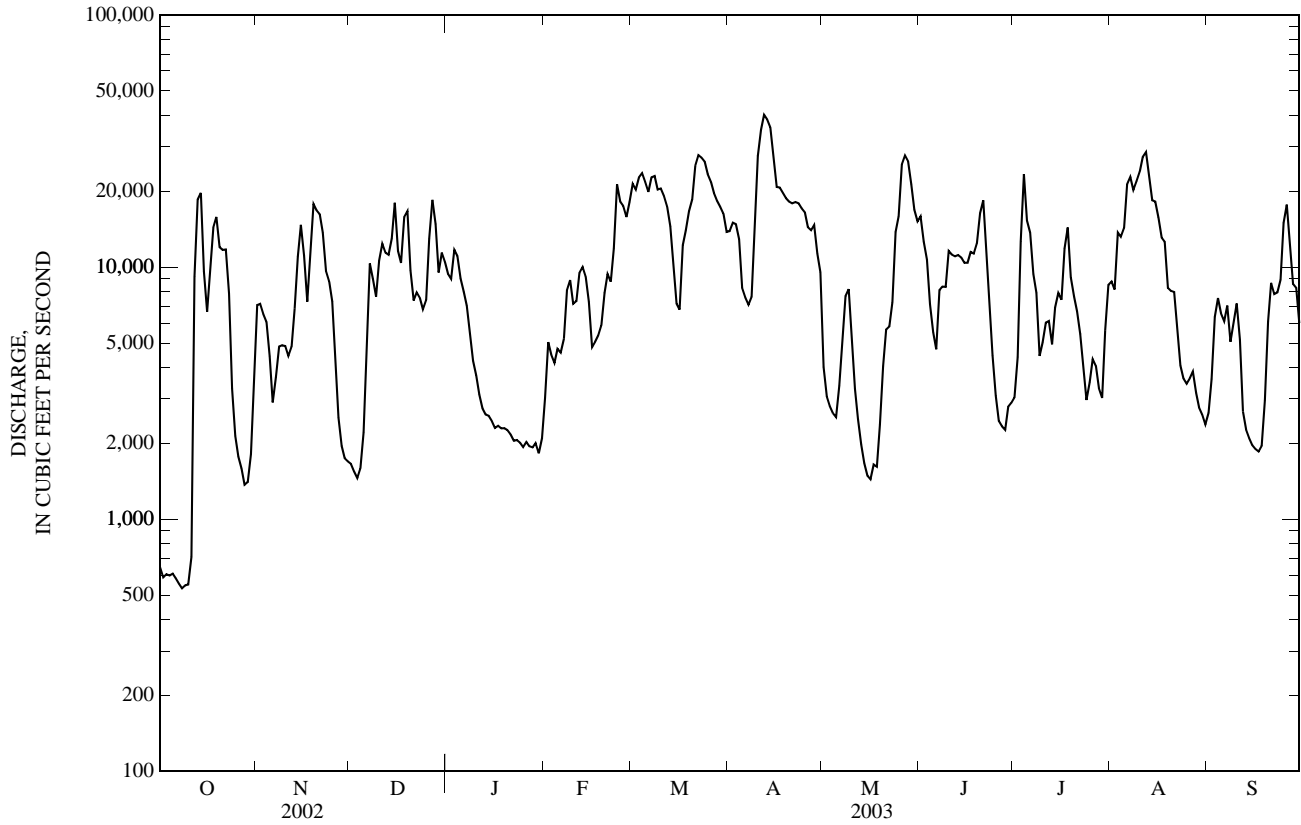
MEAN	3,103	3,136	4,119	7,306	8,568	10,120	7,097	3,757	3,424	2,966	2,919	3,122
MAX	10,230	10,190	11,360	17,240	24,770	21,520	18,510	11,770	14,200	9,262	12,430	18,950
(WY)	(2000)	(1996)	(1984)	(1998)	(1998)	(1998)	(2003)	(1989)	(1982)	(1995)	(2003)	(1996)
MIN	979	978	1,004	1,633	2,799	2,510	1,508	882	846	699	701	935
(WY)	(1987)	(2002)	(2002)	(2001)	(1986)	(2002)	(1986)	(2002)	(2002)	(2002)	(2002)	(1990)

02105500 CAPE FEAR RIVER AT WILLIAM O. HUSKE LOCK NEAR TARHEEL, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1982 - 2003*	
ANNUAL TOTAL	1,196,828		3,536,421		4,951	
ANNUAL MEAN	3,279		9,689		9,689	
HIGHEST ANNUAL MEAN					1,636	2003
LOWEST ANNUAL MEAN					60,000	2002
HIGHEST DAILY MEAN	20,400	Jan 25	40,200	Apr 12	154	Sep 8, 1996
LOWEST DAILY MEAN	316	Aug 8	532	Oct 8	408	Aug 13, 1999
ANNUAL SEVEN-DAY MINIMUM	408	Aug 7	568	Oct 4	408	Aug 7, 2002
MAXIMUM PEAK FLOW			41,200	Apr 12	NOT DETERMINED	
MAXIMUM PEAK STAGE			24.66	Apr 12	26.75	Sep 8, 1996
INSTANTANEOUS LOW FLOW			498	Oct 8	36*	Aug 13, 1999
10 PERCENT EXCEEDS	9,680		20,200		13,400	
50 PERCENT EXCEEDS	1,400		7,910		2,360	
90 PERCENT EXCEEDS	571		1,970		976	

e Estimated.

* Regulated period only (1982-2003). See REMARKS.



02105500 CAPE FEAR RIVER AT WILLIAM O. HUSKE LOCK NEAR TARHEEL, NC—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1947, 1955, 2000 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: June 2000 to current year.

pH: June 2000 to current year.

WATER TEMPERATURE: June 2000 to current year.

DISSOLVED OXYGEN: June 2000 to current year.

DISSOLVED OXYGEN, PERCENT SATURATION: June 2000 to current year

TURBIDITY: October 2000 to February 2003.

INSTRUMENTATION.--Water-quality monitor with satellite telemetry from June 2000 to current year.

REMARKS.--Station operated in cooperation with the Middle Cape Fear River Association. The constituents were monitored at approximately 10 ft above the streambed. On June 28, 2002 the data sonde was raised to approximately 16 ft above the streambed. Beginning October 1, 2000 dissolved oxygen, percent saturation is computed using a barometric pressure of 760mm Hg. Daily records of water temperature for water years 1947 and 1955 are available in the files of the District Office in Raleigh, NC.

EXTREMES FOR PERIOD OF DAILY RECORD.--

CONSTITUENT	MAXIMUM RECORDED	MINIMUM RECORDED
SPECIFIC CONDUCTANCE, microsiemens	291, September 3, 2002	38, April 12, 13, 14, 2003
pH, standard units	9.6, August 25, 2002	5.6, August 13, 14, 2003
WATER TEMPERATURE, °C	32.3, July 31, 2002	2.5, January 28, 2003
DISSOLVED OXYGEN, mg/L	13.4, January 30, 2001, January 28, 29, 2003	1.3, June 14, 2002
DISSOLVED OXYGEN, PERCENT SATURATION,%	130, July 16, 2000	17, June 14, 2002
TURBIDITY, NTU	420, January 24, 2002	0.9, May 19, 2002

EXTREMES FOR CURRENT YEAR.--

CONSTITUENT	MAXIMUM RECORDED	MINIMUM RECORDED
SPECIFIC CONDUCTANCE, microsiemens	185, October 12	38, April 12, 13, 14
pH, standard units	8.7, October 6	5.6, August 13, 14
WATER TEMPERATURE, °C	29.7, August 30	2.5, January 28
DISSOLVED OXYGEN, mg/L	13.4, January 28, 29	3.4, October 9, 12
DISSOLVED OXYGEN, PERCENT SATURATION,%	114, October 6	40, October 12
TURBIDITY, NTU	410, October 13	3.0, December 5, 6

02105500 CAPE FEAR RIVER AT WILLIAM O. HUSKE LOCK NEAR TARHEEL, NC—Continued

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	87	79	83	---	---	---	---	---	---	89	87	88
2	82	79	81	---	---	---	---	---	---	93	88	90
3	81	80	80	---	---	---	---	---	---	111	93	100
4	82	76	80	---	---	---	---	---	---	113	88	100
5	77	76	76	---	---	---	---	---	---	116	104	111
6	79	77	78	63	60	61	---	---	---	115	98	110
7	90	78	82	63	61	62	69	62	65	98	90	93
8	98	90	96	65	61	63	69	48	59	94	77	87
9	98	91	96	---	---	---	48	44	46	93	76	84
10	110	89	98	---	---	---	51	46	49	91	81	84
11	92	68	72	---	---	---	52	47	49	96	91	95
12	79	73	76	79	67	74	52	47	50	96	95	95
13	80	79	80	68	65	67	52	45	47	96	92	94
14	86	80	84	66	53	58	49	45	46	92	87	90
15	89	85	88	59	50	55	64	49	58	89	87	89
16	91	87	90	61	55	58	70	64	67	89	88	88
17	87	80	82	91	61	76	76	70	73	92	88	90
18	86	79	83	88	77	80	79	76	78	91	88	90
19	83	79	81	80	77	79	78	69	74	89	88	89
20	80	74	76	80	66	73	73	69	71	88	79	82
21	82	73	78	71	66	68	77	73	75	103	78	90
22	78	74	76	78	70	76	81	77	78	104	78	94
23	82	75	79	82	78	80	84	81	83	96	76	86
24	82	79	81	80	79	80	83	80	81	104	96	102
25	81	78	79	82	75	80	81	78	80	113	92	106
26	85	81	82	75	73	74	82	78	80	92	79	85
27	93	85	89	79	74	78	84	82	83	79	75	76
28	98	93	96	85	79	81	92	83	88	82	76	80
29	97	95	96	86	81	84	92	89	91	90	82	86
30	96	89	93	87	74	81	89	85	87	92	90	91
31	---	---	---	---	---	---	89	86	87	---	---	---
MONTH	110	68	84	---	---	---	---	---	---	116	75	92

02105500 CAPE FEAR RIVER AT WILLIAM O. HUSKE LOCK NEAR TARHEEL, NC—Continued

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	6.6	6.4	6.5	6.5	6.2	6.3	---	---	---	6.4	6.3	6.4
2	6.5	6.5	6.5	6.3	6.2	6.3	---	---	---	6.5	6.4	6.4
3	6.5	6.4	6.5	6.3	6.2	6.2	---	---	---	6.7	6.5	6.6
4	6.4	6.4	6.4	6.4	6.0	6.2	---	---	---	6.7	6.5	6.6
5	6.4	6.4	6.4	6.3	6.2	6.2	---	---	---	6.7	6.6	6.7
6	6.4	6.4	6.4	6.4	6.2	6.3	---	---	---	6.7	6.6	6.7
7	6.6	6.4	6.5	6.5	6.4	6.4	6.3	6.1	6.2	6.6	6.6	6.6
8	6.7	6.6	6.6	6.5	6.4	6.5	6.3	5.9	6.1	6.6	6.4	6.5
9	6.6	6.3	6.5	6.5	6.4	6.4	6.0	5.8	5.9	6.5	6.4	6.4
10	6.6	6.4	6.4	6.5	6.4	6.4	5.9	5.8	5.8	6.6	6.5	6.6
11	6.6	6.2	6.3	6.5	6.0	6.3	6.0	5.8	5.9	6.7	6.6	6.7
12	6.4	6.3	6.3	6.1	5.9	6.0	5.9	5.8	5.8	6.6	6.4	6.5
13	6.5	6.4	6.4	6.2	5.8	5.9	5.8	5.6	5.7	6.4	6.4	6.4
14	6.5	6.4	6.5	6.2	5.7	5.9	5.8	5.6	5.7	6.4	6.3	6.3
15	6.5	6.5	6.5	6.0	5.7	5.8	6.1	5.8	6.0	6.3	6.3	6.3
16	6.6	6.5	6.5	6.2	5.7	5.9	6.2	6.0	6.1	6.3	6.3	6.3
17	6.5	6.3	6.3	6.6	6.0	6.3	6.3	6.1	6.2	6.4	6.3	6.3
18	6.4	6.4	6.4	6.8	6.3	6.4	6.3	6.2	6.2	6.4	6.3	6.4
19	6.4	6.4	6.4	6.8	6.3	6.5	6.2	6.1	6.1	6.3	6.2	6.3
20	6.5	6.4	6.4	6.8	6.2	6.4	6.1	6.0	6.1	6.3	6.1	6.1
21	6.5	6.3	6.4	6.8	6.2	6.4	6.2	6.1	6.2	6.4	6.2	6.3
22	6.4	6.3	6.4	6.9	6.3	6.5	6.2	6.2	6.2	6.4	6.1	6.3
23	6.4	6.4	6.4	6.9	6.5	6.6	6.2	6.1	6.1	6.3	6.1	6.2
24	6.4	6.3	6.3	6.6	6.5	6.6	6.1	6.0	6.1	6.5	6.3	6.4
25	6.3	6.3	6.3	6.6	6.3	6.5	6.2	6.0	6.1	6.8	6.3	6.5
26	6.4	6.3	6.3	6.6	6.2	6.4	6.2	6.1	6.2	6.8	6.1	6.3
27	6.5	6.3	6.4	6.6	6.4	6.5	6.3	6.2	6.3	6.7	6.0	6.3
28	6.5	6.4	6.4	6.7	6.5	6.5	6.4	6.3	6.3	6.8	6.2	6.3
29	6.5	6.5	6.5	6.6	6.3	6.5	6.4	6.4	6.4	6.5	6.3	6.4
30	6.5	6.4	6.5	6.6	6.1	6.3	6.4	6.3	6.3	6.5	6.4	6.4
31	---	---	---	---	---	---	6.3	6.3	6.3	---	---	---
MONTH	6.7	6.2	6.4	---	---	---	---	---	---	6.8	6.0	6.4

02105500 CAPE FEAR RIVER AT WILLIAM O. HUSKE LOCK NEAR TARHEEL, NC—Continued

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	20.1	19.4	19.7	27.3	26.1	26.6	---	---	---	29.3	28.6	28.9
2	20.5	19.5	19.9	26.1	25.3	25.6	---	---	---	29.2	28.5	28.8
3	20.7	19.9	20.3	25.3	24.2	24.9	---	---	---	28.6	27.8	28.2
4	21.0	20.6	20.8	24.5	23.7	24.1	---	---	---	28.3	27.6	27.8
5	22.0	21.0	21.4	24.6	23.8	24.2	---	---	---	27.6	27.1	27.3
6	22.3	21.6	21.9	25.3	24.5	24.9	---	---	---	27.1	25.8	26.4
7	22.8	22.3	22.6	25.7	25.0	25.3	25.9	25.1	25.4	25.8	25.0	25.3
8	22.6	22.0	22.4	26.3	25.7	25.9	25.2	24.5	24.8	25.0	24.4	24.7
9	23.4	22.4	22.7	27.1	26.3	26.7	24.8	24.3	24.5	24.4	24.0	24.2
10	23.9	23.0	23.5	27.8	27.0	27.3	25.1	24.6	24.8	24.1	23.8	23.9
11	23.9	23.0	23.5	28.1	27.5	27.8	25.1	24.5	24.8	24.2	23.9	24.0
12	24.4	23.4	23.9	27.5	26.9	27.1	25.1	24.4	24.7	24.0	23.5	23.7
13	24.4	23.7	24.0	27.0	26.4	26.8	25.2	24.6	24.9	23.7	23.2	23.4
14	24.6	23.8	24.1	26.4	25.3	25.6	25.8	25.0	25.3	23.8	22.9	23.2
15	25.1	24.3	24.7	25.5	24.8	25.2	26.3	25.4	25.8	24.4	23.1	23.5
16	25.1	24.7	24.9	26.1	25.0	25.5	26.8	26.1	26.4	24.1	23.4	23.7
17	24.7	24.1	24.3	27.5	26.0	26.8	26.8	26.4	26.6	24.0	23.4	23.8
18	24.4	24.2	24.3	27.0	25.6	26.0	27.0	26.5	26.8	23.7	23.0	23.3
19	24.9	24.1	24.5	26.2	25.9	26.0	26.9	26.6	26.8	23.4	22.6	22.9
20	24.8	24.2	24.4	26.2	25.7	25.9	27.2	26.6	26.8	22.7	21.9	22.4
21	24.3	23.4	23.7	26.5	25.8	26.1	27.3	26.7	27.0	23.3	22.1	22.7
22	23.6	22.9	23.3	27.1	26.4	26.7	27.5	26.9	27.2	22.7	21.9	22.3
23	23.8	23.0	23.4	27.1	26.8	26.9	27.5	27.2	27.4	23.0	22.0	22.5
24	24.3	23.6	23.9	27.0	26.6	26.8	27.5	27.1	27.2	23.0	22.6	22.8
25	25.0	24.2	24.6	26.7	26.1	26.5	27.7	27.2	27.3	23.1	22.3	22.7
26	26.7	24.9	25.6	26.4	26.0	26.1	27.9	27.3	27.5	22.6	21.9	22.2
27	27.4	25.6	26.4	27.4	26.4	26.9	27.9	27.4	27.6	22.4	21.9	22.2
28	27.3	26.6	27.0	27.8	27.1	27.5	28.5	27.9	28.1	22.6	22.1	22.3
29	27.6	26.7	27.2	28.7	27.8	28.0	29.1	28.5	28.7	22.5	22.2	22.4
30	27.9	27.0	27.5	28.1	27.4	27.8	29.7	28.4	28.9	22.2	21.4	21.7
31	---	---	---	---	---	---	29.3	28.5	28.9	---	---	---
MONTH	27.9	19.4	23.7	---	---	---	---	---	---	29.3	21.4	24.1

02105500 CAPE FEAR RIVER AT WILLIAM O. HUSKE LOCK NEAR TARHEEL, NC—Continued

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

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

02105500 CAPE FEAR RIVER AT WILLIAM O. HUSKE LOCK NEAR TARHEEL, NC—Continued

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	85	79	82	76	70	73	---	---	---	76	66	71
2	86	79	83	83	72	78	---	---	---	77	69	73
3	85	79	82	84	76	80	---	---	---	78	70	75
4	84	78	81	82	73	77	---	---	---	79	69	74
5	82	77	80	81	74	77	---	---	---	78	70	73
6	82	74	78	82	77	79	---	---	---	74	65	70
7	84	77	81	82	77	80	76	70	73	77	68	71
8	82	77	80	81	75	78	75	70	72	76	68	71
9	83	76	80	79	73	76	76	67	72	76	70	73
10	84	78	80	80	74	77	72	64	68	78	72	76
11	79	74	76	82	69	76	76	67	71	77	69	74
12	82	75	79	73	67	71	73	63	69	75	68	71
13	84	78	81	73	68	70	69	62	65	72	66	68
14	85	78	82	74	68	71	73	63	67	72	64	68
15	85	78	82	77	70	73	77	69	73	72	64	67
16	85	80	82	77	68	73	81	74	78	69	62	65
17	85	79	82	79	72	76	79	72	76	69	63	66
18	85	79	83	75	70	73	79	71	75	71	63	67
19	85	79	82	75	68	72	78	70	74	69	63	66
20	83	78	80	73	68	70	81	73	77	71	61	65
21	83	76	80	73	66	70	81	74	78	71	64	68
22	85	76	80	72	65	69	81	72	77	71	63	67
23	85	78	82	72	65	69	76	69	72	71	63	68
24	81	76	78	71	65	68	73	64	68	72	68	70
25	81	73	77	70	64	67	71	62	66	74	68	71
26	86	75	80	75	66	70	74	66	68	72	67	69
27	91	76	82	75	68	71	73	66	70	75	69	72
28	84	76	80	78	68	73	76	69	73	76	72	74
29	85	74	79	79	69	73	78	71	74	76	71	74
30	84	72	76	78	65	73	77	68	72	76	71	74
31	---	---	---	---	---	---	72	65	69	---	---	---
MONTH	91	72	80	---	---	---	---	---	---	79	61	70

02105769 CAPE FEAR RIVER AT LOCK 1 NEAR KELLY, NC

LOCATION.--Lat 34°24'16", long 78°17'37", Bladen County, Hydrologic Unit 03030005, on right bank near upstream end of Lock 1, 1.3 mi upstream from Natmore Creek, 2.0 mi upstream from bridge on State Highway 11, 4.6 mi southeast of Kelly, and at river mile 67.

DRAINAGE AREA.--5,255 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1969 to current year.

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

GAGE.--Water-stage recorder with concrete lock and dam control. Datum of gage is 2.90 ft below NGVD of 1929 (U.S. Army Corps of Engineers bench mark). Satellite telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Slight regulation at high flow December 1972 to August 1981, caused by storage in B. Everett Jordan Lake. Flow regulated since September 1981 by B. Everett Jordan Lake (station 02098197). Slight diurnal fluctuation and some regulation for short periods at low flow caused by power plants upstream from station. The City of Wilmington diverted an average of 22.7 ft³/s for municipal water supply, most of which was returned downstream of station as treated effluent. Prior to regulation, maximum discharge: 57,000 ft³/s, March 3, 1979; gage height: 24.92 ft, from floodmarks. Minimum discharge prior to regulation, 406 ft³/s, July 1, 1981. Minimum discharge not determined due to fish lockage.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e660	5,400	1,890	12,200	2,480	18,800	18,700	11,100	21,400	3,200	9,760	2,660
2	e650	7,620	1,760	11,200	4,160	20,000	17,200	6,160	20,100	4,140	9,840	3,290
3	e650	7,730	1,430	11,100	5,320	20,800	16,400	4,310	18,500	8,460	10,500	4,610
4	e680	7,140	1,420	12,500	4,870	21,600	16,000	3,650	15,000	13,700	12,900	7,280
5	691	6,460	1,660	12,000	5,160	22,500	15,400	3,220	10,500	16,600	13,300	8,040
6	697	4,440	2,610	10,600	5,340	23,200	13,200	3,240	7,330	17,300	14,200	7,140
7	e640	3,380	7,320	9,260	5,590	23,400	10,100	4,730	6,930	17,100	16,100	7,270
8	e640	4,440	10,600	7,930	7,110	23,400	8,980	6,440	9,490	15,600	18,000	7,260
9	e630	5,460	9,670	5,990	9,390	23,700	10,100	8,620	9,230	11,200	19,200	5,860
10	e620	5,690	9,630	4,900	9,530	23,500	14,700	8,630	10,100	7,150	20,100	7,120
11	e660	5,450	11,700	4,250	8,570	22,800	19,100	5,910	11,600	6,880	21,300	7,510
12	1,940	5,050	12,600	3,580	9,220	22,100	22,700	3,830	11,800	7,390	22,800	5,000
13	10,900	6,100	12,600	3,190	10,800	21,100	29,800	2,770	11,900	7,010	25,300	3,060
14	14,300	8,630	12,700	3,030	11,000	19,500	38,500	2,230	12,000	7,350	27,200	2,500
15	15,100	11,800	14,000	2,870	10,300	16,700	42,800	1,860	11,900	9,120	25,800	2,270
16	11,700	13,800	15,300	2,640	7,910	12,300	42,100	1,690	11,600	9,430	23,300	2,120
17	9,710	12,500	14,300	2,640	6,550	10,600	36,200	1,810	11,700	10,000	21,300	1,980
18	11,600	10,400	13,500	2,710	6,550	12,800	30,100	1,790	11,900	12,700	19,500	2,100
19	13,800	13,200	14,700	2,590	6,570	14,100	26,200	1,920	12,400	13,700	16,100	2,630
20	14,200	15,100	15,300	2,530	7,510	15,800	23,800	2,910	13,200	12,200	12,000	3,880
21	13,600	15,900	12,900	2,440	9,250	18,200	22,500	5,200	14,600	10,200	10,200	7,610
22	12,900	16,200	10,100	2,220	10,600	20,700	21,600	6,260	15,700	8,590	9,020	8,670
23	12,200	15,800	9,390	2,160	10,400	23,200	21,100	6,970	15,200	7,040	6,560	8,760
24	7,980	13,900	8,640	2,110	13,500	25,900	20,600	9,660	11,300	5,750	4,930	8,770
25	3,960	11,300	8,210	1,990	16,300	27,700	20,300	12,900	6,330	4,810	4,250	10,300
26	2,560	8,300	9,690	1,940	17,700	27,700	19,900	14,600	4,040	5,480	4,090	13,100
27	1,980	4,920	13,100	2,030	18,300	26,400	19,200	17,500	3,030	5,870	4,350	14,400
28	1,520	3,040	15,100	2,050	18,300	24,600	18,300	20,300	2,770	5,220	4,170	14,200
29	1,190	2,280	15,200	2,060	---	22,800	17,700	22,500	2,720	4,480	3,500	12,800
30	1,460	2,000	13,900	2,090	---	21,400	16,300	23,700	3,220	4,960	3,120	10,500
31	2,270	---	12,900	2,060	---	20,200	---	22,900	---	7,490	2,850	---
TOTAL	172,088	253,430	313,820	150,860	258,280	647,500	649,580	249,310	327,490	280,120	415,540	202,690
MEAN	5,551	8,448	10,120	4,866	9,224	20,890	21,650	8,042	10,920	9,036	13,400	6,756
MAX	15,100	16,200	15,300	12,500	18,300	27,700	42,800	23,700	21,400	17,300	27,200	14,400
MIN	620	2,000	1,420	1,940	2,480	10,600	8,980	1,690	2,720	3,200	2,850	1,980

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 2003,* BY WATER YEAR (WY)

MEAN	3,600	3,459	4,689	8,113	9,555	11,200	8,347	4,145	3,940	3,238	3,310	3,854
MAX	15,080	11,390	11,050	17,180	27,780	23,830	21,650	12,110	15,070	10,860	13,400	22,580
(WY)	(2000)	(1996)	(1984)	(1998)	(1998)	(1998)	(2003)	(1989)	(1982)	(1995)	(2003)	(1996)
MIN	1,023	1,062	1,111	1,717	2,992	3,016	1,667	968	874	802	776	985
(WY)	(1999)	(2002)	(2002)	(2001)	(2001)	(2002)	(1986)	(2002)	(2002)	(2002)	(2002)	(1990)

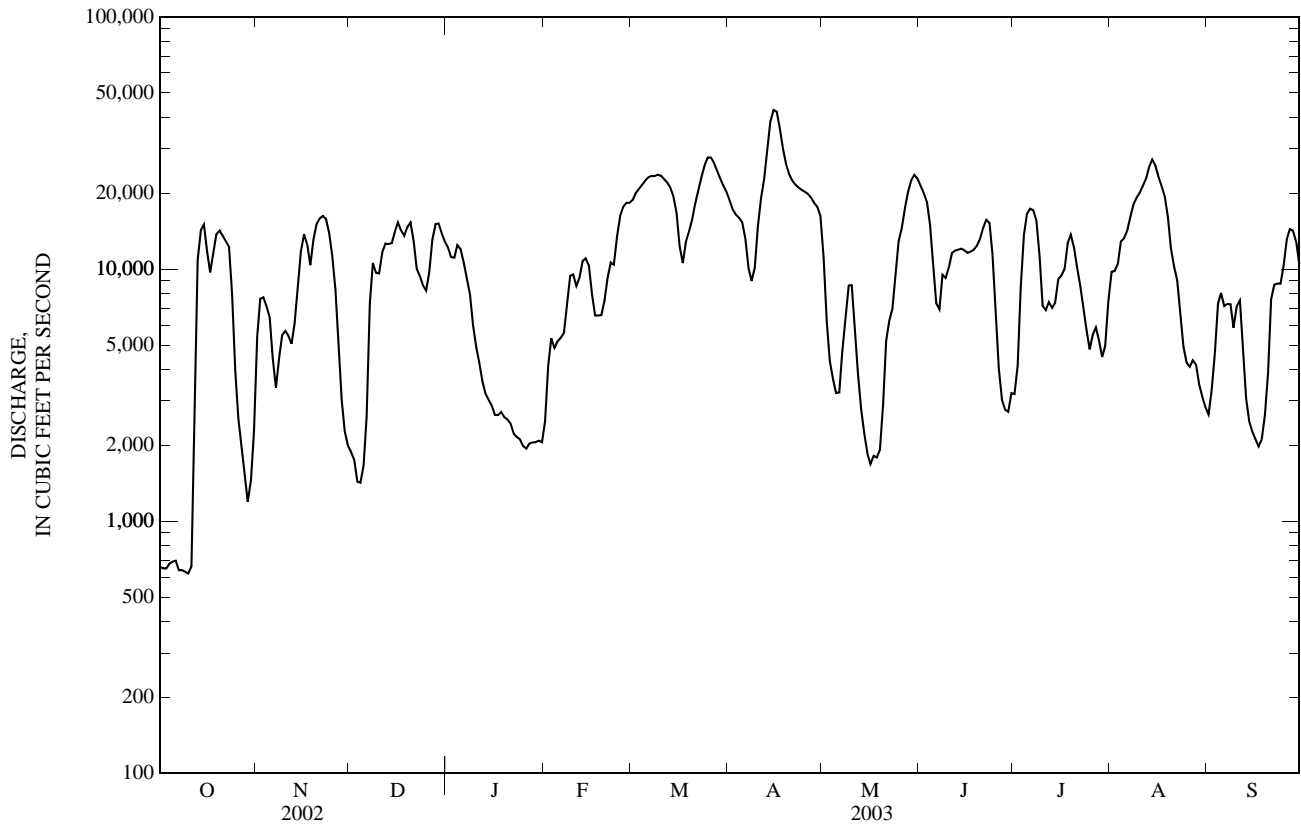
CAPE FEAR RIVER BASIN

02105769 CAPE FEAR RIVER AT LOCK 1 NEAR KELLY, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1982 - 2003*	
ANNUAL TOTAL	1,307,283		3,920,708		5,599	
ANNUAL MEAN	3,582		10,740		10,740	
HIGHEST ANNUAL MEAN					1,833	
LOWEST ANNUAL MEAN					47,600	
HIGHEST DAILY MEAN	16,200	Nov 22	42,800	Apr 15	47,600	Sep 11, 1996
LOWEST DAILY MEAN	179	Aug 10	620	Oct 10	179	Aug 10, 2002
ANNUAL SEVEN-DAY MINIMUM	350	Aug 7	654	Oct 5	350	Aug 7, 2002
MAXIMUM PEAK FLOW			43,600	Apr 15	48,300	Sep 11, 1996
MAXIMUM PEAK STAGE			23.72	Apr 15	24.29	Sep 11, 1996
INSTANTANEOUS LOW FLOW			NOT DETERMINED*		NOT DETERMINED*	
10 PERCENT EXCEEDS	11,700		21,400		15,100	
50 PERCENT EXCEEDS	1,500		9,690		2,800	
90 PERCENT EXCEEDS	656		2,110		1,040	

e Estimated.

* Regulated period only (1982-2003). See REMARKS.



02105769 CAPE FEAR RIVER AT LOCK 1 NEAR KELLY, NC—Continued

PRECIPITATION RECORDS

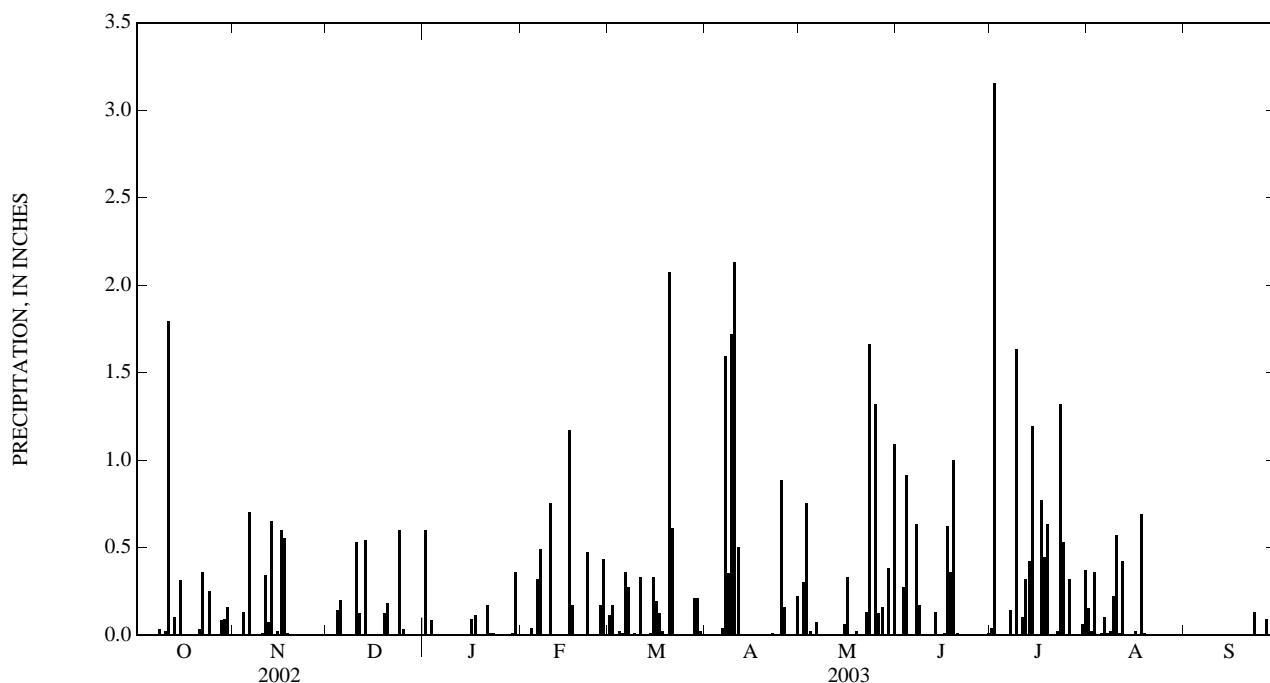
PERIOD OF RECORD.--November 1998 to current year. Records from November 1998 to September 1999 are unpublished and available in the USGS District Office, Raleigh, NC.

GAGE.--Tipping-bucket raingage and data collection platform.

REMARKS.--Records poor. Precipitation data collected during freezing periods may not be accurately reflected in daily record; consequently, winter record is poor.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.60	0.00	0.11	0.00	0.00	0.00	0.04	0.15	0.00
2	0.00	0.00	0.00	0.00	0.00	0.17	0.00	0.30	0.00	3.15	0.02	0.00
3	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.75	0.27	0.00	0.36	0.00
4	0.00	0.13	0.14	0.00	0.04	0.02	0.00	0.02	0.91	0.00	0.00	0.00
5	0.00	0.00	0.20	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.01	0.00
6	0.00	0.70	0.00	0.00	0.32	0.36	0.04	0.07	0.00	0.00	0.10	0.00
7	0.00	0.00	0.00	0.00	0.49	0.27	1.59	0.00	0.63	0.14	0.01	0.00
8	0.03	0.00	0.00	0.00	0.00	0.00	0.35	0.00	0.17	0.00	0.02	0.00
9	0.00	0.00	0.00	0.00	0.00	0.01	1.72	0.00	0.00	1.63	0.22	0.00
10	0.02	0.01	0.53	0.00	0.75	0.00	2.13	0.00	0.00	0.00	0.57	0.00
11	1.79	0.34	0.12	0.00	0.00	0.33	0.50	0.00	0.00	0.10	0.01	0.00
12	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.32	0.42	0.00
13	0.10	0.65	0.54	0.00	0.00	0.00	0.00	0.00	0.13	0.42	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	1.19	0.00	0.00
15	0.31	0.02	0.00	0.00	0.00	0.33	0.00	0.06	0.00	0.00	0.00	0.00
16	0.00	0.60	0.00	0.09	1.17	0.19	0.00	0.33	0.01	0.00	0.02	0.00
17	0.00	0.55	0.00	0.11	0.17	0.12	0.00	0.00	0.62	0.77	0.00	0.00
18	0.00	0.01	0.00	0.00	0.00	0.02	0.00	0.00	0.36	0.44	0.69	0.00
19	0.00	0.00	0.12	0.00	0.00	0.00	0.00	0.02	1.00	0.63	0.01	0.00
20	0.00	0.00	0.18	0.00	0.00	2.07	0.00	0.00	0.01	0.00	0.00	0.00
21	0.03	0.00	0.00	0.17	0.00	0.61	0.00	0.00	0.00	0.00	0.00	0.00
22	0.36	0.00	0.00	0.01	0.47	0.00	0.01	0.13	0.00	0.02	0.00	0.00
23	0.00	0.00	0.00	0.01	0.00	0.00	0.00	1.66	0.00	1.32	0.00	0.13
24	0.25	0.00	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.53	0.00	0.00
25	0.00	0.00	0.03	0.00	0.00	0.00	0.88	1.32	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.17	0.00	0.16	0.12	0.00	0.32	0.00	0.00
27	0.00	0.00	0.00	0.00	0.43	0.00	0.00	0.16	0.00	0.00	0.00	0.09
28	0.08	0.00	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.00	0.00	0.00
29	0.09	0.00	0.00	0.01	---	0.21	0.00	0.38	0.00	0.00	0.00	0.00
30	0.16	0.00	0.00	0.36	---	0.02	0.22	0.00	0.01	0.06	0.00	0.00
31	0.00	---	0.00	0.00	---	0.00	---	1.09	---	0.37	0.00	---
TOTAL	3.22	3.08	2.46	1.44	4.01	5.07	7.60	6.41	4.12	11.45	2.61	0.22



02105900 HOOD CREEK NEAR LELAND, NC

LOCATION.--Lat 34°16'44", long 78°07'33", Brunswick County, Hydrologic Unit 03030005, on right bank at downstream side of bridge on U.S. Highway 74-76, 0.4 mi downstream from Pasture Pond Branch, 1 mi southeast of Maco, and 4.8 mi northwest of Leland.

DRAINAGE AREA.--21.6 mi².

PERIOD OF RECORD.--Occasional low-flow measurements water years 1950-56, and annual maximum, water years 1953-56. October 1956 to September 1973. October 1993 to current year.

GAGE.--Water-stage recorder. Datum of gage is 12.22 ft above NGVD of 1929. Prior to Nov. 28, 1956, crest-stage gage at site 150 ft upstream at datum 9.60 ft lower. Nov. 29, 1956 to Apr. 24, 1969, water-stage recorder 150 ft upstream at datum 0.19 ft higher. Satellite telemetry at station.

REMARKS.--No estimated daily discharges. Records fair. Maximum gage height for period of record from floodmark. Low flows possibly affected by tide. No flow, also occurred Sept. 11, 1997.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	18	14	48	21	58	37	23	22	3.2	7.1	0.64
2	15	17	13	66	22	57	33	19	20	4.2	6.0	0.57
3	14	16	13	58	20	57	28	16	18	5.2	7.1	0.54
4	12	15	12	50	21	50	25	22	18	4.6	8.1	0.51
5	11	14	14	45	22	44	22	20	17	3.7	6.6	0.78
6	10	21	15	39	22	44	20	20	15	3.0	7.2	0.65
7	9.4	33	16	36	32	62	31	17	17	2.6	8.2	0.76
8	8.6	29	15	33	43	90	86	15	19	2.0	7.8	0.97
9	8.5	23	14	32	37	75	466	19	21	1.7	9.2	0.89
10	8.2	22	16	30	42	59	759	18	18	7.3	12	0.71
11	11	23	28	29	55	50	409	13	16	9.1	22	0.59
12	17	33	30	27	47	57	247	11	13	9.3	19	0.60
13	20	50	33	25	39	59	164	8.6	11	7.8	14	0.54
14	68	55	45	24	34	50	107	6.7	10	12	14	0.50
15	60	45	40	23	31	46	77	5.9	11	14	13	0.49
16	56	41	32	22	35	73	59	5.7	9.6	15	10	0.47
17	47	65	28	24	81	83	47	5.1	9.2	11	7.5	0.43
18	33	94	26	24	83	70	38	4.7	11	7.4	5.5	3.9
19	25	73	25	23	63	61	32	4.4	23	13	4.5	11
20	20	51	41	23	51	173	27	4.4	32	31	4.4	13
21	18	40	56	22	44	842	24	3.8	36	22	4.6	9.0
22	22	33	44	19	46	411	21	3.7	28	14	4.6	5.6
23	26	28	37	20	76	203	19	27	18	9.4	4.3	5.2
24	28	26	40	19	75	130	16	82	13	10	3.7	4.8
25	34	22	68	18	56	95	20	54	10	11	3.3	4.6
26	32	20	64	18	46	74	59	82	7.7	11	3.0	4.0
27	26	18	51	17	48	60	73	53	6.0	10	2.4	3.5
28	22	17	43	17	61	51	56	38	4.7	7.8	1.7	3.4
29	21	15	39	17	---	46	39	29	3.9	5.9	1.1	3.0
30	20	15	37	18	---	42	29	25	3.4	6.0	0.89	3.8
31	19	---	35	20	---	39	---	22	---	6.3	0.74	---
TOTAL	737.7	972	984	886	1,253	3,311	3,070	678.0	461.5	280.5	223.53	85.44
MEAN	23.8	32.4	31.7	28.6	44.8	107	102	21.9	15.4	9.05	7.21	2.85
MAX	68	94	68	66	83	842	759	82	36	31	22	13
MIN	8.2	14	12	17	20	39	16	3.7	3.4	1.7	0.74	0.43
CFSM	1.10	1.50	1.47	1.32	2.07	4.94	4.74	1.01	0.71	0.42	0.33	0.13
IN.	1.27	1.67	1.69	1.53	2.16	5.70	5.29	1.17	0.79	0.48	0.38	0.15

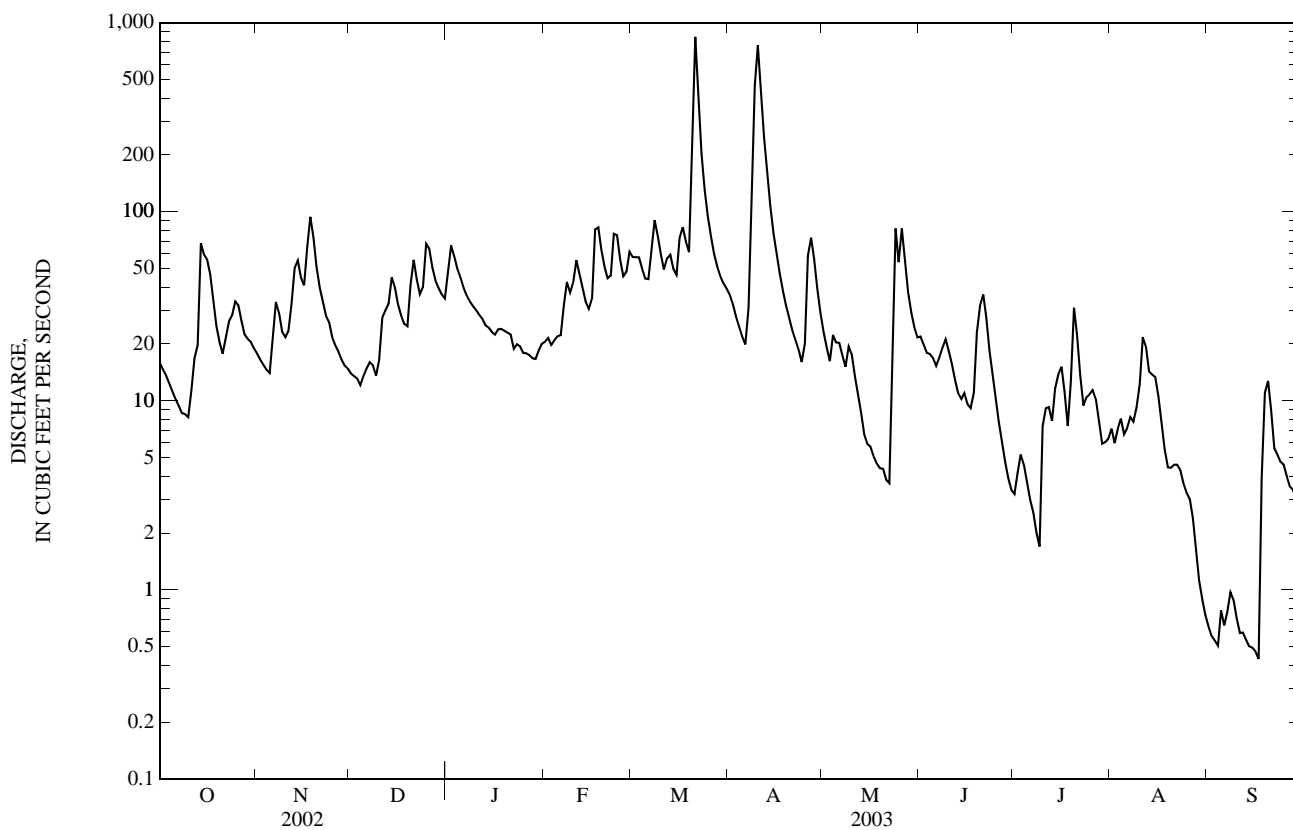
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 2003,[@] BY WATER YEAR (WY)

MEAN	29.9	20.7	27.3	45.0	52.8	56.5	33.1	18.4	22.5	37.3	47.9	58.2
MAX	115	52.6	74.5	93.8	177	111	115	137	143	133	153	534
(WY)	(2000)	(1960)	(1973)	(1964)	(1998)	(1959)	(1961)	(1999)	(1961)	(1996)	(1969)	(1999)
MIN	1.11	0.53	1.53	3.20	3.54	8.27	3.69	1.67	0.32	0.73	0.15	0.51
(WY)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(1967)	(1995)	(1960)	(1957)	(1957)	(1963)

02105900 HOOD CREEK NEAR LELAND, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1957 - 2003 [@]	
ANNUAL TOTAL	6,439.89		12,942.67		37.4	
ANNUAL MEAN	17.6		35.5		80.6	
HIGHEST ANNUAL MEAN					10.5	1999
LOWEST ANNUAL MEAN					0.00	2002
HIGHEST DAILY MEAN	340	Aug 31	842	Mar 21	3,000	Sep 16, 1999
LOWEST DAILY MEAN	0.03	Jun 13	0.43	Sep 17	0.02	Sep 10, 1997
ANNUAL SEVEN-DAY MINIMUM	0.23	Jun 8	0.52	Sep 11	0.02	Sep 4, 1997
MAXIMUM PEAK FLOW			944	Mar 21	4,800	Sep 16, 1999
MAXIMUM PEAK STAGE			8.13	Apr 10	13.89*	Sep 16, 1999
INSTANTANEOUS LOW FLOW			0.36*	Sep 17	0.00*	Sep 10, 1997
ANNUAL RUNOFF (CFSM)	0.82		1.64		1.73	
ANNUAL RUNOFF (INCHES)	11.09		22.29		23.52	
10 PERCENT EXCEEDS	44		61		83	
50 PERCENT EXCEEDS	7.2		20		15	
90 PERCENT EXCEEDS	1.7		3.8		1.5	

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



CAPE FEAR RIVER BASIN

02106500 BLACK RIVER NEAR TOMAHAWK, NC

LOCATION.--Lat 34°45'18", long 78°17'20", Sampson County, Hydrologic Unit 03030006, on left bank 30 ft upstream from bridge on State Highway 411, 0.2 mi downstream of Clear Run Swamp, and 3.8 mi northeast of Tomahawk.

DRAINAGE AREA.--676 mi².

PERIOD OF RECORD.--October 1951 to current year.

REVISED RECORDS.--WSP 1723: 1955(M). WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 24.61 ft above NGVD of 1929. Nonrecording gage on downstream side of bridge Oct. 1, 1951 to June 29, 1961. Water-stage recorder was at present site at datum of 24.26 ft June 30, 1961 to Sept. 30, 1964. Satellite telemetry at station

REMARKS.--No estimated daily discharges. Records good. Maximum gage height for period of record, from floodmarks.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1928 reached a stage of 22.0 ft, present datum; discharge, 14,500 ft³/s and floods in 1945 and 1948 reached a stage of 17.6 ft, present datum; discharge, 5,420 ft³/s, from information furnished by North Carolina State Highway Commission.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	100	221	356	616	459	1,290	1,350	649	2,930	516	1,300	514
2	95	216	331	766	452	1,390	1,190	604	2,820	979	1,310	464
3	89	194	309	826	434	1,440	1,050	573	2,630	2,600	1,330	432
4	82	169	294	842	413	1,430	926	558	2,440	4,050	1,470	407
5	77	154	307	818	399	1,340	834	571	2,280	5,740	1,640	451
6	71	151	410	774	387	1,310	766	554	2,100	6,780	1,930	486
7	67	168	470	737	462	1,410	724	735	1,810	6,030	2,420	435
8	64	207	479	701	736	1,470	908	882	1,560	4,640	2,730	412
9	61	191	475	668	777	1,460	1,230	873	1,470	3,620	2,900	394
10	59	178	458	624	762	1,430	1,660	742	1,410	2,720	3,230	373
11	71	168	459	576	888	1,360	2,090	624	1,290	2,130	3,360	360
12	126	183	495	535	898	1,410	2,580	549	1,160	1,860	3,210	350
13	152	359	528	497	816	1,540	3,160	505	1,030	1,840	3,010	343
14	145	638	662	467	729	1,560	3,550	447	897	2,120	3,010	339
15	142	705	730	443	669	1,450	3,590	397	773	3,510	3,370	329
16	130	734	704	420	650	1,340	3,360	363	705	6,550	3,710	313
17	123	826	673	412	924	1,330	2,910	345	1,280	7,990	3,900	290
18	114	966	625	426	1,200	1,300	2,440	339	1,430	7,580	3,970	289
19	105	1,010	583	419	1,310	1,240	2,010	418	1,460	6,670	3,620	483
20	97	1,010	581	404	1,340	1,260	1,660	903	1,550	6,070	3,030	642
21	89	1,010	679	394	1,260	1,780	1,380	886	1,760	6,040	2,540	536
22	84	992	716	395	1,120	2,230	1,170	784	1,900	6,010	2,140	451
23	81	893	698	409	1,180	2,580	1,020	1,150	1,960	5,390	1,820	449
24	80	745	674	402	1,300	2,910	892	1,700	1,920	4,620	1,630	529
25	80	625	747	379	1,330	3,080	794	1,960	1,710	3,850	1,460	494
26	84	549	828	376	1,260	2,990	790	2,080	1,290	3,150	1,290	449
27	81	497	806	375	1,170	2,720	830	2,230	956	2,630	1,140	419
28	79	455	758	367	1,180	2,320	837	2,450	761	2,180	986	436
29	88	413	698	362	---	1,940	780	2,630	611	1,730	833	476
30	123	380	644	379	---	1,680	712	2,810	528	1,480	687	450
31	208	---	608	431	---	1,510	---	2,910	---	1,350	579	---
TOTAL	3,047	15,007	17,785	16,240	24,505	53,500	47,193	33,221	46,421	122,425	69,555	12,795
MEAN	98.3	500	574	524	875	1,726	1,573	1,072	1,547	3,949	2,244	426
MAX	208	1,010	828	842	1,340	3,080	3,590	2,910	2,930	7,990	3,970	642
MIN	59	151	294	362	387	1,240	712	339	528	516	579	289
CFSM	0.15	0.74	0.85	0.77	1.29	2.55	2.33	1.59	2.29	5.84	3.32	0.63
IN.	0.17	0.83	0.98	0.89	1.35	2.94	2.60	1.83	2.55	6.74	3.83	0.70

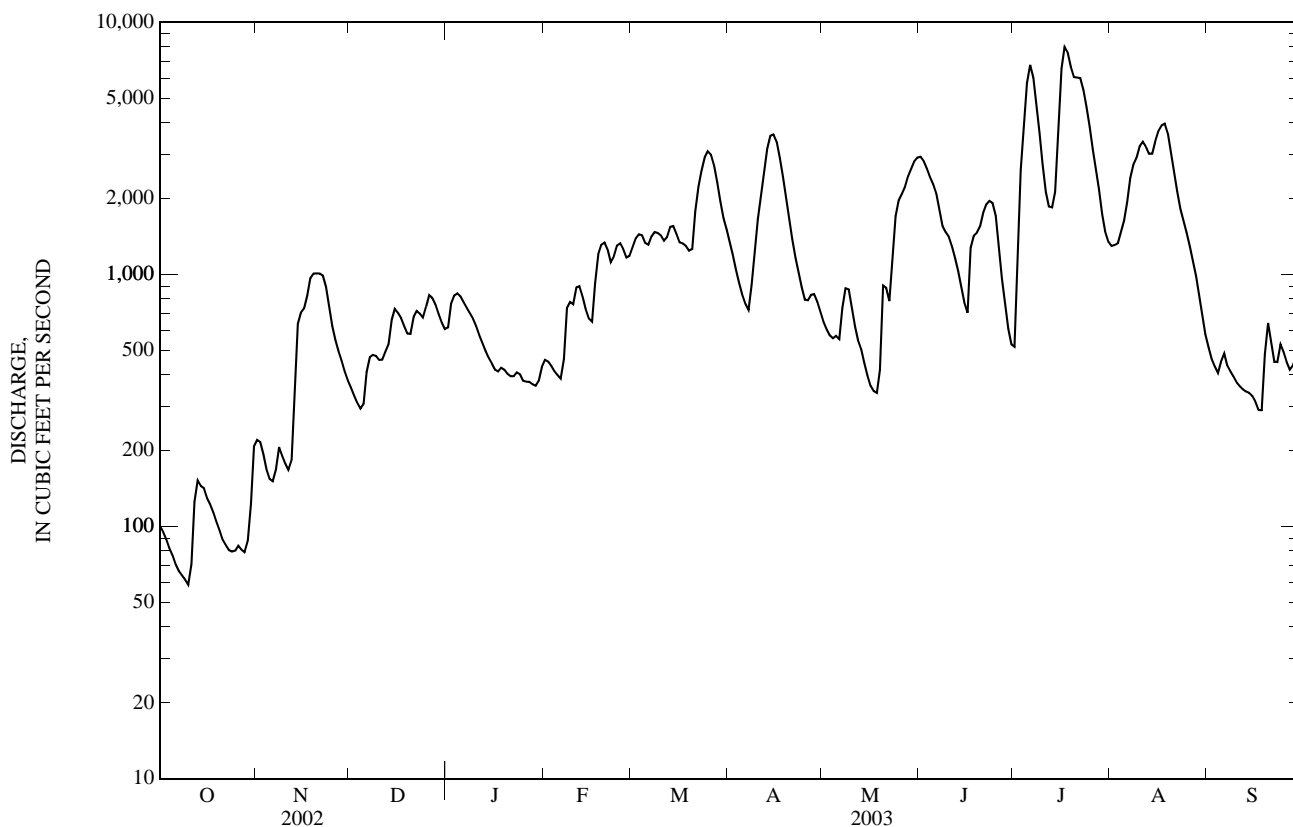
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1952 - 2003, BY WATER YEAR (WY)

MEAN	528	495	701	1,133	1,316	1,427	1,065	535	490	539	710	714
MAX	4,421	1,412	2,164	2,903	4,212	3,410	3,070	1,687	3,089	3,949	2,810	5,812
(WY)	(2000)	(1963)	(1993)	(1993)	(1998)	(1983)	(1973)	(1978)	(1995)	(2003)	(1974)	(1999)
MIN	29.6	57.1	238	287	448	460	225	117	73.0	68.0	25.2	13.4
(WY)	(1955)	(1974)	(1989)	(1986)	(1989)	(1981)	(1981)	(2001)	(2002)	(1998)	(1954)	(1954)

02106500 BLACK RIVER NEAR TOMAHAWK, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1952 - 2003	
ANNUAL TOTAL	164,406		461,694			
ANNUAL MEAN	450		1,265		802	
HIGHEST ANNUAL MEAN					1,300	1960
LOWEST ANNUAL MEAN					327	1986
HIGHEST DAILY MEAN	2,140	Apr 6	7,990	Jul 17	27,300	Sep 18, 1999
LOWEST DAILY MEAN	16	Aug 24	59	Oct 10	8.9	Sep 13, 1954
ANNUAL SEVEN-DAY MINIMUM	18	Aug 18	67	Oct 5	9.9	Oct 9, 1954
MAXIMUM PEAK FLOW			8,080	Jul 17	28,500	Sep 18, 1999
MAXIMUM PEAK STAGE			18.16	Jul 17	27.14*	Sep 18, 1999
INSTANTANEOUS LOW FLOW			57	Oct 10	8.5	Oct 13, 1954
ANNUAL RUNOFF (CFSM)	0.67		1.87		1.19	
ANNUAL RUNOFF (INCHES)	9.05		25.41		16.12	
10 PERCENT EXCEEDS	1,030		2,920		1,790	
50 PERCENT EXCEEDS	257		780		518	
90 PERCENT EXCEEDS	46		181		106	

* See REMARKS.



02108000 NORTHEAST CAPE FEAR RIVER NEAR CHINQUAPIN, NC

LOCATION.--Lat 34°49'41", long 77°49'59", Duplin County, Hydrologic Unit 03030007, on right bank 540 ft downstream of bridge on State Highway 41, 0.5 mi downstream of Muddy Creek, and 1.2 mi west of Chinquapin.

DRAINAGE AREA.--599 mi².

PERIOD OF RECORD.--July 1940 to current year.

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

GAGE.--Water-stage recorder. Datum of gage is 17.28 ft above NGVD of 1929 (levels by U.S. Army Corps of Engineers). Satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Minimum discharge for period of record also occurred Oct. 11, 1954. Minimum discharge for current water year also occurred Oct. 11.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1908 reached a stage of 22.6 ft at old bridge site 1,000 ft upstream from gage. Flood in 1928 reached a stage 0.8 ft lower than the flood in 1908, from information by North Carolina State Highway Commission.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	56	125	349	507	350	1,250	980	513	2,980	393	841	251
2	50	139	318	565	356	1,270	885	462	2,560	640	926	215
3	46	133	292	591	350	1,270	806	415	2,230	2,100	911	190
4	42	125	272	610	343	1,230	738	386	2,000	3,230	809	171
5	39	118	286	600	333	1,150	686	367	e1,850	3,680	1,130	207
6	35	125	357	585	321	1,160	643	355	e1,600	3,720	1,310	214
7	33	147	403	552	391	1,270	607	410	1,360	4,110	1,330	210
8	31	160	420	515	545	1,330	684	457	1,260	4,220	1,320	205
9	29	165	423	486	594	1,300	1,110	465	1,210	3,750	1,300	196
10	27	167	420	457	628	1,230	2,160	458	1,080	2,970	1,520	183
11	27	163	440	431	763	1,130	3,570	445	895	2,080	2,210	173
12	31	167	470	408	809	1,100	4,840	411	729	1,430	2,580	163
13	48	241	492	389	772	1,140	5,180	376	612	1,230	2,530	154
14	53	372	594	373	707	1,160	5,010	351	520	1,830	2,290	147
15	89	425	626	359	633	1,080	4,570	325	437	3,140	1,990	141
16	144	470	631	340	593	952	3,890	292	449	4,770	1,650	134
17	162	560	598	331	1,080	958	3,040	263	1,100	5,460	1,560	125
18	165	709	555	330	1,450	1,050	2,190	239	1,620	5,170	1,750	142
19	163	783	517	325	1,590	1,060	1,570	233	3,330	4,640	1,810	256
20	146	813	513	322	1,570	1,140	1,190	259	4,290	4,890	1,840	314
21	108	806	535	318	1,460	1,850	946	258	4,350	5,200	1,900	323
22	82	773	542	320	1,300	2,910	811	255	3,740	5,150	1,870	317
23	70	719	531	318	1,330	3,770	733	585	3,020	4,420	1,640	381
24	62	663	514	308	1,380	3,950	659	1,400	2,490	3,810	1,310	516
25	56	613	603	292	1,340	3,660	600	1,910	2,070	3,820	1,030	463
26	55	566	654	301	1,230	3,130	603	2,160	1,630	3,710	814	399
27	53	514	656	302	1,130	2,540	645	2,420	1,210	3,120	638	374
28	52	462	625	299	1,190	1,970	631	3,020	830	2,400	512	489
29	52	419	589	290	---	1,500	597	3,520	587	1,730	424	497
30	67	382	552	296	---	1,200	558	3,560	465	1,220	356	409
31	102	---	516	329	---	1,080	---	3,320	---	929	300	---
TOTAL	2,175	12,024	15,293	12,449	24,538	50,790	51,132	29,890	52,504	98,962	42,401	7,959
MEAN	70.2	401	493	402	876	1,638	1,704	964	1,750	3,192	1,368	265
MAX	165	813	656	610	1,590	3,950	5,180	3,560	4,350	5,460	2,580	516
MIN	27	118	272	290	321	952	558	233	437	393	300	125
CFSM	0.12	0.67	0.82	0.67	1.46	2.74	2.85	1.61	2.92	5.33	2.28	0.44
IN.	0.14	0.75	0.95	0.77	1.52	3.15	3.18	1.86	3.26	6.15	2.63	0.49

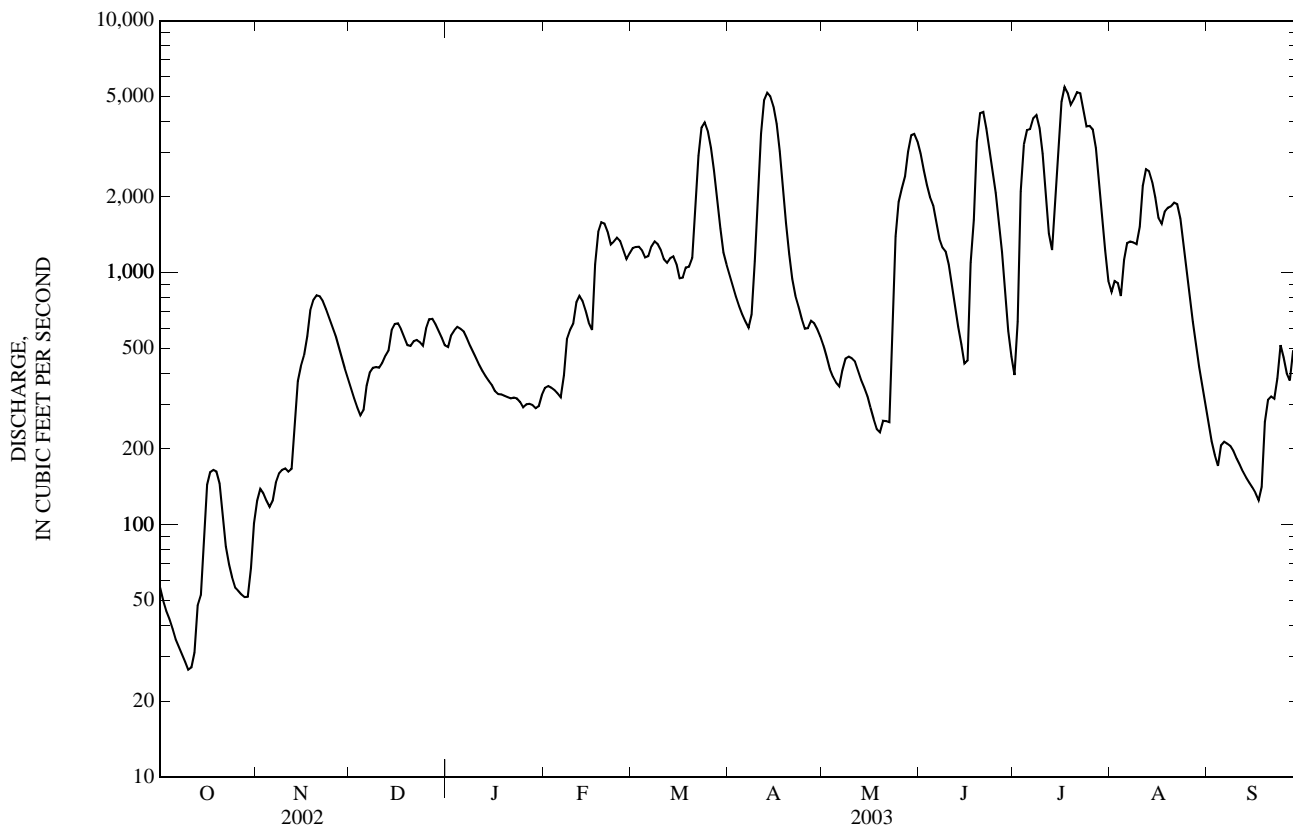
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2003, BY WATER YEAR (WY)

MEAN	455	419	650	1,052	1,201	1,241	850	465	413	576	673	677
MAX	3,237	1,852	2,225	2,548	4,399	3,506	2,958	1,901	1,953	3,922	2,681	7,329
(WY)	(2000)	(1948)	(1949)	(1993)	(1998)	(1983)	(1973)	(1969)	(1961)	(1962)	(1955)	(1999)
MIN	7.59	15.6	59.6	158	249	261	145	64.9	17.3	25.9	13.8	11.0
(WY)	(1955)	(1955)	(1955)	(1955)	(1955)	(1955)	(1986)	(1995)	(1994)	(1954)	(1954)	(1954)

02108000 NORTHEAST CAPE FEAR RIVER NEAR CHINQUAPIN, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1940 - 2003	
ANNUAL TOTAL	138,411		400,117			
ANNUAL MEAN	379		1,096		722	
HIGHEST ANNUAL MEAN					1,243	1973
LOWEST ANNUAL MEAN					279	1951
HIGHEST DAILY MEAN	2,750	Mar 5	5,460	Jul 17	29,900	Sep 18, 1999
LOWEST DAILY MEAN	19	Aug 24	27	Oct 10	5.3	Oct 10, 1954
ANNUAL SEVEN-DAY MINIMUM	20	Aug 20	30	Oct 6	5.5	Oct 8, 1954
MAXIMUM PEAK FLOW			5,520	Jul 17	30,700	Sep 18, 1999
MAXIMUM PEAK STAGE			13.92	Jul 17	23.51	Sep 18, 1999
INSTANTANEOUS LOW FLOW			26*	Oct 10	5.3*	Oct 10, 1954
ANNUAL RUNOFF (CFSM)	0.63		1.83		1.21	
ANNUAL RUNOFF (INCHES)	8.60		24.85		16.37	
10 PERCENT EXCEEDS	946		3,070		1,700	
50 PERCENT EXCEEDS	191		600		404	
90 PERCENT EXCEEDS	35		143		58	

e Estimated.
 * See REMARKS.



02108566 NORTHEAST CAPE FEAR RIVER NEAR BURGAW, NC

LOCATION.--Lat 34°35'56", long 77°52'31", Pender County, Hydrologic Unit 03030007, on left bank at State Highway 53 bridge, 3.9 mi above Holly Shelter Creek and 4.5 mi east of Burgaw.

DRAINAGE AREA.--920 mi².

PERIOD OF RECORD.--September 1999 to current year. Records for September 1999 are unpublished and available in the USGS District Office, Raleigh, NC.

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

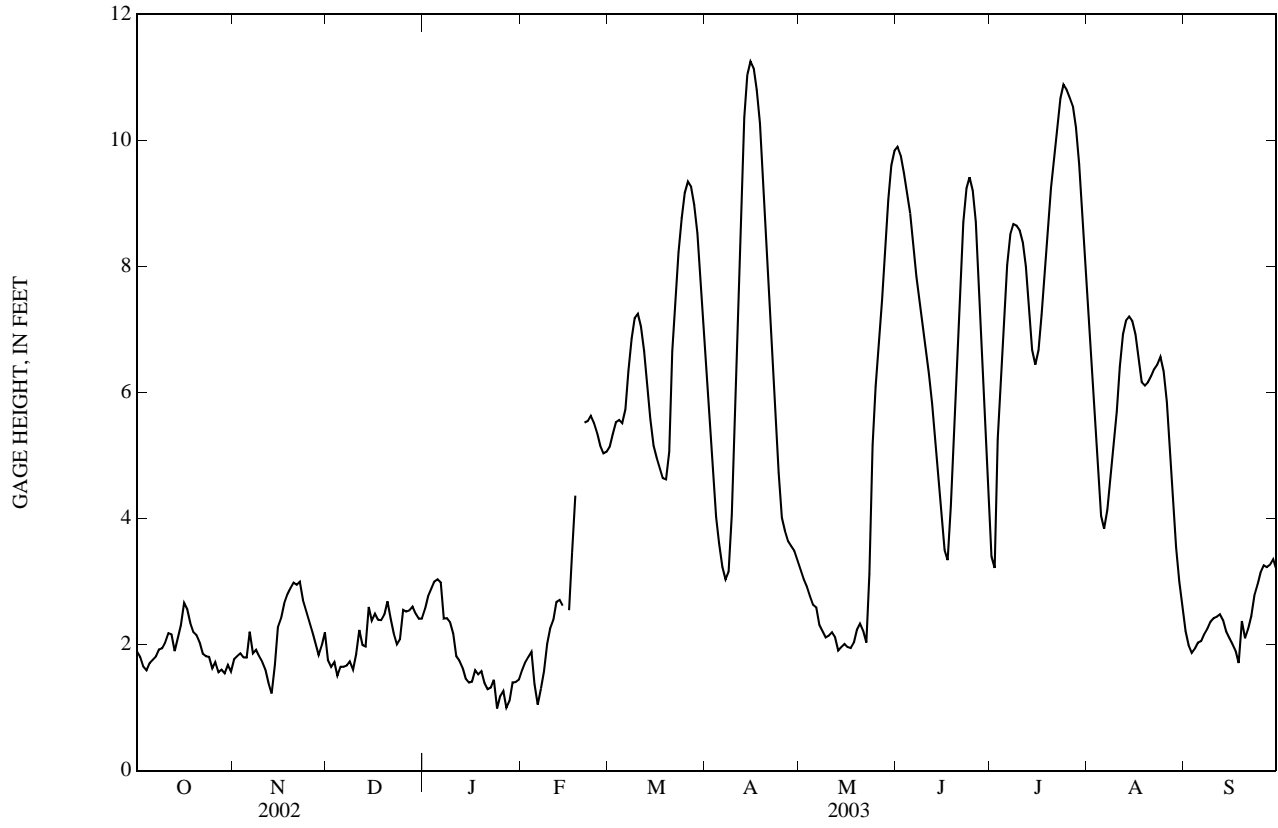
EXTREMES FOR PERIOD OF RECORD.--Maximum, 22.77 ft, Sept. 20, 1999; minimum, -0.18 ft, Jan. 2, 2002.

EXTREMES FOR CURRENT YEAR.--Maximum, 11.28 ft, Apr. 15; minimum 0.13 ft, Jan 28.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.89	1.77	1.75	2.57	1.59	5.14	6.25	3.19	9.90	3.40	7.06	2.22
2	1.80	1.82	1.65	2.77	1.72	5.34	5.44	3.04	9.76	3.22	6.08	1.99
3	1.65	1.86	1.72	2.89	1.80	5.53	4.67	2.92	9.48	5.26	5.25	1.87
4	1.59	1.80	1.51	3.00	1.89	5.56	4.02	2.77	9.18	6.32	4.63	1.94
5	1.71	1.79	1.65	3.04	1.37	5.52	3.60	2.63	8.84	7.22	4.04	2.03
6	1.76	2.20	1.65	2.99	1.05	5.73	3.23	2.59	8.34	8.02	3.84	2.06
7	1.81	1.86	1.67	2.41	1.30	6.35	3.03	2.32	7.83	8.51	4.14	2.16
8	1.92	1.92	1.73	2.42	1.57	6.85	3.16	2.21	7.43	8.67	4.65	2.25
9	1.94	1.82	1.60	2.35	2.01	7.18	4.06	2.11	7.05	8.65	5.21	2.36
10	2.03	1.72	1.85	2.17	2.26	7.25	6.21	2.14	6.69	8.57	5.69	2.42
11	2.18	1.60	2.23	1.82	2.39	7.05	7.86	2.20	6.30	8.38	6.40	2.44
12	2.16	1.39	1.99	1.74	2.68	6.66	9.26	2.12	5.82	8.00	6.92	2.48
13	1.90	1.22	1.97	1.63	2.71	6.11	10.37	1.91	5.28	7.38	7.14	2.38
14	2.10	1.67	2.60	1.46	2.62	5.58	11.04	1.96	4.70	6.68	7.20	2.21
15	2.31	2.27	2.38	1.40	---	5.16	11.25	2.01	4.08	6.44	7.14	2.10
16	2.66	2.42	2.49	1.41	2.55	4.97	11.14	1.96	3.50	6.67	6.92	2.01
17	2.57	2.66	2.39	1.59	3.47	4.81	10.80	1.94	3.34	7.23	6.53	1.90
18	2.34	2.79	2.39	1.53	4.36	4.64	10.27	2.03	4.20	7.98	6.16	1.71
19	2.20	2.90	2.48	1.58	---	4.62	9.59	2.23	5.39	8.67	6.11	2.37
20	2.15	2.98	2.69	1.39	---	5.06	8.78	2.33	6.74	9.25	6.16	2.10
21	2.04	2.95	2.41	1.29	5.52	6.66	7.84	2.22	7.88	9.70	6.26	2.25
22	1.85	3.00	2.18	1.32	5.55	7.55	6.78	2.03	8.70	10.21	6.37	2.46
23	1.82	2.71	2.01	1.44	5.63	8.23	5.70	3.12	9.24	10.67	6.45	2.77
24	1.80	2.53	2.09	0.99	5.52	8.77	4.72	5.16	9.42	10.88	6.56	2.95
25	1.62	2.37	2.55	1.18	5.35	9.17	4.01	6.10	9.20	10.80	6.34	3.15
26	1.72	2.20	2.52	1.27	5.16	9.35	3.81	6.82	8.71	10.68	5.85	3.26
27	1.56	2.02	2.54	1.00	5.03	9.27	3.64	7.46	8.04	10.54	5.18	3.23
28	1.60	1.83	2.60	1.11	5.06	8.98	3.56	8.30	7.19	10.20	4.36	3.27
29	1.55	1.98	2.49	1.40	---	8.53	3.49	9.06	6.05	9.62	3.54	3.36
30	1.68	2.19	2.41	1.41	---	7.90	3.34	9.60	4.65	8.86	3.00	3.20
31	1.57	---	2.41	1.44	---	7.13	---	9.84	---	8.02	2.61	---
MEAN	1.92	2.14	2.15	1.81	---	6.67	6.36	3.75	7.10	8.22	5.61	2.43
MAX	2.66	3.00	2.69	3.04	---	9.35	11.25	9.84	9.90	10.88	7.20	3.36
MIN	1.55	1.22	1.51	0.99	---	4.62	3.03	1.91	3.34	3.22	2.61	1.71

02108566 NORTHEAST CAPE FEAR RIVER NEAR BURGAW, NC—Continued



WACCAMAW RIVER BASIN

02109500 WACCAMAW RIVER AT FREELAND, NC

LOCATION.--Lat 34°05'44", long 78°32'54", Brunswick County, Hydrologic Unit 03040206, on left bank 150 ft downstream of New Britton bridge on State Highway 130, 1 mi southwest of Freeland, 7 mi downstream of Juniper Creek, and 117 mi upstream from mouth in Winyah Bay.

DRAINAGE AREA.--680 mi².

PERIOD OF RECORD.--July 1939 to current year.

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

GAGE.--Water-stage recorder. Datum of gage is 15.52 ft above NGVD of 1929. Prior to July 15, 1943, nonrecording gage 150 ft upstream at same datum. Auxiliary nonrecording gage 3.3 mi downstream of base gage Oct. 7, 1949, to July 14, 1952. Since July 15, 1952, auxiliary water-stage recorder at same site and datum. Satellite telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Minimum discharge for period of record also occurred Sept. 9, 19, 28, and Oct. 4-14, 1954. Minimum discharge for current water year also occurred Nov. 6.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	300	98	267	500	242	998	2,320	1,300	e670	210	1,600	532
2	280	91	242	536	238	1,040	2,090	1,180	e645	226	1,670	460
3	259	83	224	577	233	1,080	1,880	1,040	e655	356	1,840	392
4	237	78	208	612	231	1,090	1,680	941	e685	458	2,030	335
5	214	74	201	644	228	1,090	1,540	873	736	496	2,110	311
6	194	77	199	660	225	1,080	1,420	856	767	498	2,090	336
7	174	96	195	660	250	1,090	1,370	863	771	482	1,990	386
8	154	100	188	655	325	1,160	1,450	857	767	466	1,830	421
9	135	96	180	644	366	1,260	1,690	842	762	436	1,700	419
10	120	93	176	629	408	1,320	2,530	835	757	399	1,590	389
11	113	96	198	610	483	1,350	3,500	845	734	371	1,550	347
12	124	136	224	588	523	1,350	4,120	865	703	353	1,500	298
13	122	180	243	563	543	1,330	4,300	872	663	370	1,440	254
14	111	230	319	538	554	1,310	4,310	849	618	439	1,390	220
15	107	263	371	509	545	1,340	4,300	803	582	531	1,410	196
16	127	281	395	489	537	1,430	4,290	743	536	608	1,430	177
17	144	317	405	460	564	1,520	4,160	682	497	647	1,510	153
18	146	416	400	436	626	1,570	3,880	619	456	664	1,600	193
19	142	479	393	414	687	1,580	3,510	560	428	671	1,640	528
20	134	489	391	393	728	1,700	3,120	513	444	722	1,600	641
21	124	503	395	372	773	2,490	2,730	473	540	778	1,570	660
22	118	497	395	357	805	3,250	2,430	427	636	841	1,500	654
23	117	483	392	347	839	3,840	2,150	e455	681	947	1,400	649
24	118	458	389	332	867	3,970	1,890	e480	674	1,180	1,310	667
25	121	428	421	312	900	3,860	1,690	e465	618	1,540	1,180	637
26	121	402	446	292	922	3,690	1,600	e455	537	1,980	1,030	612
27	116	376	464	275	937	3,510	1,540	e465	453	2,100	931	581
28	110	350	479	260	962	3,320	1,500	e495	364	2,110	850	551
29	107	324	485	247	---	3,080	1,450	e530	290	1,990	771	523
30	108	296	488	240	---	2,820	1,390	e570	235	1,800	692	495
31	105	---	488	244	---	2,560	---	e630	---	1,630	612	---
TOTAL	4,602	7,890	10,261	14,395	15,541	62,078	75,830	22,383	17,904	26,299	45,366	13,017
MEAN	148	263	331	464	555	2,003	2,528	722	597	848	1,463	434
MAX	300	503	488	660	962	3,970	4,310	1,300	771	2,110	2,110	667
MIN	105	74	176	240	225	998	1,370	427	235	210	612	153
CFSM	0.22	0.39	0.49	0.68	0.82	2.94	3.72	1.06	0.88	1.25	2.15	0.64
IN.	0.25	0.43	0.56	0.79	0.85	3.40	4.15	1.22	0.98	1.44	2.48	0.71

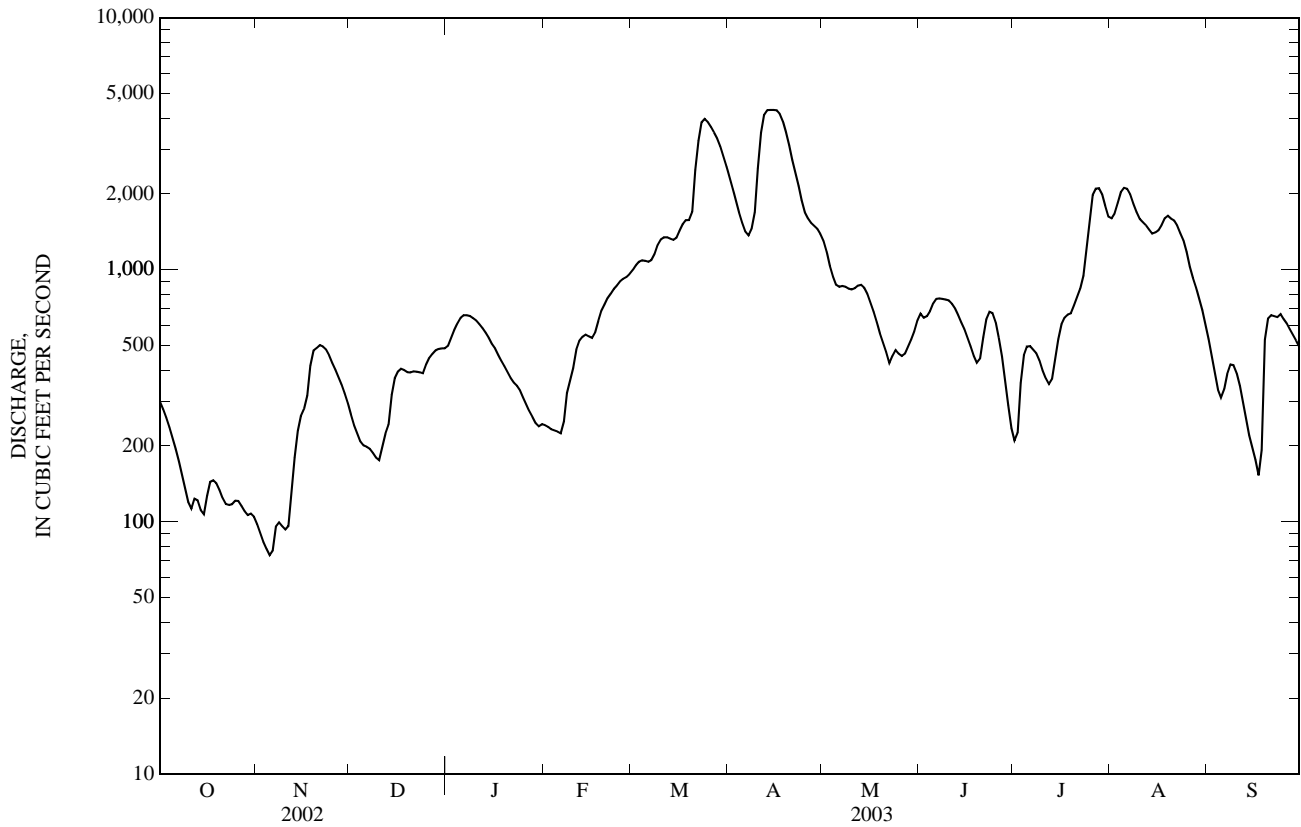
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 2003, BY WATER YEAR (WY)

	518	343	477	1,024	1,358	1,430	978	376	311	507	643	828
MEAN	518	343	477	1,024	1,358	1,430	978	376	311	507	643	828
MAX	5,778	2,332	3,080	3,722	5,574	5,319	2,895	3,586	1,474	3,040	2,740	8,449
(WY)	(2000)	(1978)	(1949)	(1993)	(1998)	(1983)	(1973)	(1999)	(1969)	(1961)	(1981)	(1999)
MIN	1.14	0.54	3.53	20.6	44.6	219	108	16.2	5.51	2.27	7.59	0.31
(WY)	(1941)	(1955)	(1955)	(1955)	(1941)	(1955)	(2002)	(2002)	(1952)	(2002)	(1954)	(1954)

02109500 WACCAMAW RIVER AT FREELAND, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1939 - 2003	
ANNUAL TOTAL	53,716.10		315,566		730	
ANNUAL MEAN	147		865		1,572	
HIGHEST ANNUAL MEAN					1999	
LOWEST ANNUAL MEAN					86.2	
HIGHEST DAILY MEAN	673	Mar 15	4,310	Apr 14	30,600	Sep 21, 1999
LOWEST DAILY MEAN	0.80	Jul 12	74	Nov 5	0.10	Aug 30, 1954
ANNUAL SEVEN-DAY MINIMUM	1.0	Jul 17	85	Nov 1	0.10	Oct 4, 1954
MAXIMUM PEAK FLOW			4,340	Apr 13	31,200	Sep 21, 1999
MAXIMUM PEAK STAGE			14.85	Apr 13	19.30	Sep 21, 1999
INSTANTANEOUS LOW FLOW			72*	Nov 5	0.10*	Aug 30, 1954
ANNUAL RUNOFF (CFSM)	0.22		1.27		1.07	
ANNUAL RUNOFF (INCHES)	2.94		17.26		14.59	
10 PERCENT EXCEEDS	395		1,880		1,900	
50 PERCENT EXCEEDS	90		543		355	
90 PERCENT EXCEEDS	4.3		154		27	

e Estimated.
 * See REMARKS.



02111000 YADKIN RIVER AT PATTERSON, NC

LOCATION.--Lat 35°59'29", long 81°33'29", Caldwell County, Hydrologic Unit 03040101, on left bank 200 ft upstream from bridge on State Highway 268, 0.4 mi upstream from Warrior Creek, 0.5 mi south of Patterson, 2.0 mi downstream of Walnut Branch, and at mile 416.

DRAINAGE AREA.--28.8 mi².

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 1303: 1940(m), 1947-48(M). WSP 1553: 1948(P). WDR NC-80-1: 1975(P), drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,211.47 ft above NGVD of 1929. Prior to Feb. 9, 1940, nonrecording gage at present site, at datum 1,212.47 ft. Feb. 9, 1940, to Oct. 20, 1970, recording gage at present site, at datum 1,212.47 ft. 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 1,400 ft³/s on basis of computation of peak flow over dam 1 mi upstream at gage heights 4.58, 6.60, 7.70, and 12.70 ft. Minimum discharge for current water year also occurred Oct. 9, 14, 15.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	21	25	53	29	62	60	125	51	141	169	116
2	18	20	24	50	28	60	56	117	47	395	129	84
3	16	19	24	69	28	54	53	85	68	263	189	81
4	15	19	25	62	34	50	51	73	92	164	184	97
5	14	26	e52	56	30	48	52	106	65	159	128	85
6	13	40	42	52	29	82	48	146	55	183	100	75
7	12	28	34	48	33	65	69	115	280	230	215	70
8	12	26	33	46	30	58	67	93	234	152	186	66
9	12	24	34	44	29	54	112	79	178	157	207	61
10	12	26	34	42	31	49	426	70	125	144	198	58
11	21	182	133	39	31	46	308	65	97	112	151	55
12	16	118	92	37	31	44	184	58	104	96	128	53
13	13	84	145	36	29	43	134	54	94	95	e115	51
14	12	59	147	35	31	41	108	52	109	84	e105	50
15	22	47	96	34	45	40	93	61	131	77	e110	51
16	100	97	75	33	44	183	83	60	319	99	119	47
17	42	135	61	34	43	120	77	58	298	86	99	45
18	28	86	52	32	46	97	298	60	216	77	89	45
19	23	63	47	e33	54	90	201	55	294	70	91	43
20	21	51	100	e32	56	257	149	52	189	65	77	42
21	23	50	71	32	56	196	131	57	141	110	78	41
22	23	44	61	30	298	134	112	78	113	110	76	90
23	19	38	53	e31	214	103	96	81	96	87	72	124
24	18	35	111	30	125	86	85	83	83	72	66	58
25	19	33	113	e29	91	75	81	73	76	64	62	51
26	22	31	84	e29	76	66	78	77	70	59	59	48
0.09 Oct	8	27	19	30	70	e28	73	59	69	74	73	73
28	22	28	61	28	69	55	64	64	64	53	62	51
29	26	27	54	30	---	56	63	62	66	83	59	44
30	26	26	49	32	---	e84	80	57	117	133	94	43
31	24	---	46	31	---	68	---	58	---	96	121	---
TOTAL	683	1,513	2,048	1,197	1,713	2,525	3,488	2,348	3,945	3,772	3,597	1,876
MEAN	22.0	50.4	66.1	38.6	61.2	81.5	116	75.7	132	122	116	62.5
MAX	100	182	147	69	298	257	426	146	319	395	215	124
MIN	12	19	24	28	28	40	48	52	47	53	59	41
CFSM	0.77	1.75	2.29	1.34	2.12	2.83	4.04	2.63	4.57	4.22	4.03	2.17
IN.	0.88	1.95	2.65	1.55	2.21	3.26	4.51	3.03	5.10	4.87	4.65	2.42

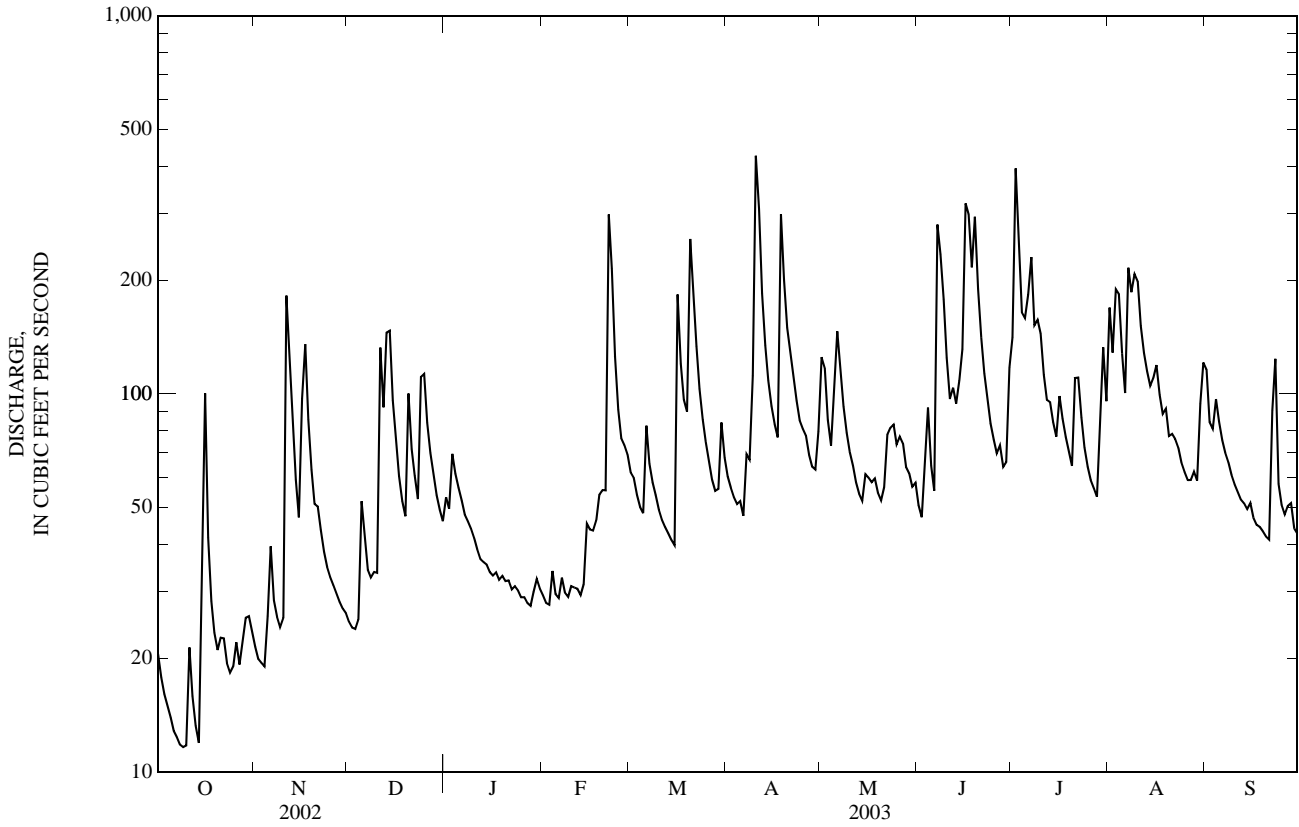
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2003, BY WATER YEAR (WY)

MEAN	35.4	40.4	44.8	50.6	60.6	72.6	69.2	53.8	48.4	40.0	44.4	35.4
MAX	149	140	98.8	132	143	160	164	125	132	122	194	136
(WY)	(1991)	(1978)	(1974)	(1946)	(1960)	(1993)	(1980)	(1973)	(2003)	(2003)	(1940)	(1979)
MIN	8.45	9.07	11.8	11.4	17.4	23.7	26.5	16.5	13.0	9.04	6.69	6.95
(WY)	(1955)	(1982)	(1956)	(1956)	(2001)	(1988)	(1981)	(2001)	(2002)	(1988)	(2002)	(1954)

02111000 YADKIN RIVER AT PATTERSON, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1940 - 2003	
ANNUAL TOTAL	10,494.7		28,705		49.6	
ANNUAL MEAN	28.8		78.6		78.6	
HIGHEST ANNUAL MEAN					21.0	2003
LOWEST ANNUAL MEAN					21.0	2001
HIGHEST DAILY MEAN	182	Nov 11	426	Apr 10	2,130	Aug 13, 1940
LOWEST DAILY MEAN	3.6	Sep 12	12	Oct 7	3.6	Sep 12, 2002
ANNUAL SEVEN-DAY MINIMUM	4.1	Sep 7	13	Oct 4	4.1	Sep 7, 2002
MAXIMUM PEAK FLOW			774	Apr 10	16,200*	Aug 13, 1940
MAXIMUM PEAK STAGE			4.06	Apr 10	12.70	Aug 13, 1940
INSTANTANEOUS LOW FLOW			11*	Oct 8	3.0	May 15, 1940
ANNUAL RUNOFF (CFSM)	1.00		2.73		1.72	
ANNUAL RUNOFF (INCHES)	13.56		37.08		23.39	
10 PERCENT EXCEEDS	55		148		88	
50 PERCENT EXCEEDS	22		61		37	
90 PERCENT EXCEEDS	7.1		26		16	

e Estimated.
 * See REMARKS.



PRECIPITATION RECORDS

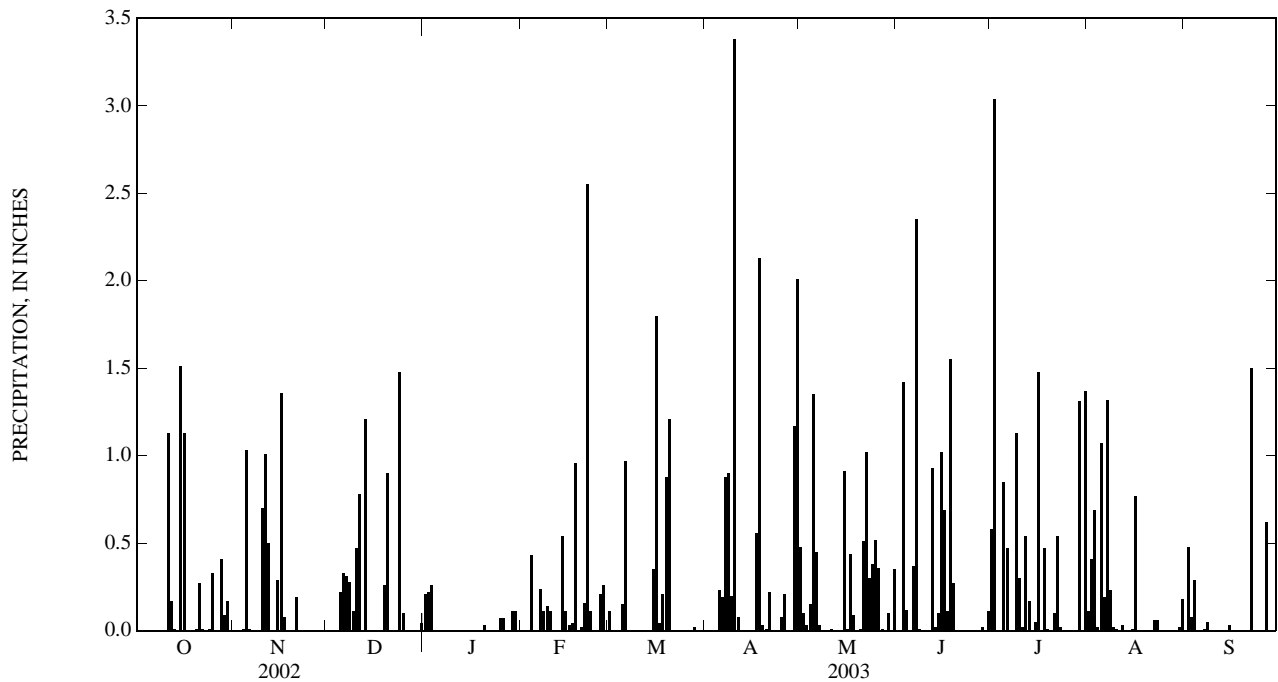
PERIOD OF RECORD.--October 1999 to current year.

GAGE.--Tipping-bucket raingage and electronic datalogger. Satellite telemetry at station.

REMARKS.--Gage is operated in cooperation with U.S. Army Corps of Engineers, Wilmington District. Precipitation data collected during freezing periods may not be accurately reflected in daily record; consequently, winter record is poor.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.21	0.00	0.11	0.00	0.48	0.00	0.58	0.11	0.00
2	0.00	0.00	0.00	0.22	0.00	0.00	0.00	0.10	0.00	3.04	0.41	0.48
3	0.00	0.00	0.00	0.26	0.00	0.00	0.00	0.03	1.42	0.00	0.69	0.08
4	0.00	0.01	0.00	0.00	0.43	0.00	0.00	0.15	0.12	0.00	0.02	0.29
5	0.00	1.03	0.22	0.00	0.00	0.15	0.23	1.35	0.00	0.85	1.07	0.00
6	0.00	0.01	0.33	0.00	0.00	0.97	0.19	0.45	0.37	0.47	0.19	0.00
7	0.00	0.00	0.31	0.00	0.24	0.00	0.88	0.03	2.35	0.00	1.32	0.01
8	0.00	0.00	0.28	0.00	0.11	0.00	0.90	0.00	0.01	0.00	0.23	0.05
9	0.00	0.00	0.11	0.00	0.14	0.00	0.20	0.00	0.00	1.13	0.02	0.00
10	0.00	0.70	0.47	0.00	0.11	0.00	3.38	0.00	0.00	0.30	0.01	0.00
11	1.13	1.01	0.78	0.00	0.00	0.00	0.08	0.01	0.00	0.02	0.00	0.00
12	0.17	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.93	0.54	0.03	0.00
13	0.01	0.00	1.21	0.00	0.00	0.00	0.00	0.00	0.02	0.17	0.00	0.00
14	0.00	0.00	0.00	0.00	0.54	0.00	0.00	0.00	0.10	0.00	0.00	0.00
15	1.51	0.29	0.00	0.00	0.11	0.35	0.00	0.91	1.02	0.05	0.01	0.03
16	1.13	1.36	0.00	0.00	0.03	1.80	0.00	0.01	0.69	1.48	0.77	0.00
17	0.00	0.08	0.00	0.00	0.04	0.04	0.56	0.44	0.11	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.96	0.21	2.13	0.09	1.55	0.47	0.00	0.00
19	0.00	0.00	0.26	0.00	0.00	0.88	0.03	0.00	0.27	0.01	0.00	0.00
20	0.01	0.00	0.90	0.03	0.02	1.21	0.01	0.01	0.00	0.00	0.00	0.00
21	0.27	0.19	0.00	0.00	0.16	0.00	0.22	0.51	0.00	0.10	0.00	0.00
22	0.01	0.00	0.00	0.00	2.55	0.00	0.00	1.02	0.00	0.54	0.06	1.50
23	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.30	0.00	0.02	0.06	0.00
24	0.01	0.00	1.48	0.00	0.00	0.00	0.00	0.38	0.00	0.00	0.00	0.00
25	0.33	0.00	0.10	0.07	0.00	0.00	0.08	0.52	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.07	0.21	0.00	0.21	0.36	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.26	0.00	0.00	0.01	0.00	0.00	0.00	0.62
28	0.41	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.02	0.00	0.00	0.00
29	0.09	0.00	0.00	0.11	---	---	1.17	0.10	0.00	1.31	0.00	0.00
30	0.17	0.00	0.00	0.11	---	---	2.01	0.00	0.11	0.00	0.02	0.00
31	0.00	---	0.04	0.00	---	0.00	---	0.35	---	1.37	0.18	---
TOTAL	5.25	5.18	6.49	1.08	6.02	---	12.28	7.61	9.09	12.45	5.20	3.06



361210081333001 TRIPLETT RAINGAGE

LOCATION.--Lat 36°12'10", long 81°33'29", Watauga County, Hydrologic Unit 03040101, 60 ft west of Secondary Road 1570, 0.3 mi north of Triplett, and 1.7 mi south of Blue Ridge Parkway.

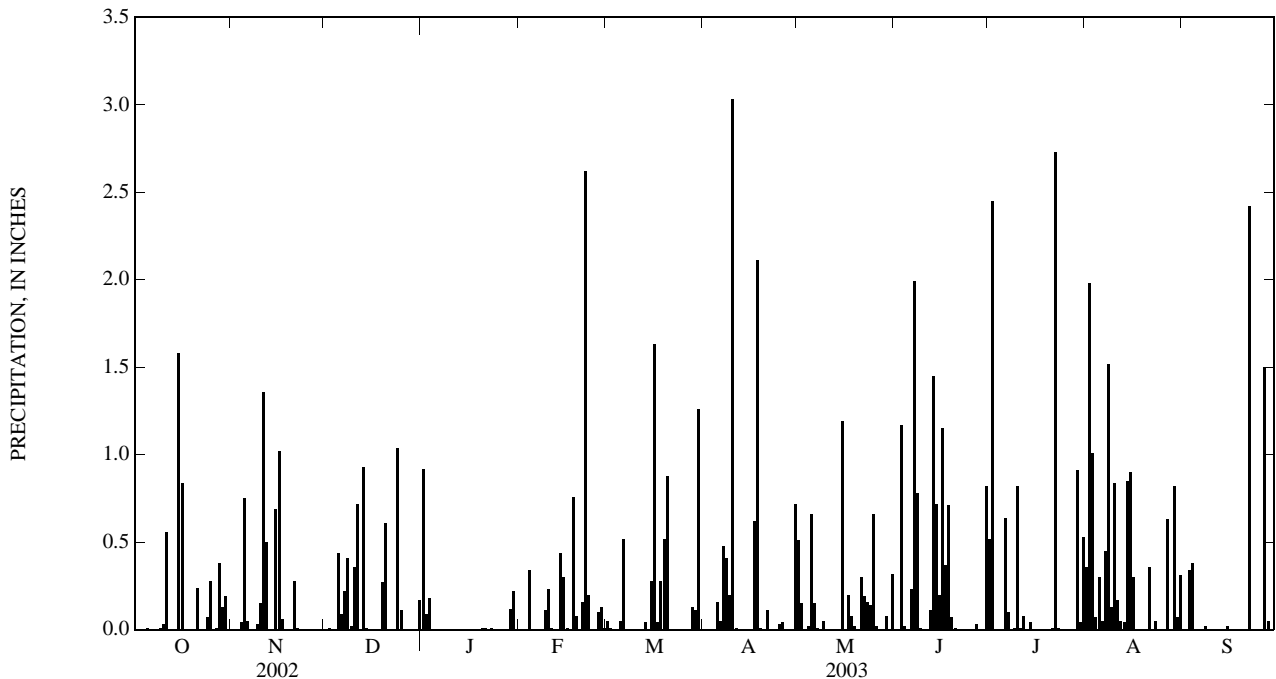
PERIOD OF RECORD.--October 1998 to current year.

GAGE.--Tipping-bucket raingage and electronic datalogger. Satellite telemetry at station.

REMARKS.--Gage is operated in cooperation with U.S. Army Corps of Engineers, Wilmington District. Precipitation data collected during freezing periods may not be accurately reflected in daily record; consequently, winter record is poor.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.92	0.00	0.05	0.00	0.51	0.00	0.52	0.36	0.00
2	0.00	0.00	0.01	0.09	0.00	0.01	0.00	0.15	0.00	2.45	1.98	0.00
3	0.00	0.00	0.00	0.18	0.00	0.00	0.00	0.00	1.17	0.00	1.01	0.34
4	0.00	0.04	0.00	0.00	0.34	0.00	0.00	0.02	0.02	0.00	0.07	0.38
5	0.01	0.75	0.44	0.00	0.00	0.05	0.16	0.66	0.00	0.00	0.30	0.00
6	0.00	0.05	0.09	0.00	0.00	0.52	0.05	0.15	0.23	0.64	0.05	0.00
7	0.00	0.00	0.22	0.00	0.00	0.00	0.48	0.01	1.99	0.10	0.45	0.00
8	0.00	0.00	0.41	0.00	0.00	0.00	0.41	0.00	0.78	0.00	1.52	0.02
9	0.01	0.03	0.02	0.00	0.11	0.00	0.20	0.05	0.01	0.01	0.13	0.00
10	0.03	0.15	0.36	0.00	0.23	0.00	3.03	0.00	0.00	0.82	0.84	0.00
11	0.56	1.36	0.72	0.00	0.01	0.00	0.01	0.00	0.00	0.01	0.17	0.00
12	0.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.08	0.05	0.00
13	0.00	0.00	0.93	0.00	0.00	0.04	0.00	0.00	1.45	0.00	0.04	0.00
14	0.00	0.00	0.01	0.00	0.44	0.00	0.00	0.00	0.72	0.04	0.85	0.00
15	1.58	0.69	0.00	0.00	0.30	0.28	0.00	1.19	0.20	0.00	0.90	0.02
16	0.84	1.02	0.00	0.00	0.01	1.63	0.00	0.00	1.15	0.00	0.30	0.00
17	0.00	0.06	0.00	0.00	0.00	0.04	0.62	0.20	0.37	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.76	0.28	2.11	0.08	0.71	0.00	0.00	0.00
19	0.00	0.00	0.27	0.00	0.08	0.52	0.01	0.02	0.07	0.00	0.00	0.00
20	0.00	0.00	0.61	0.01	0.00	0.88	0.00	0.00	0.01	0.00	0.00	0.00
21	0.24	0.28	0.00	0.01	0.16	0.00	0.11	0.30	0.00	0.01	0.36	0.00
22	0.00	0.01	0.00	0.00	2.62	0.00	0.00	0.19	0.00	2.73	0.00	2.42
23	0.00	0.00	0.00	0.01	0.20	0.00	0.00	0.16	0.00	0.01	0.05	0.00
24	0.07	0.00	1.04	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.00
25	0.28	0.00	0.11	0.00	0.00	0.00	0.03	0.66	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.10	0.00	0.04	0.02	0.00	0.00	0.00	0.00
27	0.01	0.00	0.00	0.00	0.13	0.00	0.00	0.00	0.03	0.00	0.63	1.50
28	0.38	0.00	0.00	0.00	0.01	0.13	0.00	0.00	0.00	0.00	0.00	0.05
29	0.13	0.00	0.00	0.12	---	0.11	0.00	0.08	0.00	0.91	0.82	0.00
30	0.19	0.00	0.00	0.22	---	1.26	0.72	0.00	0.82	0.04	0.07	0.00
31	0.00	---	0.17	0.00	---	0.00	---	0.32	---	0.53	0.31	---
TOTAL	4.33	4.94	5.41	1.56	5.50	5.80	7.98	4.91	9.84	8.90	11.26	4.73



0211180 ELK CREEK AT ELKVILLE, NC

LOCATION.--Lat 36°04'16", long 81°24'12", Wilkes County, Hydrologic Unit 03040101, on left bank 700 ft upstream from bridge on State Highway 268 in Elksville, and 3,400 ft upstream from mouth.

DRAINAGE AREA.--48.1 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1965 to current year.

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

GAGE.--Water-stage recorder and crest-stage gages. Datum of gage is 1,082.40 ft above NGVD of 1929. Satellite telemetry at station.

REMARKS --Records fair except those for estimated daily discharges, which are poor. Maximum discharge for period of record, from rating curve extended above 3,200 ft³/s on basis of contracted-opening computation. Minimum discharge for period of record also occurred Sept. 14, 2002.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of Aug. 13, 1940, reached a stage of about 22 ft; discharge, about 70,000 ft³/s, on basis of several contracted-opening and slope-area measurements. A discharge of 6.0 ft³/s was measured Sept. 19, 1956.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	48	55	110	62	135	130	272	93	217	181	179
2	36	44	53	113	61	133	124	215	86	1,070	216	132
3	31	40	53	136	60	121	119	169	111	588	621	134
4	28	37	55	129	73	112	116	147	170	296	455	156
5	26	44	101	118	68	109	118	182	132	223	304	142
6	24	71	94	106	64	151	109	211	112	225	270	120
7	22	57	76	97	68	131	139	189	678	245	465	113
8	21	51	72	91	63	120	135	163	498	189	366	106
9	21	47	74	87	61	113	211	143	409	186	393	101
10	21	46	72	84	63	103	1,020	130	248	179	305	99
11	35	338	247	78	65	97	695	124	187	174	266	95
12	29	247	209	74	64	93	331	113	174	148	224	92
13	24	191	270	71	62	89	237	105	187	139	202	90
14	22	136	307	70	64	85	191	99	452	130	186	86
15	35	107	202	68	90	80	163	117	640	124	196	84
16	231	185	153	67	100	335	146	131	678	122	205	79
17	110	310	125	68	101	274	136	112	836	114	183	75
18	65	199	109	66	102	223	623	118	465	111	162	75
19	51	139	100	e66	120	205	429	113	699	107	147	74
20	44	113	181	e66	126	535	286	108	377	102	138	71
21	47	105	148	e66	127	408	237	110	271	166	134	70
22	46	93	128	64	797	267	202	149	219	326	127	120
23	40	81	113	63	504	210	175	170	186	281	120	224
24	36	74	170	e64	271	175	160	160	162	171	112	101
25	36	70	204	e64	200	150	151	137	147	134	108	88
26	42	66	163	e62	165	136	146	167	137	119	104	83
27	37	63	138	61	154	122	131	143	161	111	109	100
28	39	60	121	59	152	116	120	124	135	104	121	142
29	51	58	106	62	---	115	115	116	144	118	111	92
30	54	57	98	67	---	170	137	106	193	179	186	81
31	52	---	91	65	---	145	---	104	---	144	191	---
TOTAL	1,399	3,177	4,088	2,462	3,907	5,258	7,032	4,447	8,987	6,542	6,908	3,204
MEAN	45.1	106	132	79.4	140	170	234	143	300	211	223	107
MAX	231	338	307	136	797	535	1,020	272	836	1,070	621	224
MIN	21	37	53	59	60	80	109	99	86	102	104	70
CFSM	0.94	2.20	2.74	1.65	2.90	3.53	4.87	2.98	6.23	4.39	4.63	2.22
IN.	1.08	2.46	3.16	1.90	3.02	4.07	5.44	3.44	6.95	5.06	5.34	2.48

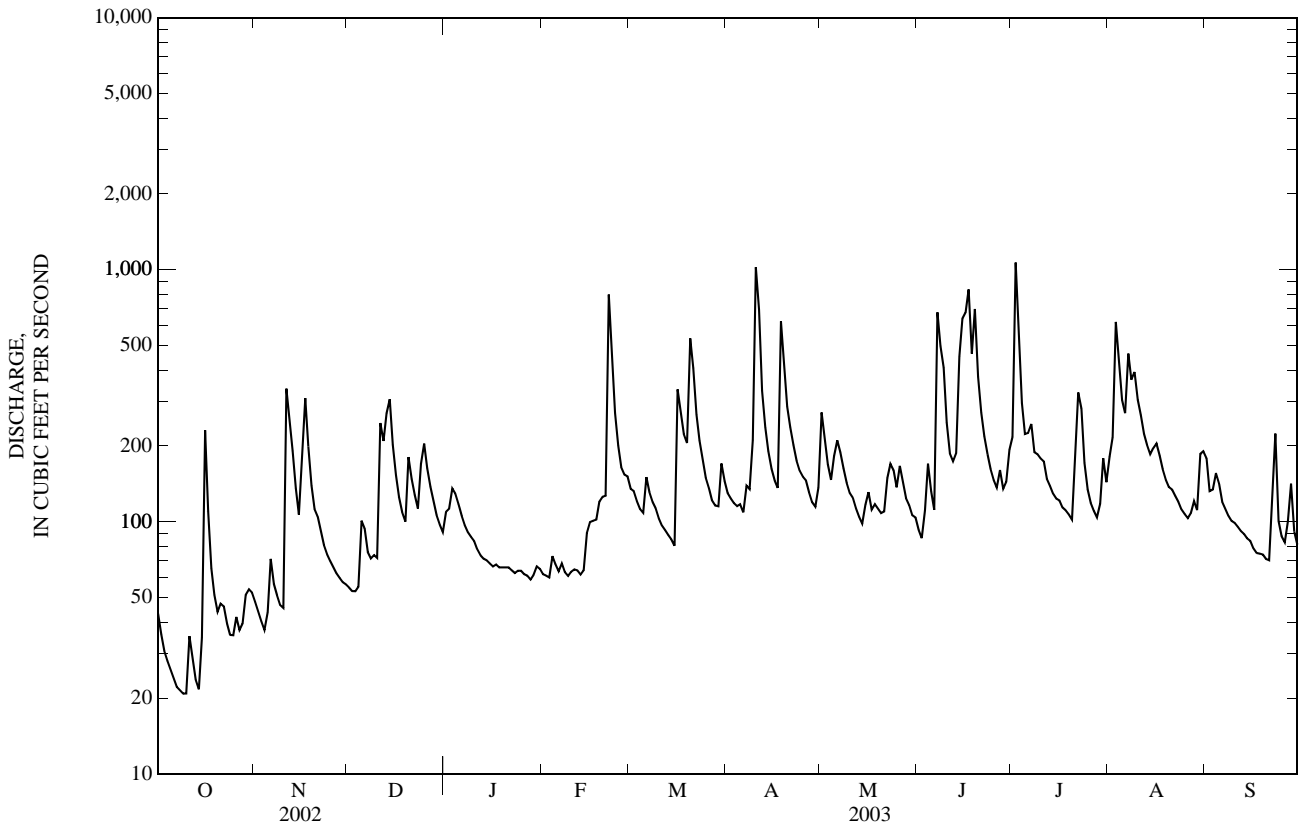
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 2003, BY WATER YEAR (WY)

MEAN	72.6	87.0	86.2	103	119	148	142	109	102	71.3	81.0	63.3
MAX	298	365	193	323	250	317	379	291	300	211	384	257
(WY)	(1991)	(1978)	(1974)	(1995)	(1966)	(1993)	(1980)	(1973)	(2003)	(2003)	(1994)	(1979)
MIN	13.7	19.8	19.1	22.5	25.0	47.9	49.9	31.0	21.7	17.6	15.3	21.0
(WY)	(2001)	(1982)	(2001)	(1981)	(2001)	(1988)	(2001)	(2002)	(1988)	(1988)	(2002)	(2000)

02111180 ELK CREEK AT ELKVILLE, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1966 - 2003	
ANNUAL TOTAL	20,307.0		57,411		98.5	
ANNUAL MEAN	55.6		157		157	
HIGHEST ANNUAL MEAN					35.7	
LOWEST ANNUAL MEAN					2001	
HIGHEST DAILY MEAN	586	Sep 27	1,070	Jul 2	5,890	Aug 17, 1994
LOWEST DAILY MEAN	7.0	Sep 13	21	Oct 8	7.0	Sep 13, 2002
ANNUAL SEVEN-DAY MINIMUM	8.0	Sep 8	23	Oct 4	8.0	Sep 8, 2002
MAXIMUM PEAK FLOW			2,160	Apr 10	18,700*	Aug 17, 1994
MAXIMUM PEAK STAGE			4.26	Apr 10	12.02	Aug 17, 1994
INSTANTANEOUS LOW FLOW			20	Oct 9	6.8*	Sep 13, 2002
ANNUAL RUNOFF (CFSM)	1.16		3.27		2.05	
ANNUAL RUNOFF (INCHES)	15.71		44.40		27.81	
10 PERCENT EXCEEDS	113		277		171	
50 PERCENT EXCEEDS	41		120		68	
90 PERCENT EXCEEDS	14		53		27	

e Estimated.
 * See REMARKS.



PRECIPITATION RECORDS

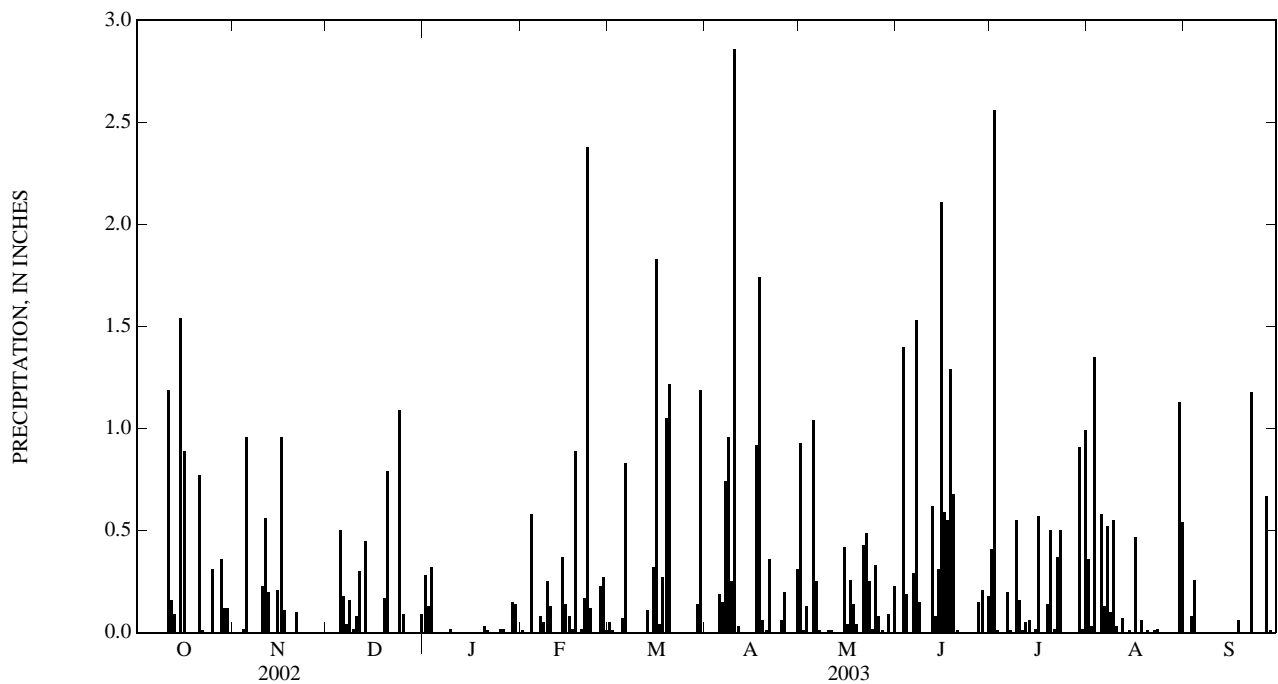
PERIOD OF RECORD.--October 2001 to current year.

GAGE.--Tipping-bucket raingage and electronic datalogger. Satellite telemetry at station.

REMARKS.--Gage is operated in cooperation with U.S. Army Corps of Engineers, Wilmington District. Precipitation data collected during freezing periods may not be accurately reflected in daily record; consequently, winter record is poor.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.28	0.01	0.05	0.00	0.93	0.00	0.41	0.36	0.00
2	0.00	0.00	0.00	0.13	0.00	0.01	0.00	0.01	0.00	2.56	0.03	0.00
3	0.00	0.00	0.00	0.32	0.00	0.00	0.00	0.13	1.40	0.01	1.35	0.08
4	0.00	0.02	0.00	0.00	0.58	0.00	0.00	0.00	0.19	0.00	0.00	0.26
5	0.00	0.96	0.50	0.00	0.00	0.07	0.19	1.04	0.00	0.00	0.58	0.00
6	0.00	0.00	0.18	0.00	0.00	0.83	0.15	0.25	0.29	0.20	0.13	0.00
7	0.00	0.00	0.04	0.00	0.08	0.00	0.74	0.01	1.53	0.01	0.52	0.00
8	0.00	0.00	0.16	0.00	0.05	0.00	0.96	0.00	0.15	0.00	0.10	0.00
9	0.00	0.00	0.02	0.02	0.25	0.00	0.25	0.00	0.00	0.55	0.55	0.00
10	0.00	0.23	0.08	0.00	0.13	0.00	2.86	0.01	0.00	0.16	0.03	0.00
11	1.19	0.56	0.30	0.00	0.00	0.00	0.03	0.01	0.00	0.01	0.00	0.00
12	0.16	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.62	0.05	0.07	0.00
13	0.09	0.00	0.45	0.00	0.00	0.11	0.00	0.00	0.08	0.06	0.00	0.00
14	0.00	0.00	0.00	0.00	0.37	0.00	0.00	0.00	0.31	0.00	0.01	0.00
15	1.54	0.21	0.00	0.00	0.14	0.32	0.00	0.42	2.11	0.02	0.00	0.00
16	0.89	0.96	0.00	0.00	0.08	1.83	0.00	0.04	0.59	0.57	0.47	0.00
17	0.00	0.11	0.00	0.00	0.02	0.04	0.92	0.26	0.55	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.89	0.27	1.74	0.14	1.29	0.00	0.06	0.06
19	0.00	0.00	0.17	0.00	0.00	1.05	0.06	0.04	0.68	0.14	0.00	0.00
20	0.00	0.00	0.79	0.03	0.02	1.22	0.01	0.00	0.01	0.50	0.01	0.00
21	0.77	0.10	0.00	0.01	0.17	0.00	0.36	0.43	0.00	0.02	0.00	0.00
22	0.01	0.00	0.00	0.00	2.38	0.00	0.00	0.49	0.00	0.37	0.01	1.18
23	0.00	0.00	0.00	0.00	0.12	0.00	0.00	0.25	0.00	0.50	0.02	0.00
24	0.00	0.00	1.09	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00
25	0.31	0.00	0.09	0.02	0.00	0.00	0.06	0.33	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.02	0.23	0.00	0.20	0.08	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.27	0.00	0.00	0.01	0.15	0.00	0.00	0.67
28	0.36	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.21	0.00	0.00	0.01
29	0.12	0.00	0.00	0.15	---	0.14	0.00	0.09	0.00	0.91	0.00	0.00
30	0.12	0.00	0.00	0.14	---	1.19	0.31	0.00	0.18	0.02	1.13	0.00
31	0.00	---	0.09	0.00	---	0.00	---	0.23	---	0.99	0.54	---
TOTAL	5.56	3.35	3.96	1.12	5.80	7.13	8.84	5.22	10.34	8.06	5.97	2.26



02111391 W. KERR SCOTT RESERVOIR AT DAM NEAR WILKESBORO, NC

LOCATION.--Lat 36°08'04", long 81°13'29", Wilkes County, Hydrologic Unit 03040101, at W. Kerr Scott Dam on Yadkin River, 0.1 mi upstream from Fish Trap Creek, 2.0 mi upstream from Millers Creek, and 4.0 mi west of Wilkesboro.

DRAINAGE AREA.--367 mi².

GAGE-HEIGHT RECORDS

PERIOD OF RECORD.--August 1962 to current year.

GAGE.--Water-stage recorder and staff gage at dam. Datum of gage is 1,000 ft above NGVD of 1929. U.S. Army Corps of Engineers telephone and satellite telemetry at station.

REMARKS.--No estimated daily gage-heights. Records good. Lake is used for flood control, low-flow augmentation, recreation, and water supply. Some storage was affected during construction in July 1962, but gates were closed Aug. 22, 1962. Reservoir reached normal pool elevation on Jan. 19, 1963. Total capacity at elevation 1,075.0 ft is 6,664,680,000 ft³ of which 4,878,720,000 ft³ is controlled flood storage.

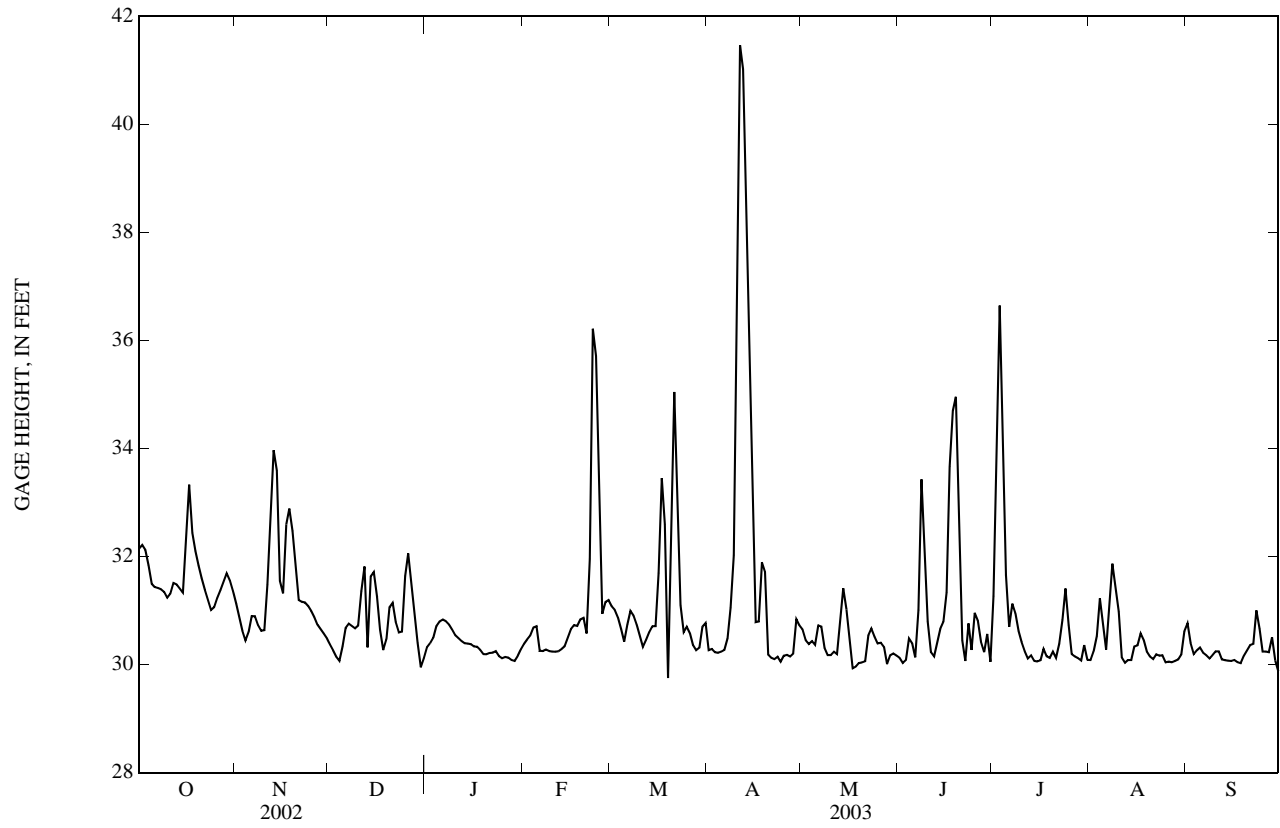
EXTREMES FOR PERIOD OF RECORD.--Maximum, 61.20 ft, Nov. 7, 1977; minimum, 19.85 ft, Nov. 26, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum, 42.06 ft, Apr. 11; minimum, 29.38 ft, Mar. 19.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32.15	31.13	30.37	30.32	30.38	31.08	30.26	30.65	30.13	31.27	30.08	30.76
2	32.22	30.89	30.26	30.40	30.47	31.02	30.29	30.45	30.03	34.01	30.25	30.40
3	32.12	30.62	30.14	30.50	30.54	30.87	30.23	30.38	30.09	36.65	30.53	30.19
4	31.84	30.45	30.07	30.71	30.68	30.66	30.22	30.44	30.48	34.05	31.23	30.26
5	31.50	30.61	30.34	30.80	30.71	30.43	30.24	30.37	30.39	31.66	30.72	30.31
6	31.44	30.90	30.68	30.84	30.26	30.74	30.27	30.73	30.14	30.70	30.28	30.22
7	31.42	30.90	30.76	30.80	30.25	30.99	30.49	30.70	31.01	31.13	31.09	30.17
8	31.39	30.73	30.72	30.74	30.28	30.91	31.05	30.31	33.43	30.95	31.87	30.11
9	31.34	30.63	30.67	30.65	30.25	30.74	32.03	30.18	32.02	30.62	31.43	30.17
10	31.24	30.64	30.72	30.54	30.24	30.53	34.99	30.18	30.79	30.42	30.98	30.25
11	31.31	31.48	31.36	30.49	30.24	30.33	41.46	30.24	30.23	30.25	30.13	30.24
12	31.51	32.92	31.82	30.44	30.25	30.46	41.02	30.20	30.15	30.12	30.03	30.10
13	31.48	33.97	30.32	30.39	30.29	30.60	38.69	30.77	30.40	30.17	30.08	30.08
14	31.41	33.59	31.63	30.39	30.34	30.71	35.81	31.41	30.67	30.07	30.08	30.07
15	31.33	31.55	31.71	30.38	30.50	30.71	32.71	31.03	30.79	30.06	30.33	30.07
16	32.38	31.32	31.26	30.34	30.66	31.69	30.79	30.47	31.33	30.08	30.35	30.09
17	33.33	32.59	30.65	30.33	30.73	33.45	30.80	29.93	33.66	30.29	30.58	30.04
18	32.44	32.89	30.27	30.28	30.72	32.60	31.89	29.96	34.70	30.15	30.46	30.02
19	32.11	32.47	30.47	30.19	30.84	29.75	31.72	30.03	34.96	30.12	30.24	30.16
20	31.83	31.84	31.06	30.19	30.86	32.07	30.19	30.04	33.03	30.24	30.15	30.27
21	31.60	31.19	31.14	30.22	30.58	35.05	30.13	30.06	30.45	30.13	30.10	30.36
22	31.39	31.16	30.79	30.22	31.96	32.91	30.10	30.54	30.07	30.39	30.19	30.38
23	31.19	31.15	30.60	30.25	36.22	31.10	30.14	30.67	30.76	30.82	30.16	31.00
24	31.01	31.09	30.61	30.16	35.71	30.60	30.05	30.52	30.27	31.41	30.17	30.67
25	31.07	30.99	31.64	30.12	32.70	30.70	30.17	30.39	30.96	30.73	30.04	30.24
26	31.23	30.87	32.06	30.14	30.94	30.58	30.18	30.41	30.82	30.19	30.06	30.24
27	31.38	30.74	31.52	30.13	31.16	30.36	30.15	30.32	30.42	30.15	30.04	30.23
28	31.53	30.66	30.97	30.09	31.19	30.26	30.20	30.01	30.23	30.12	30.07	30.51
29	31.69	30.58	30.40	30.07	---	30.31	30.84	30.17	30.57	30.08	30.09	30.08
30	31.56	30.49	29.95	30.16	---	30.70	30.73	30.21	30.05	30.36	30.19	29.88
31	31.36	---	30.11	30.29	---	30.77	---	30.17	---	30.09	30.62	---
MEAN	31.64	31.37	30.81	30.37	31.07	31.09	31.93	30.39	31.10	30.89	30.41	30.25
MAX	33.33	33.97	32.06	30.84	36.22	35.05	41.46	31.41	34.96	36.65	31.87	31.00
MIN	31.01	30.45	29.95	30.07	30.24	29.75	30.05	29.93	30.03	30.06	30.03	29.88

02111391 W. KERR SCOTT RESERVOIR AT DAM NEAR WILKESBORO, NC—Continued



02111391 W. KERR SCOTT RESERVOIR AT DAM NEAR WILKESBORO, NC—Continued

PRECIPITATION RECORDS

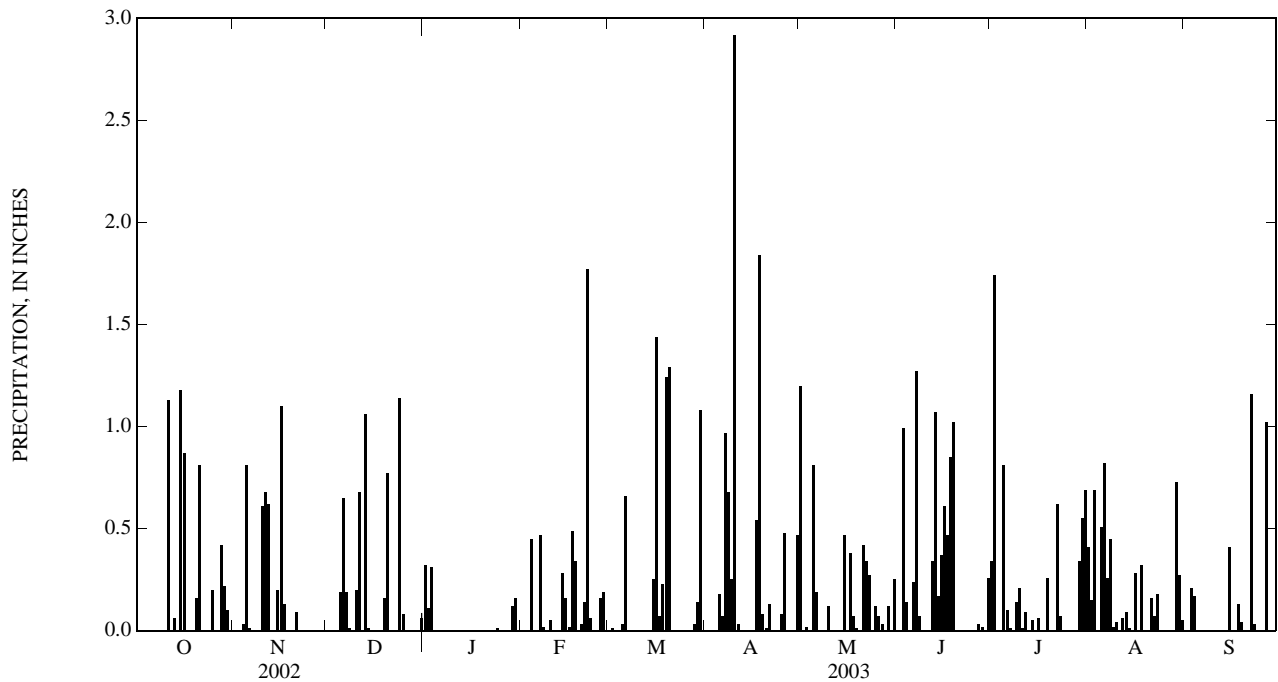
PERIOD OF RECORD.--October 2002 to September 2003.

GAGE.--Tipping-bucket raingage and electronic datalogger. Satellite telemetry at station.

REMARKS.--Gage is operated in cooperation with U.S. Army Corps of Engineers, Wilmington District. Precipitation data collected during freezing periods may not be accurately reflected in daily record; consequently, winter record is poor.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.32	0.00	0.00	0.00	1.20	0.00	0.34	0.41	0.00
2	0.00	0.00	0.00	0.11	0.00	0.01	0.00	0.00	0.00	1.74	0.15	0.00
3	0.00	0.00	0.00	0.31	0.00	0.00	0.00	0.02	0.99	0.00	0.69	0.21
4	0.00	0.03	0.00	0.00	0.45	0.00	0.00	0.00	0.14	0.00	0.00	0.17
5	0.00	0.81	0.19	0.00	0.00	0.03	0.18	0.81	0.00	0.81	0.51	0.00
6	0.00	0.01	0.65	0.00	0.00	0.66	0.07	0.19	0.24	0.10	0.82	0.00
7	0.00	0.00	0.19	0.00	0.47	0.00	0.97	0.00	1.27	0.01	0.26	0.00
8	0.00	0.00	0.01	0.00	0.02	0.00	0.68	0.00	0.07	0.00	0.45	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.14	0.02	0.00
10	0.00	0.61	0.20	0.00	0.05	0.00	2.92	0.12	0.00	0.21	0.04	0.00
11	1.13	0.68	0.68	0.00	0.00	0.00	0.03	0.00	0.00	0.01	0.00	0.00
12	0.00	0.62	0.00	0.00	0.00	0.00	0.00	0.00	0.34	0.09	0.06	0.00
13	0.06	0.00	1.06	0.00	0.00	0.00	0.00	0.00	1.07	0.00	0.09	0.00
14	0.00	0.00	0.01	0.00	0.28	0.00	0.00	0.00	0.17	0.05	0.01	0.00
15	1.18	0.20	0.00	0.00	0.16	0.25	0.00	0.47	0.37	0.00	0.00	0.41
16	0.87	1.10	0.00	0.00	0.02	1.44	0.00	0.00	0.61	0.06	0.28	0.00
17	0.00	0.13	0.00	0.00	0.49	0.07	0.54	0.38	0.47	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.34	0.23	1.84	0.07	0.85	0.00	0.32	0.13
19	0.00	0.00	0.16	0.00	0.00	1.24	0.08	0.01	1.02	0.26	0.00	0.04
20	0.16	0.00	0.77	0.00	0.03	1.29	0.01	0.00	0.00	0.00	0.00	0.00
21	0.81	0.09	0.00	0.00	0.14	0.00	0.13	0.42	0.00	0.00	0.16	0.00
22	0.00	0.00	0.00	0.00	1.77	0.00	0.00	0.34	0.00	0.62	0.07	1.16
23	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.27	0.00	0.07	0.18	0.03
24	0.00	0.00	1.14	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.20	0.00	0.08	0.00	0.00	0.00	0.08	0.12	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.16	0.00	0.48	0.07	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.19	0.00	0.00	0.03	0.03	0.00	0.00	1.02
28	0.42	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.02	0.00	0.00	0.00
29	0.22	0.00	0.00	0.12	---	0.14	0.00	0.12	0.00	0.34	0.73	0.00
30	0.10	0.00	0.00	0.16	---	1.08	0.47	0.00	0.26	0.55	0.27	0.00
31	0.00	---	0.06	0.00	---	0.00	---	0.25	---	0.69	0.05	---
TOTAL	5.15	4.28	5.20	1.03	4.63	6.47	8.73	4.89	7.92	6.09	5.57	3.17



PEE DEE RIVER BASIN

361554081191701 WILBAR RAINGAGE

LOCATION.--Lat 36°15'54", long 81°19'16", Wilkes County, Hydrologic Unit 03040101, 300 ft northeast of NC Hwy 16, 2.0 mi northwest of Wilbar, and 4.0 mi southwest of Horse Gap.

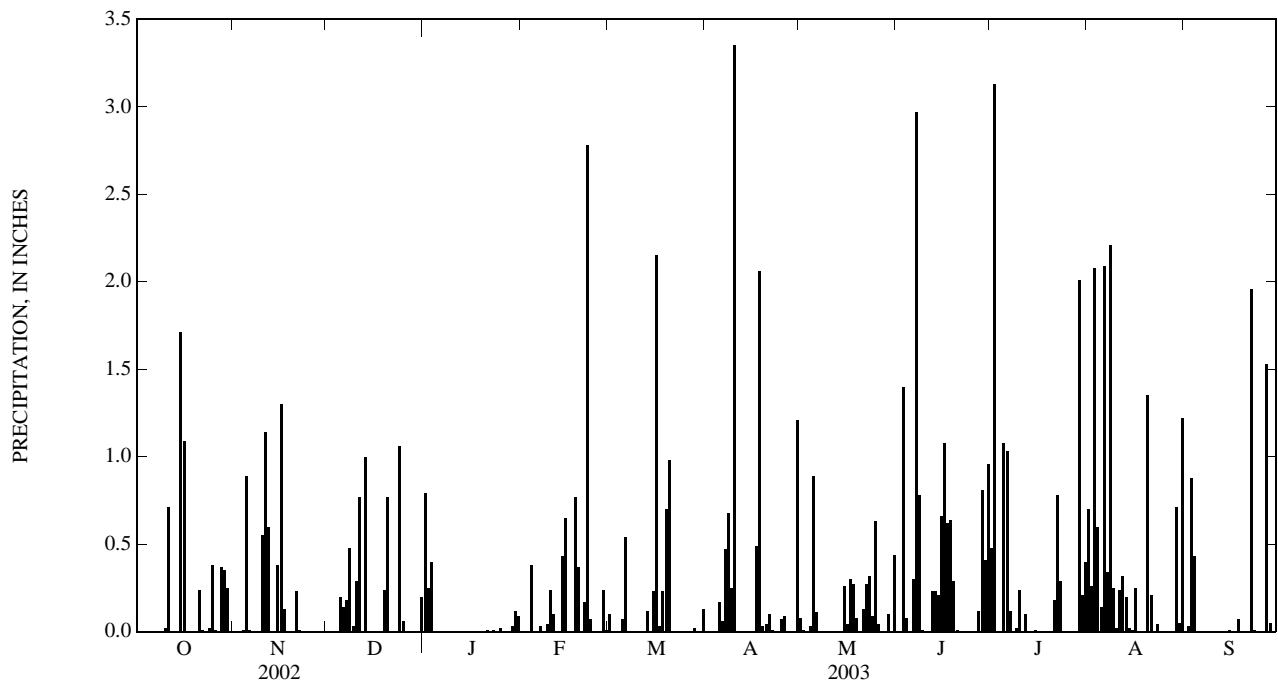
PERIOD OF RECORD.--October 1998 to current year.

GAGE.--Tipping-bucket raingage and electronic datalogger. Satellite telemetry at station.

REMARKS.--Gage is operated in cooperation with U.S. Army Corps of Engineers, Wilmington District. Precipitation data collected during freezing periods may not be accurately reflected in daily record; consequently, winter record is poor.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.79	0.00	0.10	0.00	0.08	0.00	0.48	0.70	0.00
2	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.01	0.00	3.13	0.26	0.03
3	0.00	0.00	0.00	0.40	0.00	0.00	0.00	0.00	1.40	0.00	2.08	0.88
4	0.00	0.01	0.00	0.00	0.38	0.00	0.00	0.03	0.08	0.00	0.60	0.43
5	0.00	0.89	0.20	0.00	0.00	0.07	0.17	0.89	0.00	1.08	0.14	0.00
6	0.00	0.01	0.14	0.00	0.00	0.54	0.06	0.11	0.30	1.03	2.09	0.00
7	0.00	0.00	0.18	0.00	0.03	0.00	0.47	0.00	2.97	0.12	0.34	0.00
8	0.00	0.00	0.48	0.00	0.00	0.00	0.68	0.00	0.78	0.00	2.21	0.00
9	0.00	0.00	0.03	0.00	0.04	0.00	0.25	0.00	0.01	0.02	0.25	0.00
10	0.02	0.55	0.29	0.00	0.24	0.00	3.35	0.00	0.00	0.24	0.02	0.00
11	0.71	1.14	0.77	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.24	0.00
12	0.00	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.10	0.32	0.00
13	0.00	0.00	1.00	0.00	0.00	0.12	0.00	0.00	0.23	0.00	0.20	0.00
14	0.00	0.00	0.00	0.00	0.43	0.00	0.00	0.00	0.21	0.00	0.02	0.00
15	1.71	0.38	0.00	0.00	0.65	0.23	0.00	0.26	0.66	0.01	0.01	0.01
16	1.09	1.30	0.00	0.00	0.00	2.15	0.00	0.04	1.08	0.00	0.25	0.00
17	0.00	0.13	0.00	0.00	0.00	0.03	0.49	0.30	0.62	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.77	0.23	2.06	0.27	0.64	0.00	0.00	0.07
19	0.00	0.00	0.24	0.00	0.37	0.70	0.03	0.08	0.29	0.00	0.00	0.00
20	0.00	0.00	0.77	0.00	0.00	0.98	0.04	0.00	0.01	0.00	1.35	0.00
21	0.24	0.23	0.00	0.01	0.17	0.00	0.10	0.13	0.00	0.18	0.21	0.00
22	0.01	0.01	0.00	0.00	2.78	0.00	0.01	0.27	0.00	0.78	0.00	1.96
23	0.00	0.00	0.00	0.01	0.07	0.00	0.00	0.32	0.00	0.29	0.04	0.01
24	0.02	0.00	1.06	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.00
25	0.38	0.00	0.06	0.02	0.00	0.00	0.07	0.63	0.00	0.00	0.00	0.00
26	0.01	0.00	0.00	0.00	0.00	0.00	0.09	0.04	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.24	0.00	0.00	0.00	0.12	0.00	0.00	1.53
28	0.37	0.00	0.00	0.00	0.01	0.02	0.00	0.00	0.81	0.00	0.00	0.05
29	0.35	0.00	0.00	0.03	---	---	0.00	0.10	0.41	2.01	0.71	0.00
30	0.25	0.00	0.00	0.12	---	---	1.21	0.00	0.96	0.21	0.05	0.00
31	0.00	---	0.20	0.09	---	0.13	---	0.44	---	0.40	1.22	---
TOTAL	5.16	5.25	5.42	1.72	6.28	---	9.08	4.09	11.81	10.08	13.31	4.97



02111500 REDDIES RIVER AT NORTH WILKESBORO, NC

LOCATION.--Lat 36°10'29", long 81°10'08", Wilkes County, Hydrologic Unit 03040101, on left bank 550 ft upstream from bridge on Secondary Road 1517, 1.4 mi upstream from North Wilkesboro municipal dam, 1.2 mi northwest of North Wilkesboro, and 2.3 mi upstream from mouth.

DRAINAGE AREA.--89.2 mi².

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

REVISED RECORDS.--WSP 1433: 1944. WDR NC-80-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 978.62 ft above NGVD of 1929. Satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Slight diurnal fluctuation at low flow during growing season. Maximum discharge for period of record, from rating curve extended above 5,600 ft³/s on basis of computation of peak flow over dam; gage height: 22.02 ft. Minimum discharge for period of record also occurred Aug. 15, 2002. Minimum discharge for current water year also occurred Oct. 15.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	67	69	69	148	81	168	182	322	140	251	263	359
2	57	63	67	142	78	164	175	237	130	1,350	239	231
3	52	59	67	185	78	150	165	211	157	667	477	238
4	48	57	70	170	94	140	159	200	249	353	410	271
5	46	62	118	148	83	138	160	240	173	407	303	227
6	42	111	103	135	79	177	149	245	148	435	263	199
7	41	76	88	123	87	150	185	224	802	610	676	190
8	40	69	82	119	80	140	176	205	618	348	543	183
9	39	64	84	114	78	135	301	190	516	307	546	175
10	39	65	82	107	82	128	1,690	180	276	287	457	167
11	62	479	254	101	81	123	873	175	223	336	327	164
12	51	290	185	96	80	120	419	165	240	262	297	160
13	43	207	298	95	77	118	315	157	311	260	315	158
14	40	145	308	94	79	119	269	153	387	242	265	155
15	47	117	192	91	107	112	243	159	247	250	253	157
16	364	211	153	89	149	497	227	164	364	222	261	152
17	155	350	132	91	132	323	214	156	539	210	235	145
18	92	207	118	e88	133	244	584	168	343	198	219	145
19	74	155	111	e86	154	210	473	161	831	196	210	148
20	65	130	226	e84	155	821	339	153	353	193	204	139
21	64	125	160	e83	151	433	302	152	273	195	207	137
22	65	113	137	e88	986	289	277	172	236	301	198	191
23	57	99	122	e83	563	235	248	184	212	267	195	361
24	54	92	198	e83	292	207	232	170	195	208	186	171
25	54	87	212	e81	216	189	226	156	182	188	181	156
26	64	83	162	e79	184	178	229	190	175	178	176	150
27	55	80	142	e79	186	167	208	158	179	174	172	193
28	63	76	130	e78	189	160	198	147	177	171	173	265
29	81	74	121	80	---	163	192	146	409	192	221	173
30	88	73	113	87	---	245	219	142	245	274	292	157
31	80	---	108	84	---	202	---	153	---	223	512	---
TOTAL	2,189	3,888	4,412	3,211	4,734	6,645	9,629	5,635	9,330	9,755	9,276	5,717
MEAN	70.6	130	142	104	169	214	321	182	311	315	299	191
MAX	364	479	308	185	986	821	1,690	322	831	1,350	676	361
MIN	39	57	67	78	77	112	149	142	130	171	172	137
CFSM	0.79	1.45	1.60	1.16	1.90	2.40	3.60	2.04	3.49	3.53	3.35	2.14
IN.	0.91	1.62	1.84	1.34	1.97	2.77	4.02	2.35	3.89	4.07	3.87	2.38

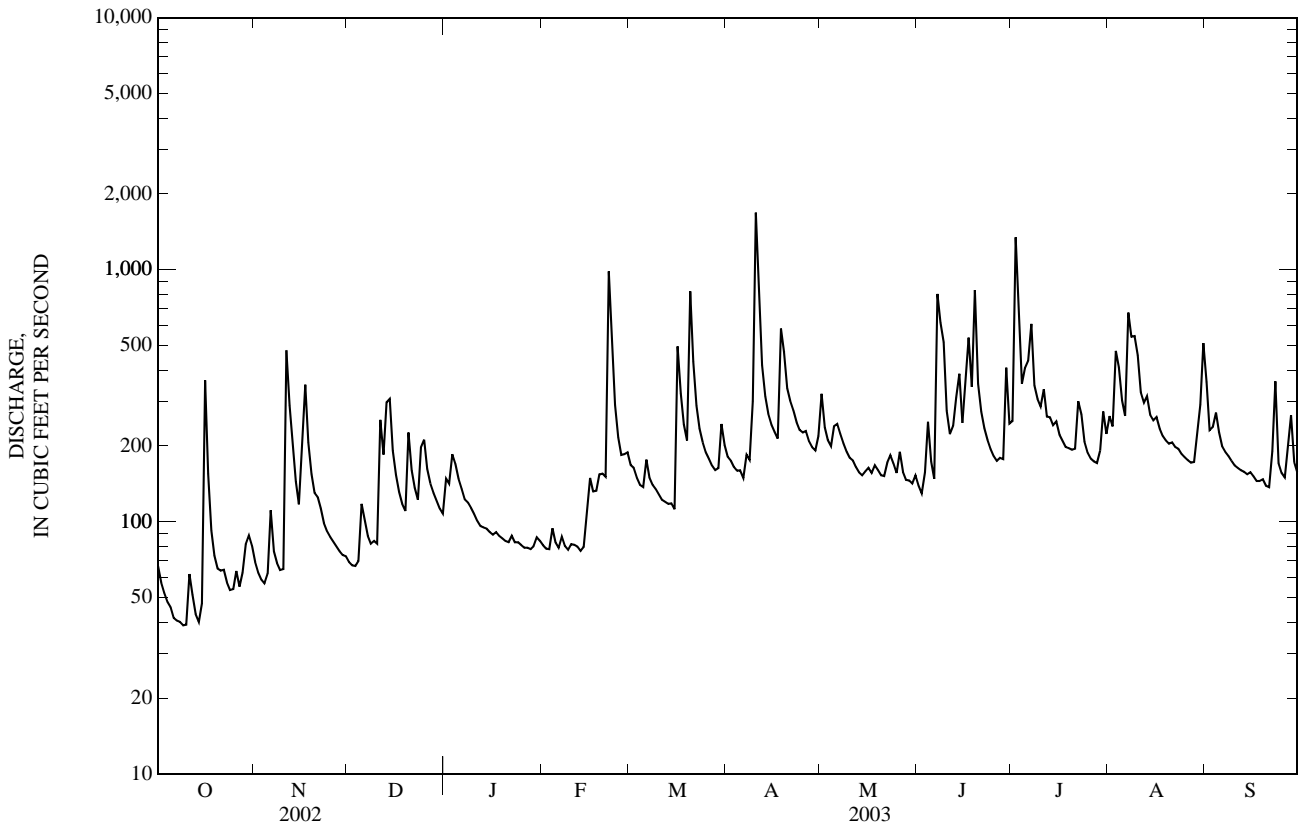
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2003, BY WATER YEAR (WY)

	1977	1978	1974	1996	1960	1975	1980	1973	1976	1941	1940	1945
MEAN	107	116	127	141	162	191	192	157	145	121	123	112
MAX	309	379	273	374	386	405	536	353	412	335	587	479
(WY)	(1977)	(1978)	(1974)	(1996)	(1960)	(1975)	(1980)	(1973)	(1976)	(1941)	(1940)	(1945)
MIN	33.1	35.1	44.3	44.5	50.6	77.3	68.1	47.8	32.8	31.8	22.1	30.8
(WY)	(2001)	(2002)	(2001)	(1956)	(2001)	(1940)	(2001)	(2002)	(2002)	(2002)	(2002)	(1954)

02111500 REDDIES RIVER AT NORTH WILKESBORO, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1940 - 2003	
ANNUAL TOTAL	25,206		74,421		141	
ANNUAL MEAN	69.1		204		218	
HIGHEST ANNUAL MEAN					51.0	1973
LOWEST ANNUAL MEAN					14	2002
HIGHEST DAILY MEAN	671	Sep 27	1,690	Apr 10	7,600	Aug 14, 1940
LOWEST DAILY MEAN	13	Aug 14	39	Oct 9	13	Aug 14, 2002
ANNUAL SEVEN-DAY MINIMUM	14	Aug 8	42	Oct 4	14	Aug 8, 2002
MAXIMUM PEAK FLOW			3,320	Apr 10	27,000*	Aug 14, 1940
MAXIMUM PEAK STAGE			7.76	Apr 10	22.02	Aug 14, 1940
INSTANTANEOUS LOW FLOW			38*	Oct 9	12*	Aug 14, 2002
ANNUAL RUNOFF (CFSM)	0.77		2.29		1.58	
ANNUAL RUNOFF (INCHES)	10.51		31.04		21.48	
10 PERCENT EXCEEDS	130		351		230	
50 PERCENT EXCEEDS	52		168		110	
90 PERCENT EXCEEDS	22		72		57	

e Estimated.
 * See REMARKS.



02112000 YADKIN RIVER AT WILKESBORO, NC

LOCATION.--Lat 36°09'09", long 81°08'44", Wilkes County, Hydrologic Unit 03040101, on right bank 150 ft upstream from bridge on State Highways 18 and 268 between North Wilkesboro and Wilkesboro, 150 ft downstream of Reddies River, 0.5 mi northeast of Wilkesboro, and 382 mi upstream from mouth of Pee Dee River in Winyah Bay.

DRAINAGE AREA.--504 mi².

PERIOD OF RECORD.--April 1903 to June 1909, October 1920 to current year. Prior to October 1928, published as "Yadkin River at North Wilkesboro".

REVISED RECORDS.--WSP 1433: 1903-09, 1922, 1925-26(M), 1930, 1932, 1934, 1946-48(M), drainage area at former site. WDR NC-80-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 942.35 ft above NGVD of 1929. Apr. 10, 1903, to June 30, 1909, and Oct. 17, 1920, to Apr. 10, 1929, nonrecording gage at site 1.2 mi downstream at different datum. Apr. 11, 1929, to Jan. 9, 1930, nonrecording gage at present site and datum. U.S. Army Corps of Engineers telephone and satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow regulated since 1962 by W. Kerr Scott Reservoir (station 02111391) 5.5 mi upstream. Prior to regulation maximum discharge: 160,000 ft³/s, Aug. 14, 1940, from rating curve extended above 20,000 ft³/s on basis of slope-area measurement of peak flow; gage height: 37.6 ft, from floodmarks.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in July 1916 reached a stage of 34.5 ft present site and datum, from floodmark; discharge, 116,000 ft³/s, from rating curve extended as explained above.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	230	621	497	695	421	1,020	1,280	1,980	979	728	1,490	1,660
2	310	598	489	778	411	1,020	919	1,920	888	2,400	1,490	1,470
3	416	590	490	847	403	989	964	1,350	949	4,080	2,130	1,240
4	606	371	449	849	440	972	896	1,370	1,330	4,500	2,520	1,320
5	504	285	e520	812	691	881	859	1,450	1,330	3,400	2,380	1,230
6	226	557	485	781	689	779	846	1,600	1,120	2,310	1,880	1,120
7	219	654	589	768	538	986	871	1,720	1,900	2,200	2,520	1,040
8	216	601	583	778	513	969	723	1,630	2,930	2,130	2,640	989
9	248	466	560	773	492	953	1,010	1,250	3,710	1,800	2,920	867
10	294	411	450	738	497	935	3,460	1,140	2,390	1,890	3,070	859
11	389	1,200	800	613	492	760	3,410	1,100	1,580	1,780	2,400	931
12	318	1,010	2,010	616	454	598	3,660	971	1,390	1,420	1,580	912
13	340	810	2,130	588	412	595	4,050	412	1,710	1,390	1,540	851
14	325	1,800	1,410	561	418	631	3,960	618	2,370	1,340	1,280	846
15	368	2,200	1,450	563	497	660	3,610	1,500	2,710	1,270	1,340	877
16	1,050	825	1,380	562	656	1,270	2,100	1,560	3,170	1,260	1,320	840
17	1,130	1,250	1,270	562	711	1,510	1,130	1,230	2,780	1,300	1,250	824
18	1,270	1,420	860	e530	715	2,940	2,760	1,020	3,050	1,260	1,370	747
19	699	1,330	652	e540	750	2,460	4,020	998	5,320	1,130	1,300	686
20	695	1,290	917	e510	938	1,950	2,800	984	4,860	1,180	1,120	670
21	702	1,050	1,230	e500	959	2,550	1,840	891	3,400	1,200	1,060	666
22	669	633	1,070	511	1,970	3,730	1,700	887	1,420	1,490	1,060	900
23	549	623	980	517	2,010	2,380	1,470	1,380	1,420	1,490	1,060	1,610
24	452	617	999	e510	3,180	1,350	1,390	1,380	1,500	1,140	1,110	1,400
25	231	609	996	e510	3,560	1,010	1,250	1,210	755	1,740	992	1,040
26	259	601	1,180	e500	1,780	1,160	1,390	1,180	1,550	1,250	914	784
27	246	580	1,370	e490	815	1,060	1,270	1,300	1,450	1,050	912	918
28	273	514	1,190	e490	1,260	933	945	1,110	1,180	1,040	908	1,320
29	484	508	1,180	485	---	874	778	869	1,680	1,060	956	1,190
30	689	507	810	437	---	e1,200	1,400	988	1,420	1,560	1,120	839
31	670	---	523	432	---	1,360	---	1,000	---	1,520	1,490	---
TOTAL	15,077	24,531	29,519	18,846	26,672	40,485	56,761	37,998	62,241	53,308	49,122	30,646
MEAN	486	818	952	608	953	1,306	1,892	1,226	2,075	1,720	1,585	1,022
MAX	1,270	2,200	2,130	849	3,560	3,730	4,050	1,980	5,320	4,500	3,070	1,660
MIN	216	285	449	432	403	595	723	412	755	728	908	666
†	-21	-25	-8	+4	+27	-18	0	-11	+9	-12	+21	-24

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 2003,* BY WATER YEAR (WY)

MEAN	656	704	742	869	960	1,169	1,136	930	874	677	712	589
MAX	1,834	2,571	1,619	1,965	1,832	2,346	2,868	1,954	2,075	1,720	2,239	1,948
(WY)	(1991)	(1978)	(1974)	(1995)	(1990)	(1993)	(1980)	(1973)	(2003)	(2003)	(1994)	(1979)
MIN	191	209	249	302	335	441	435	300	248	234	194	209
(WY)	(1989)	(2002)	(2001)	(2001)	(2001)	(1988)	(1986)	(2001)	(2002)	(1988)	(1988)	(1988)

02112000 YADKIN RIVER AT WILKESBORO, NC—Continued

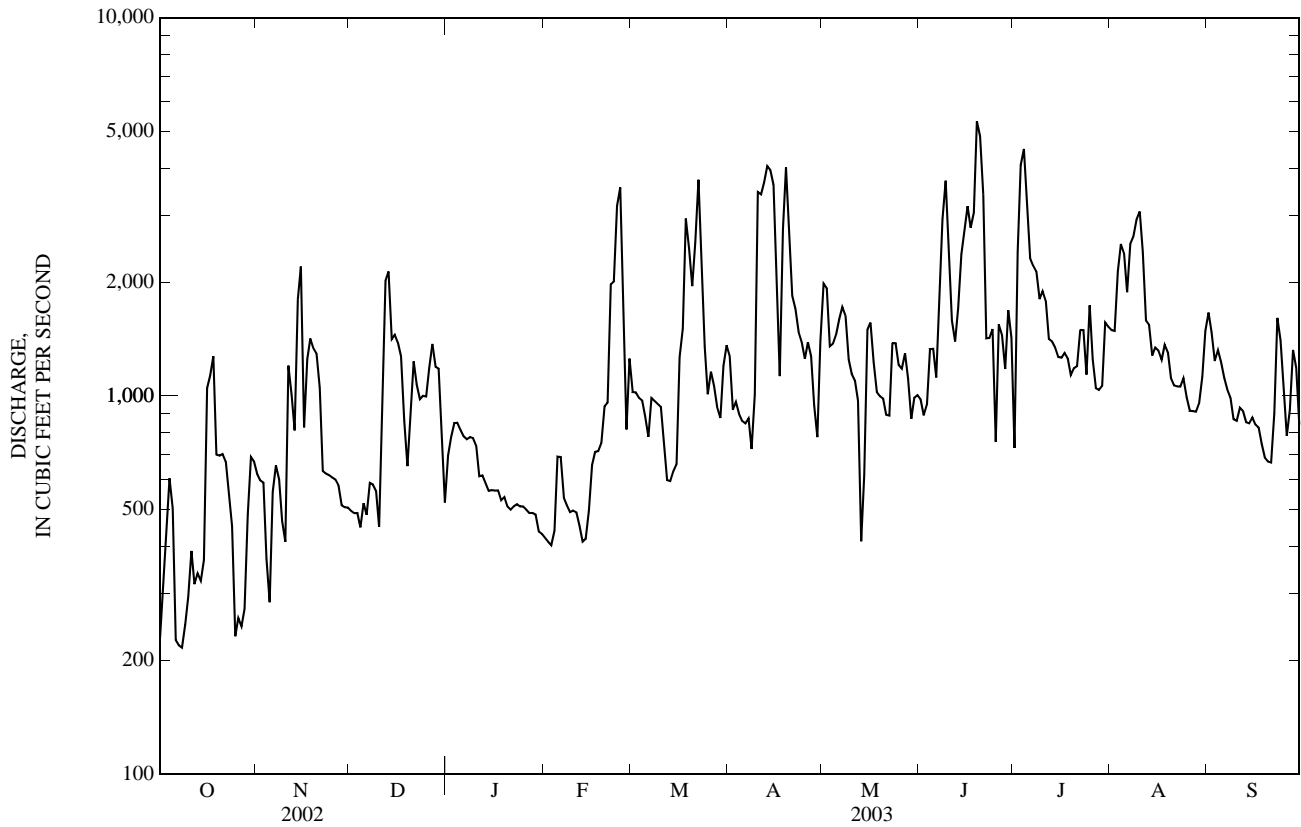
SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1963 - 2003*	
ANNUAL TOTAL	168,073		445,206		834 (UNADJUSTED)	
ANNUAL MEAN	460		1,220		1,220 1973	
HIGHEST ANNUAL MEAN					336 2002	
LOWEST ANNUAL MEAN					7,990 Aug 10, 1970	
HIGHEST DAILY MEAN	2,200	Nov 15	5,320	Jun 19	12,800	Apr 10, 1983
LOWEST DAILY MEAN	137	Sep 12	216	Oct 8	114	Dec 8, 1970
ANNUAL SEVEN-DAY MINIMUM	141	Sep 8	273	Oct 6	141	Sep 8, 2002
MAXIMUM PEAK FLOW			6,590	Jun 19	12,800	Apr 10, 1983
MAXIMUM PEAK STAGE			8.88	Jun 19	16.22	Apr 10, 1983
INSTANTANEOUS LOW FLOW			169	Nov 5	54	Oct 21, 1997
10 PERCENT EXCEEDS	878		2,380		1,420	
50 PERCENT EXCEEDS	348		1,000		635	
90 PERCENT EXCEEDS	200		485		330	

e Estimated.

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

‡ Adjusted for change in contents in W. Kerr Scott Reservoir.

* For regulated period only (1963-2003).



02112120 ROARING RIVER NEAR ROARING RIVER, NC

LOCATION.--Lat 36°14'59", long 81°02'38", Wilkes County, Hydrologic Unit 03040101, on left bank at downstream end of old bridge pier, 800 ft upstream from bridge on Secondary Road 1990, 3.8 mi northwest of Roaring River, and 4.1 mi upstream from mouth.

DRAINAGE AREA.--128 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Occasional low-flow measurements water years 1925, 1947, 1949-56, 1963. April 1964 to current year.

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

GAGE.--Water-stage recorder. Datum of gage is 964.85 ft above NGVD of 1929. Prior to May 1, 1964, nonrecording gage on downstream side of bridge at same site and datum. Satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Maximum discharge for period of record, from rating curve extended above 2,400 ft³/s on basis of slope-area measurement of peak flow at gage heights 22.54, 14.40, and 10.83 ft. Minimum discharge for period of record also occurred Aug. 15, 24, 25, Sept. 11, 12, 13, 14, 2002. Minimum discharge for current water year also occurred Oct. 10.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of 1916 reached a stage of about 28 ft; estimated discharge, 45,000 ft³/s. The flood of August 1940 reached a stage of about 24 ft; estimated discharge, 31,000 ft³/s, from information by local residents and rating curve extended as explained above. A discharge of 24 ft³/s was measured Sept. 18, 1956.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	85	95	89	203	100	217	198	335	175	226	266	367
2	75	87	86	198	96	211	188	267	162	792	282	238
3	69	81	85	303	95	184	177	259	192	573	322	220
4	64	78	86	266	124	169	169	256	370	357	309	331
5	61	87	151	219	109	162	172	303	238	368	270	266
6	56	172	130	194	101	227	158	317	193	399	258	213
7	55	113	117	174	114	184	211	285	1,220	467	335	199
8	54	99	109	167	104	167	198	261	838	337	320	189
9	52	92	114	156	98	157	407	240	544	340	341	180
10	53	92	109	146	104	144	2,120	229	355	317	368	172
11	97	925	316	136	103	136	1,110	223	291	392	362	165
12	74	492	246	128	101	131	582	212	318	282	289	161
13	61	319	399	125	96	130	452	198	376	311	262	159
14	56	213	414	124	101	129	380	190	394	257	251	155
15	62	170	258	118	138	118	338	190	360	245	278	158
16	392	294	202	114	235	427	309	211	599	271	262	157
17	181	466	172	117	191	298	288	195	1,200	251	233	144
18	114	282	153	e108	196	253	658	207	630	237	210	145
19	93	212	143	e105	228	224	663	196	1,770	249	197	151
20	83	178	349	e102	232	1,340	483	193	607	218	191	140
21	81	169	237	e102	223	610	423	192	441	239	186	137
22	84	152	192	e102	1,540	389	383	220	360	395	201	184
23	75	133	170	e108	805	302	337	234	306	337	180	489
24	71	124	293	e102	412	257	309	217	274	248	169	196
25	71	117	304	e102	292	227	299	194	249	215	152	172
26	84	111	225	e100	241	208	358	227	232	200	144	162
27	74	106	193	e100	247	192	296	190	231	193	139	177
28	81	100	176	e97	257	181	270	178	220	188	155	252
29	109	96	162	101	---	185	255	180	223	214	152	171
30	125	94	149	109	---	281	260	179	213	245	192	158
31	112	---	142	104	---	225	---	182	---	224	406	---
TOTAL	2,804	5,749	5,971	4,330	6,683	8,065	12,451	6,960	13,581	9,587	7,682	6,008
MEAN	90.5	192	193	140	239	260	415	225	453	309	248	200
MAX	392	925	414	303	1,540	1,340	2,120	335	1,770	792	406	489
MIN	52	78	85	97	95	118	158	178	162	188	139	137
CFSM	0.71	1.50	1.50	1.09	1.86	2.03	3.24	1.75	3.54	2.42	1.94	1.56
IN.	0.81	1.67	1.74	1.26	1.94	2.34	3.62	2.02	3.95	2.79	2.23	1.75

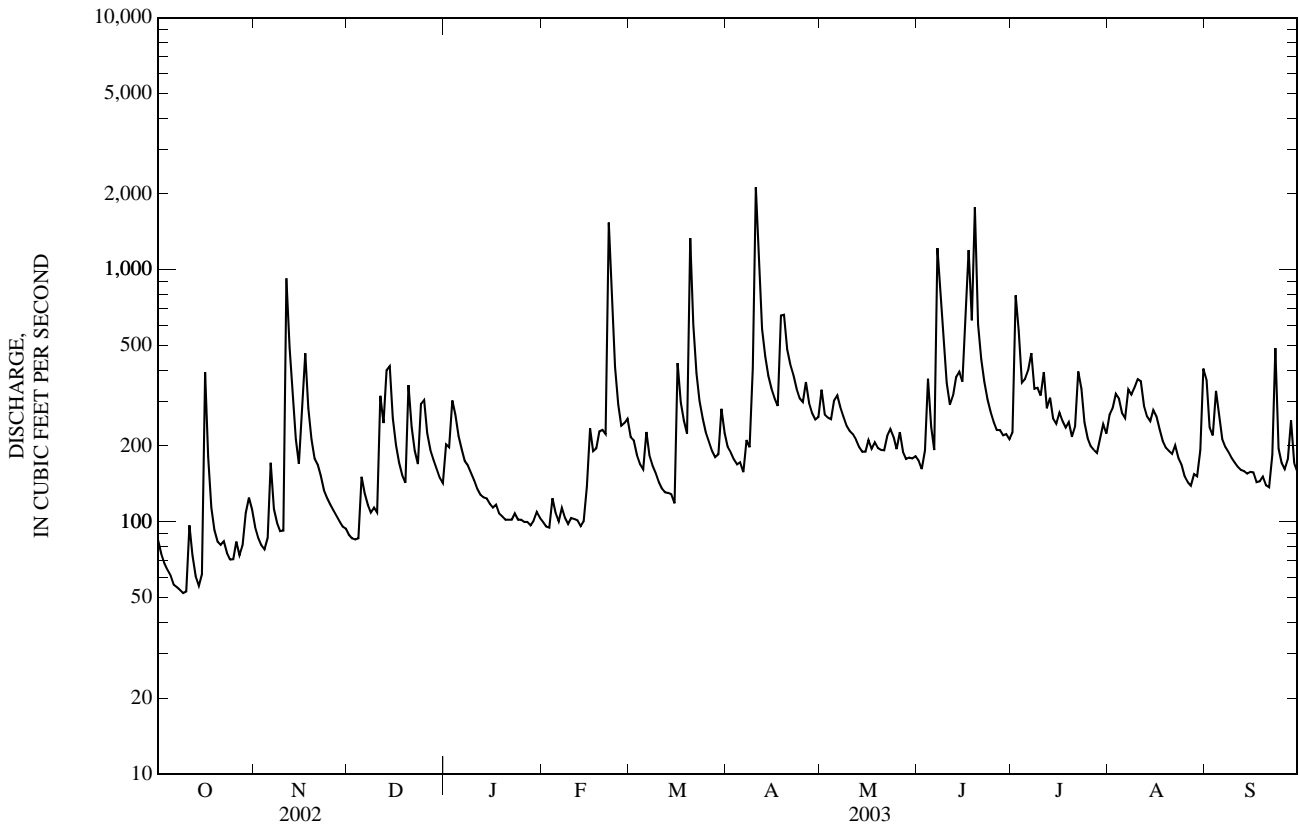
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2003, BY WATER YEAR (WY)

MEAN	146	154	168	198	216	257	252	207	191	154	147	137
MAX	422	426	389	406	413	610	637	430	453	349	461	446
(WY)	(1977)	(1978)	(1997)	(1996)	(1990)	(1993)	(1980)	(1991)	(2003)	(1989)	(1994)	(1971)
MIN	42.0	46.9	59.2	70.2	67.4	97.4	100	66.2	39.5	48.3	23.6	48.2
(WY)	(2001)	(2002)	(2001)	(2001)	(2001)	(1988)	(1986)	(2002)	(2002)	(2002)	(2002)	(2001)

02112120 ROARING RIVER NEAR ROARING RIVER, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1964 - 2003	
ANNUAL TOTAL	34,666		89,871		186	
ANNUAL MEAN	95.0		246		69.8	
HIGHEST ANNUAL MEAN					269	1993
LOWEST ANNUAL MEAN					69.8	2002
HIGHEST DAILY MEAN	925	Nov 11	2,120	Apr 10	7,460	Aug 17, 1994
LOWEST DAILY MEAN	14	Aug 15	52	Oct 9	14	Aug 15, 2002
ANNUAL SEVEN-DAY MINIMUM	16	Aug 9	56	Oct 4	16	Aug 9, 2002
MAXIMUM PEAK FLOW			4,920	Apr 10	26,600*	Oct 17, 1975
MAXIMUM PEAK STAGE			8.81	Apr 10	22.54*	Oct 17, 1975
INSTANTANEOUS LOW FLOW			52*	Oct 9	14*	Aug 14, 2002
ANNUAL RUNOFF (CFSM)	0.74		1.92		1.45	
ANNUAL RUNOFF (INCHES)	10.07		26.12		19.73	
10 PERCENT EXCEEDS	179		394		307	
50 PERCENT EXCEEDS	71		196		140	
90 PERCENT EXCEEDS	27		95		73	

e Estimated.
 * See REMARKS.



02112120 ROARING RIVER NEAR ROARING RIVER, NC—Continued

PRECIPITATION RECORDS

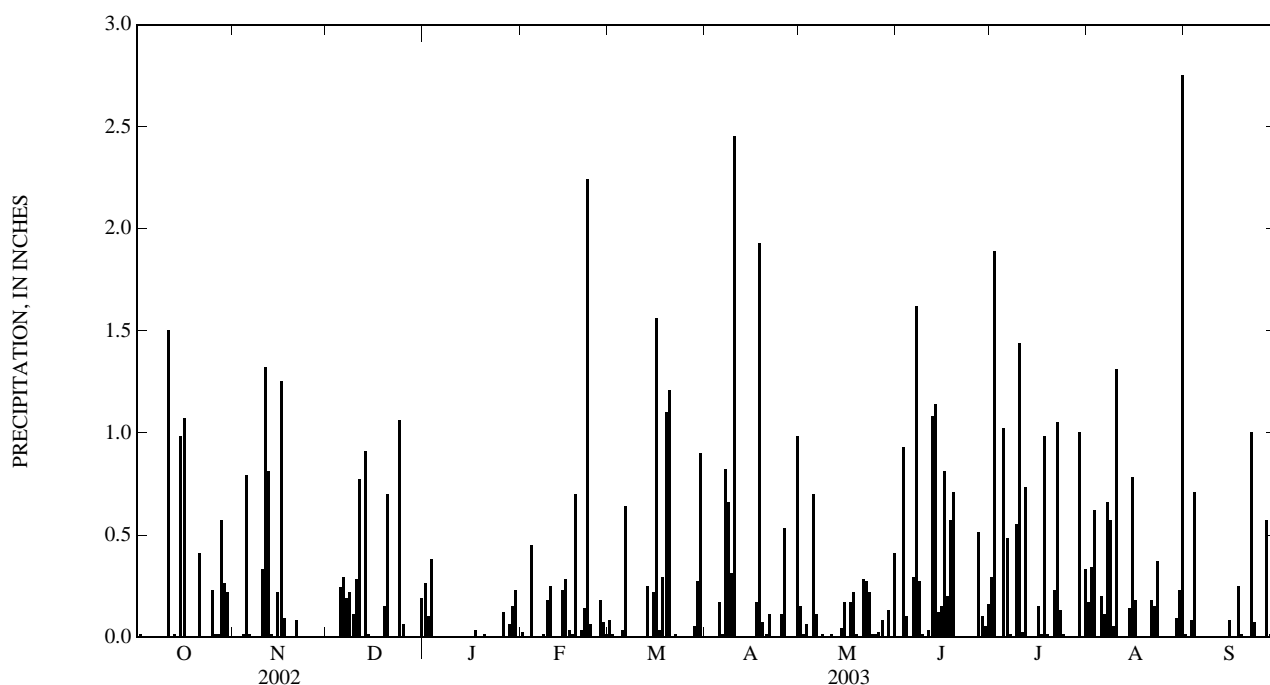
PERIOD OF RECORD.--October 2002 to September 2003.

GAGE.--Tipping-bucket raingage and electronic datalogger. Satellite telemetry at station.

REMARKS.--Gage is operated in cooperation with Yadkin, Inc., the North Carolina Department of Environment and Natural Resources, and the U.S. Army Corps of Engineers, Wilmington District. Precipitation data collected during freezing periods may not be accurately reflected in daily record; consequently, winter record is poor.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

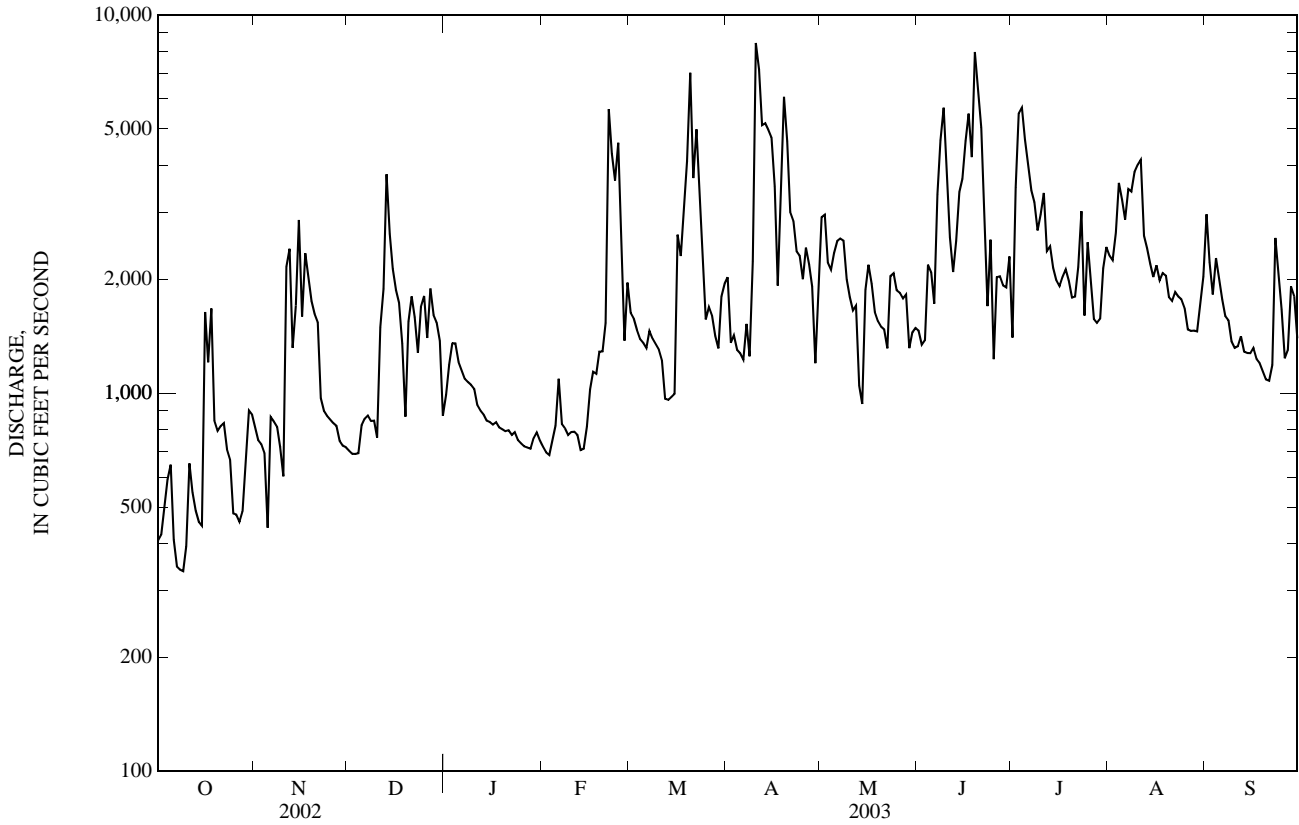
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.26	0.02	0.08	0.00	0.15	0.00	0.29	0.17	0.01
2	0.01	0.00	0.00	0.10	0.00	0.01	0.00	0.01	0.00	1.89	0.34	0.00
3	0.00	0.00	0.00	0.38	0.00	0.00	0.00	0.06	0.93	0.00	0.62	0.08
4	0.00	0.01	0.00	0.00	0.45	0.00	0.00	0.00	0.10	0.00	0.00	0.71
5	0.00	0.79	0.24	0.00	0.00	0.03	0.17	0.70	0.00	1.02	0.20	0.00
6	0.00	0.01	0.29	0.00	0.00	0.64	0.01	0.11	0.29	0.48	0.11	0.00
7	0.00	0.00	0.19	0.00	0.00	0.00	0.82	0.00	1.62	0.01	0.66	0.00
8	0.00	0.00	0.22	0.00	0.01	0.00	0.66	0.01	0.27	0.00	0.57	0.00
9	0.00	0.00	0.11	0.00	0.18	0.00	0.31	0.00	0.01	0.55	0.05	0.00
10	0.00	0.33	0.28	0.00	0.25	0.00	2.45	0.00	0.00	1.44	1.31	0.00
11	1.50	1.32	0.77	0.00	0.00	0.00	0.00	0.01	0.03	0.02	0.00	0.00
12	0.00	0.81	0.00	0.00	0.00	0.00	0.00	0.00	1.08	0.73	0.00	0.00
13	0.01	0.01	0.91	0.00	0.00	0.25	0.00	0.00	1.14	0.00	0.00	0.00
14	0.00	0.00	0.01	0.00	0.23	0.00	0.00	0.04	0.12	0.00	0.14	0.00
15	0.98	0.22	0.00	0.00	0.28	0.22	0.00	0.17	0.15	0.00	0.78	0.08
16	1.07	1.25	0.00	0.00	0.03	1.56	0.00	0.00	0.81	0.15	0.18	0.00
17	0.00	0.09	0.00	0.03	0.01	0.03	0.17	0.17	0.20	0.01	0.00	0.00
18	0.00	0.00	0.00	0.00	0.70	0.29	1.93	0.22	0.57	0.98	0.00	0.25
19	0.00	0.00	0.15	0.00	0.00	1.10	0.07	0.01	0.71	0.01	0.00	0.01
20	0.00	0.00	0.70	0.01	0.03	1.21	0.01	0.00	0.00	0.00	0.00	0.00
21	0.41	0.08	0.00	0.00	0.14	0.00	0.11	0.28	0.00	0.23	0.18	0.00
22	0.00	0.00	0.00	0.00	2.24	0.01	0.00	0.27	0.00	1.05	0.15	1.00
23	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.22	0.00	0.13	0.37	0.07
24	0.00	0.00	1.06	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00
25	0.23	0.00	0.06	0.00	0.00	0.00	0.11	0.01	0.00	0.00	0.00	0.00
26	0.01	0.00	0.00	0.12	0.18	0.00	0.53	0.02	0.00	0.00	0.00	0.00
27	0.01	0.00	0.00	0.00	0.07	0.00	0.00	0.08	0.51	0.00	0.00	0.57
28	0.57	0.00	0.00	0.06	0.01	0.05	0.00	0.00	0.10	0.00	0.00	0.01
29	0.26	0.00	0.00	0.15	---	0.27	0.00	0.13	0.05	1.00	0.09	0.00
30	0.22	0.00	0.00	0.23	---	0.90	0.98	0.00	0.16	0.00	0.23	0.00
31	0.00	---	0.19	0.00	---	0.00	---	0.41	---	0.33	2.75	---
TOTAL	5.28	4.92	5.18	1.34	4.89	6.65	8.33	3.09	8.85	10.33	8.90	2.79



02112250 YADKIN RIVER AT ELKIN, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1964 - 2003	
ANNUAL TOTAL	247,488		683,940		1,355	
ANNUAL MEAN	678		1,874		1,951	
HIGHEST ANNUAL MEAN					508	1973
LOWEST ANNUAL MEAN					211	2002
HIGHEST DAILY MEAN	3,790	Dec 13	8,430	Apr 10	21,500	Aug 10, 1970
LOWEST DAILY MEAN	193	Sep 13	338	Oct 9	193	Sep 13, 2002
ANNUAL SEVEN-DAY MINIMUM	211	Sep 8	433	Oct 6	211	Sep 8, 2002
MAXIMUM PEAK FLOW			14,400	Apr 10	29,100	Aug 17, 1994
MAXIMUM PEAK STAGE			16.07	Apr 10	24.88*	Apr 10, 1983
INSTANTANEOUS LOW FLOW			330	Oct 9	187*	Aug 9, 2002
10 PERCENT EXCEEDS	1,380		3,580		2,300	
50 PERCENT EXCEEDS	561		1,570		1,040	
90 PERCENT EXCEEDS	255		720		562	

e Estimated.
 * See REMARKS.



02112360 MITCHELL RIVER NEAR STATE ROAD, NC

LOCATION.--Lat 36°18'42", long 80°48'25", Surry County, Hydrologic Unit 03040101, on right bank 280 ft upstream from bridge on Secondary Road 1001, 1.8 mi upstream from Grass Creek, and 3.3 mi east of State Road.

DRAINAGE AREA.--78.8 mi².

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1952-58, 1963. April 1964 to current year.

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

GAGE.--Water-stage recorder. Datum of gage is 927.12 ft above NGVD of 1929. Prior to Aug. 29, 1964, nonrecording gage at same site and datum. Satellite telemetry at station.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since at least 1900, about 18 ft in August 1940, from information by local resident; estimated discharge, 9,000 ft³/s. A discharge of 16 ft³/s was measured on Sept. 19, 1956.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	74	74	76	147	93	167	160	281	147	176	222	225
2	63	68	75	143	90	168	153	231	137	783	201	161
3	57	64	74	218	89	152	148	221	173	510	215	149
4	53	61	78	184	109	144	144	222	245	292	215	258
5	50	71	111	159	97	140	146	241	182	275	189	186
6	43	127	103	147	91	177	138	238	157	307	181	155
7	52	86	93	136	100	151	178	218	727	296	344	146
8	66	76	87	133	93	139	168	202	526	247	238	140
9	42	72	90	127	89	134	279	188	361	248	248	134
10	42	71	86	123	93	126	1,290	179	241	239	335	130
11	77	502	182	117	93	121	628	175	211	257	308	125
12	59	360	142	113	91	119	344	167	205	235	208	123
13	49	226	238	112	88	121	268	160	211	248	184	122
14	45	160	241	111	90	120	235	156	213	213	172	124
15	45	132	165	109	109	113	218	163	204	199	166	127
16	209	196	141	106	169	385	204	173	327	195	168	127
17	114	274	127	109	141	238	193	161	553	188	160	118
18	81	181	117	e105	147	196	587	171	356	216	152	120
19	68	149	113	e105	160	176	549	166	744	229	146	124
20	64	129	210	e103	152	878	344	157	373	237	144	114
21	63	122	153	e103	151	401	297	157	285	263	145	114
22	69	112	135	e99	1,010	266	267	172	249	324	199	124
23	61	102	125	e103	457	222	240	193	227	281	174	254
24	57	98	189	e99	250	196	226	173	210	220	146	142
25	57	95	190	e97	199	179	222	165	196	194	138	129
26	67	91	151	e93	174	169	272	260	187	181	132	125
27	59	88	137	e91	184	159	236	176	187	177	132	129
28	68	83	129	e89	189	153	212	160	181	180	139	155
29	88	81	123	92	---	164	201	160	194	175	168	126
30	95	80	117	100	---	210	267	155	176	210	161	121
31	85	---	114	96	---	178	---	157	---	261	217	---
TOTAL	2,122	4,031	4,112	3,669	4,798	6,262	8,814	5,798	8,385	8,056	5,947	4,327
MEAN	68.5	134	133	118	171	202	294	187	280	260	192	144
MAX	209	502	241	218	1,010	878	1,290	281	744	783	344	258
MIN	42	61	74	89	88	113	138	155	137	175	132	114
CFSM	0.87	1.71	1.68	1.50	2.17	2.56	3.73	2.37	3.55	3.30	2.43	1.83
IN.	1.00	1.90	1.94	1.73	2.27	2.96	4.16	2.74	3.96	3.80	2.81	2.04

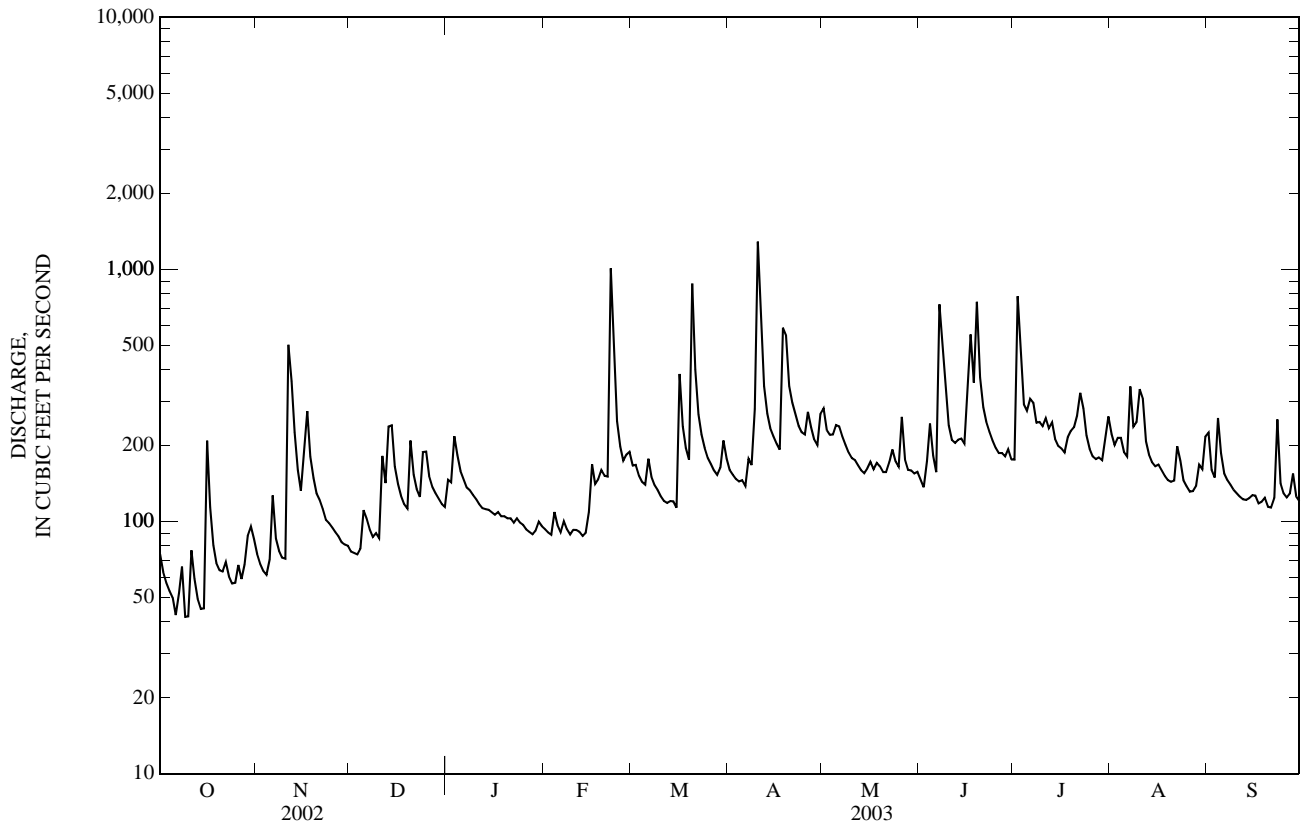
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2003, BY WATER YEAR (WY)

	105	104	113	128	143	170	170	145	127	108	106	103
MEAN	105	104	113	128	143	170	170	145	127	108	106	103
MAX	248	211	230	232	258	373	426	264	280	260	247	313
(WY)	(1991)	(1980)	(1974)	(1998)	(1966)	(1993)	(1983)	(1973)	(2003)	(2003)	(1970)	(1979)
MIN	32.7	32.0	47.0	48.3	54.2	72.8	69.1	52.0	31.0	35.9	24.6	38.6
(WY)	(2002)	(2002)	(1989)	(1981)	(2002)	(1981)	(1981)	(2002)	(2002)	(1986)	(2002)	(2001)

02112360 MITCHELL RIVER NEAR STATE ROAD, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1964 - 2003	
ANNUAL TOTAL	25,588		66,321		127	
ANNUAL MEAN	70.1		182		51.5	
HIGHEST ANNUAL MEAN					182	2003
LOWEST ANNUAL MEAN					51.5	2002
HIGHEST DAILY MEAN	865	Sep 19	1,290	Apr 10	3,260	Aug 10, 1970
LOWEST DAILY MEAN	15	Sep 12	42	Oct 9	15	Sep 12, 2002
ANNUAL SEVEN-DAY MINIMUM	17	Sep 7	50	Oct 4	17	Sep 7, 2002
MAXIMUM PEAK FLOW			2,880	Feb 22	7,470	Sep 22, 1979
MAXIMUM PEAK STAGE			6.83	Feb 22	16.42	Sep 22, 1979
INSTANTANEOUS LOW FLOW			26	Oct 6	12	Aug 15, 2002
ANNUAL RUNOFF (CFSM)	0.89		2.31		1.61	
ANNUAL RUNOFF (INCHES)	12.08		31.31		21.84	
10 PERCENT EXCEEDS	127		274		202	
50 PERCENT EXCEEDS	53		157		101	
90 PERCENT EXCEEDS	22		78		53	

e Estimated.



02113000 FISHER RIVER NEAR COPELAND, NC

LOCATION.--Lat 36°21'26", long 80°41'09", Surry County, Hydrologic Unit 03040101, on left bank 500 ft upstream from bridge on State Highway 268, 1 mi upstream from Cody Creek, and 2 mi northwest of Copeland.

DRAINAGE AREA.--128 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1931 to current year.

REVISED RECORDS.--WSP 1303: 1933(M). WDR NC-80-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 913 ft above NGVD of 1929, by barometer. Prior to Sept. 5, 1936, twice daily readings at same site and datum. Satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Some irrigation diversions at times in the growing season. Maximum discharge for period of record, from rating curve extended above 6,200 ft³/s on basis of slope-area measurement of peak flow; gage height: 18.4 ft. Minimum discharge for period of record also occurred Sept. 13, 14, 2002. Minimum discharge for current water year also occurred Oct. 9, 10, 11, 14, 15.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	80	109	89	190	109	259	225	513	192	233	408	358
2	70	95	85	215	106	255	212	295	174	1,350	326	235
3	63	87	84	305	102	217	201	273	218	917	825	216
4	58	81	85	253	130	200	194	294	408	386	482	539
5	54	87	134	201	124	192	197	290	312	452	326	316
6	52	219	141	180	106	231	189	308	226	707	323	233
7	48	128	119	165	119	200	255	270	1,190	498	1,750	218
8	47	105	108	158	114	184	235	247	818	330	561	207
9	46	95	111	150	104	177	511	226	405	294	919	194
10	46	93	106	143	109	166	2,590	216	303	288	779	185
11	75	868	322	137	110	160	1,200	208	262	310	766	178
12	78	740	230	130	107	158	493	200	321	255	387	172
13	57	358	390	127	100	157	370	186	332	256	326	172
14	50	217	396	125	102	156	318	182	312	243	313	169
15	47	171	226	122	139	149	289	189	344	228	297	175
16	257	313	182	117	274	617	269	223	1,090	337	394	188
17	175	551	158	120	215	370	252	194	967	291	310	161
18	105	264	145	e118	218	275	1,010	205	512	217	292	163
19	86	198	137	e113	272	250	1,170	204	1,370	264	249	183
20	78	171	334	e110	236	2,020	515	192	529	235	236	158
21	74	157	218	e108	216	635	414	189	382	288	228	156
22	80	145	173	e108	2,350	380	369	223	329	344	238	208
23	70	129	155	e105	958	311	325	246	295	507	225	491
24	65	121	256	e105	407	274	299	222	269	296	230	204
25	63	113	306	e103	307	244	288	210	250	248	206	178
26	81	107	207	e103	263	229	327	609	237	226	197	170
27	75	104	177	e100	283	215	308	263	232	212	194	171
28	80	99	164	e100	319	205	264	226	233	204	201	359
29	134	95	162	e100	---	214	250	213	245	367	204	193
30	152	92	154	116	---	e299	357	213	228	396	284	172
31	142	---	148	114	---	262	---	206	---	622	321	---
TOTAL	2,588	6,112	5,702	4,341	7,999	9,661	13,896	7,735	12,985	11,801	12,797	6,722
MEAN	83.5	204	184	140	286	312	463	250	433	381	413	224
MAX	257	868	396	305	2,350	2,020	2,590	609	1,370	1,350	1,750	539
MIN	46	81	84	100	100	149	189	182	174	204	194	156
CFSM	0.65	1.59	1.44	1.09	2.23	2.43	3.62	1.95	3.38	2.97	3.23	1.75
IN.	0.75	1.78	1.66	1.26	2.32	2.81	4.04	2.25	3.77	3.43	3.72	1.95

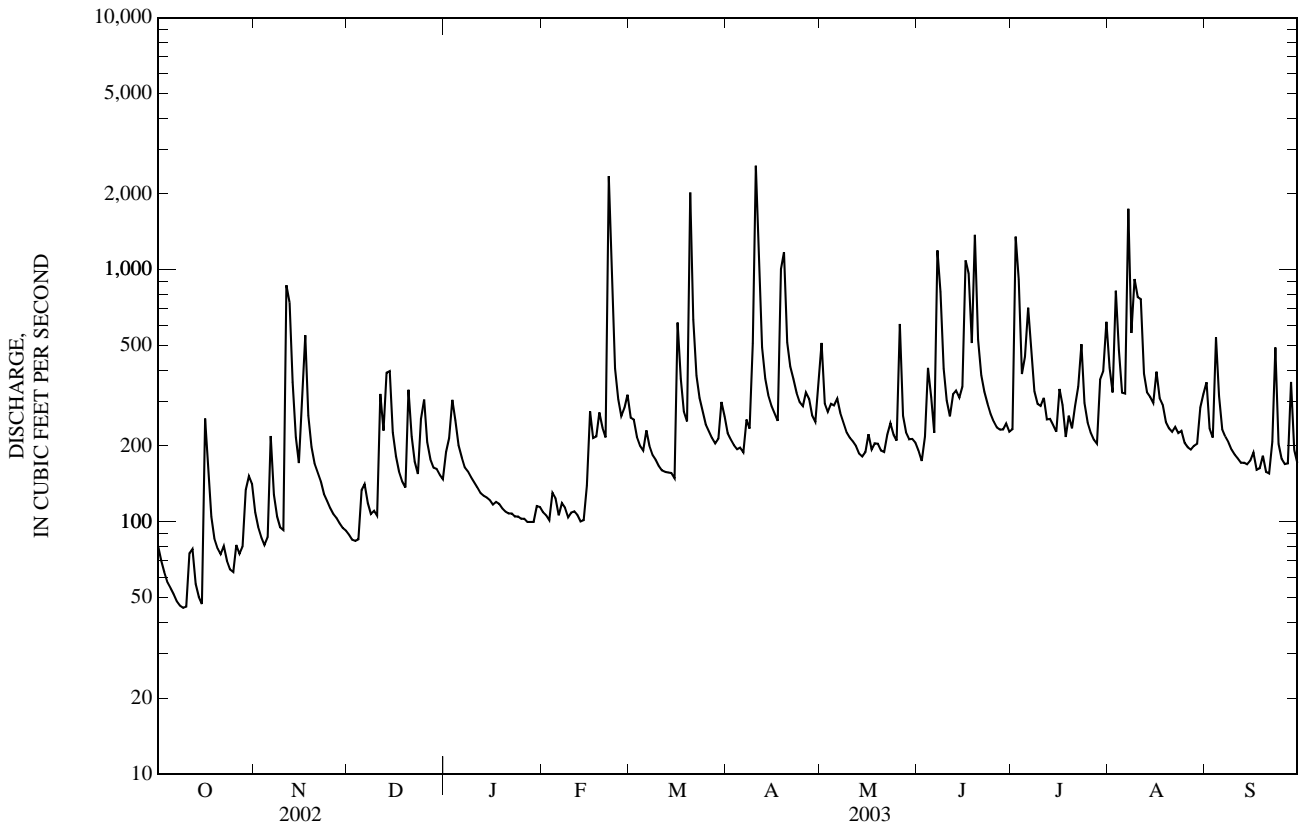
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 2003, BY WATER YEAR (WY)

MEAN	144	148	166	199	215	248	244	195	176	148	152	140
MAX	580	344	365	526	539	667	746	387	491	397	510	735
(WY)	(1938)	(1935)	(1974)	(1936)	(1960)	(1993)	(1983)	(1950)	(1947)	(1943)	(1940)	(1979)
MIN	40.2	48.1	58.1	54.4	68.8	103	102	61.7	29.7	31.3	24.1	27.9
(WY)	(1942)	(2002)	(1956)	(1956)	(1934)	(1981)	(2002)	(2002)	(2002)	(1986)	(2002)	(1954)

02113000 FISHER RIVER NEAR COPELAND, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1932 - 2003	
ANNUAL TOTAL	35,869		102,339		181	
ANNUAL MEAN	98.3		280		281	
HIGHEST ANNUAL MEAN					1979	
LOWEST ANNUAL MEAN					2002	
HIGHEST DAILY MEAN	900	Jul 26	2,590	Apr 10	12,100	Sep 22, 1979
LOWEST DAILY MEAN	11	Sep 12	46	Oct 9	11	Sep 12, 2002
ANNUAL SEVEN-DAY MINIMUM	14	Sep 8	50	Oct 4	14	Sep 8, 2002
MAXIMUM PEAK FLOW			5,770	Feb 22	34,200*	Sep 22, 1979
MAXIMUM PEAK STAGE			10.13	Feb 22	19.61	Sep 22, 1979
INSTANTANEOUS LOW FLOW			45*	Oct 8	10*	Sep 12, 2002
ANNUAL RUNOFF (CFSM)	0.77		2.19		1.41	
ANNUAL RUNOFF (INCHES)	10.42		29.74		19.22	
10 PERCENT EXCEEDS	182		495		290	
50 PERCENT EXCEEDS	74		216		134	
90 PERCENT EXCEEDS	21		95		65	

e Estimated.
 * See REMARKS.



PRECIPITATION RECORDS

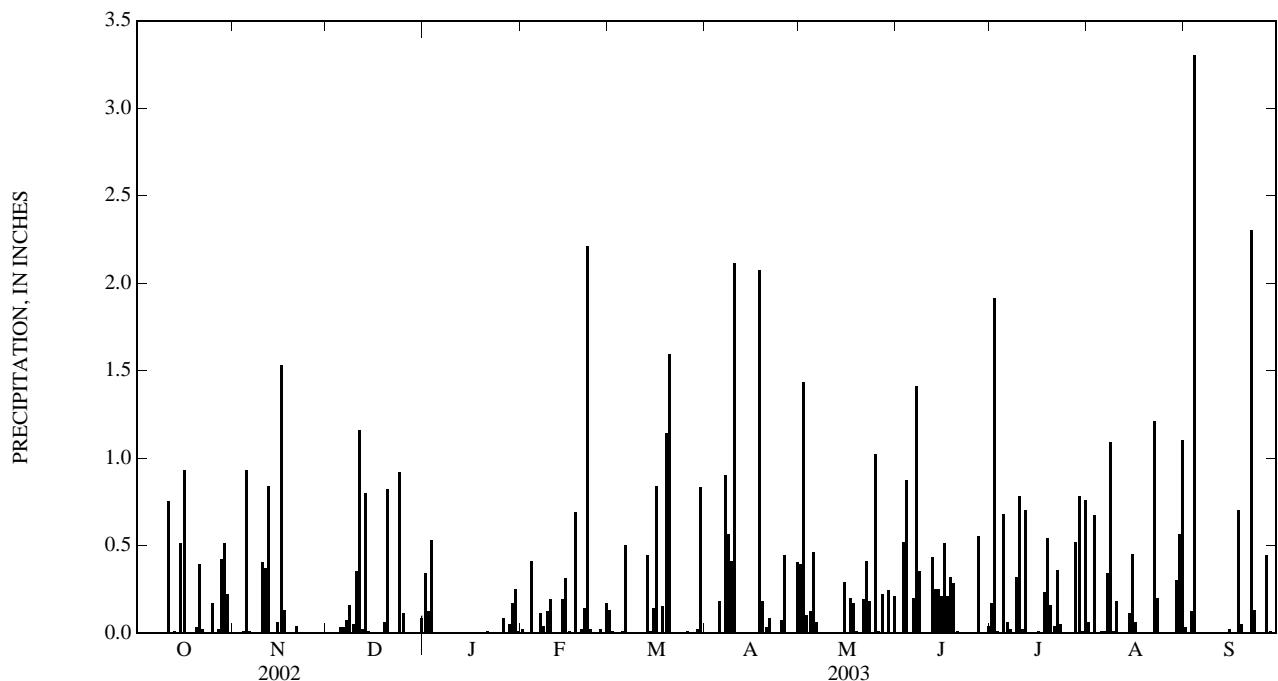
PERIOD OF RECORD.--October 2002 to September 2003.

GAGE.--Tipping-bucket raingage and electronic datalogger. Satellite telemetry at station.

REMARKS.--Gage is operated in cooperation with Yadkin, Inc., the North Carolina Department of Environment and Natural Resources, and the U.S. Army Corps of Engineers, Wilmington District. Precipitation data collected during freezing periods may not be accurately reflected in daily record; consequently, winter record is poor.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.34	0.02	0.13	0.00	0.39	0.00	0.17	0.06	0.03
2	0.00	0.00	0.00	0.12	0.00	0.01	0.00	1.43	0.00	1.91	0.00	0.00
3	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.10	0.52	0.01	0.67	0.12
4	0.00	0.01	0.00	0.00	0.41	0.00	0.00	0.12	0.87	0.00	0.00	3.30
5	0.00	0.93	0.03	0.00	0.00	0.01	0.18	0.46	0.00	0.68	0.01	0.00
6	0.00	0.01	0.03	0.00	0.00	0.50	0.00	0.06	0.20	0.06	0.01	0.00
7	0.00	0.00	0.07	0.00	0.11	0.00	0.90	0.00	1.41	0.02	0.34	0.00
8	0.00	0.00	0.16	0.00	0.04	0.00	0.56	0.00	0.35	0.00	1.09	0.00
9	0.00	0.00	0.05	0.00	0.12	0.00	0.41	0.00	0.00	0.32	0.01	0.00
10	0.00	0.40	0.35	0.00	0.19	0.00	2.11	0.00	0.00	0.78	0.18	0.00
11	0.75	0.37	1.16	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00
12	0.00	0.84	0.02	0.00	0.00	0.00	0.00	0.00	0.43	0.70	0.00	0.00
13	0.01	0.00	0.80	0.00	0.00	0.44	0.00	0.00	0.25	0.00	0.00	0.00
14	0.00	0.00	0.01	0.00	0.19	0.01	0.00	0.00	0.25	0.00	0.11	0.00
15	0.51	0.06	0.00	0.00	0.31	0.14	0.00	0.29	0.21	0.00	0.45	0.02
16	0.93	1.53	0.00	0.00	0.01	0.84	0.00	0.00	0.51	0.01	0.06	0.00
17	0.00	0.13	0.00	0.00	0.00	0.00	0.00	0.20	0.21	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.69	0.15	2.07	0.17	0.32	0.23	0.00	0.70
19	0.00	0.00	0.06	0.00	0.00	1.14	0.18	0.01	0.28	0.54	0.00	0.05
20	0.03	0.00	0.82	0.00	0.02	1.59	0.03	0.00	0.01	0.16	0.00	0.00
21	0.39	0.04	0.00	0.01	0.14	0.00	0.08	0.19	0.00	0.04	0.00	0.00
22	0.02	0.00	0.00	0.00	2.21	0.00	0.00	0.41	0.00	0.36	1.21	2.30
23	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.18	0.00	0.05	0.20	0.13
24	0.00	0.00	0.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.17	0.00	0.11	0.00	0.00	0.00	0.07	1.02	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.08	0.02	0.01	0.44	0.01	0.00	0.00	0.00	0.00
27	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.22	0.55	0.00	0.00	0.44
28	0.42	0.00	0.00	0.05	0.17	0.00	0.00	0.00	0.00	0.52	0.00	0.01
29	0.51	0.00	0.00	0.17	---	0.02	0.00	0.24	0.00	0.78	0.30	0.00
30	0.22	0.00	0.00	0.25	---	0.83	0.40	0.00	0.04	0.01	0.56	0.00
31	0.00	---	0.08	0.01	---	0.00	---	0.21	---	0.76	1.10	---
TOTAL	3.98	4.32	4.67	1.56	4.67	5.82	7.43	5.71	6.41	8.13	6.36	7.10



02113850 ARARAT RIVER AT ARARAT, NC

LOCATION.--Lat 36°24'16", long 80°33'42", Surry County, Hydrologic Unit 03040101, on right bank 265 ft upstream from bridge on Secondary Road 2019 at Ararat, and 300 ft downstream of Flat Shoal Creek.

DRAINAGE AREA.--231 mi².

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 880.97 ft above NGVD of 1929. Satellite telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Minimum discharge for period of record also occurred Aug. 20, 1999. Minimum discharge for current water year also occurred Oct. 8, 9, 10.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 14, 1947, reached a stage of 21.4 ft, result of failure of dams upstream; discharge, 26,000 ft³/s, from information by local resident.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	121	177	161	278	182	469	379	744	367	549	800	671
2	102	153	161	310	177	464	359	471	330	1,430	578	499
3	97	139	160	395	173	412	345	599	398	1,300	1,570	490
4	88	133	159	349	240	376	334	704	739	700	1,100	1,210
5	86	153	249	289	219	364	350	538	803	582	1,040	629
6	78	308	236	270	192	434	331	549	466	660	1,250	488
7	73	193	200	250	218	370	469	484	1,610	654	3,730	458
8	71	162	186	242	204	340	434	453	1,480	530	1,690	440
9	72	149	193	234	189	325	851	425	785	583	3,170	424
10	74	149	184	223	196	305	2,230	401	573	644	1,300	410
11	142	1,200	471	211	192	297	1,350	388	505	564	1,290	394
12	120	1,000	369	203	192	290	697	372	1,300	483	798	386
13	92	562	559	199	185	280	539	347	1,070	532	697	385
14	82	355	568	202	189	275	483	336	967	512	661	390
15	81	274	351	196	274	264	455	360	876	460	661	390
16	331	511	286	193	486	716	433	434	2,410	695	725	382
17	215	840	253	197	372	485	410	366	1,380	591	616	351
18	139	434	233	e185	367	389	951	384	963	448	546	361
19	116	331	222	e181	410	356	1,390	387	2,090	1,000	514	442
20	109	276	529	e181	377	2,670	712	360	1,050	674	502	360
21	108	255	363	e177	357	997	596	357	777	476	489	347
22	125	239	281	e177	3,730	603	548	427	660	708	507	407
23	113	213	254	191	1,780	500	498	444	592	956	497	1,060
24	103	199	398	184	783	453	466	390	547	586	491	453
25	102	193	466	e177	563	419	460	412	516	484	445	388
26	131	185	333	e177	479	398	532	600	495	450	429	365
27	125	178	285	e177	524	381	518	443	477	426	416	369
28	146	169	265	e173	556	361	447	387	478	416	404	615
29	217	166	248	e177	---	367	429	384	492	702	460	400
30	257	164	235	195	---	488	499	417	465	645	595	358
31	227	---	227	192	---	430	---	394	---	969	862	---
TOTAL	3,943	9,460	9,085	6,785	13,806	15,278	18,495	13,757	25,661	20,409	28,833	14,322
MEAN	127	315	293	219	493	493	616	444	855	658	930	477
MAX	331	1,200	568	395	3,730	2,670	2,230	744	2,410	1,430	3,730	1,210
MIN	71	133	159	173	173	264	331	336	330	416	404	347
CFSM	0.55	1.37	1.27	0.95	2.13	2.13	2.67	1.92	3.70	2.85	4.03	2.07
IN.	0.63	1.52	1.46	1.09	2.22	2.46	2.98	2.22	4.13	3.29	4.64	2.31

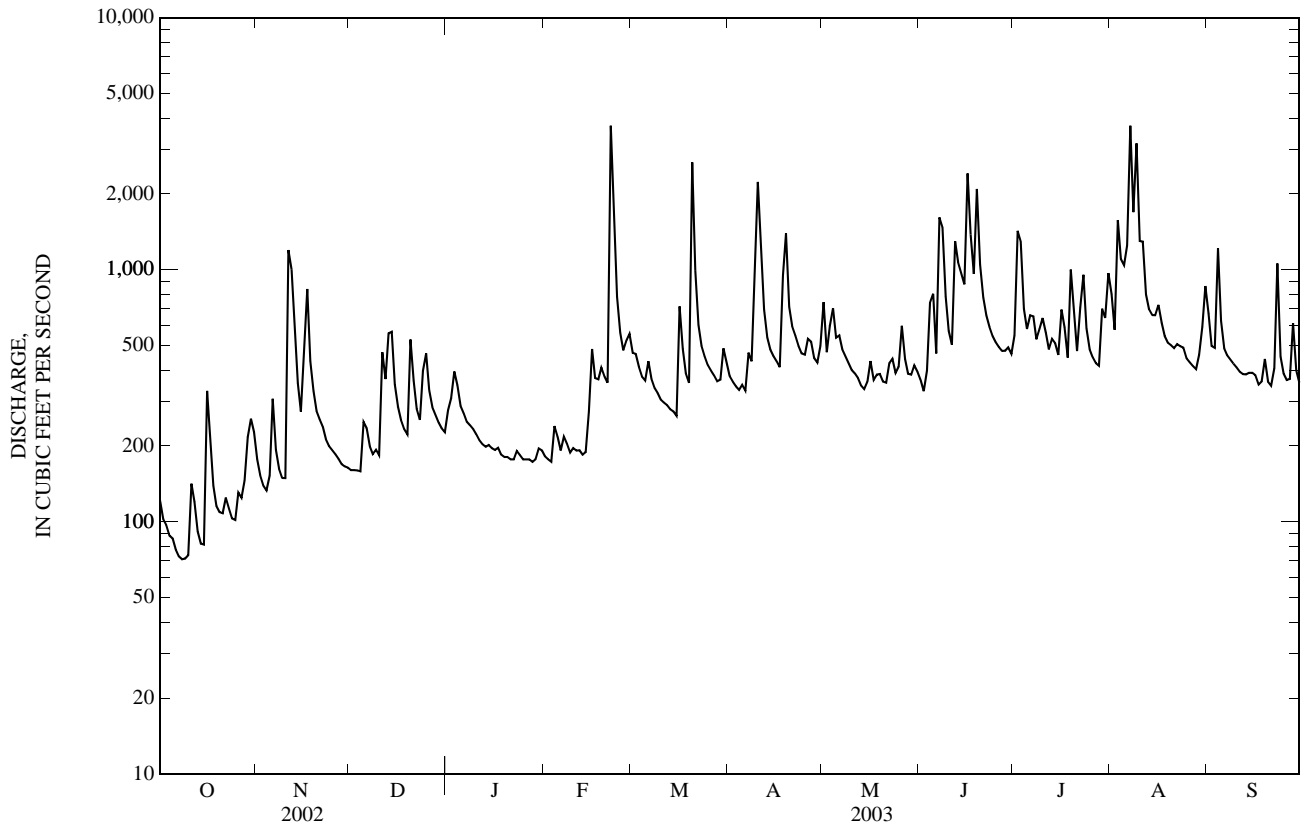
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2003, BY WATER YEAR (WY)

MEAN	230	244	277	331	362	431	430	355	322	256	251	226
MAX	587	537	584	743	691	992	1,048	591	855	658	930	879
(WY)	(1977)	(1993)	(1974)	(1978)	(1990)	(1993)	(1980)	(1973)	(2003)	(2003)	(2003)	(1979)
MIN	83.1	90.3	121	120	141	172	170	143	80.3	81.9	43.0	88.2
(WY)	(2001)	(2002)	(2001)	(1981)	(2001)	(1981)	(1967)	(2002)	(2002)	(1986)	(2002)	(1998)

02113850 ARARAT RIVER AT ARARAT, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1964 - 2003	
ANNUAL TOTAL	61,921		179,834			
ANNUAL MEAN	170		493		309	
HIGHEST ANNUAL MEAN					493	2003
LOWEST ANNUAL MEAN					137	2002
HIGHEST DAILY MEAN	1,200	Nov 11	3,730	Feb 22	13,600	Sep 22, 1979
LOWEST DAILY MEAN	20	Sep 13	71	Oct 8	13	Aug 19, 1999
ANNUAL SEVEN-DAY MINIMUM	26	Sep 8	77	Oct 4	23	Aug 24, 1981
MAXIMUM PEAK FLOW			9,060	Aug 9	35,000	Sep 22, 1979
MAXIMUM PEAK STAGE			13.37	Aug 9	24.46	Sep 22, 1979
INSTANTANEOUS LOW FLOW			71*	Oct 7	12*	Aug 19, 1999
ANNUAL RUNOFF (CFSM)	0.73		2.13		1.34	
ANNUAL RUNOFF (INCHES)	9.97		28.96		18.20	
10 PERCENT EXCEEDS	303		906		509	
50 PERCENT EXCEEDS	142		398		235	
90 PERCENT EXCEEDS	51		162		117	

e Estimated.
 * See REMARKS.



02113850 ARARAT RIVER AT ARARAT, NC—Continued

PRECIPITATION RECORDS

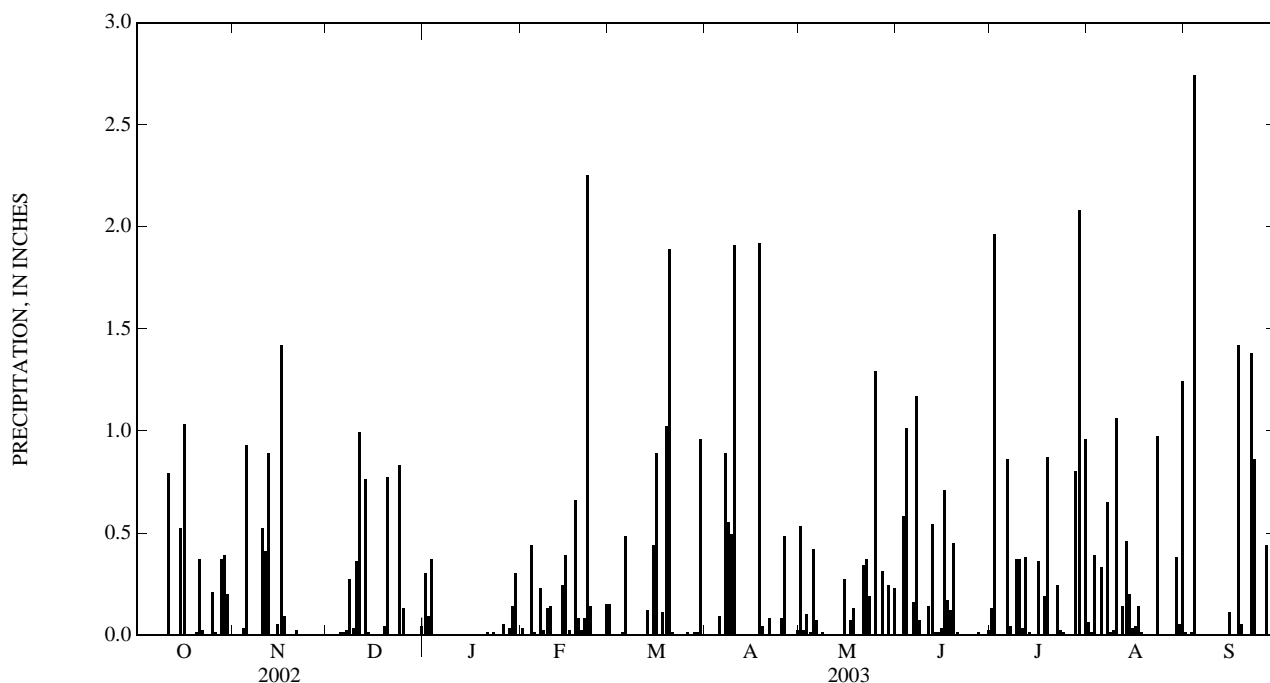
PERIOD OF RECORD.--October 2002 to September 2003.

GAGE.--Tipping-bucket raingage and electronic datalogger. Satellite telemetry at station.

REMARKS.--Gage is operated in cooperation with Yadkin, Inc., the North Carolina Department of Environment and Natural Resources, and the U.S. Army Corps of Engineers, Wilmington District. Precipitation data collected during freezing periods may not be accurately reflected in daily record; consequently, winter record is poor.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.30	0.03	0.15	0.00	0.53	0.00	0.13	0.06	0.01
2	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.02	0.00	1.96	0.01	0.00
3	0.00	0.00	0.00	0.37	0.00	0.00	0.00	0.10	0.58	0.00	0.39	0.01
4	0.00	0.03	0.00	0.00	0.44	0.00	0.00	0.01	1.01	0.00	0.00	2.74
5	0.00	0.93	0.01	0.00	0.01	0.01	0.09	0.42	0.00	0.00	0.33	0.00
6	0.00	0.00	0.01	0.00	0.00	0.48	0.00	0.07	0.16	0.86	0.00	0.00
7	0.00	0.00	0.02	0.00	0.23	0.00	0.89	0.00	1.17	0.04	0.65	0.00
8	0.00	0.00	0.27	0.00	0.02	0.00	0.55	0.01	0.07	0.00	0.01	0.00
9	0.00	0.00	0.03	0.00	0.13	0.00	0.49	0.00	0.00	0.37	0.02	0.00
10	0.00	0.52	0.36	0.00	0.14	0.00	1.91	0.00	0.00	0.37	1.06	0.00
11	0.79	0.41	0.99	0.00	0.00	0.00	0.00	0.00	0.14	0.03	0.00	0.00
12	0.00	0.89	0.00	0.00	0.00	0.00	0.00	0.00	0.54	0.38	0.14	0.00
13	0.00	0.00	0.76	0.00	0.00	0.12	0.00	0.00	0.01	0.01	0.46	0.00
14	0.00	0.00	0.01	0.00	0.24	0.00	0.00	0.00	0.01	0.00	0.20	0.00
15	0.52	0.05	0.00	0.00	0.39	0.44	0.00	0.27	0.03	0.00	0.03	0.11
16	1.03	1.42	0.00	0.00	0.02	0.89	0.00	0.00	0.71	0.36	0.04	0.00
17	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.07	0.17	0.00	0.14	0.00
18	0.00	0.00	0.00	0.00	0.66	0.11	1.92	0.13	0.12	0.19	0.01	1.42
19	0.00	0.00	0.04	0.00	0.08	1.02	0.04	0.00	0.45	0.87	0.00	0.05
20	0.01	0.00	0.77	0.00	0.02	1.89	0.00	0.00	0.01	0.00	0.00	0.00
21	0.37	0.02	0.00	0.01	0.08	0.01	0.08	0.34	0.00	0.00	0.00	0.00
22	0.02	0.00	0.00	0.00	2.25	0.00	0.00	0.37	0.00	0.24	0.00	1.38
23	0.00	0.00	0.00	0.01	0.14	0.00	0.00	0.19	0.00	0.02	0.97	0.86
24	0.00	0.00	0.83	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00
25	0.21	0.00	0.13	0.00	0.00	0.00	0.08	1.29	0.00	0.00	0.00	0.00
26	0.01	0.00	0.00	0.05	0.00	0.01	0.48	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.31	0.01	0.00	0.00	0.44
28	0.37	0.00	0.00	0.03	0.15	0.01	0.00	0.00	0.00	0.80	0.00	0.00
29	0.39	0.00	0.00	0.14	---	0.01	0.00	0.24	0.00	2.08	0.38	0.01
30	0.20	0.00	0.00	0.30	---	0.96	0.02	0.00	0.02	0.00	0.05	0.00
31	0.00	---	0.04	0.00	---	0.00	---	0.23	---	0.96	1.24	---
TOTAL	3.92	4.36	4.27	1.30	5.03	6.11	6.55	4.60	5.21	9.68	6.19	7.03



02114450 LITTLE YADKIN RIVER AT DALTON, NC

LOCATION.--Lat 36°17'56", long 80°25'52", Stokes County, Hydrologic Unit 03040101, on left bank 1,200 ft downstream of bridge on U.S. Highway 52, 1.0 mi southwest of Dalton, 1.3 mi downstream of Southern Railway bridge, and 2.0 mi downstream of Danbury Creek.

DRAINAGE AREA.--42.8 mi².

PERIOD OF RECORD.--August 1960 to current year.

REVISED RECORDS.--WSP 2104: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 813.7 ft above NGVD of 1929 (North Carolina State Highway Commission bench mark). Satellite telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. A Natural Resources Conservation Service flood-control dam on upstream tributary, drainage area 4.7 mi² with flood storage of 695 acre-ft, was completed on June 21, 1977. Maximum discharge for period of record, from rating curve extended above 2,700 ft³/s on basis of slope-area measurement at gage height 17.86 ft. Minimum discharge for period of record also occurred Aug. 25, 26, 2002. Minimum discharge for current water year also occurred Oct. 9.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	28	19	56	27	110	65	423	38	33	58	62
2	12	23	18	50	25	131	53	118	34	104	43	38
3	11	21	19	123	24	73	46	84	49	78	177	33
4	11	20	19	78	34	53	43	70	179	47	119	1,850
5	9.9	29	37	49	30	47	44	86	117	39	191	368
6	9.0	93	27	40	26	100	40	82	58	67	422	167
7	9.0	37	23	34	31	67	165	63	229	78	113	98
8	8.7	27	22	32	28	50	105	52	181	43	74	71
9	8.5	23	23	30	27	43	402	45	89	39	63	49
10	9.0	22	23	28	28	38	1,310	41	60	43	147	43
11	20	96	237	26	29	35	386	39	51	51	304	38
12	14	278	121	25	28	34	166	37	77	41	128	34
13	12	124	326	25	26	35	108	33	49	57	73	33
14	11	55	203	25	26	45	79	32	43	42	106	32
15	11	38	82	23	32	36	65	36	42	35	60	32
16	211	253	54	23	45	405	54	38	79	34	57	32
17	65	316	41	24	40	144	49	34	75	37	112	28
18	28	87	34	e23	47	81	92	41	58	33	105	113
19	20	50	31	e22	70	60	170	38	87	40	47	229
20	17	39	125	e22	69	2,780	85	35	58	41	40	61
21	20	34	63	e21	58	427	68	34	44	37	37	42
22	31	30	42	e21	667	225	59	56	39	39	35	39
23	21	26	34	e23	264	135	49	74	35	45	35	672
24	18	24	164	e22	97	101	46	48	33	44	42	125
25	16	23	210	e21	59	74	46	47	31	39	34	66
26	20	23	84	e20	48	60	57	91	30	38	33	50
27	17	22	53	e20	92	51	57	70	30	38	31	43
28	35	21	42	e19	151	44	45	64	31	40	31	43
29	58	20	36	26	---	42	41	51	31	104	31	37
30	68	20	32	32	---	162	51	48	31	86	32	34
31	41	---	31	30	---	106	---	43	---	57	48	---
TOTAL	855.1	1,902	2,275	1,013	2,128	5,794	4,046	2,053	1,988	1,549	2,828	4,562
MEAN	27.6	63.4	73.4	32.7	76.0	187	135	66.2	66.3	50.0	91.2	152
MAX	211	316	326	123	667	2,780	1,310	423	229	104	422	1,850
MIN	8.5	20	18	19	24	34	40	32	30	33	31	28
CFSM	0.64	1.48	1.71	0.76	1.78	4.37	3.15	1.55	1.55	1.17	2.13	3.55
IN.	0.74	1.65	1.98	0.88	1.85	5.04	3.52	1.78	1.73	1.35	2.46	3.97

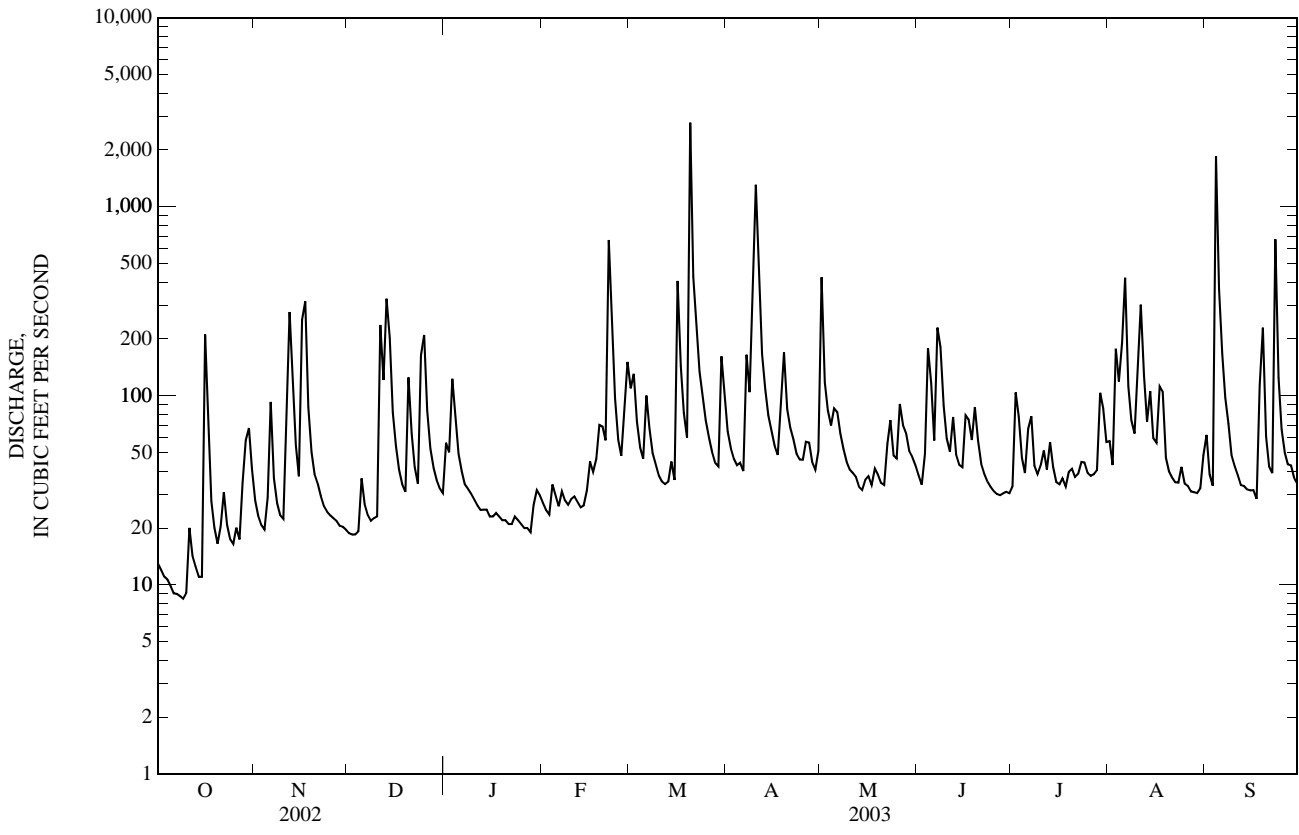
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 2003, BY WATER YEAR (WY)

MEAN	35.4	32.2	46.0	58.6	64.4	82.7	61.3	44.8	39.3	31.8	30.8	30.1
MAX	171	102	113	136	163	250	217	154	155	128	120	172
(WY)	(1991)	(1993)	(1974)	(1978)	(1990)	(1975)	(1987)	(1984)	(1962)	(1978)	(1970)	(1979)
MIN	7.47	9.14	15.1	17.2	24.9	20.1	18.0	13.1	7.15	4.27	3.51	5.08
(WY)	(1987)	(2002)	(2001)	(1981)	(2001)	(1967)	(1967)	(2002)	(1986)	(1986)	(2002)	(1968)

02114450 LITTLE YADKIN RIVER AT DALTON, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1960 - 2003	
ANNUAL TOTAL	10,993.3		30,993.1		46.3	
ANNUAL MEAN	30.1		84.9		84.9	
HIGHEST ANNUAL MEAN					19.9	
LOWEST ANNUAL MEAN					2002	
HIGHEST DAILY MEAN	326	Dec 13	2,780	Mar 20	3,350	Jun 21, 1972
LOWEST DAILY MEAN	1.4	Aug 21	8.5	Oct 9	1.4	Aug 21, 2002
ANNUAL SEVEN-DAY MINIMUM	1.6	Aug 19	9.3	Oct 4	1.6	Aug 19, 2002
MAXIMUM PEAK FLOW			5,780	Sep 4	9,400*	Sep 22, 1979
MAXIMUM PEAK STAGE			13.84	Sep 4	20.29	Sep 22, 1979
INSTANTANEOUS LOW FLOW			8.3*	Oct 8	1.2*	Aug 24, 2002
ANNUAL RUNOFF (CFSM)	0.70		1.98		1.08	
ANNUAL RUNOFF (INCHES)	9.55		26.94		14.68	
10 PERCENT EXCEEDS	62		149		74	
50 PERCENT EXCEEDS	20		43		26	
90 PERCENT EXCEEDS	4.1		21		12	

e Estimated.
 * See REMARKS.



02115360 YADKIN RIVER AT ENON, NC

LOCATION.--Lat 36°07'55", long 80°26'38", Forsyth County, Hydrologic Unit 03040101, on left bank 50 ft upstream from bridge on Secondary Road 1525, 1.5 mi east of Enon, 4 mi upstream from Forbush Creek, and 324 mi upstream from mouth of Pee Dee River in Winyah Bay.

DRAINAGE AREA.--1,694 mi².

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WDR NC-72-1: 1970 (M). WDR NC-80-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 701.71 ft above NGVD of 1929. Prior to Nov. 6, 1968, nonrecording gage on downstream side of bridge at same site and datum. Satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Some regulation by W. Kerr Scott Reservoir (station 02111391). Minimum discharge for current water year also occurred Oct. 10.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 15, 1940, reached a stage of 737.5 ft (35.8 ft above gage datum), from information by U.S. Army Corps of Engineers.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	928	1,580	1,310	1,800	1,460	3,820	3,660	5,390	2,790	3,300	5,150	5,200
2	829	1,410	1,280	2,270	1,410	3,490	3,270	4,770	2,540	4,520	4,140	3,780
3	810	1,310	1,260	2,630	1,360	3,110	2,890	4,790	2,540	9,750	4,050	3,320
4	860	1,260	1,270	3,100	1,430	2,810	2,820	4,480	4,260	7,070	7,300	10,900
5	958	1,190	1,490	2,480	1,680	2,670	2,740	3,970	4,720	6,300	4,930	6,090
6	932	1,710	1,760	2,250	1,680	2,960	2,700	4,550	3,460	6,230	6,550	3,740
7	694	1,790	1,590	2,090	1,780	3,030	3,510	4,190	4,520	6,150	8,580	3,220
8	627	1,540	1,550	2,000	1,630	2,750	3,590	4,000	10,200	4,800	6,270	3,010
9	637	1,410	1,500	1,950	1,510	2,610	5,740	3,640	8,390	4,320	8,220	2,830
10	609	1,270	1,500	1,890	1,500	e2,510	16,800	3,180	5,980	4,580	6,550	2,630
11	760	2,700	3,010	1,810	1,550	e2,360	20,800	3,000	4,570	5,290	7,870	2,560
12	1,270	6,610	3,790	1,680	1,510	e2,040	7,930	2,940	4,310	4,150	5,260	2,590
13	926	4,950	5,330	1,630	1,450	e2,010	6,900	2,640	4,600	4,280	4,290	2,550
14	835	2,850	6,570	1,610	1,390	2,130	6,460	2,090	4,740	3,830	4,280	2,480
15	782	3,320	3,800	1,570	1,500	2,010	6,130	2,340	4,920	3,460	3,820	2,460
16	2,150	4,080	3,140	1,540	2,020	4,350	5,510	3,390	7,720	3,260	3,970	2,550
17	3,280	6,450	2,800	e1,500	2,410	5,560	3,930	3,280	8,500	3,850	4,030	2,390
18	2,120	4,080	2,530	e1,480	2,200	3,980	4,140	3,000	6,700	3,260	3,710	2,380
19	1,920	3,200	2,010	e1,400	2,820	5,460	12,200	2,860	10,500	3,890	3,510	3,030
20	1,320	2,810	2,820	e1,390	2,600	28,300	7,480	2,730	9,350	4,000	3,340	2,380
21	1,320	2,600	3,460	e1,370	2,670	12,000	5,440	2,640	7,260	3,460	3,150	2,240
22	1,440	2,290	2,830	e1,350	10,500	7,110	4,800	2,790	5,370	3,340	3,220	2,210
23	1,370	1,760	2,420	e1,330	16,500	6,170	4,250	3,270	3,650	5,200	3,340	6,880
24	1,160	1,650	2,880	e1,320	5,850	4,690	3,900	3,460	3,860	4,090	3,290	4,030
25	1,100	1,590	4,680	e1,320	5,790	3,680	3,660	3,630	3,420	3,380	3,060	3,190
26	928	1,550	3,040	e1,310	4,950	3,280	3,840	4,450	2,900	3,560	2,810	2,750
27	979	1,510	2,780	e1,300	3,700	3,260	4,380	3,480	3,500	3,000	2,630	2,450
28	984	1,460	2,780	e1,280	4,170	3,030	3,560	3,390	3,450	2,790	2,680	3,200
29	1,330	1,360	2,530	e1,250	---	2,880	3,020	2,870	3,110	2,960	2,690	3,150
30	1,710	1,340	2,430	1,540	---	3,580	2,910	2,780	3,660	e5,000	3,050	2,760
31	1,850	---	2,020	1,550	---	4,280	---	2,730	---	3,920	3,490	---
TOTAL	37,418	72,630	82,160	52,990	89,020	141,920	168,960	106,720	155,490	136,990	139,230	102,950
MEAN	1,207	2,421	2,650	1,709	3,179	4,578	5,632	3,443	5,183	4,419	4,491	3,432
MAX	3,280	6,610	6,570	3,100	16,500	28,300	20,800	5,390	10,500	9,750	8,580	10,900
MIN	609	1,190	1,260	1,250	1,360	2,010	2,700	2,090	2,540	2,790	2,630	2,210

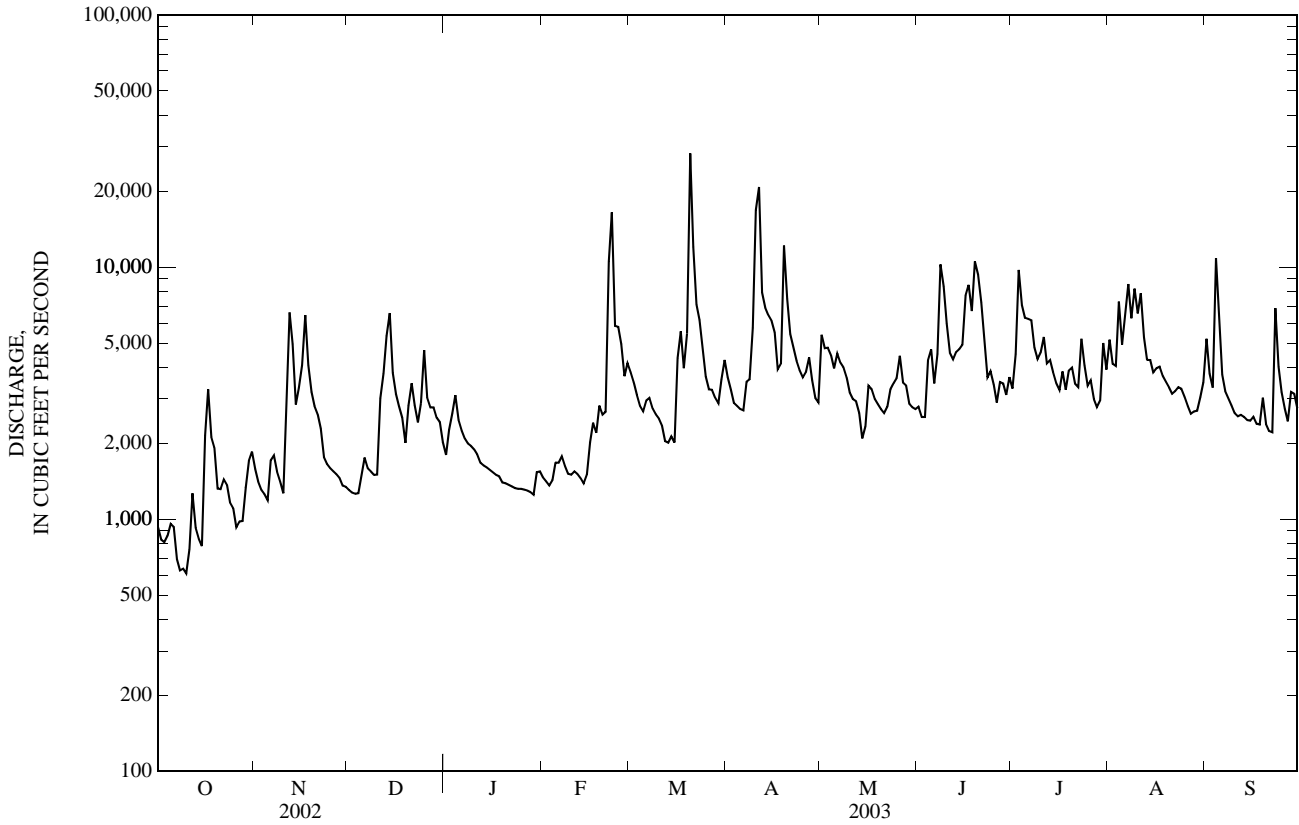
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2003, BY WATER YEAR (WY)

MEAN	1,944	1,990	2,247	2,719	2,898	3,497	3,327	2,753	2,460	1,936	1,990	1,761
MAX	5,371	5,128	4,814	5,725	5,645	7,862	7,337	4,989	5,435	4,419	5,611	5,810
(WY)	(1991)	(1978)	(1974)	(1978)	(1990)	(1993)	(1980)	(1973)	(1972)	(2003)	(1970)	(1979)
MIN	635	620	841	1,051	1,023	1,443	1,350	925	540	654	405	815
(WY)	(2002)	(2002)	(2001)	(1981)	(2001)	(1981)	(2002)	(2002)	(2002)	(1986)	(2002)	(1988)

02115360 YADKIN RIVER AT ENON, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1964 - 2003	
ANNUAL TOTAL	470,717		1,286,478			
ANNUAL MEAN	1,290		3,525		2,456	
HIGHEST ANNUAL MEAN					3,605	
LOWEST ANNUAL MEAN					952	
HIGHEST DAILY MEAN	6,610	Nov 12	28,300	Mar 20	48,400	Sep 22, 1979
LOWEST DAILY MEAN	264	Sep 14	609	Oct 10	264	Sep 14, 2002
ANNUAL SEVEN-DAY MINIMUM	303	Aug 9	745	Oct 5	303	Aug 9, 2002
MAXIMUM PEAK FLOW			36,500	Mar 20	73,300	Jun 21, 1972
MAXIMUM PEAK STAGE			23.66	Mar 20	29.52	Sep 22, 1979
INSTANTANEOUS LOW FLOW			604*	Oct 9	247	Sep 14, 2002
10 PERCENT EXCEEDS	2,640		6,190		4,190	
50 PERCENT EXCEEDS	1,040		3,000		1,870	
90 PERCENT EXCEEDS	406		1,330		972	

e Estimated.
 * See REMARKS.



PRECIPITATION RECORDS

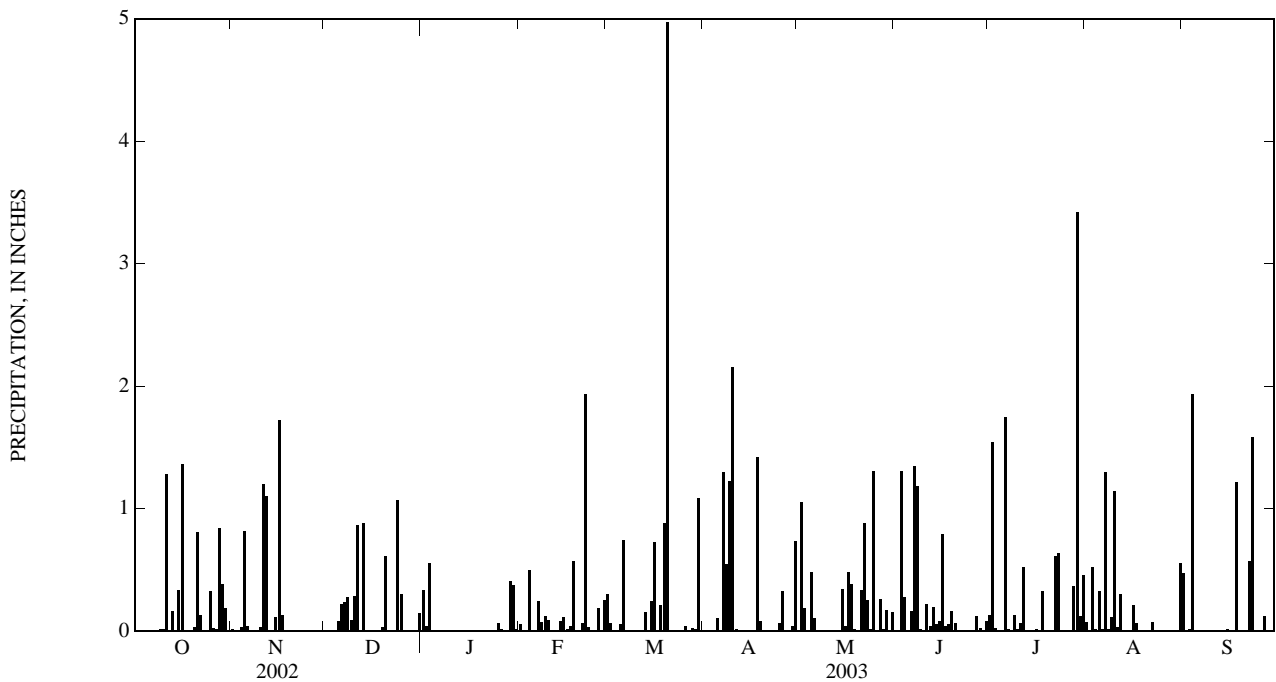
PERIOD OF RECORD.--October 2000 to current year.

GAGE.--Tipping-bucket raingage and electronic datalogger. Satellite telemetry at station.

REMARKS.--Gage is operated in cooperation with the Winston-Salem/Forsyth County Utilities Commission, Yadkin Inc., and the U.S. Army Corps of Engineers, Wilmington District. Precipitation data collected during freezing periods may not be accurately reflected in daily record; consequently, winter record is poor.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.01	0.00	0.33	0.05	0.30	0.00	0.00	0.00	0.13	0.07	0.47
2	0.00	0.00	0.00	0.04	0.00	0.06	0.00	1.05	0.00	1.54	0.00	0.00
3	0.00	0.00	0.00	0.55	0.00	0.00	0.00	0.18	1.30	0.02	0.52	0.01
4	0.00	0.03	0.00	0.00	0.49	0.00	0.00	0.00	0.27	0.00	0.01	1.93
5	0.00	0.81	0.08	0.00	0.00	0.05	0.10	0.48	0.00	0.00	0.32	0.00
6	0.00	0.04	0.22	0.00	0.00	0.74	0.00	0.10	0.16	1.74	0.01	0.00
7	0.00	0.00	0.23	0.00	0.24	0.00	1.29	0.00	1.34	0.01	1.29	0.00
8	0.00	0.00	0.27	0.00	0.07	0.00	0.54	0.00	1.18	0.00	0.01	0.00
9	0.01	0.00	0.09	0.00	0.12	0.00	1.22	0.00	0.01	0.13	0.11	0.00
10	0.01	0.03	0.28	0.00	0.09	0.00	2.15	0.00	0.00	0.01	1.14	0.00
11	1.28	1.20	0.86	0.00	0.00	0.00	0.01	0.00	0.22	0.06	0.03	0.00
12	0.00	1.10	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.52	0.30	0.00
13	0.16	0.00	0.88	0.00	0.00	0.15	0.00	0.00	0.19	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.05	0.00	0.00	0.00
15	0.33	0.11	0.00	0.00	0.11	0.24	0.00	0.34	0.08	0.00	0.00	0.01
16	1.36	1.72	0.00	0.00	0.01	0.72	0.00	0.04	0.79	0.01	0.21	0.00
17	0.00	0.13	0.00	0.00	0.04	0.00	0.00	0.48	0.04	0.00	0.06	0.00
18	0.00	0.00	0.00	0.00	0.57	0.21	1.42	0.38	0.05	0.32	0.00	1.21
19	0.00	0.00	0.03	0.00	0.00	0.88	0.08	0.01	0.16	0.00	0.00	0.00
20	0.03	0.00	0.61	0.00	0.00	4.97	0.00	0.00	0.06	0.00	0.00	0.00
21	0.80	0.00	0.00	0.00	0.06	0.00	0.00	0.33	0.00	0.00	0.00	0.00
22	0.13	0.00	0.00	0.00	1.93	0.00	0.00	0.88	0.00	0.61	0.07	0.57
23	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.25	0.00	0.63	0.00	1.58
24	0.00	0.00	1.07	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
25	0.32	0.00	0.30	0.06	0.00	0.00	0.06	1.30	0.00	0.00	0.00	0.00
26	0.02	0.00	0.00	0.01	0.18	0.04	0.32	0.00	0.00	0.00	0.00	0.00
27	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.26	0.12	0.00	0.00	0.12
28	0.84	0.00	0.00	0.00	0.25	0.02	0.00	0.01	0.02	0.36	0.00	0.00
29	0.38	0.00	0.00	0.40	---	0.01	0.04	0.17	0.00	3.42	0.00	0.00
30	0.18	0.00	0.00	0.37	---	1.08	0.73	0.00	0.08	0.12	0.00	0.00
31	0.00	---	0.14	0.01	---	0.00	---	0.15	---	0.45	0.55	---
TOTAL	5.86	5.18	5.06	1.77	4.32	9.47	7.96	6.42	6.16	10.08	4.70	5.90



0211583580 BOWEN BRANCH NEAR MOUTH AT WINSTON-SALEM, NC

LOCATION.--Lat 36°07'05", long 80°12'46", Forsyth County, Hydrologic Unit 03040101, .1 mi above mouth, and 1 mi northeast of downtown Winston-Salem.

DRAINAGE AREA.--1.99 mi².

GAGE-HEIGHT RECORDS

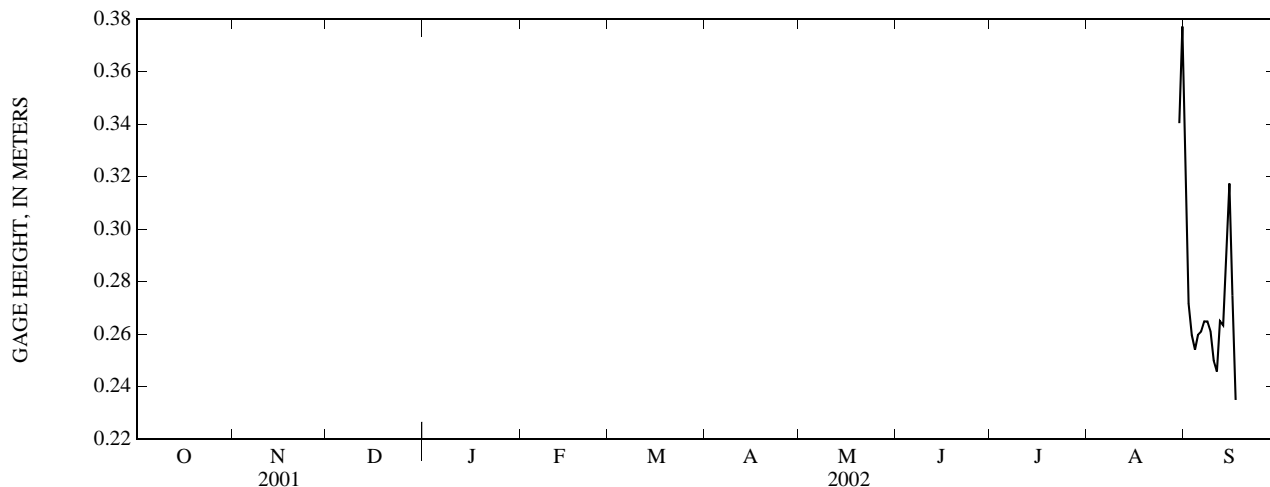
PERIOD OF RECORD.--August 2002 to September 2003 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 800 ft above NGVD of 1929, from topographic map.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height recorded, 1.76 m, July 29, 2003; minimum gage height recorded, 0.20 m, Aug. 28, 2003.

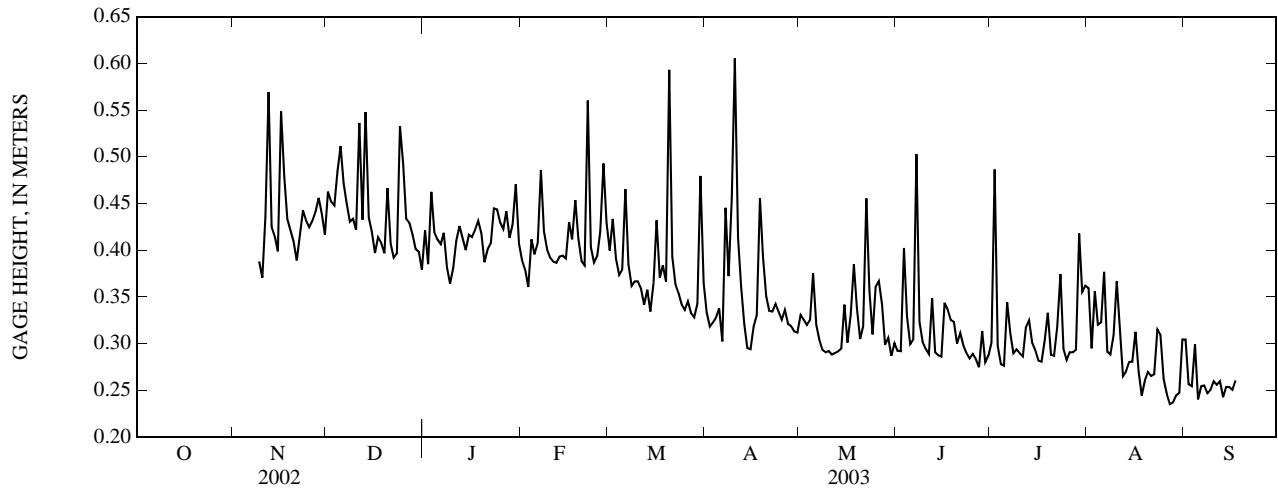
GAGE HEIGHT, ABOVE DATUM, METERS
AUGUST TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	---	0.31
2	---	---	---	---	---	---	---	---	---	---	---	0.27
3	---	---	---	---	---	---	---	---	---	---	---	0.26
4	---	---	---	---	---	---	---	---	---	---	---	0.25
5	---	---	---	---	---	---	---	---	---	---	---	0.26
6	---	---	---	---	---	---	---	---	---	---	---	0.26
7	---	---	---	---	---	---	---	---	---	---	---	0.26
8	---	---	---	---	---	---	---	---	---	---	---	0.26
9	---	---	---	---	---	---	---	---	---	---	---	0.26
10	---	---	---	---	---	---	---	---	---	---	---	0.25
11	---	---	---	---	---	---	---	---	---	---	---	0.25
12	---	---	---	---	---	---	---	---	---	---	---	0.26
13	---	---	---	---	---	---	---	---	---	---	---	0.26
14	---	---	---	---	---	---	---	---	---	---	---	0.29
15	---	---	---	---	---	---	---	---	---	---	---	0.32
16	---	---	---	---	---	---	---	---	---	---	---	0.27
17	---	---	---	---	---	---	---	---	---	---	---	0.23
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	0.34	---
31	---	---	---	---	---	---	---	---	---	---	0.38	---
MEAN	---	---	---	---	---	---	---	---	---	---	---	---
MAX	---	---	---	---	---	---	---	---	---	---	---	---
MIN	---	---	---	---	---	---	---	---	---	---	---	---



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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	0.46	0.42	0.39	0.40	0.33	0.33	0.29	0.30	0.36	0.30
2	---	---	0.45	0.39	0.38	0.43	0.32	0.33	0.29	0.49	0.29	0.26
3	---	---	0.45	0.46	0.36	0.39	0.32	0.32	0.40	0.30	0.36	0.25
4	---	---	0.48	0.42	0.41	0.37	0.33	0.33	0.33	0.28	0.32	0.30
5	---	---	0.51	0.41	0.40	0.38	0.34	0.38	0.30	0.28	0.32	0.24
6	---	---	0.47	0.41	0.41	0.47	0.30	0.32	0.30	0.34	0.38	0.25
7	---	---	0.45	0.42	0.49	0.38	0.45	0.30	0.50	0.31	0.29	0.26
8	---	---	0.43	0.38	0.42	0.36	0.37	0.29	0.32	0.29	0.29	0.25
9	---	0.39	0.43	0.36	0.40	0.37	0.46	0.29	0.30	0.29	0.31	0.25
10	---	0.37	0.42	0.38	0.39	0.37	0.61	0.29	0.29	0.29	0.37	0.26
11	---	0.44	0.54	0.41	0.39	0.36	0.41	0.29	0.29	0.29	0.31	0.26
12	---	0.57	0.43	0.43	0.39	0.34	0.36	0.29	0.35	0.32	0.27	0.26
13	---	0.42	0.55	0.41	0.39	0.36	0.32	0.29	0.29	0.32	0.27	0.24
14	---	0.41	0.44	0.40	0.39	0.33	0.30	0.29	0.29	0.30	0.28	0.25
15	---	0.40	0.42	0.42	0.39	0.37	0.29	0.34	0.29	0.29	0.28	0.25
16	---	0.55	0.40	0.41	0.43	0.43	0.32	0.30	0.34	0.28	0.31	0.25
17	---	0.48	0.41	0.42	0.41	0.37	0.33	0.33	0.34	0.28	0.27	0.26
18	---	0.43	0.41	0.43	0.45	0.38	0.46	0.38	0.33	0.30	0.24	---
19	---	0.42	0.40	0.42	0.41	0.37	0.39	0.34	0.32	0.33	0.26	---
20	---	0.41	0.47	0.39	0.39	0.59	0.35	0.30	0.30	0.29	0.27	---
21	---	0.39	0.41	0.40	0.38	0.39	0.34	0.32	0.31	0.29	0.27	---
22	---	0.42	0.39	0.41	0.56	0.36	0.33	0.46	0.30	0.32	0.27	---
23	---	0.44	0.40	0.44	0.40	0.35	0.34	0.36	0.29	0.37	0.31	---
24	---	0.43	0.53	0.44	0.39	0.34	0.33	0.31	0.28	0.29	0.31	---
25	---	0.42	0.49	0.43	0.39	0.34	0.33	0.36	0.29	0.28	0.26	---
26	---	0.43	0.43	0.42	0.42	0.35	0.34	0.37	0.28	0.29	0.25	---
27	---	0.44	0.43	0.44	0.49	0.33	0.32	0.34	0.27	0.29	0.24	---
28	---	0.46	0.42	0.41	0.43	0.33	0.32	0.30	0.31	0.29	0.24	---
29	---	0.44	0.40	0.43	---	0.34	0.31	0.31	0.28	0.42	0.24	---
30	---	0.42	0.40	0.47	---	0.48	0.31	0.29	0.29	0.36	0.25	---
31	---	---	0.38	0.41	---	0.37	---	0.30	---	0.36	0.30	---
MEAN	---	---	0.44	0.42	0.41	0.38	0.35	0.32	0.31	0.31	0.29	---
MAX	---	---	0.55	0.47	0.56	0.59	0.61	0.46	0.50	0.49	0.38	---
MIN	---	---	0.38	0.36	0.36	0.33	0.29	0.29	0.27	0.28	0.24	---



0211583580 BOWEN BRANCH NEAR MOUTH AT WINSTON-SALEM, NC—Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: August 2002 to September 2003.

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

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

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum recorded, 29.2°C, Aug. 27, 2003; minimum recorded, 0.0°C, Jan. 24, 25, 2003.

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

Date	Time	Medium code	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Chloride, water, fltrd, mg/L (00940)	Sulfate water, fltrd, mg/L (00945)	Ammonia + org-N, water, unfltrd mg/L (00625)	Ammonia water, fltrd, mg/L (71846)
FEB 20...	0900	9	E.94	746	10.4	87	7.1	570	6.6	102	53.9	9.2	9.07
FEB 26...	1330	9	--	--	--	--	--	--	--	--	--	--	--
MAY 14...	0930	D	1.6	--	7.7	--	6.5	615	14.2	--	--	--	--
JUN 12...	1215	9	--	--	7.9	--	6.6	568	21.7	--	--	--	--
JUL 01...	0640	9	--	--	--	--	--	--	--	--	--	--	--
JUL 09...	1030	9	1.4	740	8.0	95	6.6	645	22.2	91.2	78.4	10	13.3

Date	Ammonia water, fltrd, mg/L as N (00608)	Nitrate water, fltrd, mg/L (71851)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L (71856)	Nitrite water, fltrd, mg/L as N (00613)	Organic nitrogen, water, unfltrd mg/L (00605)	Orthophosphate, water, fltrd, mg/L as P (00671)	Particulate nitrogen, susp, water, mg/L (49570)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inorganic carbon, suspnd sedimnt total, mg/L (00688)
FEB 20...	7.04	16.1	3.64	3.65	0.046	0.014	2.1	<0.02	<0.02	0.016	13	0.2	<0.1
FEB 26...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY 14...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 12...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 01...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 09...	10.3	26.2	5.93	6.01	0.269	0.082	0.12	<0.02	0.04	0.011	16	0.2	<0.1

Date	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	Biomass periphyton, ashfree drymass g/m2 (49954)	Periphyton biomass ash weight, g/m2 (00572)	Periphyton biomass dry weight, g/m2 (00573)	Biomass chlorophyll ratio, periphyton, number (70950)	Pheophytin a, periphyton, mg/m2 (62359)	E coli, modif. m-TEC, water, col/100 mL (90902)	Chlorophyll a periphyton, chromo-fluoro, mg/m2 (70957)	1-Naphthol, water, fltrd, 0.7u GF (49295)	2,6-Diethyl-aniline water fltrd 0.7u GF (82660)	2-[(2-Et-6-Me-Ph)-amino]propan-1-ol, ug/L (61615)	2Chloro-2,6-' diethyl acetanilide wat flt ug/L (61618)
FEB 20...	0.2	1.9	--	--	--	--	--	<1	--	<0.09	<0.006	<0.1	<0.005
FEB 26...	--	--	--	--	--	--	--	K3	--	--	--	--	--
MAY 14...	--	--	0.9	9.6	10.50	400	1.1	--	2.2	--	--	--	--
JUN 12...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 01...	--	--	--	--	--	--	--	K10	--	--	--	--	--
JUL 09...	0.2	1.3	--	--	--	--	--	--	--	<0.09	<0.006	<0.1	<0.005

0211583580 BOWEN BRANCH NEAR MOUTH AT WINSTON-SALEM, NC—Continued

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

Date	CIAT, water, fltrd, ug/L (04040)	2-Ethyl -6- methyl- aniline water, fltrd, ug/L (61620)	3,4-Di- chloro- aniline water, fltrd, ug/L (61625)	4Chloro 2methyl phenol, water, fltrd, ug/L (61633)	Aceto- chlor, water, fltrd, ug/L (49260)	Ala- chlor, water, fltrd, ug/L (46342)	Atra- zine, water, fltrd, ug/L (39632)	Azin- phos- methyl oxon, water, fltrd, ug/L (61635)	Azin- phos- methyl, water, fltrd 0.7u GF ug/L (82686)	Ben- flur- alin, water, fltrd 0.7u GF ug/L (82673)	Car- baryl, water, fltrd 0.7u GF ug/L (82680)	Chlor- pyrifos oxon, water, fltrd, ug/L (61636)	Chlor- pyrifos water, fltrd, ug/L (38933)
FEB 20... 26...	<0.006	<0.004	<0.004	<0.006	<0.006	<0.004	0.012	<0.02	<0.050	<0.010	E.005	<0.06	<0.005
MAY 14...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 12...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 01... 09...	<0.006	<0.004	0.037	<0.006	<0.006	<0.004	0.011	<0.02	<0.050	<0.010	<0.041	<0.06	<0.005
Date	cis- Per- methrin water fltrd 0.7u GF (82687)	Cyflu- thrin, water, fltrd, ug/L (61585)	Cyper- methrin water, fltrd, ug/L (61586)	DCPA, water fltrd 0.7u GF (82682)	Desulf- inyl fipronil, water, fltrd, ug/L (62170)	Diaz- inon oxon, water, fltrd, ug/L (61638)	Diazi- non, water, fltrd, ug/L (39572)	Dicro- tophos, water, fltrd, ug/L (38454)	Diel- drin, water, fltrd, ug/L (39381)	Dimeth- oate, water, fltrd 0.7u GF (82662)	Ethion monoxon water, fltrd, ug/L (61644)	Ethion, water, fltrd, ug/L (82346)	Fenami- phos sulfone water, fltrd, ug/L (61645)
FEB 20... 26...	<0.006	<0.008	<0.009	<0.003	<0.004	<0.04	0.007	<0.08	<0.005	<0.006	<0.03	<0.004	<0.008
MAY 14...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 12...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 01... 09...	<0.006	<0.008	<0.009	<0.003	<0.004	<0.01	<0.005	<0.08	0.008	<0.006	<0.03	<0.004	<0.008
Date	Fenami- phos sulf- oxide, water, fltrd, ug/L (61646)	Fenami- phos, water, fltrd, ug/L (61591)	Desulf- inyl- fipronil amide, wat flt ug/L (62169)	Fipronil sulfide water, fltrd, ug/L (62167)	Fipronil sulfone water, fltrd, ug/L (62168)	Fipronil, water, fltrd, ug/L (62166)	Fonofos oxon, water, fltrd, ug/L (61649)	Fonofos water, fltrd, ug/L (04095)	Hexa- zinone, water, fltrd, ug/L (04025)	Ipro- dione, water, fltrd, ug/L (61593)	Isofen- phos, water, fltrd, ug/L (61594)	Malax- oxon, water, fltrd, ug/L (61652)	Malathion, water, fltrd, ug/L (39532)
FEB 20... 26...	<0.03	<0.03	<0.009	<0.005	<0.005	<0.007	<0.002	<0.003	--	<1	<0.003	<0.008	<0.027
MAY 14...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 12...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 01... 09...	<0.03	<0.03	<0.009	<0.005	<0.005	<0.007	<0.002	<0.003	0.018	<1	<0.003	<0.008	<0.027
Date	Meta- laxyl, water, fltrd, ug/L (61596)	Methi- althion water, fltrd, ug/L (61598)	Methyl para- oxon, water, fltrd, ug/L (61664)	Methyl para- thion, water, fltrd 0.7u GF (82667)	Metola- chlor, water, fltrd, ug/L (39415)	Metri- butzin, water, fltrd, ug/L (82630)	Myclo- butanil water, fltrd, ug/L (61599)	Pendi- meth- alin, water, fltrd 0.7u GF (82683)	Phorate oxon, water, fltrd, ug/L (61666)	Phorate water fltrd 0.7u GF (82664)	Phosmet water, fltrd, ug/L (61668)	Phosmet water, fltrd, ug/L (61601)	Prome- ton, water, fltrd, ug/L (04037)
FEB 20... 26...	<0.005	<0.006	<0.03	<0.006	<0.013	<0.006	<0.008	<0.045	<0.10	<0.011	<0.06	<0.008	0.03
MAY 14...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 12...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 01... 09...	<0.005	<0.006	<0.03	<0.006	<0.013	<0.006	<0.008	<0.022	<0.10	<0.011	<0.06	<0.008	0.03

0211583580 BOWEN BRANCH NEAR MOUTH AT WINSTON-SALEM, NC—Continued

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	7.3	4.4	5.2	13.7	10.8	12.5
2	---	---	---	---	---	---	7.0	3.2	4.9	11.6	10.0	10.9
3	---	---	---	---	---	---	7.6	4.7	6.3	11.0	7.6	9.7
4	---	---	---	---	---	---	6.4	0.9	3.8	7.6	5.0	6.3
5	---	---	---	---	---	---	5.3	0.8	3.1	7.3	4.3	5.7
6	---	---	---	---	---	---	6.9	3.1	4.4	7.7	4.4	5.9
7	---	---	---	---	---	---	6.5	1.6	3.5	5.5	2.9	4.2
8	---	---	---	---	---	---	7.5	2.4	4.7	8.5	4.0	6.1
9	---	---	---	14.2	9.1	11.6	7.1	4.5	5.8	10.7	6.1	8.3
10	---	---	---	16.7	13.3	15.0	7.2	4.4	5.7	9.6	6.5	8.4
11	---	---	---	18.4	15.8	17.2	6.8	3.2	5.5	6.5	3.6	4.9
12	---	---	---	16.2	14.2	15.1	10.0	6.7	7.9	4.4	2.1	3.4
13	---	---	---	14.2	10.7	12.9	7.4	5.0	6.5	5.7	2.1	3.7
14	---	---	---	12.9	8.5	10.5	9.4	6.6	7.8	6.9	3.0	4.9
15	---	---	---	13.1	8.8	11.0	8.3	4.4	6.3	5.3	2.8	3.7
16	---	---	---	13.3	12.3	12.7	10.0	5.4	7.6	5.0	2.3	3.6
17	---	---	---	12.9	10.0	12.1	9.3	6.0	7.7	4.4	2.1	3.8
18	---	---	---	11.0	8.3	9.4	9.1	6.9	8.0	2.1	0.5	1.3
19	---	---	---	10.9	6.8	8.8	9.6	8.0	8.8	2.0	0.3	1.1
20	---	---	---	11.7	7.2	9.4	12.3	8.2	10.8	5.4	1.0	2.8
21	---	---	---	13.4	10.2	11.6	9.0	6.0	7.4	5.7	3.8	4.7
22	---	---	---	11.6	8.6	10.7	9.7	5.0	7.3	5.7	2.4	4.0
23	---	---	---	8.8	6.0	7.6	9.3	5.3	7.4	5.0	0.4	2.0
24	---	---	---	10.3	6.0	8.1	8.7	6.7	7.5	0.8	0.0	0.4
25	---	---	---	11.2	7.1	9.1	7.6	5.0	6.5	2.4	0.0	0.8
26	---	---	---	10.6	7.5	9.1	6.9	4.2	5.3	4.9	0.7	2.7
27	---	---	---	9.6	6.1	8.4	6.6	3.4	4.7	4.0	1.4	2.4
28	---	---	---	6.1	4.0	5.1	7.1	3.1	4.7	4.4	1.0	2.5
29	---	---	---	6.7	3.3	4.9	8.4	3.7	5.8	7.5	4.0	5.9
30	---	---	---	9.1	6.4	7.6	8.9	4.2	6.5	7.3	4.6	6.0
31	---	---	---	---	---	---	11.1	5.8	8.3	5.8	4.3	5.1
MONTH	---	---	---	---	---	---	12.3	0.8	6.3	13.7	0.0	4.8
	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	8.6	5.4	6.7	8.6	6.1	7.2	17.6	6.6	11.6	22.9	16.2	19.1
2	9.0	3.5	6.1	12.3	7.1	9.0	21.0	10.0	14.9	25.6	16.3	19.6
3	10.8	4.8	7.9	12.3	5.2	8.3	22.1	11.1	16.1	21.2	16.2	18.1
4	12.7	7.5	10.8	12.4	4.8	8.4	19.8	12.3	16.0	17.1	15.1	16.2
5	8.6	4.8	6.8	15.5	9.4	12.1	19.6	13.6	15.8	15.1	13.9	14.3
6	7.8	4.6	6.0	13.9	10.4	12.1	19.3	11.0	14.9	18.6	14.1	16.4
7	7.1	3.5	5.3	10.4	6.0	8.3	15.1	8.9	10.4	22.3	15.4	18.3
8	6.9	3.1	4.7	14.6	4.4	9.1	10.1	8.3	9.5	26.0	16.5	20.7
9	7.6	3.1	5.2	17.2	8.6	12.3	9.9	7.3	8.6	26.5	17.9	21.7
10	7.8	5.0	6.2	13.9	7.7	10.3	8.9	6.6	7.8	26.0	18.9	22.1
11	8.9	3.1	5.8	11.3	5.7	7.9	12.7	8.6	10.2	22.6	18.9	20.5
12	8.8	4.1	6.3	16.3	5.4	10.4	19.2	9.2	13.3	23.3	15.9	19.1
13	8.1	2.5	5.2	17.9	8.6	13.0	20.3	10.0	14.4	22.4	14.2	17.9
14	7.3	4.1	5.8	16.2	11.2	13.2	21.3	10.5	15.2	22.7	13.4	17.8
15	9.0	6.4	7.9	11.2	9.3	10.1	22.4	12.4	16.7	19.1	15.5	17.4
16	6.4	0.6	3.5	12.3	9.0	10.7	23.4	13.2	17.6	22.5	16.6	19.0
17	3.4	0.6	1.8	14.8	11.7	12.9	21.8	14.5	17.8	19.5	15.0	16.7
18	7.6	3.4	5.0	14.6	12.3	13.3	16.1	10.9	12.3	15.2	14.2	14.6
19	8.9	3.8	6.1	13.2	9.8	12.3	12.9	10.5	11.6	15.5	13.4	14.3
20	9.9	6.4	8.0	9.8	7.0	8.2	17.7	12.1	14.2	22.7	13.3	17.4
21	9.1	6.8	8.1	16.0	9.2	12.0	16.8	13.9	15.1	17.9	15.6	16.7
22	9.3	6.5	8.0	18.0	10.6	13.6	20.1	13.8	16.3	17.3	14.9	16.0
23	11.3	6.7	9.5	16.2	9.0	12.4	20.7	11.0	15.1	16.8	15.0	15.8
24	13.2	5.6	8.8	19.1	9.5	13.6	18.8	10.6	14.7	20.4	15.3	17.1
25	10.4	6.6	8.5	19.7	9.3	14.0	15.0	13.9	14.5	21.6	16.3	18.3
26	7.6	4.1	5.9	20.3	11.9	15.3	20.3	14.5	16.7	23.4	17.2	19.7
27	4.1	2.4	3.2	18.3	11.6	14.6	23.3	14.3	17.8	20.3	16.5	18.0
28	6.7	3.4	5.2	19.0	11.7	15.2	24.3	13.3	18.1	21.8	14.2	17.8
29	---	---	---	21.2	15.3	17.4	23.6	14.8	18.6	19.3	16.0	17.4
30	---	---	---	15.8	7.6	9.9	21.9	15.2	18.5	23.4	14.4	18.5
31	---	---	---	13.1	5.7	9.0	---	---	---	22.6	16.0	18.7
MONTH	13.2	0.6	6.4	21.2	4.4	11.5	24.3	6.6	14.5	26.5	13.3	17.9

0211583580 BOWEN BRANCH NEAR MOUTH AT WINSTON-SALEM, NC—Continued

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	22.6	15.4	18.5	21.6	19.3	20.5	23.1	20.8	21.7	27.4	22.6	24.3
2	22.8	13.4	17.8	22.0	19.0	20.0	24.0	20.2	21.7	27.6	21.2	24.2
3	19.0	16.2	17.7	24.4	19.1	21.3	24.0	20.8	22.2	27.0	21.2	23.9
4	21.1	17.7	19.2	27.1	18.2	22.1	24.8	21.2	22.7	24.8	21.1	22.8
5	23.3	17.1	19.7	28.0	19.8	23.3	24.6	20.5	22.3	25.2	19.0	21.9
6	24.0	15.1	19.1	25.7	20.4	22.6	25.1	20.2	22.2	21.7	18.0	19.9
7	20.4	18.8	19.7	25.8	21.1	23.1	25.3	20.3	22.3	22.1	17.5	19.7
8	23.4	17.8	19.8	28.2	20.3	23.7	24.4	20.7	22.2	23.1	18.1	20.2
9	25.2	17.7	20.7	27.6	20.9	23.6	25.2	20.8	22.4	22.0	17.0	19.6
10	24.8	17.2	20.4	27.9	20.2	23.5	25.2	21.1	23.1	22.3	16.9	19.6
11	25.2	17.8	21.0	25.2	21.3	23.0	25.7	20.7	22.9	22.3	15.6	19.0
12	24.2	18.9	21.4	26.7	19.5	22.6	25.6	20.1	22.6	21.4	16.2	18.7
13	23.6	19.6	21.4	25.7	20.1	22.4	26.8	20.9	23.3	23.1	17.9	20.4
14	25.3	19.1	21.6	24.5	20.0	21.9	26.4	21.2	23.6	23.7	19.5	21.3
15	24.6	19.5	21.5	24.8	19.5	22.0	27.7	20.7	23.8	23.9	19.2	21.2
16	22.4	19.4	20.7	26.5	19.8	22.7	27.0	21.6	23.9	22.3	17.9	20.1
17	19.9	18.2	18.9	27.2	20.6	23.4	27.9	22.2	24.5	21.4	15.5	18.7
18	20.8	17.5	18.9	27.0	20.0	22.8	28.0	20.4	23.7	---	---	---
19	23.6	18.6	20.8	24.6	20.5	22.1	24.6	21.1	22.5	---	---	---
20	24.1	19.0	21.0	26.5	20.0	22.9	25.4	20.3	22.5	---	---	---
21	22.4	15.6	18.8	27.1	20.5	23.4	26.9	20.1	23.3	---	---	---
22	24.6	15.5	19.6	25.4	20.6	22.5	26.8	21.5	23.9	---	---	---
23	25.3	16.3	20.3	24.6	20.6	21.7	27.3	20.5	23.7	---	---	---
24	26.2	17.0	21.1	25.0	18.8	21.7	26.5	21.6	23.8	---	---	---
25	26.7	17.8	21.8	26.1	18.5	21.8	27.2	19.4	23.0	---	---	---
26	26.7	18.7	22.4	26.4	18.9	22.2	28.3	20.4	24.1	---	---	---
27	25.1	19.6	22.3	27.1	19.7	23.1	29.2	21.1	24.8	---	---	---
28	22.0	20.1	21.2	27.4	20.6	23.5	28.5	21.7	25.0	---	---	---
29	25.8	18.8	21.9	25.7	20.9	22.7	28.4	22.0	24.9	---	---	---
30	24.4	19.3	21.8	22.0	20.2	20.8	28.4	21.7	24.8	---	---	---
31	---	---	---	22.6	19.6	20.7	25.8	22.2	23.7	---	---	---
MONTH	26.7	13.4	20.4	28.2	18.2	22.4	29.2	19.4	23.3	---	---	---

02116500 YADKIN RIVER AT YADKIN COLLEGE, NC

LOCATION.--Lat 35°51'24", long 80°23'13", North American Datum of 1983, Davie County, Hydrologic Unit 03040101, on right bank on downstream side of bridge on U.S. Highway 64, 1.5 mi south of Yadkin College, 6.2 mi downstream of Reedy Creek, and 295 mi upstream from mouth of Pee Dee River in Winyah Bay.

DRAINAGE AREA.--2,280 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1928 to current year.

REVISED RECORDS.--WSP 822: Drainage area. WSP 852: 1935-37(m).

GAGE.--Water-stage recorder. Datum of gage is 638.45 ft above NGVD of 1929. Prior to July 26, 1957, at site on left bank 100 ft downstream at same datum. July 27, 1957, to Sept. 19, 1984, at site 20 ft downstream on bridge pier near left bank, at same datum. U.S. Army Corps of Engineers satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Diurnal fluctuation and occasional regulation during low flow caused by small hydroelectric plant 10 mi upstream with little storage capacity. Since August 1962, some regulation by W. Kerr Scott Reservoir (station 02111391). Prior to regulation, maximum discharge: 80,200 ft³/s, Aug. 15, 1940; gage height: 33.75 ft; minimum observed discharge: 177 ft³/s, Oct. 12, 1954; gage height: -0.42 ft. Minimum discharge for period of record, result of regulation.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 1916, reached a stage of 36.3 ft, from floodmarks; discharge, 94,300 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,160	2,030	1,540	2,230	1,940	5,560	4,250	5,440	3,280	3,680	6,140	5,740
2	990	1,750	1,510	2,480	1,810	5,000	3,900	5,620	2,990	4,360	4,990	4,520
3	913	1,580	1,470	3,050	1,740	4,170	3,240	6,680	3,530	11,400	4,160	3,550
4	917	1,510	1,470	3,770	1,950	3,470	3,180	5,790	7,140	8,520	8,570	7,610
5	968	1,480	1,900	3,080	2,150	3,190	3,040	4,740	7,880	7,430	6,170	11,600
6	1,070	2,280	2,210	2,680	1,970	4,530	3,030	5,860	4,610	6,810	7,860	4,630
7	898	2,420	2,150	2,470	2,420	4,290	5,060	5,040	6,700	9,970	7,050	3,610
8	692	1,920	1,960	2,340	2,280	3,440	5,690	4,550	14,000	5,940	9,510	3,200
9	674	1,750	1,860	2,280	2,030	3,150	8,140	4,210	12,800	4,880	8,800	3,020
10	670	1,610	1,860	2,220	1,930	2,970	18,700	3,630	8,870	4,620	7,740	2,780
11	1,880	2,120	3,880	2,120	1,930	2,800	33,700	3,370	5,840	5,180	12,500	2,660
12	1,680	8,060	5,680	2,010	1,910	2,690	23,800	3,190	4,940	4,960	8,010	2,610
13	1,540	8,440	5,570	1,940	1,830	2,410	9,370	3,090	5,440	4,510	5,330	2,660
14	1,350	3,660	11,300	1,910	1,740	2,520	8,120	2,530	4,970	4,310	4,710	2,550
15	1,050	3,220	5,530	1,860	1,790	2,430	7,410	2,410	5,530	3,760	4,170	2,520
16	2,510	4,560	3,890	1,830	2,030	3,550	6,750	3,620	7,370	3,470	3,940	2,540
17	4,250	9,670	3,280	e1,780	2,670	7,820	5,190	3,660	10,100	3,810	4,470	2,540
18	2,450	6,170	2,970	e1,750	2,590	4,850	4,090	3,510	9,160	3,560	4,050	2,420
19	2,430	3,920	2,580	e1,700	3,130	5,300	13,400	3,480	8,310	4,100	3,660	4,140
20	1,650	3,220	2,910	e1,660	3,160	20,900	10,800	3,140	13,100	4,370	3,500	2,830
21	1,580	2,900	4,520	e1,640	2,980	42,600	7,350	2,980	9,000	3,610	3,270	2,400
22	1,690	2,710	3,390	e1,620	6,340	20,500	5,650	4,280	6,840	3,480	3,190	2,320
23	1,690	2,150	2,920	e1,590	24,600	8,580	4,960	5,090	4,540	5,090	3,370	9,960
24	1,450	1,940	3,600	e1,580	12,600	6,240	4,290	4,480	3,660	6,120	4,060	7,220
25	1,320	1,880	7,720	e1,580	6,710	4,590	4,100	4,030	4,040	3,630	3,370	3,780
26	1,270	1,810	4,910	e1,580	6,430	3,750	4,010	9,360	2,980	3,860	3,040	3,130
27	1,160	1,760	3,290	e1,560	5,400	3,650	4,920	6,030	3,520	3,360	2,810	2,690
28	1,270	1,720	3,320	e1,540	6,090	3,410	4,070	4,370	3,750	2,970	2,740	2,940
29	2,030	1,630	2,960	e1,500	---	3,170	3,620	3,750	3,440	3,070	2,740	3,460
30	2,470	1,580	2,790	2,080	---	4,370	3,220	3,360	3,460	9,470	2,890	3,000
31	2,330	---	2,620	2,160	---	5,890	---	3,290	---	5,600	3,420	---
TOTAL	48,002	91,450	107,560	63,590	114,150	201,790	227,050	134,580	191,790	159,900	160,230	118,630
MEAN	1,548	3,048	3,470	2,051	4,077	6,509	7,568	4,341	6,393	5,158	5,169	3,954
MAX	4,250	9,670	11,300	3,770	24,600	42,600	33,700	9,360	14,000	11,400	12,500	11,600
MIN	670	1,480	1,470	1,500	1,740	2,410	3,030	2,410	2,980	2,970	2,740	2,320

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 2003,* BY WATER YEAR (WY)

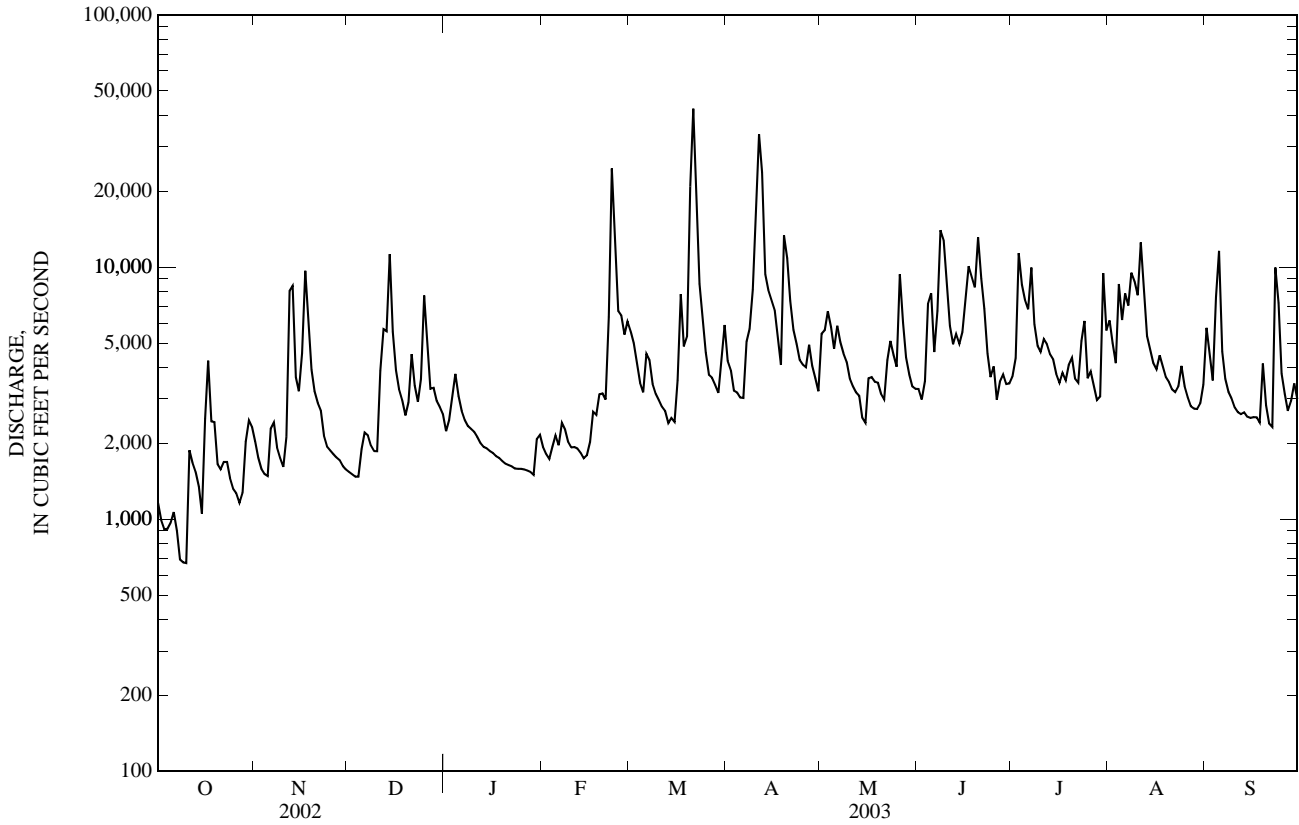
MEAN	2,404	2,445	2,817	3,474	3,706	4,553	4,068	3,350	2,940	2,330	2,307	2,095
MAX	7,491	5,844	5,784	7,580	7,632	10,380	9,419	6,277	7,755	5,158	7,191	7,314
(WY)	(1991)	(1993)	(1974)	(1978)	(1990)	(1975)	(1987)	(1984)	(1972)	(2003)	(1970)	(1979)
MIN	747	792	1,160	1,354	1,444	1,798	1,519	1,053	581	749	445	867
(WY)	(2002)	(2002)	(2001)	(1981)	(2001)	(1981)	(2002)	(2002)	(2002)	(1986)	(2002)	(2001)

02116500 YADKIN RIVER AT YADKIN COLLEGE, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1963 - 2003*	
ANNUAL TOTAL	569,180		1,618,722		3,037	
ANNUAL MEAN	1,559		4,435		4,524	
HIGHEST ANNUAL MEAN					1,116	1973
LOWEST ANNUAL MEAN					1,116	2002
HIGHEST DAILY MEAN	11,300	Dec 14	42,600	Mar 21	66,000	Jun 22, 1972
LOWEST DAILY MEAN	236	Aug 12	670	Oct 10	236	Aug 12, 2002
ANNUAL SEVEN-DAY MINIMUM	261	Aug 9	841	Oct 4	261	Aug 9, 2002
MAXIMUM PEAK FLOW			45,900	Mar 21	75,200	Jun 22, 1972
MAXIMUM PEAK STAGE			26.19	Mar 21	32.81*	Jun 22, 1972
INSTANTANEOUS LOW FLOW			643	Oct 10	110*	Aug 28, 1988
10 PERCENT EXCEEDS	2,990		8,080		5,270	
50 PERCENT EXCEEDS	1,250		3,420		2,250	
90 PERCENT EXCEEDS	403		1,630		1,180	

e Estimated.

* Regulated period only (1963-2003). See REMARKS.



PRECIPITATION RECORDS

PERIOD OF RECORD.--October 2001 to current year.

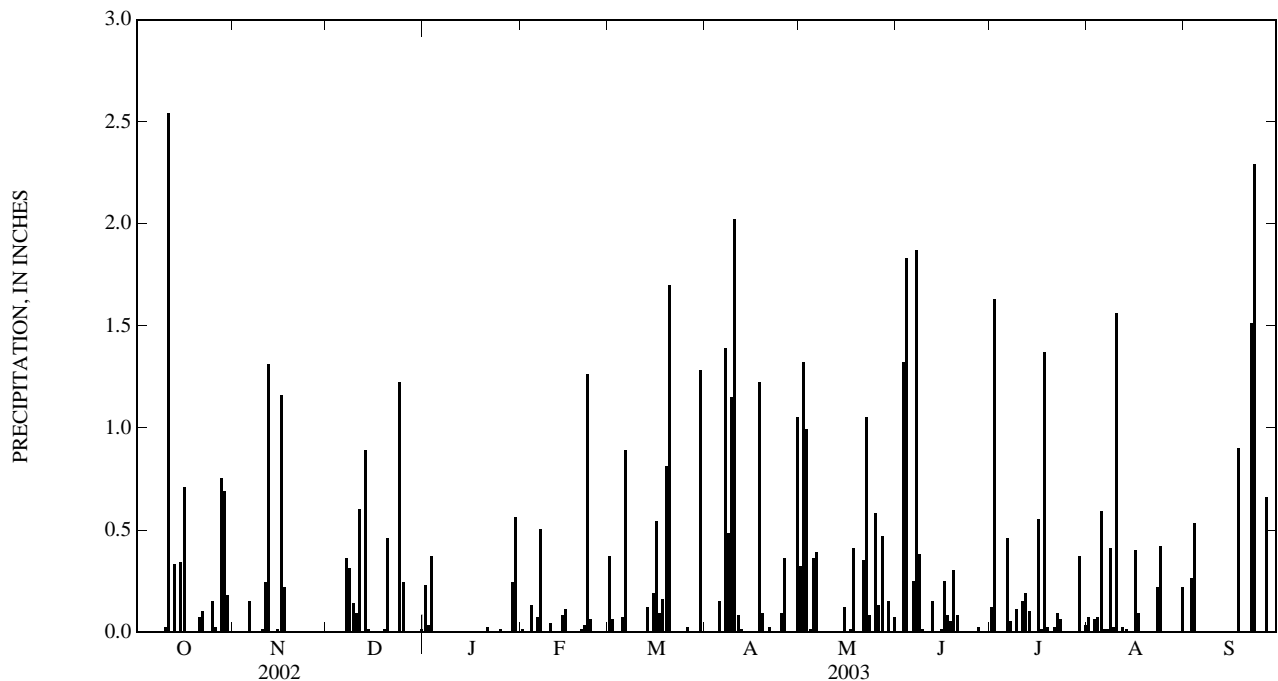
GAGE.--Tipping-bucket raingage and electronic datalogger. Satellite telemetry at station.

REMARKS.--Precipitation data collected during freezing periods may not be accurately reflected in daily record; consequently, winter record is poor. Monthly totals are presented for months with missing daily values when the total accumulated precipitation over the missing period was recorded.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.23	0.01	0.37	0.00	0.32	0.00	0.12	0.07	0.00
2	0.00	0.00	0.00	0.03	0.00	0.06	0.00	1.32	0.00	1.63	0.00	0.00
3	0.00	0.00	0.00	0.37	0.00	0.00	0.00	0.99	1.32	0.00	0.06	0.26
4	0.00	---	---	0.00	0.13	0.00	0.00	0.01	1.83	0.00	0.07	0.53
5	0.00	---	---	0.00	0.00	0.07	0.15	0.36	0.00	0.00	0.59	0.00
6	0.00	0.15	---	0.00	0.07	0.89	0.00	0.39	0.25	0.46	0.01	0.00
7	0.00	0.00	0.36	0.00	0.50	0.00	1.39	0.00	1.87	0.05	0.01	0.00
8	0.00	0.00	0.31	0.00	0.00	0.00	0.48	0.00	0.38	0.00	0.41	0.00
9	0.00	0.00	0.14	0.00	0.00	0.00	1.15	0.00	0.01	0.11	0.02	0.00
10	0.02	0.01	0.09	0.00	0.04	0.00	2.02	0.00	0.00	0.00	1.56	0.00
11	2.54	0.24	0.60	0.00	0.00	0.00	0.08	0.00	0.00	0.15	0.00	0.00
12	0.00	1.31	0.00	0.00	0.00	0.00	0.01	0.00	0.15	0.19	0.02	0.00
13	0.33	0.00	0.89	0.00	0.00	0.12	0.00	0.00	0.00	0.10	0.01	0.00
14	0.00	0.00	0.01	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.34	0.01	0.00	0.00	0.11	0.19	0.00	0.12	0.01	0.00	0.00	0.00
16	0.71	1.16	0.00	0.00	---	0.54	0.00	0.00	0.25	0.55	0.40	0.00
17	0.00	0.22	0.00	0.00	---	0.09	0.00	0.01	0.08	0.01	0.09	0.00
18	0.00	0.00	0.00	0.00	---	0.16	1.22	0.41	0.05	1.37	0.00	0.90
19	0.00	0.00	0.01	0.00	0.00	0.81	0.09	0.00	0.30	0.02	0.00	0.00
20	0.00	0.00	0.46	0.00	0.01	1.70	0.00	0.00	0.08	0.00	0.00	0.00
21	0.07	0.00	0.00	0.02	0.03	0.00	0.02	0.35	0.00	0.02	0.00	0.00
22	0.10	0.00	0.00	0.00	1.26	0.00	0.00	1.05	0.00	0.09	0.00	1.51
23	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.08	0.00	0.06	0.22	2.29
24	0.00	0.00	1.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.42	0.00
25	0.15	0.00	0.24	0.01	0.00	0.00	0.09	0.58	0.00	0.00	0.00	0.00
26	0.02	0.00	0.00	0.00	---	0.02	0.36	0.13	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	---	0.00	0.00	0.47	0.02	0.00	0.00	0.66
28	0.75	0.00	0.00	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.69	0.00	0.00	0.24	---	0.00	0.00	0.15	0.00	0.37	0.00	0.00
30	0.18	0.00	0.00	0.56	---	1.28	1.05	0.00	0.00	0.00	0.00	0.00
31	0.00	---	0.01	0.00	---	0.00	---	0.07	---	0.03	0.22	---
TOTAL	5.90	4.00*	5.63*	1.46	3.27*	6.30	8.11	6.81	6.60	5.33	4.18	6.15

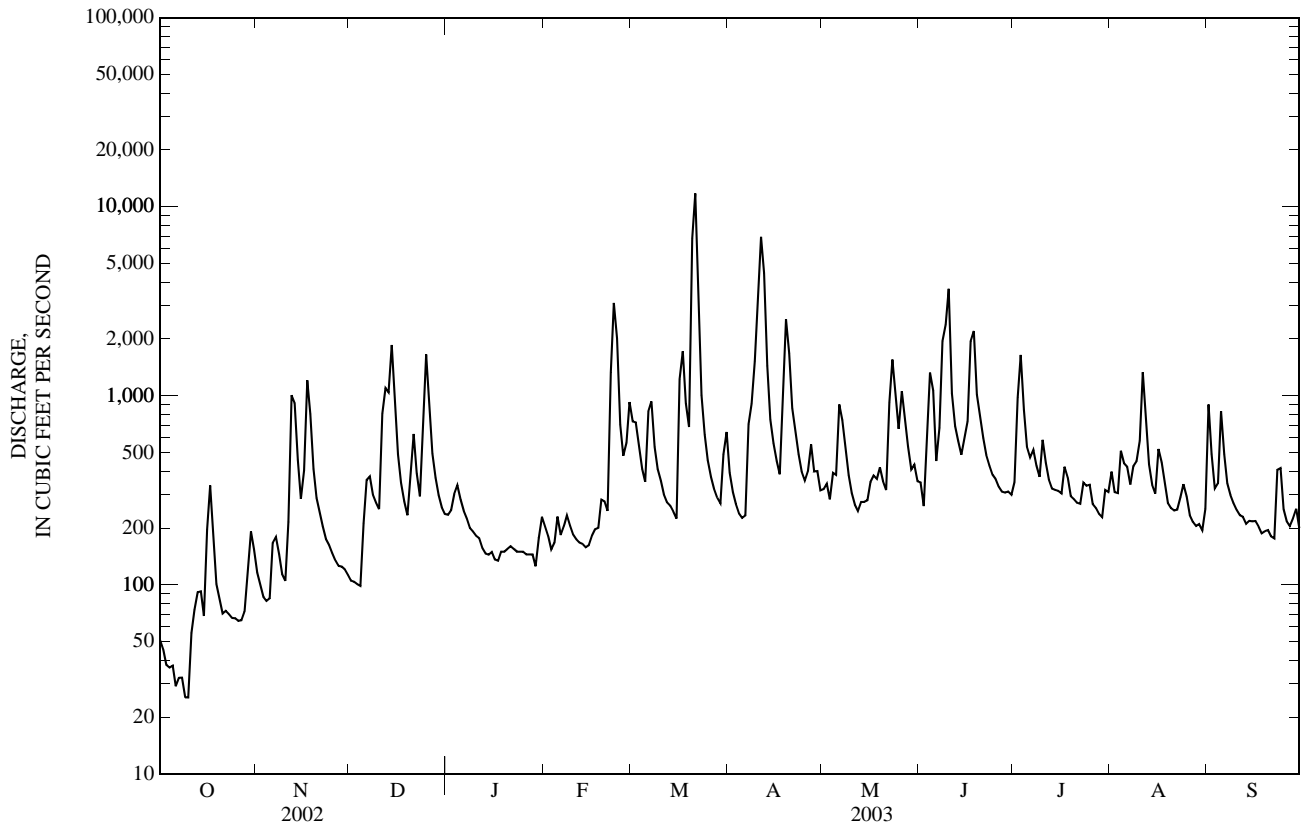
* See REMARKS.



02118000 SOUTH YADKIN RIVER NEAR MOCKSVILLE, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1939 - 2003	
ANNUAL TOTAL	52,588.4		194,881			
ANNUAL MEAN	144		534		341	
HIGHEST ANNUAL MEAN					592	1960
LOWEST ANNUAL MEAN					87.0	2002
HIGHEST DAILY MEAN	1,860	Dec 14	11,800	Mar 21	11,800	Mar 21, 2003
LOWEST DAILY MEAN	3.0	Aug 13	25	Oct 9	3.0	Aug 13, 2002
ANNUAL SEVEN-DAY MINIMUM	3.3	Aug 9	31	Oct 4	3.3	Aug 9, 2002
MAXIMUM PEAK FLOW			14,900	Mar 21	14,900	Mar 21, 2003
MAXIMUM PEAK STAGE			20.28	Mar 21	20.28	Mar 21, 2003
INSTANTANEOUS LOW FLOW			25*	Oct 9	2.8*	Aug 14, 2002
ANNUAL RUNOFF (CFSM)	0.47		1.74		1.11	
ANNUAL RUNOFF (INCHES)	6.39		23.69		15.14	
10 PERCENT EXCEEDS	277		991		585	
50 PERCENT EXCEEDS	90		308		236	
90 PERCENT EXCEEDS	16		115		112	

e Estimated.
 * See REMARKS.



02118000 SOUTH YADKIN RIVER NEAR MOCKSVILLE, NC—Continued

PRECIPITATION RECORDS

PERIOD OF RECORD.--October 2001 to current year.

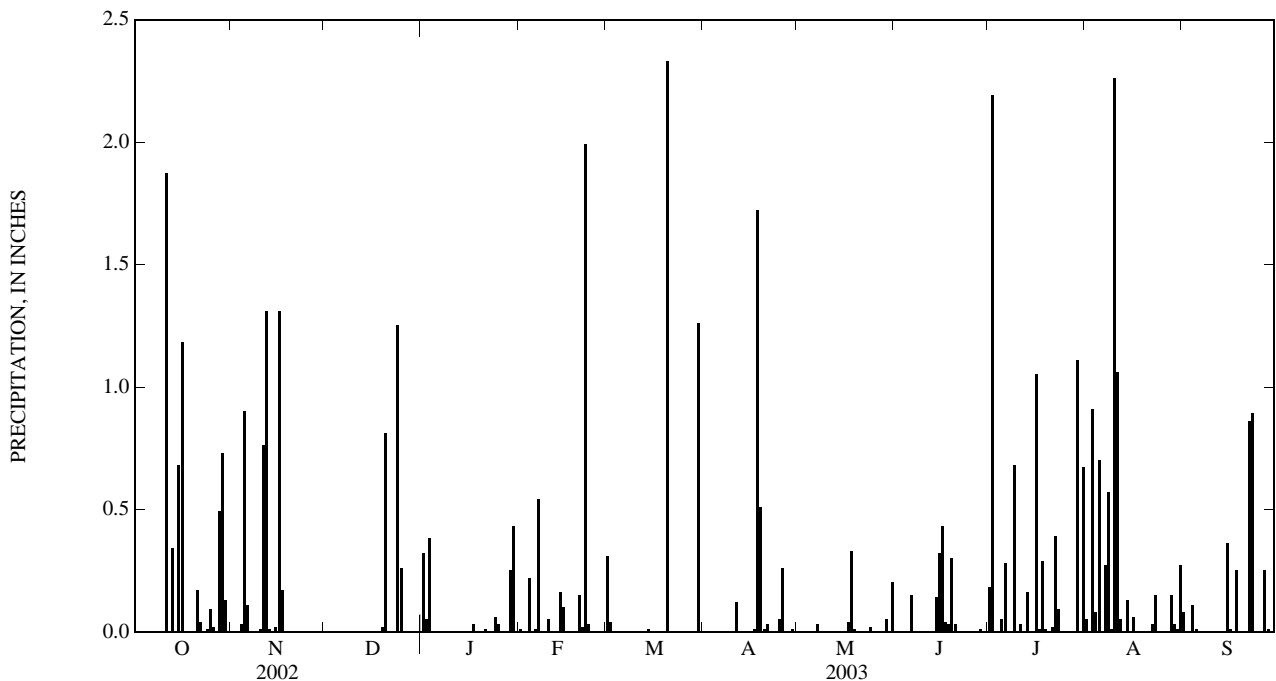
GAGE.--Tipping-bucket raingage and electronic datalogger. Satellite telemetry at station.

REMARKS.--Precipitation data collected during freezing periods may not be accurately reflected in daily record; consequently, winter record is poor. Monthly totals are presented for months with missing daily values when the total accumulated precipitation over the missing period was recorded.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.32	0.01	0.31	0.00	---	0.00	0.18	0.05	0.08
2	0.00	0.00	0.00	0.05	0.00	0.04	0.00	---	0.00	2.19	0.00	0.00
3	0.00	0.00	0.00	0.38	0.00	0.00	0.00	---	---	0.00	0.91	0.00
4	0.00	0.03	---	0.00	0.22	---	---	---	---	0.00	0.08	0.11
5	0.00	0.90	---	0.00	0.00	---	---	---	0.00	0.05	0.70	0.01
6	0.00	0.11	---	0.00	0.01	---	---	---	0.15	0.28	0.00	0.00
7	0.00	0.00	---	0.00	0.54	0.00	---	0.03	---	0.00	0.27	0.00
8	0.00	0.00	---	0.00	0.00	0.00	---	0.00	---	0.00	0.57	0.00
9	0.00	0.00	---	0.00	0.00	0.00	---	0.00	---	0.68	0.01	0.00
10	0.00	0.01	---	0.00	0.05	0.00	---	0.00	---	0.00	2.26	0.00
11	1.87	0.76	---	0.00	0.00	0.00	0.12	0.00	---	0.03	1.06	0.00
12	0.00	1.31	---	0.00	0.00	0.00	0.00	0.00	---	0.00	0.05	0.00
13	0.34	0.01	---	0.00	0.00	0.00	0.00	---	0.00	0.16	0.00	0.00
14	0.00	0.00	---	0.00	0.16	0.01	0.00	---	0.14	0.00	0.13	0.00
15	0.68	0.02	---	0.00	0.10	---	0.00	---	0.32	0.00	0.00	0.36
16	1.18	1.31	0.00	0.00	---	---	0.00	---	0.43	1.05	0.06	0.01
17	0.00	0.17	0.00	0.03	---	---	0.01	0.04	0.04	0.01	0.00	0.00
18	0.00	0.00	0.00	0.00	---	---	1.72	0.33	0.03	0.29	0.00	0.25
19	0.00	0.00	0.02	0.00	0.00	---	0.51	0.01	0.30	0.01	0.00	0.00
20	0.00	0.00	0.81	0.00	0.15	2.33	0.01	0.00	0.03	0.00	0.00	0.00
21	0.17	0.00	0.00	0.01	0.02	0.00	0.03	---	0.00	0.02	0.00	0.00
22	0.04	0.00	0.00	0.00	1.99	0.00	0.00	---	0.00	0.39	0.03	0.86
23	0.00	0.00	0.00	0.00	0.03	0.00	0.00	---	0.00	0.09	0.15	0.89
24	0.01	0.00	1.25	0.06	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00
25	0.09	0.00	0.26	0.03	0.00	0.00	0.05	---	0.00	0.00	0.00	0.00
26	0.02	0.00	0.00	0.00	---	0.00	0.26	---	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	---	0.00	0.00	---	0.00	0.00	0.00	0.25
28	0.49	0.00	0.00	0.00	---	---	0.00	0.00	0.01	0.00	0.15	0.01
29	0.73	0.00	0.00	0.25	---	---	0.01	0.05	0.00	1.11	0.03	0.00
30	0.13	0.00	0.00	0.43	---	1.26	---	0.00	0.00	0.00	0.01	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.20	---	0.67	0.27	---
TOTAL	5.75	4.63	4.23*	1.56	4.39*	7.38*	---	---	5.62*	7.21	6.79	2.83

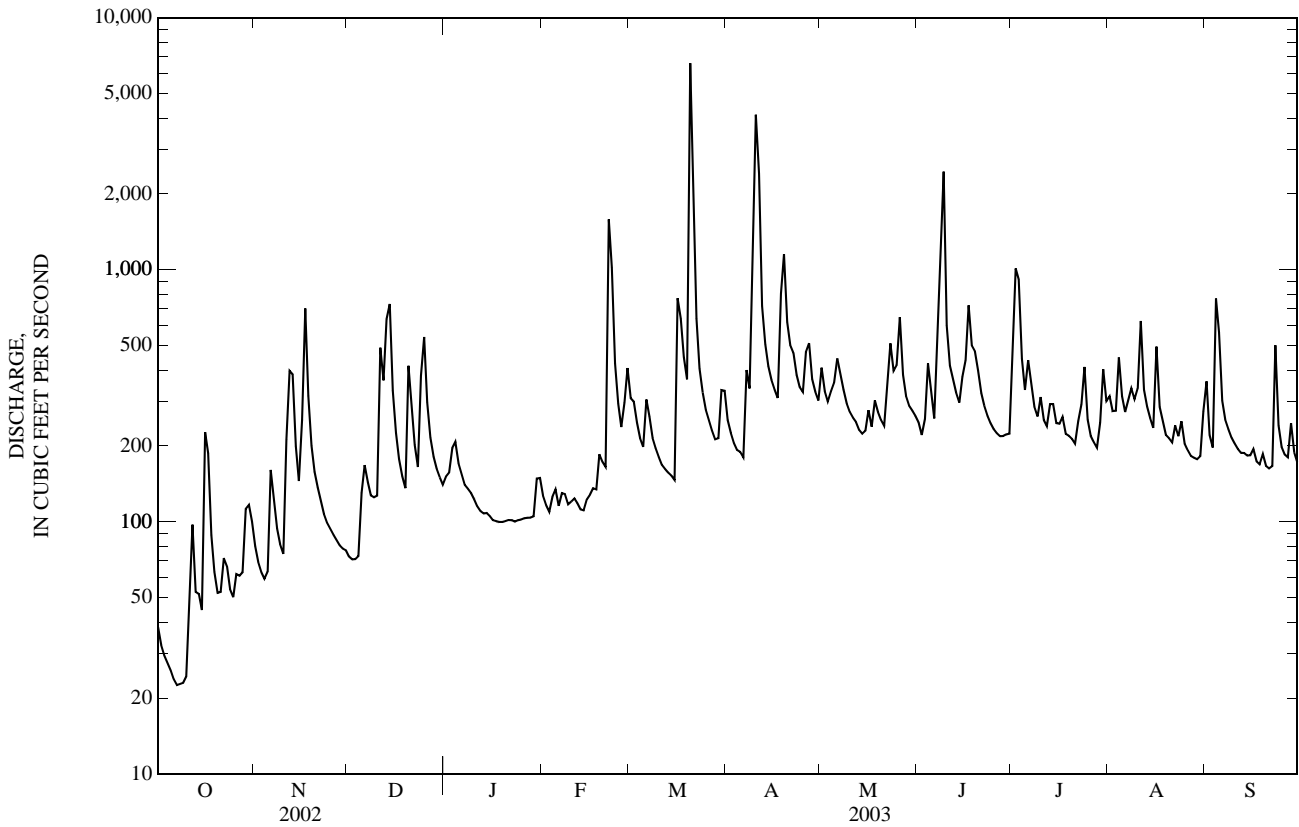
See REMARKS.



02118500 HUNTING CREEK NEAR HARMONY, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1951 - 2003	
ANNUAL TOTAL	31,982.8		109,955		203	
ANNUAL MEAN	87.6		301		346	
HIGHEST ANNUAL MEAN					61.7	1960
LOWEST ANNUAL MEAN					2002	
HIGHEST DAILY MEAN	732	Dec 14	6,600	Mar 20	10,400	Sep 22, 1979
LOWEST DAILY MEAN	5.4	Sep 13	23	Oct 7	5.4	Sep 13, 2002
ANNUAL SEVEN-DAY MINIMUM	7.0	Aug 8	24	Oct 4	7.0	Aug 8, 2002
MAXIMUM PEAK FLOW			8,180	Mar 20	14,800	Sep 22, 1979
MAXIMUM PEAK STAGE			19.24	Mar 20	25.05*	Sep 22, 1979
INSTANTANEOUS LOW FLOW			22*	Oct 7	5.0*	Sep 13, 2002
ANNUAL RUNOFF (CFSM)	0.57		1.94		1.31	
ANNUAL RUNOFF (INCHES)	7.68		26.39		17.78	
10 PERCENT EXCEEDS	166		481		335	
50 PERCENT EXCEEDS	68		221		140	
90 PERCENT EXCEEDS	16		81		67	

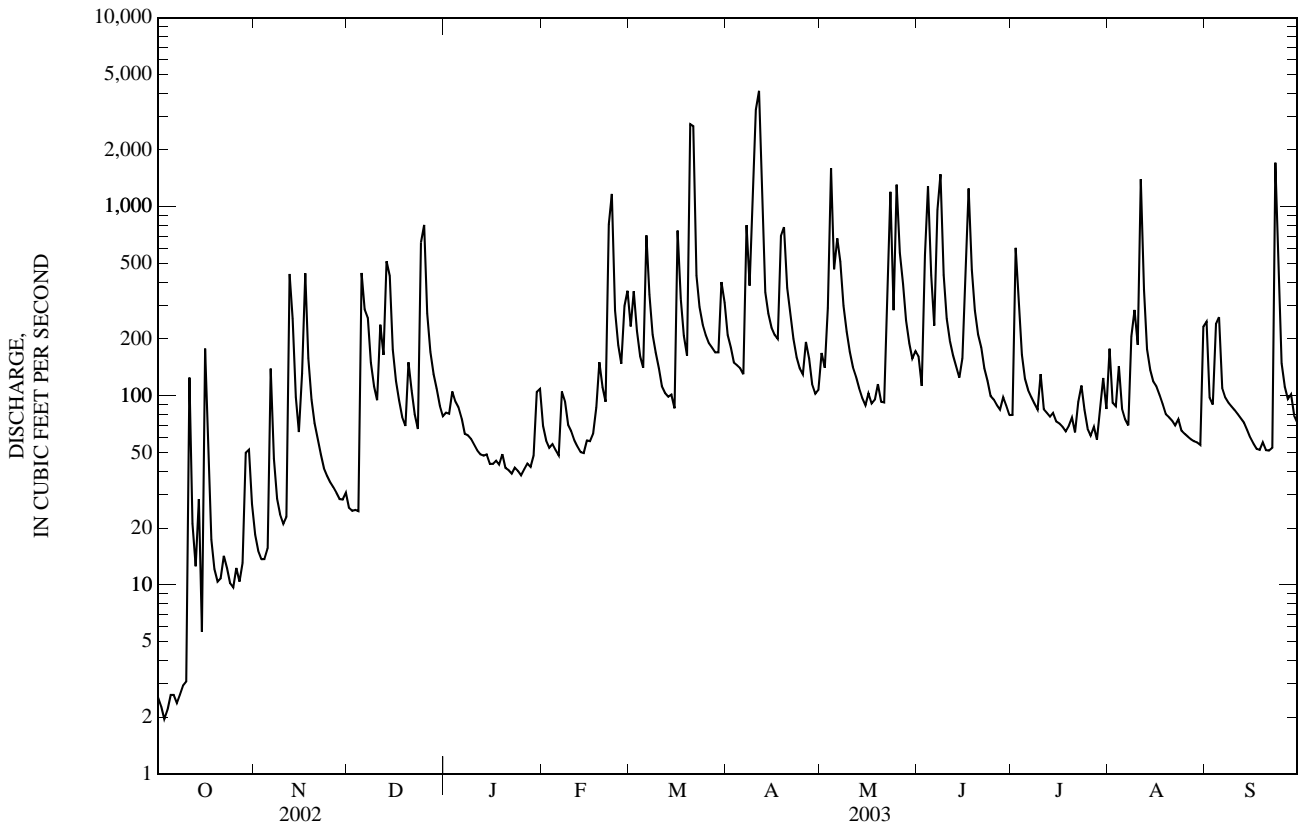
e Estimated.
 * See REMARKS.



02120780 SECOND CREEK NEAR BARBER, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1979 - 2003	
ANNUAL TOTAL	15,742.6		78,936.4		104	
ANNUAL MEAN	43.1		216		216	
HIGHEST ANNUAL MEAN					216	2003
LOWEST ANNUAL MEAN					21.0	2002
HIGHEST DAILY MEAN	801	Dec 25	4,100	Apr 11	5,280	Aug 28, 1995
LOWEST DAILY MEAN	1.1	Sep 12	1.9	Oct 3	1.1	Sep 12, 2002
ANNUAL SEVEN-DAY MINIMUM	1.2	Sep 8	2.4	Oct 1	1.2	Sep 8, 2002
MAXIMUM PEAK FLOW			6,330	Apr 11	8,560	Aug 28, 1995
MAXIMUM PEAK STAGE			16.39	Apr 11	17.28	Aug 28, 1995
INSTANTANEOUS LOW FLOW			1.4*	Oct 3	1.1*	Aug 10, 2002
ANNUAL RUNOFF (CFSM)	0.37		1.83		0.88	
ANNUAL RUNOFF (INCHES)	4.96		24.89		12.02	
10 PERCENT EXCEEDS	95		436		168	
50 PERCENT EXCEEDS	17		98		61	
90 PERCENT EXCEEDS	2.1		27		17	

e Estimated.
 * See REMARKS.



PRECIPITATION RECORDS

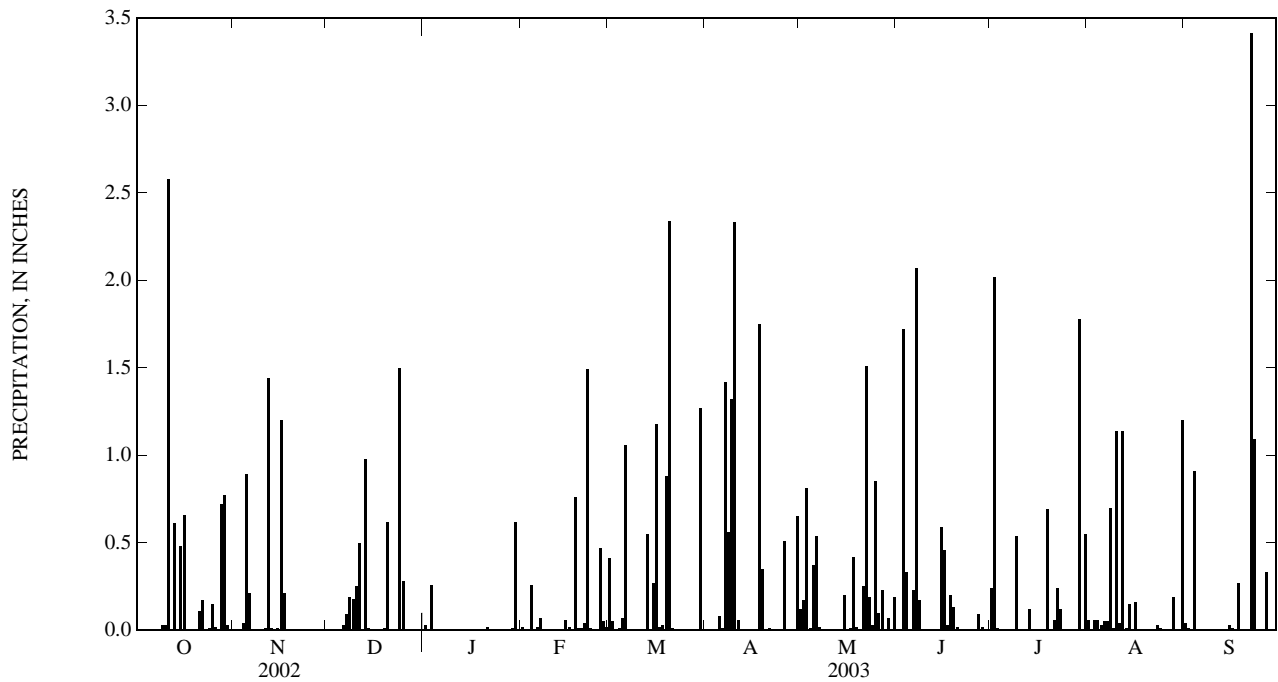
PERIOD OF RECORD.--October 2001 to current year.

GAGE.--Tipping-bucket raingage and electronic datalogger. Satellite telemetry at station.

REMARKS.--Precipitation data collected during freezing periods may not be accurately reflected in daily record; consequently, winter record is poor.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.03	0.02	0.41	0.00	0.12	0.00	0.24	0.06	0.04
2	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.17	0.00	2.02	0.00	0.01
3	0.00	0.00	0.00	0.26	0.00	0.00	0.00	0.81	1.72	0.01	0.06	0.00
4	0.00	0.04	0.00	0.00	0.26	0.01	0.00	0.01	0.33	0.00	0.06	0.91
5	0.00	0.89	0.00	0.00	0.00	0.07	0.08	0.37	0.00	0.00	0.03	0.00
6	0.00	0.21	0.03	0.00	0.02	1.06	0.01	0.54	0.23	0.00	0.05	0.00
7	0.00	0.00	0.09	0.00	0.07	0.00	1.42	0.02	2.07	0.00	0.05	0.00
8	0.00	0.00	0.19	0.00	0.00	0.00	0.56	0.00	0.17	0.00	0.70	0.00
9	0.03	0.00	0.18	0.00	0.00	0.00	1.32	0.00	0.00	0.54	0.01	0.00
10	0.03	0.00	0.25	0.00	0.00	0.00	2.33	0.00	0.00	0.00	1.14	0.00
11	2.58	0.01	0.50	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.04	0.00
12	0.00	1.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.14	0.00
13	0.61	0.01	0.98	0.00	0.00	0.55	0.00	0.00	0.00	0.12	0.01	0.00
14	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.00
15	0.48	0.01	0.00	0.00	0.06	0.27	0.00	0.20	0.59	0.00	0.00	0.03
16	0.66	1.20	0.00	0.00	0.02	1.18	0.00	0.00	0.46	0.00	0.16	0.01
17	0.00	0.21	0.00	0.00	0.00	0.02	0.00	0.01	0.03	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.76	0.03	1.75	0.42	0.20	0.00	0.00	0.27
19	0.00	0.00	0.01	0.00	0.01	0.88	0.35	0.02	0.13	0.69	0.00	0.00
20	0.00	0.00	0.62	0.00	0.01	2.34	0.00	0.00	0.02	0.00	0.00	0.00
21	0.11	0.00	0.00	0.02	0.04	0.01	0.01	0.25	0.00	0.06	0.00	0.00
22	0.17	0.00	0.00	0.00	1.49	0.00	0.00	1.51	0.00	0.24	0.00	3.41
23	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.19	0.00	0.12	0.03	1.09
24	0.01	0.00	1.50	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.01	0.00
25	0.15	0.00	0.28	0.00	0.00	0.00	0.00	0.85	0.00	0.00	0.00	0.00
26	0.02	0.00	0.00	0.00	0.47	0.00	0.51	0.10	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.23	0.09	0.00	0.00	0.33
28	0.72	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02	0.00	0.19	0.00
29	0.77	0.00	0.00	0.01	---	0.00	0.00	0.07	0.00	1.78	0.00	0.00
30	0.03	0.00	0.00	0.62	---	1.27	0.65	0.00	0.00	0.00	0.00	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.19	---	0.55	1.20	---
TOTAL	6.37	4.02	4.64	0.94	3.31	8.15	9.05	6.11	6.06	6.37	5.09	6.10



02121500 ABBOTTS CREEK AT LEXINGTON, NC

LOCATION.--Lat 35°48'25", long 80°14'05", Davidson County, Hydrologic Unit 03040103, on right bank 150 ft upstream from bridge on Secondary Road 1243, 1.5 mi southeast of Lexington, and 4.5 mi downstream of Rich Fork Creek.

DRAINAGE AREA.--174 mi².

PERIOD OF RECORD.--March 1940 to December 1957. October 1988 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 630 ft above NGVD of 1929, from topographic map. March 1940 to December 1957 at site 100 ft upstream at different datum. Satellite telemetry at station. Raingage located .5 mi upstream.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. The City of Lexington diverted an average of 5.2 ft³/s for water supply. The City of High Point diverted water from the Cape Fear River basin and discharged an average of 8.4 ft³/s of treated sewage effluent into Rich Fork Creek, upstream from station. Maximum discharge at former site, 14,800 ft³/s, from floodmark; minimum discharge at former site 0.4 ft³/s. Minimum discharge for period of record also occurred Sept. 5, 1990. Minimum discharge for current water year also occurred Oct. 8, 9, 10.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	166	78	176	227	908	417	128	343	76	480	1,390
2	16	119	72	249	165	1,000	269	133	170	316	260	280
3	15	93	69	307	139	784	218	292	199	383	228	171
4	14	79	69	410	138	343	186	272	924	217	605	1,070
5	13	86	792	215	180	260	175	211	2,680	172	565	2,650
6	12	555	1,140	166	136	824	182	344	832	171	347	723
7	11	398	618	141	310	1,180	888	339	1,700	1,050	203	205
8	10	161	356	126	436	368	1,910	208	4,650	791	408	148
9	10	117	266	119	221	247	1,990	154	2,370	189	597	122
10	10	97	226	109	171	193	5,090	123	702	140	527	102
11	1,030	96	786	98	155	159	6,690	94	308	106	1,040	88
12	1,650	718	1,360	90	133	145	1,750	78	223	128	781	80
13	272	1,490	938	86	116	137	424	67	202	123	265	76
14	676	387	2,320	84	106	165	276	60	168	257	186	73
15	256	187	839	82	115	138	240	59	140	170	171	74
16	1,020	362	326	78	126	490	224	578	145	97	161	71
17	1,430	2,510	245	83	131	496	216	333	165	80	238	64
18	233	1,840	189	80	136	354	217	167	201	97	659	114
19	136	412	158	73	286	317	611	229	217	386	680	1,120
20	100	235	293	79	223	5,250	420	196	431	224	171	473
21	83	175	357	81	181	6,520	248	161	693	109	127	148
22	92	150	204	76	1,120	1,280	212	555	217	193	105	131
23	84	131	166	78	4,420	410	175	1,650	153	1,110	93	e8,000
24	62	117	491	e78	1,200	278	148	766	119	440	497	e6,000
25	54	109	2,140	e76	319	232	133	692	90	197	617	564
26	57	102	1,280	e76	252	201	215	991	76	125	170	230
27	58	98	352	e75	519	186	326	955	70	90	102	177
28	104	88	229	65	1,210	170	186	309	79	75	80	382
29	462	81	177	73	---	168	146	217	80	158	74	191
30	628	78	147	261	---	581	127	239	92	826	111	137
31	330	---	130	494	---	1,340	---	177	---	489	352	---
TOTAL	8,945	11,237	16,813	4,284	12,871	25,124	24,309	10,777	18,439	8,985	10,900	25,054
MEAN	289	375	542	138	460	810	810	348	615	290	352	835
MAX	1,650	2,510	2,320	494	4,420	6,520	6,690	1,650	4,650	1,110	1,040	8,000
MIN	10	78	69	65	106	137	127	59	70	75	74	64
CFSM	1.66	2.15	3.12	0.79	2.64	4.66	4.66	2.00	3.53	1.67	2.02	4.80
IN.	1.91	2.40	3.59	0.92	2.75	5.37	5.20	2.30	3.94	1.92	2.33	5.36

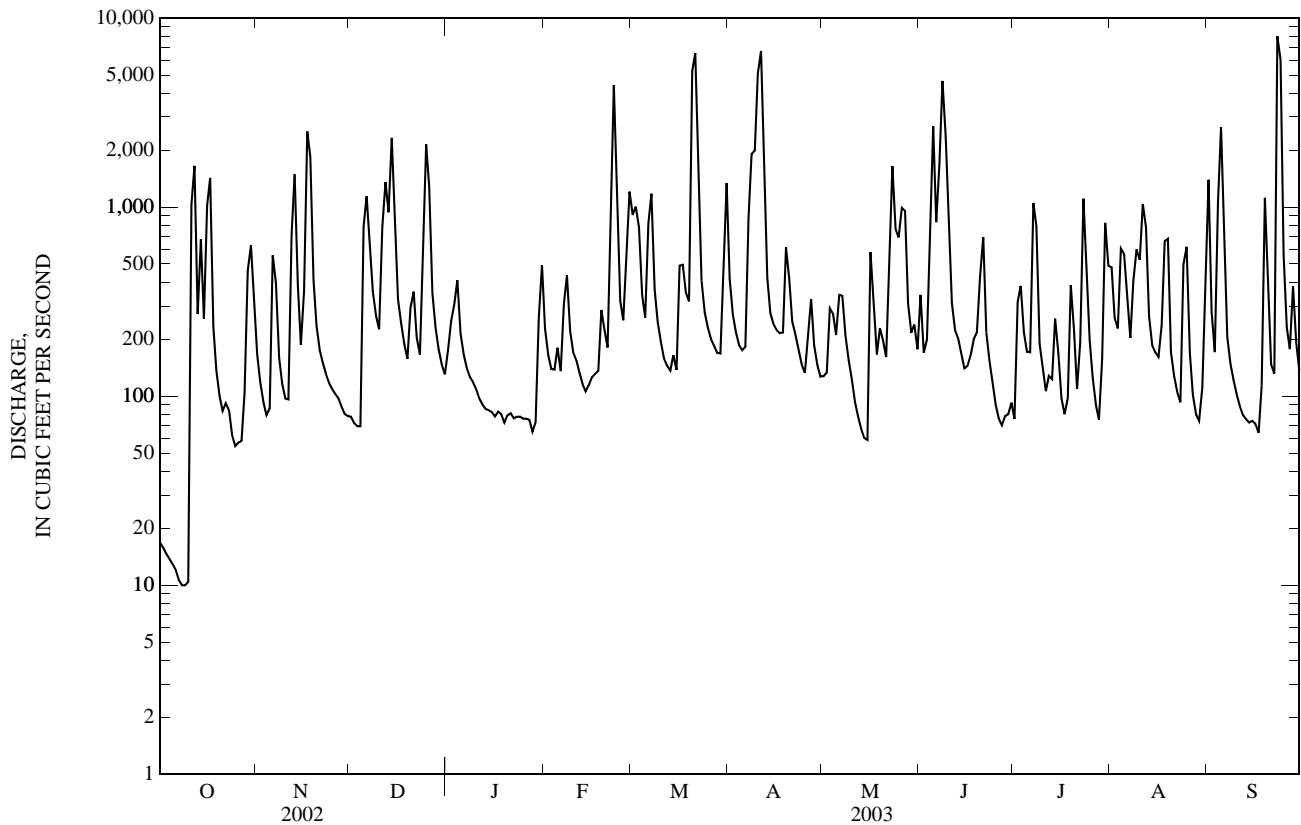
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 2003,[@] BY WATER YEAR (WY)

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
MEAN	162	120	148	258	288	370	282	174	112	69.2	70.5	125				
MAX	731	375	542	554	753	810	810	515	615	290	352	835				
(WY)	(1990)	(2003)	(2003)	(1998)	(1990)	(2003)	(2003)	(1989)	(2003)	(2003)	(2003)	(2003)				
MIN	8.08	10.3	22.4	55.9	55.4	83.7	44.4	19.4	21.2	21.6	14.9	13.5				
(WY)	(2002)	(2002)	(2002)	(2001)	(2002)	(1999)	(2002)	(2002)	(1999)	(1996)	(1990)	(2001)				

02121500 ABBOTTS CREEK AT LEXINGTON, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1988 - 2003 [@]	
ANNUAL TOTAL	52,455.7		177,738		181	
ANNUAL MEAN	144		487		45.8	
HIGHEST ANNUAL MEAN					487	2003
LOWEST ANNUAL MEAN					45.8	2002
HIGHEST DAILY MEAN	2,510	Nov 17	8,000	Sep 23	8,000	Sep 23, 2003
LOWEST DAILY MEAN	4.0	Aug 12	10	Oct 8	2.7	Sep 4, 1990
ANNUAL SEVEN-DAY MINIMUM	4.9	Aug 8	11	Oct 4	3.9	Sep 1, 1990
MAXIMUM PEAK FLOW			11,800	Sep 23	11,800*	Sep 23, 2003
MAXIMUM PEAK STAGE			23.48	Sep 23	23.48	Sep 23, 2003
INSTANTANEOUS LOW FLOW			10*	Oct 7	2.4*	Sep 4, 1990
ANNUAL RUNOFF (CFSM)	0.83		2.80		1.04	
ANNUAL RUNOFF (INCHES)	11.21		38.00		14.14	
10 PERCENT EXCEEDS	328		1,060		347	
50 PERCENT EXCEEDS	43		199		72	
90 PERCENT EXCEEDS	8.2		76		15	

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



02122400 HIGH ROCK LAKE PRECIPITATION

LOCATION.--Lat 35°36'02", long 80°14'00", Davidson County, Hydrologic Unit 03040103, High Rock Lake Dam.

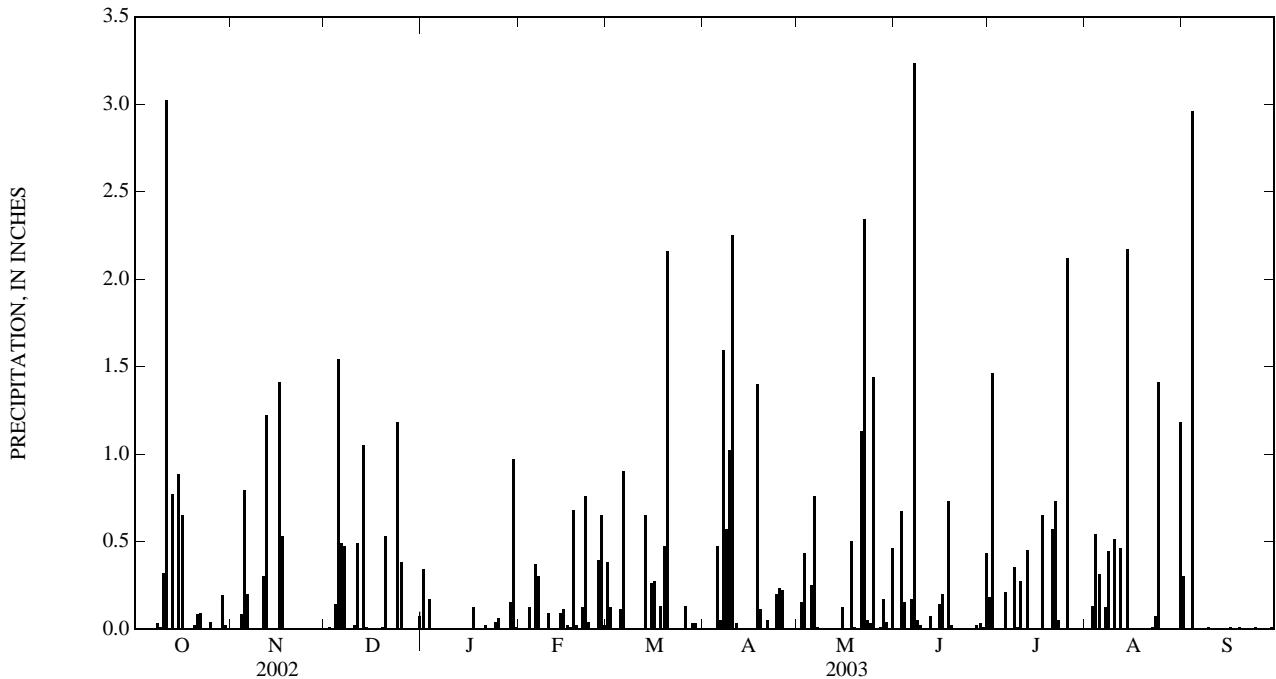
PERIOD OF RECORD.--September 1996 to current year.

GAGE.--Tipping-bucket raingage and electronic datalogger. Satellite telemetry at station.

REMARKS.--Precipitation data collected during freezing periods may not be accurately reflected in daily record; consequently, winter record is poor.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.34	0.00	0.38	0.00	0.00	0.00	0.18	0.00	0.30
2	0.00	0.00	0.01	0.00	0.00	0.12	0.00	0.15	0.00	1.46	0.00	0.00
3	0.00	0.00	0.00	0.17	0.00	0.00	0.00	0.43	0.67	0.00	0.13	0.00
4	0.00	0.08	0.14	0.00	0.12	0.00	0.00	0.00	0.15	0.00	0.54	2.96
5	0.00	0.79	1.54	0.00	0.00	0.11	0.47	0.25	0.00	0.00	0.31	0.00
6	0.00	0.20	0.49	0.00	0.37	0.90	0.05	0.76	0.17	0.21	0.00	0.00
7	0.00	0.00	0.47	0.00	0.30	0.00	1.59	0.01	3.23	0.00	0.12	0.00
8	0.03	0.00	0.00	0.00	0.00	0.00	0.57	0.00	0.05	0.00	0.44	0.00
9	0.01	0.00	0.00	0.00	0.00	0.00	1.02	0.00	0.02	0.35	---	0.01
10	0.32	0.00	0.02	0.00	0.09	0.00	2.25	0.00	0.00	0.01	0.51	0.00
11	3.02	0.30	0.49	0.00	0.00	0.00	0.03	0.00	0.00	0.27	0.00	0.00
12	0.00	1.22	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.46	0.00
13	0.77	0.00	1.05	0.00	0.00	0.65	0.00	0.00	0.00	0.45	0.00	0.00
14	0.00	0.00	0.01	0.00	0.09	0.00	0.00	0.00	0.00	0.00	2.17	0.00
15	0.88	0.00	0.00	0.00	0.11	0.26	0.00	0.12	0.14	0.00	0.00	0.00
16	0.65	1.41	0.00	0.00	0.02	0.27	0.00	0.00	0.20	0.00	---	0.01
17	0.00	0.53	0.00	0.12	0.01	0.00	0.00	0.00	0.00	0.00	---	0.00
18	0.00	0.00	0.00	0.00	0.68	0.13	1.40	0.50	0.73	0.65	---	0.00
19	0.00	0.00	0.01	0.00	0.02	0.47	0.11	0.01	0.02	0.00	0.00	0.01
20	0.02	0.00	0.53	0.00	0.00	2.16	0.00	0.00	0.00	0.00	0.00	0.00
21	0.08	0.00	0.00	0.02	0.12	0.00	0.05	1.13	0.00	0.57	0.00	0.00
22	0.09	0.00	0.00	0.00	0.76	0.00	0.00	2.34	0.00	0.73	0.01	0.00
23	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.05	0.00	0.05	0.07	0.00
24	---	0.00	1.18	0.04	0.00	0.00	0.20	0.03	0.00	0.00	1.41	0.01
25	0.04	0.00	0.38	0.06	0.00	0.00	0.23	1.44	0.00	0.00	0.00	0.00
26	---	0.00	0.00	0.00	0.39	0.13	0.22	0.00	0.00	2.12	0.00	0.00
27	---	0.00	0.00	0.00	0.65	0.00	0.00	0.01	0.02	0.00	0.00	0.00
28	---	0.00	0.00	0.00	0.02	0.03	0.00	0.17	0.03	0.00	0.00	0.00
29	0.19	0.00	0.00	0.15	---	0.03	0.00	0.04	0.01	0.00	0.00	0.01
30	0.02	0.00	0.00	0.97	---	---	0.00	0.00	0.43	0.00	0.00	0.00
31	0.00	---	0.07	0.01	---	0.00	---	0.46	---	0.00	1.18	---
TOTAL	---	4.53	6.39	1.88	3.79	---	8.19	7.90	5.94	7.05	---	3.31



02122699 TUCKERTOWN RESERVOIR PRECIPITATION

LOCATION.--Lat 35°29'09", long 80°10'32", Montgomery County, Hydrologic Unit 03040103 (revised), Tuckertown Reservoir Dam.

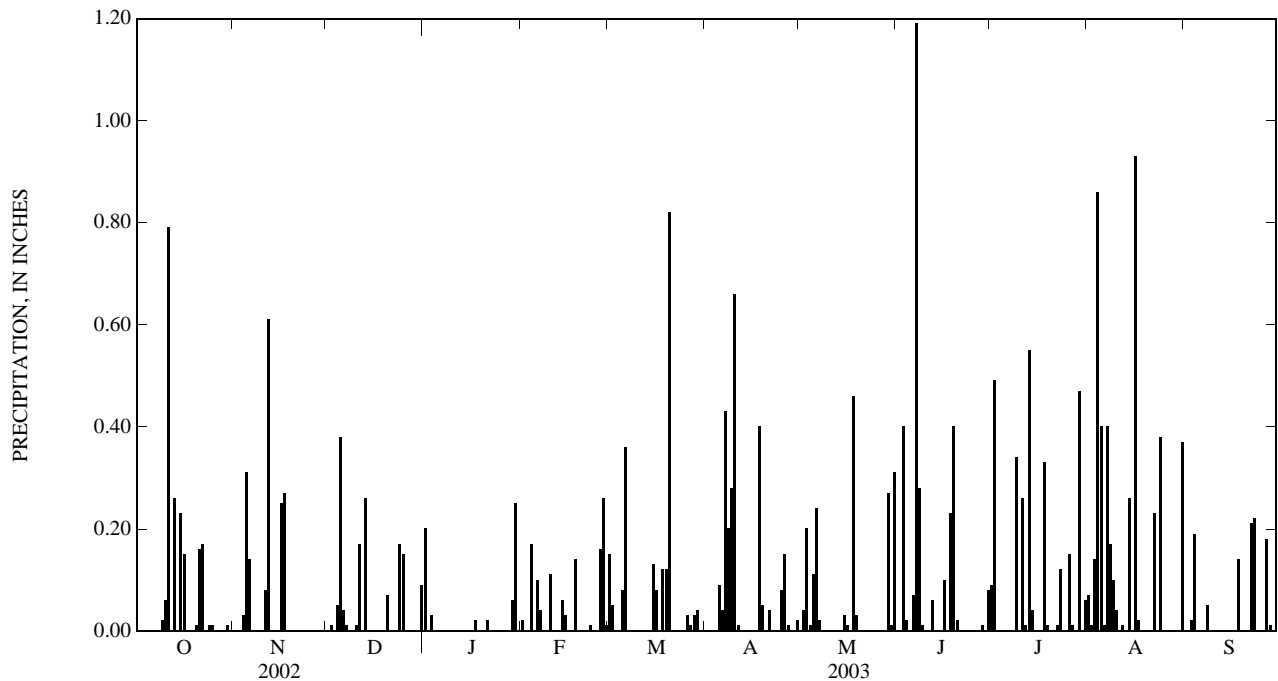
PERIOD OF RECORD.-- October 1998 to current year.

GAGE.--Tipping-bucket raingage and electronic datalogger. Satellite telemetry at station.

REMARKS.--Precipitation data collected during freezing periods may not be accurately reflected in daily record; consequently, winter record is poor.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.20	0.02	0.15	0.00	0.00	0.00	0.09	0.07	0.00
2	0.00	0.00	0.01	0.00	0.00	0.05	0.00	0.04	0.00	0.49	0.01	0.00
3	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.20	0.40	0.00	0.14	0.02
4	0.00	0.03	0.05	0.00	0.17	0.00	0.00	0.01	0.02	0.00	0.86	0.19
5	0.00	0.31	0.38	0.00	0.00	0.08	0.09	0.11	0.00	0.00	0.40	0.00
6	0.00	0.14	0.04	0.00	0.10	0.36	0.04	0.24	0.07	0.00	0.01	0.00
7	0.00	0.00	0.01	0.00	0.04	0.00	0.43	0.02	1.19	0.00	0.40	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.28	0.00	0.17	0.05
9	0.02	0.00	0.00	0.00	0.00	0.00	0.28	0.00	0.01	0.34	0.10	0.00
10	0.06	0.00	0.01	0.00	0.11	0.00	0.66	0.00	0.00	0.00	0.04	0.00
11	0.79	0.08	0.17	0.00	0.00	0.00	0.01	0.00	0.00	0.26	0.00	0.00
12	0.00	0.61	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.01	0.01	0.00
13	0.26	0.00	0.26	0.00	0.00	---	0.00	0.00	0.00	0.55	0.00	0.00
14	0.00	0.00	0.00	0.00	0.06	---	0.00	0.00	0.00	0.04	0.26	0.00
15	0.23	0.00	0.00	0.00	0.03	0.13	0.00	0.03	0.00	0.00	0.00	0.00
16	0.15	0.25	0.00	0.00	0.00	0.08	0.00	0.01	0.10	0.00	0.93	0.00
17	0.00	0.27	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00
18	0.00	0.00	0.00	0.00	0.14	0.12	0.40	0.46	0.23	0.33	0.00	0.14
19	0.00	0.00	0.00	0.00	0.00	0.12	0.05	0.03	0.40	0.01	0.00	0.00
20	0.01	0.00	0.07	0.00	---	0.82	0.00	---	0.02	0.00	0.00	0.00
21	0.16	0.00	0.00	0.02	---	0.00	0.04	---	0.00	0.00	0.00	0.00
22	0.17	0.00	0.00	0.00	---	0.00	0.00	---	0.00	0.01	0.23	0.21
23	0.00	0.00	0.00	0.00	0.01	0.00	0.00	---	0.00	0.12	0.00	0.22
24	0.01	0.00	0.17	0.00	0.00	0.00	0.00	---	0.00	0.00	0.38	0.00
25	0.01	0.00	0.15	0.00	0.00	0.00	0.08	---	---	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.16	0.03	0.15	---	---	0.15	0.00	0.00
27	---	0.00	0.00	0.00	0.26	0.01	0.01	---	---	0.01	0.00	0.18
28	---	0.00	0.00	0.00	0.01	0.03	0.00	0.00	0.01	0.00	0.00	0.01
29	---	0.00	0.00	0.06	---	0.04	0.00	0.27	0.00	0.47	0.00	0.00
30	0.01	0.00	0.00	0.25	---	---	0.02	0.01	0.08	0.00	0.00	0.00
31	0.00	---	0.09	0.00	---	0.00	---	0.31	---	0.06	0.37	---
TOTAL	---	1.69	1.41	0.58	---	---	2.46	---	---	2.94	4.40	1.02



02123567 DUTCHMANS CREEK NEAR UWHARRIE, NC

LOCATION.--Lat 35°22'45", long 80°01'49", Montgomery County, Hydrologic Unit 03040104, near midstream at upstream end of two 6-ft corrugated metal-pipe culverts on Secondary Road 1150, 1.0 mi upstream from mouth, and 3.0 mi southwest of Uwharrie.

DRAINAGE AREA.--3.44 mi².

PERIOD OF RECORD.--October 1981 to September 1983, October 1985 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 340 ft above NGVD of 1929, from topographic map. Satellite telemetry at station.

REMARKS.--Records fair. Maximum gage height for period of record, from floodmark. No flow also occurred June 23-25, July 8, 9, 19, Aug. 9-15, 2002. Minimum discharge for current water year also occurred Oct. 6-10.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.04	0.95	1.2	23	2.6	7.2	2.2	2.1	7.8	4.8	36	5.0
2	0.04	0.90	1.2	8.3	2.1	12	1.8	2.1	5.2	16	17	4.1
3	0.03	0.81	1.4	5.7	1.9	6.6	1.5	6.1	6.0	6.7	7.6	3.8
4	0.03	0.84	1.5	4.2	2.2	5.2	1.3	9.1	7.9	5.1	23	8.3
5	0.03	1.3	12	3.5	1.8	5.2	1.3	3.0	5.8	4.6	43	5.9
6	0.02	4.2	6.5	3.0	1.9	39	1.1	31	4.6	4.4	23	4.5
7	0.02	1.2	5.1	2.6	11	11	9.9	7.6	12	4.3	8.6	4.1
8	0.02	1.0	3.6	2.6	4.7	6.3	6.5	4.1	17	4.2	10	4.0
9	0.03	0.90	2.9	2.5	3.5	5.3	51	3.0	7.8	4.0	8.7	3.7
10	0.50	0.97	2.6	2.1	4.9	4.4	126	2.5	5.8	4.0	81	3.4
11	e50	1.1	5.0	1.8	4.0	3.8	47	2.3	5.0	4.7	15	3.3
12	4.3	14	4.1	1.6	3.3	3.5	7.4	2.1	5.5	5.8	6.9	3.2
13	3.4	5.6	27	1.6	2.7	3.8	4.6	1.7	4.8	5.4	6.1	3.2
14	2.2	1.1	11	1.7	2.4	5.9	3.6	1.7	4.2	4.5	5.7	3.2
15	1.7	0.58	5.3	1.6	2.9	4.6	3.3	1.7	4.0	4.1	5.5	3.1
16	15	3.9	3.9	1.5	2.9	17	3.2	1.8	30	3.9	20	2.9
17	3.0	20	3.0	1.6	3.2	7.4	2.8	1.7	25	3.8	16	2.8
18	1.3	4.6	2.6	1.5	4.4	5.9	3.9	2.0	29	5.1	6.8	4.4
19	0.77	1.5	2.4	1.5	6.0	5.0	5.7	2.8	35	6.0	5.8	4.8
20	0.60	1.0	4.8	1.5	7.5	125	3.6	1.9	17	4.1	5.4	3.4
21	0.65	0.85	3.3	1.5	5.5	14	3.4	1.8	8.5	3.8	4.8	3.1
22	2.4	0.79	2.7	1.4	40	4.1	3.2	25	7.0	3.7	4.5	3.3
23	1.4	0.69	2.4	1.4	19	2.5	2.6	13	6.3	4.3	4.3	17
24	0.91	0.66	12	1.1	7.7	1.9	2.4	4.6	5.7	3.9	7.9	4.7
25	0.80	0.70	19	1.2	5.2	1.6	2.6	46	5.2	3.4	4.6	3.9
26	0.80	0.75	7.2	1.4	4.7	1.5	2.9	26	4.8	3.3	4.2	3.4
27	0.71	0.84	4.7	1.3	19	1.3	2.7	9.4	4.6	3.6	3.9	3.2
28	0.74	0.89	3.8	1.2	13	1.2	2.3	6.5	4.6	3.3	3.6	3.5
29	0.87	0.98	3.3	1.3	---	1.2	2.2	5.8	4.6	5.5	3.4	2.8
30	1.8	1.2	2.8	3.6	---	9.7	2.1	5.4	4.4	7.1	3.3	2.6
31	1.1	---	2.7	4.1	---	3.5	---	10	---	4.0	8.5	---
TOTAL	95.21	74.80	171.0	92.9	190.0	326.6	314.1	243.8	295.1	151.4	404.1	128.6
MEAN	3.07	2.49	5.52	3.00	6.79	10.5	10.5	7.86	9.84	4.88	13.0	4.29
MAX	50	20	27	23	40	125	126	46	35	16	81	17
MIN	0.02	0.58	1.2	1.1	1.8	1.2	1.1	1.7	4.0	3.3	3.3	2.6
CFSM	0.89	0.72	1.60	0.87	1.97	3.06	3.04	2.29	2.86	1.42	3.79	1.25
IN.	1.03	0.81	1.85	1.00	2.05	3.53	3.40	2.64	3.19	1.64	4.37	1.39

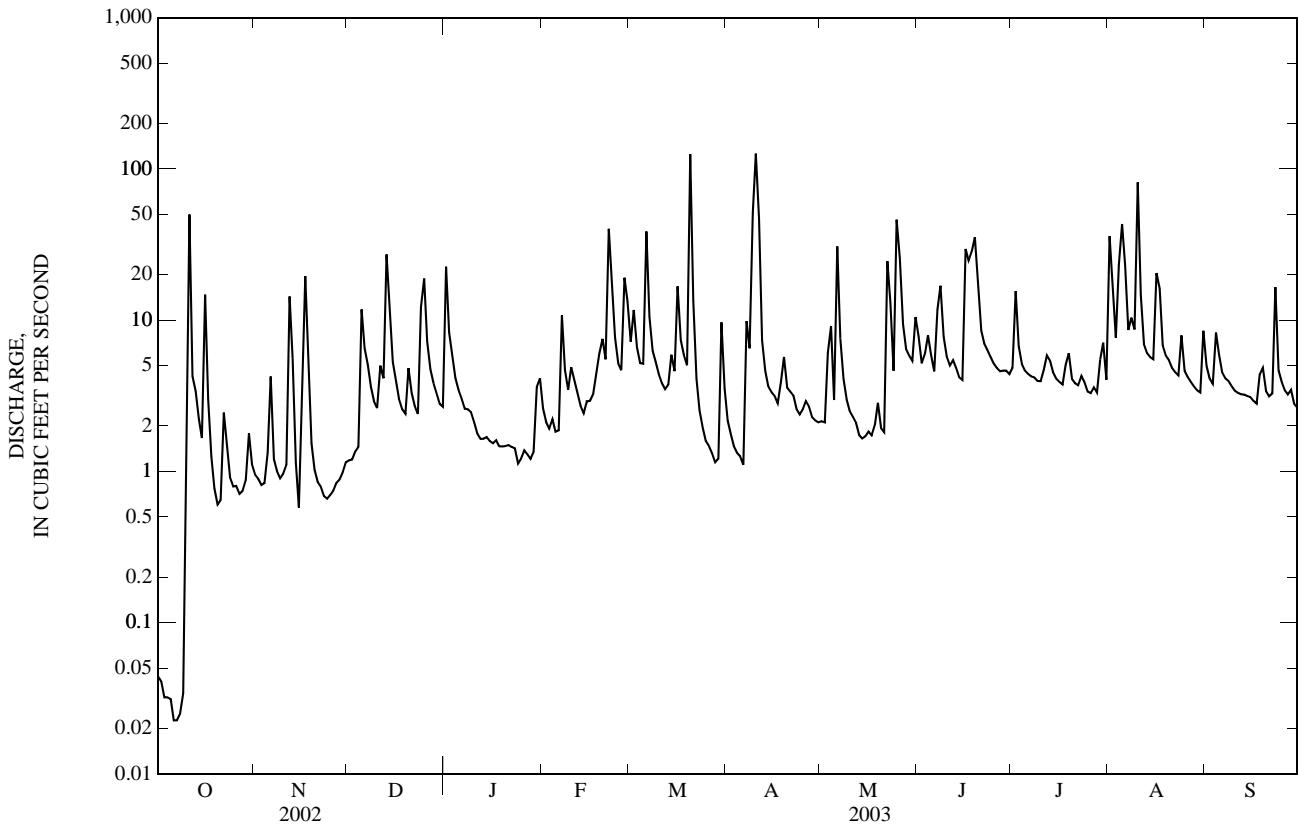
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 2003, BY WATER YEAR (WY)

MEAN	2.89	2.56	2.70	5.26	5.88	7.31	5.23	2.96	2.10	1.61	2.23	1.62
MAX	11.9	8.69	5.52	17.5	15.9	22.5	10.5	7.86	9.84	8.80	13.0	7.81
(WY)	(1991)	(1986)	(2003)	(1998)	(1998)	(1998)	(2003)	(2003)	(2003)	(1997)	(2003)	(1996)
MIN	0.12	0.20	0.34	1.23	1.56	2.24	1.41	0.70	0.080	0.072	0.10	0.14
(WY)	(2002)	(2002)	(2002)	(2001)	(2002)	(2002)	(1986)	(2002)	(2002)	(2002)	(2002)	(2001)

02123567 DUTCHMANS CREEK NEAR UWHARRIE, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1982 - 2003	
ANNUAL TOTAL	618.49		2,487.61		3.52	
ANNUAL MEAN	1.69		6.82		7.16	
HIGHEST ANNUAL MEAN					0.82	
LOWEST ANNUAL MEAN					1998	
HIGHEST DAILY MEAN	50	Oct 11	126	Apr 10	206	Apr 21, 1992
LOWEST DAILY MEAN	0.00	Jun 22	0.02	Oct 6	0.00	Jun 22, 2002
ANNUAL SEVEN-DAY MINIMUM	0.00	Aug 9	0.03	Oct 3	0.00	Aug 9, 2002
MAXIMUM PEAK FLOW			356	Mar 20	1,560	Apr 21, 1992
MAXIMUM PEAK STAGE			7.24	Mar 20	11.96*	Apr 21, 1992
INSTANTANEOUS LOW FLOW			0.02*	Oct 5	0.00*	Jun 19, 2002
ANNUAL RUNOFF (CFSM)	0.49		1.98		1.02	
ANNUAL RUNOFF (INCHES)	6.69		26.90		13.90	
10 PERCENT EXCEEDS	3.7		14		6.0	
50 PERCENT EXCEEDS	0.74		3.8		1.7	
90 PERCENT EXCEEDS	0.02		1.0		0.31	

e Estimated.
 * See REMARKS.



0212414900 MALLARD CREEK BELOW STONY CREEK NEAR HARRISBURG, NC

LOCATION.--Lat 35°19'58", long 80°42'57", Mecklenburg County, Hydrologic Unit 03040105, on left bank on upstream side of bridge at Pavillion Blvd, 0.1 mi downstream of Stony Creek, and 3.8 mi northwest of Harrisburg.

DRAINAGE AREA.--34.6 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 568.40 ft, North American Vertical Datum of 1988. Radio telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Maximum discharge for period of record from contracted opening measurement of peak flow; maximum gage height for period of record from floodmarks. No flow occurred for part of each day Aug. 8, 9, 10, 12, 13, 14, 2002. Minimum discharge for current water year also occurred Aug. 10.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.9	8.1	6.8	22	30	86	46	21	68	18	25	11
2	3.0	6.7	6.5	16	21	150	38	51	28	260	14	7.6
3	3.5	6.0	6.5	44	18	45	33	168	201	40	15	7.0
4	3.2	5.9	12	18	73	30	31	129	110	22	201	7.3
5	3.0	48	406	13	26	33	37	55	38	18	183	7.8
6	2.7	156	85	13	25	768	33	307	33	16	35	6.4
7	2.2	24	49	11	157	94	970	87	719	23	175	6.2
8	2.5	12	28	10	35	48	162	44	351	20	322	6.1
9	3.6	9.3	20	10	22	36	606	32	294	18	217	6.0
10	3.7	8.1	16	9.5	37	28	1,830	27	58	18	40	5.7
11	365	40	141	8.9	21	24	314	24	40	70	e35	5.4
12	20	376	37	8.2	16	21	104	e18	40	37	e32	5.2
13	272	72	496	8.7	13	20	67	e18	32	416	e28	6.2
14	30	27	111	8.6	18	18	53	e18	27	207	e25	5.9
15	39	17	41	7.5	31	51	45	e25	24	73	e23	5.6
16	287	195	27	8.3	22	530	39	27	266	30	e24	5.4
17	25	186	19	12	39	75	37	19	146	120	e17	5.0
18	12	46	16	8.0	75	61	615	26	911	33	e12	6.2
19	7.7	24	15	7.4	47	44	259	25	254	39	e11	7.6
20	6.1	17	88	7.6	30	2,020	85	19	72	20	e10	6.8
21	14	14	25	8.5	23	189	60	219	41	30	11	6.7
22	38	11	17	8.0	464	91	48	1,810	31	30	9.8	22
23	9.1	9.6	14	11	119	59	36	317	26	26	9.4	133
24	6.4	8.4	684	14	41	49	32	102	22	16	44	11
25	6.5	8.0	349	9.4	29	42	52	460	20	13	10	7.2
26	11	7.6	64	9.2	45	38	86	110	19	13	8.6	6.2
27	6.3	7.3	34	8.8	214	37	42	474	21	16	8.0	5.8
28	78	7.2	25	7.3	88	34	29	69	22	11	7.2	8.5
29	42	7.0	20	11	---	34	26	43	19	62	7.8	7.5
30	19	7.3	17	224	---	288	24	33	16	32	8.5	5.3
31	11	---	15	70	---	78	---	202	---	15	12	---
TOTAL	1,335.4	1,371.5	2,890.8	632.9	1,779	5,121	5,839	4,979	3,949	1,762	1,580.3	343.6
MEAN	43.1	45.7	93.3	20.4	63.5	165	195	161	132	56.8	51.0	11.5
MAX	365	376	684	224	464	2,020	1,830	1,810	911	416	322	133
MIN	2.2	5.9	6.5	7.3	13	18	24	18	16	11	7.2	5.0
CFSM	1.25	1.32	2.70	0.59	1.84	4.77	5.63	4.64	3.80	1.64	1.47	0.33
IN.	1.44	1.47	3.11	0.68	1.91	5.51	6.28	5.35	4.25	1.89	1.70	0.37

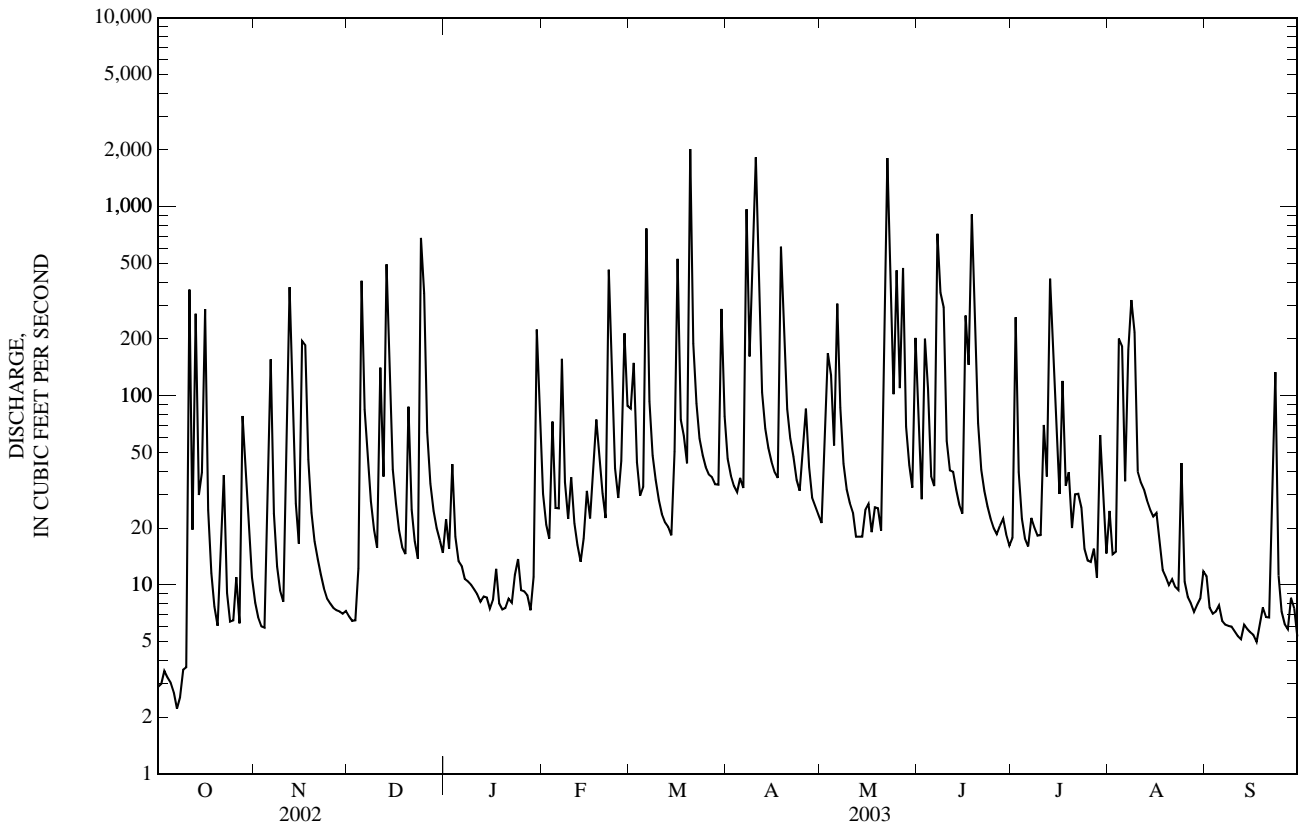
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 2003, BY WATER YEAR (WY)

MEAN	27.3	31.3	32.4	55.8	54.6	65.2	57.6	33.4	28.3	30.4	31.2	22.7
MAX	53.7	90.4	93.3	147	95.0	165	195	161	132	92.9	105	69.2
(WY)	(1996)	(1996)	(2003)	(1998)	(1997)	(2003)	(2003)	(2003)	(2003)	(1997)	(1995)	(2000)
MIN	2.75	3.80	9.44	13.5	15.0	15.5	11.2	9.55	5.82	9.09	1.74	9.59
(WY)	(2001)	(2002)	(2001)	(2001)	(2002)	(1999)	(1995)	(2001)	(2002)	(2001)	(2001)	(2002)

0212414900 MALLARD CREEK BELOW STONY CREEK NEAR HARRISBURG, NC—Continued

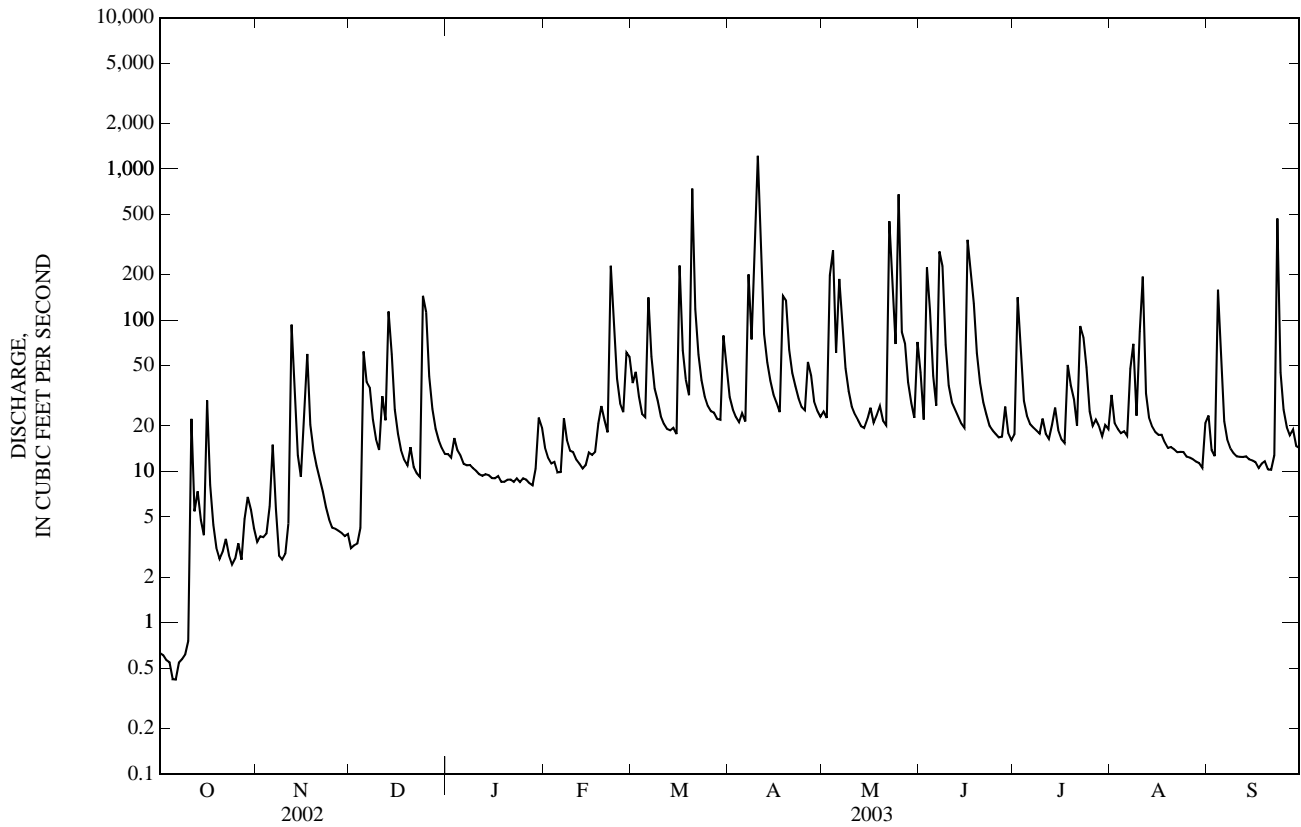
SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1995 - 2003	
ANNUAL TOTAL	10,874.67		31,583.5		39.1	
ANNUAL MEAN	29.8		86.5		86.5	
HIGHEST ANNUAL MEAN					16.0	
LOWEST ANNUAL MEAN					2002	
HIGHEST DAILY MEAN	684	Dec 24	2,020	Mar 20	2,350	Aug 27, 1995
LOWEST DAILY MEAN	0.01	Aug 13	2.2	Oct 7	0.01	Aug 13, 2002
ANNUAL SEVEN-DAY MINIMUM	0.07	Aug 8	2.9	Oct 2	0.07	Aug 8, 2002
MAXIMUM PEAK FLOW			3,750	Mar 20	6,260*	Aug 27, 1995
MAXIMUM PEAK STAGE			15.48	Mar 20	17.34*	Aug 27, 1995
INSTANTANEOUS LOW FLOW			1.6*	Oct 7	0.00*	Aug 8, 2002
ANNUAL RUNOFF (CFSM)	0.86		2.50		1.13	
ANNUAL RUNOFF (INCHES)	11.69		33.96		15.36	
10 PERCENT EXCEEDS	72		215		71	
50 PERCENT EXCEEDS	6.9		25		13	
90 PERCENT EXCEEDS	1.7		6.8		2.9	

e Estimated.
 * See REMARKS.



SUMMARY STATISTICS	FOR 2003 WATER YEAR	
ANNUAL TOTAL	15,942.50	
ANNUAL MEAN	43.7	
HIGHEST ANNUAL MEAN		
LOWEST ANNUAL MEAN		
HIGHEST DAILY MEAN	1,220	Apr 10
LOWEST DAILY MEAN	0.42	Oct 5
ANNUAL SEVEN-DAY MINIMUM	0.53	Oct 2
MAXIMUM PEAK FLOW	2,220*	Apr 10
MAXIMUM PEAK STAGE	12.74	Apr 10
INSTANTANEOUS LOW FLOW	0.30	Oct 5
ANNUAL RUNOFF (CFSM)	1.92	
ANNUAL RUNOFF (INCHES)	26.13	
10 PERCENT EXCEEDS	84	
50 PERCENT EXCEEDS	20	
90 PERCENT EXCEEDS	4.2	

e Estimated.
 * See REMARKS.



0212427947 REEDY CREEK AT SECONDARY ROAD 2803 NEAR CHARLOTTE, NC

LOCATION.--Lat 35°15'23", long 80°42'02", Mecklenburg County, Hydrologic Unit 03040105, on right downstream wingwall on Secondary Road 2803, 3.8 mi southeast of the University of North Carolina at Charlotte.

DRAINAGE AREA.--2.50 mi².

PERIOD OF RECORD.--October 2001 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 637.45 ft, North American Vertical Datum of 1988. Radio telemetry at station.

REMARKS.--Records poor. Minimum discharge for current water year also occurred Oct. 2, 3, 5, 8. No flow also occurred July 31, Aug. 1, 7, 10, 11, 2002.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.07	0.24	0.37	1.5	3.0	4.4	2.9	1.8	8.3	4.3	1.6	2.0
2	0.01	0.20	0.36	1.2	2.6	9.3	2.4	1.9	3.7	18	1.4	1.5
3	0.01	0.18	0.36	1.3	1.7	3.8	2.1	3.7	7.2	6.9	1.5	1.1
4	0.02	0.19	0.42	1.0	1.5	2.6	1.9	5.4	7.4	3.9	5.7	1.3
5	0.02	0.88	6.7	0.92	1.1	2.5	1.9	3.6	4.2	2.8	19	1.3
6	0.02	4.5	3.4	0.84	1.1	34	1.7	17	3.4	2.1	6.2	1.1
7	0.02	1.0	2.4	0.77	4.9	7.7	33	9.8	e123	1.8	4.1	1.1
8	0.01	0.59	1.5	0.78	2.2	6.1	11	4.5	31	1.7	3.7	1.1
9	0.02	0.42	1.1	0.73	1.7	3.9	31	3.3	17	1.6	3.0	1.0
10	0.02	0.37	0.93	0.66	2.3	3.1	e130	2.7	5.4	1.5	2.8	0.88
11	2.2	1.3	4.0	0.59	1.7	2.3	25	2.4	3.8	2.0	2.7	0.87
12	0.22	13	2.0	0.54	1.4	1.7	12	2.1	6.0	1.9	2.6	0.85
13	5.4	3.9	19	0.55	1.1	1.5	9.8	1.8	3.7	11	2.4	0.82
14	0.65	1.6	8.7	0.55	1.2	1.3	6.6	1.6	2.8	5.5	2.3	0.80
15	0.38	1.0	4.2	0.50	1.4	1.8	4.0	1.9	2.6	9.8	2.3	0.78
16	7.1	5.9	3.4	0.52	1.6	20	3.5	2.1	5.0	4.5	2.2	0.56
17	0.96	7.4	1.7	0.59	1.7	5.3	3.1	1.8	4.7	e150	2.1	0.53
18	0.34	2.6	1.1	0.50	3.0	3.9	30	2.3	6.3	6.5	1.9	0.61
19	0.20	1.5	1.0	0.48	3.0	3.2	21	2.3	6.4	7.7	1.8	0.59
20	0.14	1.2	3.6	0.53	2.6	e121	12	1.7	5.0	5.6	1.8	0.54
21	0.18	0.92	1.7	0.55	2.0	12	7.0	9.2	4.8	3.8	1.7	0.56
22	0.36	0.76	1.3	0.53	12	5.0	4.4	137	3.7	3.3	1.6	0.96
23	0.19	0.61	1.0	0.69	8.0	3.6	3.3	16	2.2	2.9	1.5	1.8
24	0.15	0.55	21	0.50	3.3	3.0	2.9	7.1	1.8	2.3	2.5	0.82
25	0.17	0.53	20	0.52	2.6	2.5	3.2	40	1.7	2.0	1.5	0.68
26	0.20	0.47	5.7	0.56	2.5	2.3	3.3	9.3	1.6	1.8	1.4	0.68
27	0.15	0.45	4.5	0.50	9.6	2.1	2.6	47	9.5	1.7	1.4	0.90
28	1.2	0.43	4.0	0.49	7.2	1.9	2.2	6.9	6.7	1.4	1.4	0.94
29	0.97	0.44	3.5	0.58	---	1.8	2.1	6.4	3.9	3.3	1.8	0.63
30	0.56	0.43	2.3	5.9	---	11	1.9	4.1	3.5	2.6	1.9	0.60
31	0.35	---	1.4	5.3	---	5.0	---	13	---	1.9	1.9	---
TOTAL	22.29	53.56	132.64	31.17	88.0	289.6	377.8	369.7	296.3	276.1	89.7	27.90
MEAN	0.72	1.79	4.28	1.01	3.14	9.34	12.6	11.9	9.88	8.91	2.89	0.93
MAX	7.1	13	21	5.9	12	121	130	137	123	150	19	2.0
MIN	0.01	0.18	0.36	0.48	1.1	1.3	1.7	1.6	1.6	1.4	1.4	0.53
IN.	0.33	0.80	1.97	0.46	1.31	4.31	5.62	5.50	4.41	4.11	1.33	0.42

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2003, BY WATER YEAR (WY)

MEAN	0.47	1.28	2.40	1.41	2.06	5.43	6.53	6.06	4.98	4.47	1.48	0.49
MAX	0.72	1.79	4.28	1.82	3.14	9.34	12.6	11.9	9.88	8.91	2.89	0.93
(WY)	(2003)	(2003)	(2003)	(2002)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)
MIN	0.23	0.77	0.52	1.01	0.97	1.52	0.48	0.19	0.085	0.043	0.068	0.044
(WY)	(2002)	(2002)	(2002)	(2003)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)

SUMMARY STATISTICS

FOR 2002 CALENDAR YEAR

FOR 2003 WATER YEAR

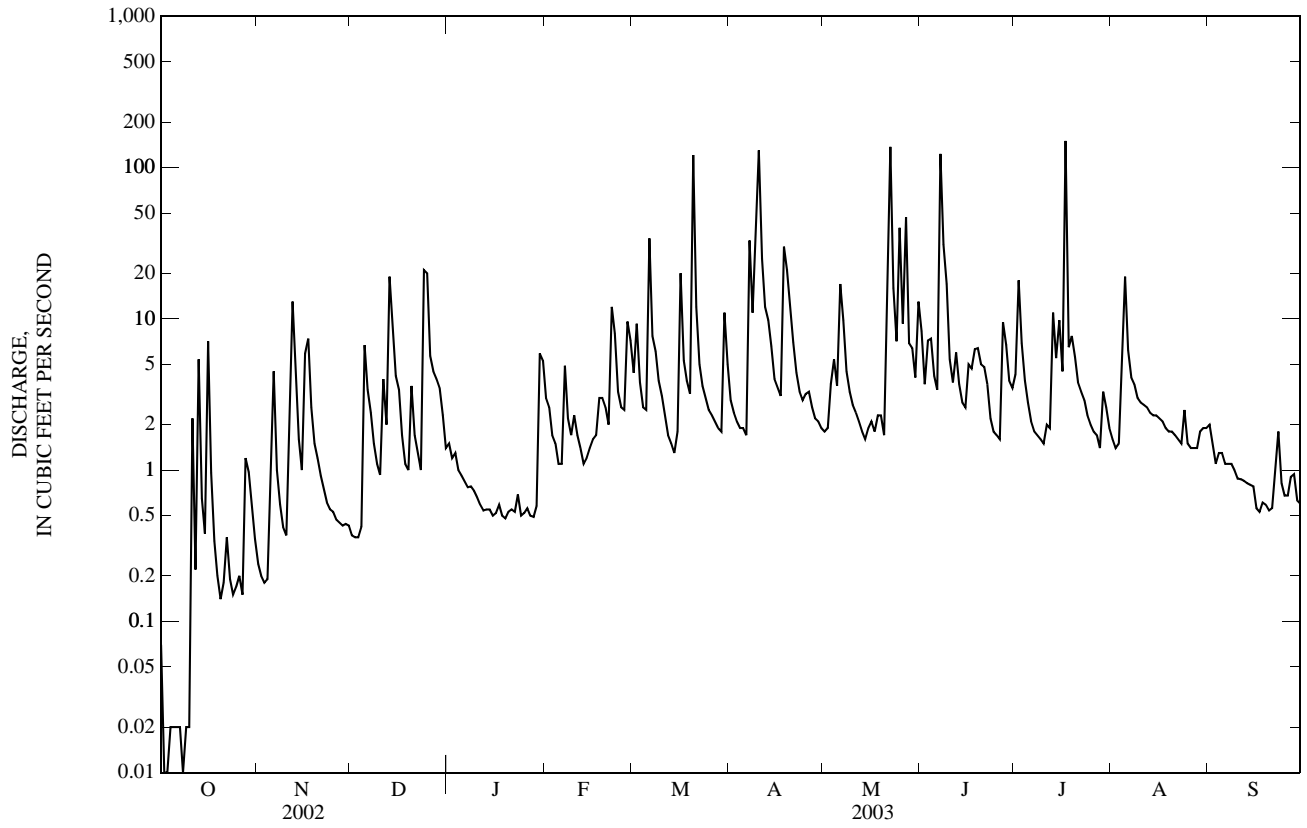
WATER YEARS 2001 - 2003

ANNUAL TOTAL	366.66		2,054.76		3.09	
ANNUAL MEAN	1.00		5.63		5.63	
HIGHEST ANNUAL MEAN					2003	
LOWEST ANNUAL MEAN					0.56	
HIGHEST DAILY MEAN	21	Dec 24	150	Jul 17	150	Jul 17, 2003
LOWEST DAILY MEAN	0.00	Jul 30	0.01	Oct 2	0.00	Jul 30, 2002
ANNUAL SEVEN-DAY MINIMUM	0.01	Jul 27	0.02	Oct 2	0.01	Jul 27, 2002
MAXIMUM PEAK FLOW			NOT DETERMINED		NOT DETERMINED	
MAXIMUM PEAK STAGE			8.13	Jul 17	8.13	Jul 17, 2003
INSTANTANEOUS LOW FLOW			0.00*	Oct 1	0.00*	Jul 30, 2002
ANNUAL RUNOFF (INCHES)	5.46		30.57		16.82	
10 PERCENT EXCEEDS	2.2		9.5		5.5	
50 PERCENT EXCEEDS	0.30		2.0		0.78	
90 PERCENT EXCEEDS	0.02		0.45		0.03	

e Estimated.

* See REMARKS.

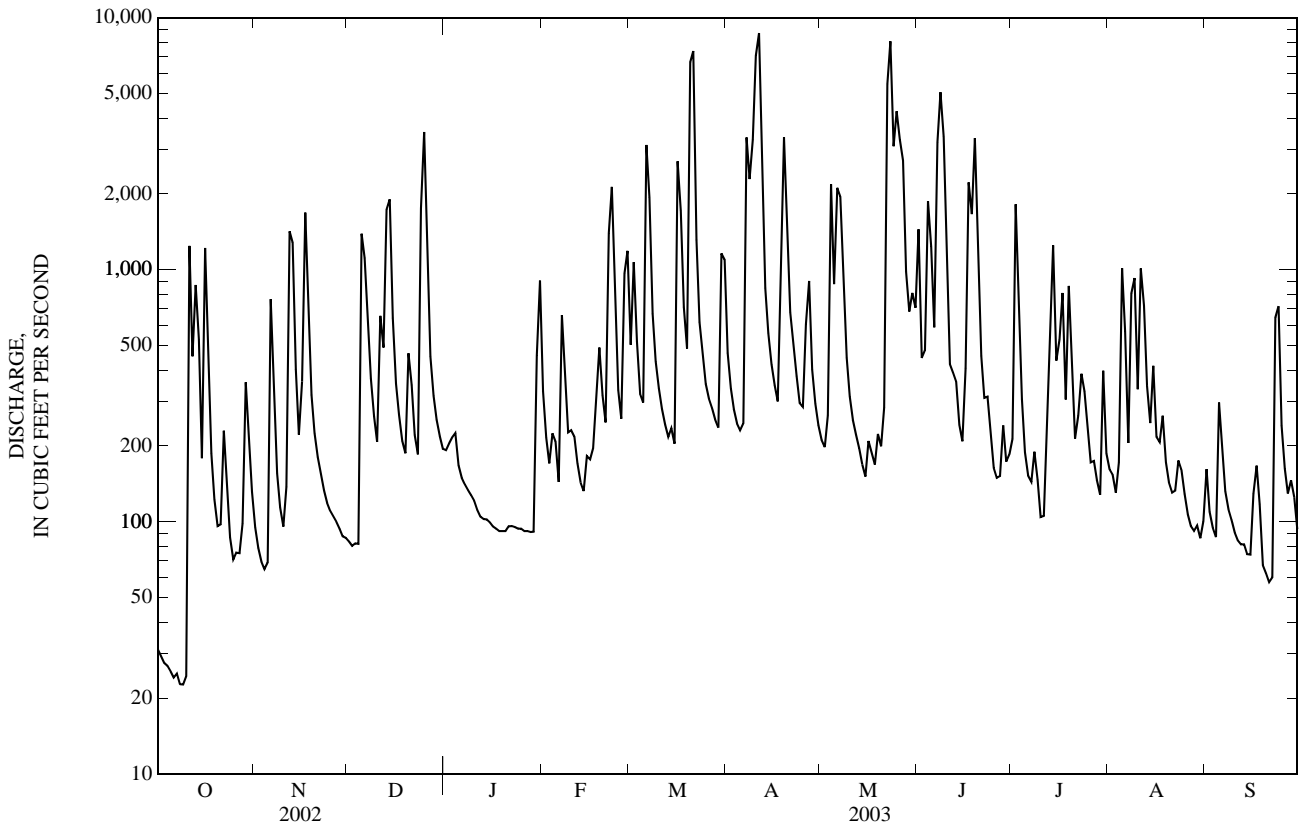
0212427947 REEDY CREEK AT SECONDARY ROAD 2803 NEAR CHARLOTTE, NC—Continued



0212433550 ROCKY RIVER ABOVE IRISH BUFFALO CREEK NEAR ROCKY RIVER, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 2000 - 2003	
ANNUAL TOTAL	65,658		232,207			
ANNUAL MEAN	180		636		252	
HIGHEST ANNUAL MEAN					636	2003
LOWEST ANNUAL MEAN					89.7	2002
HIGHEST DAILY MEAN	3,520	Dec 25	8,690	Apr 11	8,690	Apr 11, 2003
LOWEST DAILY MEAN	13	Aug 13	23	Oct 8	13	Aug 13, 2002
ANNUAL SEVEN-DAY MINIMUM	14	Aug 9	25	Oct 4	14	Aug 9, 2002
MAXIMUM PEAK FLOW			9,760*	Apr 11	9,760*	Apr 11, 2003
MAXIMUM PEAK STAGE			23.21	Apr 11	23.21	Apr 11, 2003
INSTANTANEOUS LOW FLOW			17*	Oct 9	11*	Aug 13, 2002
ANNUAL RUNOFF (CFSM)	0.65		2.29		0.91	
ANNUAL RUNOFF (INCHES)	8.79		31.07		12.34	
10 PERCENT EXCEEDS	383		1,530		480	
50 PERCENT EXCEEDS	75		235		76	
90 PERCENT EXCEEDS	22		91		30	

e Estimated.
 * See REMARKS.



0212466000 CLEAR CREEK AT SECONDARY ROAD 3181 NEAR MINT HILL, NC

LOCATION.--Lat 35°12'30", long 80°34'48", Mecklenburg County, Hydrologic Unit 03040105, on right bank at wingwall on Secondary Road 3181, 4.25 mi northeast of Mint Hill.

DRAINAGE AREA.--12.6 mi².

PERIOD OF RECORD.--October 2002 to September 2003.

GAGE.--Water-stage recorder. Elevation of gage is 560 ft above NGVD of 1929, from topographic map. Radio telemetry at site.

REMARKS.--Records poor. Minimum discharge for current water year also occurred on Oct. 9, Sept. 22.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.25	1.8	3.4	6.4	12	20	12	7.7	26	4.1	11	5.4
2	0.26	1.6	3.3	5.8	8.4	49	9.4	7.7	12	e82	9.3	5.6
3	0.27	1.5	3.2	5.7	7.0	18	8.2	10	15	16	12	5.5
4	0.27	1.4	3.3	5.1	7.2	12	7.4	12	21	7.3	12	5.3
5	0.27	2.7	43	4.9	6.2	12	7.4	8.6	14	5.8	85	4.9
6	0.39	34	18	4.7	5.9	e164	6.8	e149	10	4.8	27	4.4
7	0.35	6.5	12	4.5	32	40	173	50	e289	4.5	12	4.2
8	0.21	4.1	7.2	4.5	12	20	43	26	e646	4.0	9.0	4.1
9	0.20	3.5	5.6	4.5	8.5	15	e225	20	e54	3.8	7.7	e3.2
10	0.33	2.9	4.9	4.1	11	13	e646	17	19	3.7	7.1	e2.9
11	73	8.1	24	3.6	8.8	11	124	17	9.7	7.0	6.8	e2.7
12	5.3	71	10	3.4	7.2	10	30	17	8.5	7.7	6.3	e2.6
13	27	19	e132	3.4	6.3	9.9	16	16	7.4	50	7.6	e2.6
14	7.2	7.6	46	3.4	6.0	10	11	16	6.0	12	49	e2.6
15	4.1	5.3	15	3.3	6.7	9.6	9.8	9.7	8.3	9.3	18	e2.7
16	46	37	10	3.2	7.8	181	9.0	5.9	71	6.9	8.6	e3.0
17	6.3	64	7.8	3.6	9.0	28	8.9	4.6	46	e85	6.9	e2.2
18	3.2	14	6.5	3.2	15	22	204	5.1	e273	11	6.2	e2.2
19	2.4	7.8	6.1	3.2	16	16	73	7.1	90	e70	5.6	e2.3
20	2.1	6.0	15	3.2	12	e406	26	5.0	25	e51	5.4	e2.2
21	2.0	5.2	8.6	3.4	9.4	54	17	5.5	12	16	5.1	e2.1
22	e4.4	5.1	6.8	3.5	e137	24	14	e345	8.1	19	5.3	e3.2
23	2.0	4.8	6.0	3.5	41	18	11	64	5.9	13	5.1	e7.9
24	1.8	4.5	e140	3.3	14	14	9.8	18	5.0	9.0	4.8	e3.1
25	1.8	4.4	120	3.2	11	12	11	e165	4.5	7.2	4.5	e2.5
26	2.1	4.1	21	3.5	9.6	10	12	34	4.2	6.6	4.2	e2.3
27	1.6	4.1	12	3.5	90	9.7	10	e67	3.9	6.1	4.1	e2.2
28	3.5	3.9	9.0	3.2	41	8.4	8.8	26	3.9	5.7	4.1	e2.9
29	5.5	3.7	7.7	3.4	---	7.8	8.4	15	3.9	71	4.5	e2.4
30	3.4	3.5	6.7	66	---	57	8.0	12	4.2	24	5.3	2.5
31	2.3	---	6.2	28	---	19	---	52	---	21	9.4	---
TOTAL	209.80	343.1	720.3	208.2	558.0	1,300.4	1,759.9	1,214.9	1,706.5	644.5	368.9	101.7
MEAN	6.77	11.4	23.2	6.72	19.9	41.9	58.7	39.2	56.9	20.8	11.9	3.39
MAX	73	71	140	66	137	406	646	345	646	85	85	7.9
MIN	0.20	1.4	3.2	3.2	5.9	7.8	6.8	4.6	3.9	3.7	4.1	2.1
CFSM	0.54	0.91	1.84	0.53	1.58	3.33	4.66	3.11	4.51	1.65	0.94	0.27
IN.	0.62	1.01	2.13	0.61	1.65	3.84	5.20	3.59	5.04	1.90	1.09	0.30

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

	2003	2003	2003	2003	2003	2003	2003	2003	2003	2003	2003	2003
MEAN	6.77	11.4	23.2	6.72	19.9	41.9	58.7	39.2	56.9	20.8	11.9	3.39
MAX	6.77	11.4	23.2	6.72	19.9	41.9	58.7	39.2	56.9	20.8	11.9	3.39
(WY)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)
MIN	6.77	11.4	23.2	6.72	19.9	41.9	58.7	39.2	56.9	20.8	11.9	3.39
(WY)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)

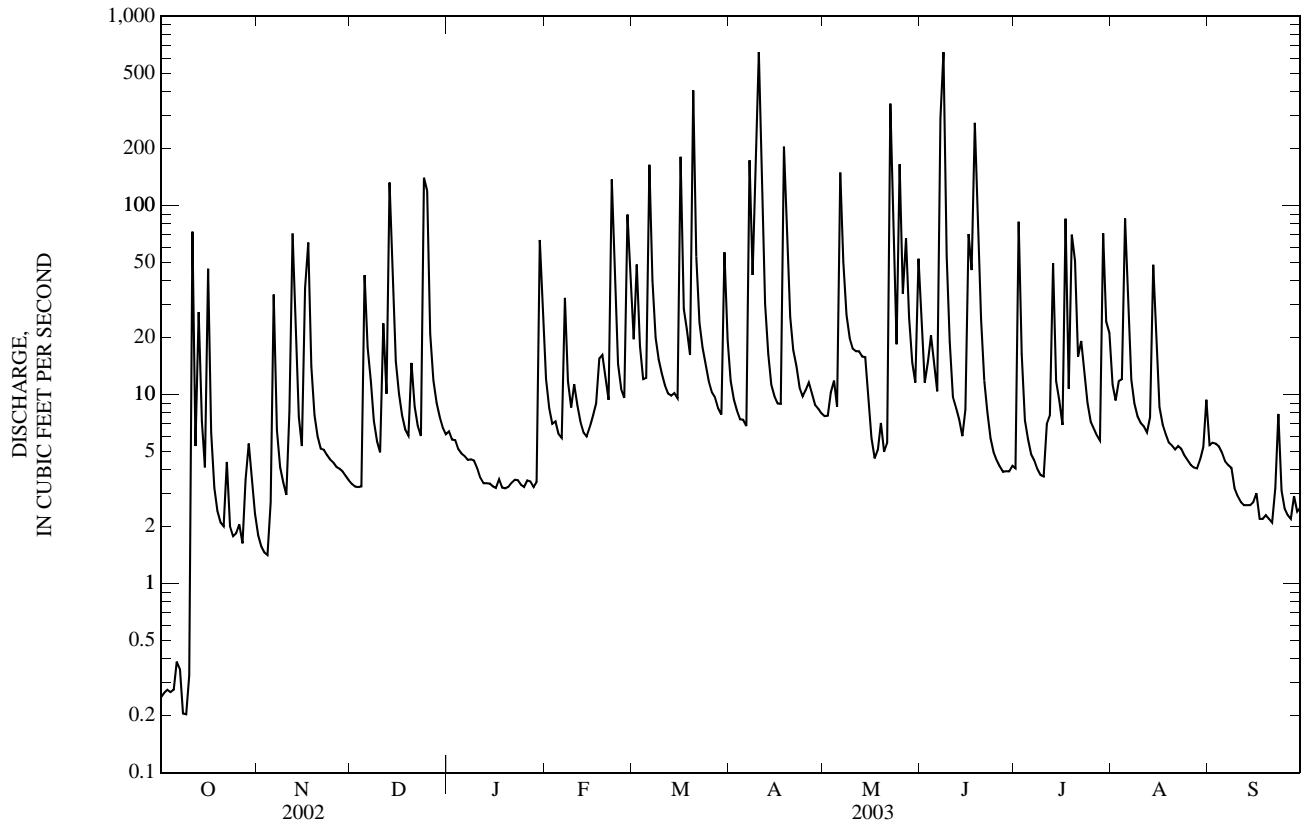
SUMMARY STATISTICS

FOR 2003 WATER YEAR

ANNUAL TOTAL	9,136.20
ANNUAL MEAN	25.0
HIGHEST DAILY MEAN	646 Apr 10
LOWEST DAILY MEAN	0.20 Oct 9
ANNUAL SEVEN-DAY MINIMUM	0.28 Oct 3
MAXIMUM PEAK FLOW	NOT DETERMINED
MAXIMUM PEAK STAGE	10.42 Jun 8
INSTANTANEOUS LOW FLOW	0.13* Oct 8
ANNUAL RUNOFF (CFSM)	1.99
ANNUAL RUNOFF (INCHES)	26.97
10 PERCENT EXCEEDS	53
50 PERCENT EXCEEDS	7.7
90 PERCENT EXCEEDS	2.7

e Estimated.
* See REMARKS.

0212466000 CLEAR CREEK AT SECONDARY ROAD 3181 NEAR MINT HILL, NC—Continued



02124692 GOOSE CREEK NEAR FAIRVIEW, NC

LOCATION.--Lat 35°09'13", long 80°32'07", Union County, Hydrologic Unit 03040105, on right bank at downstream side of culvert on U.S. Highway 601, 1.0 mi north of Fairview, and 2.0 mi above Duck Creek.

DRAINAGE AREA.--24.0 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1999 to current year.

REVISED RECORDS.--WSP 822: Drainage area. WSP 852: 1935-37(m).

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 460 ft above NGVD of 1929 (revised), from topographic map. Satellite telemetry at station.

REMARKS.--No estimated daily discharge. Records good. No flow also occurred Aug. 12, 13, 14, 15, 16, 2002.

REVISIONS.--Maximum discharge for water years 2000, 2001 to 1,360 ft³/s, June 5, 2000, gage height 8.64 ft, 875 ft³/s, Mar. 29, 2001, gage height 6.95 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.50	4.6	4.8	22	34	52	25	8.6	30	4.5	14	4.4
2	0.61	2.9	2.5	18	20	113	17	7.7	9.5	419	22	3.8
3	0.54	2.4	2.7	18	14	43	13	8.1	13	37	10	3.4
4	0.46	2.0	4.8	13	16	27	11	8.2	30	15	30	3.2
5	0.38	5.1	164	9.8	14	32	11	7.4	14	9.2	22	4.0
6	0.35	112	68	7.2	12	430	11	544	8.0	7.2	28	3.4
7	0.40	21	33	5.9	146	73	253	154	514	6.0	12	3.3
8	0.34	7.7	19	6.3	40	38	89	36	128	5.5	8.5	4.1
9	0.36	4.5	13	6.3	23	28	859	20	45	4.8	6.7	3.7
10	0.40	3.8	11	5.6	43	21	1,430	13	21	4.7	6.7	3.3
11	80	34	89	4.7	30	16	358	9.8	14	141	8.9	3.1
12	16	201	39	6.7	17	14	69	8.5	11	83	8.1	2.8
13	16	74	414	8.0	12	16	38	6.4	9.0	257	9.8	2.8
14	20	26	94	5.6	11	21	27	5.4	9.2	41	89	2.8
15	10	14	36	4.7	15	15	21	8.0	9.7	19	477	2.8
16	80	102	23	4.6	54	387	17	29	13	11	44	2.8
17	18	237	16	4.8	62	63	13	9.8	83	104	37	2.5
18	4.8	55	13	4.4	65	53	209	11	236	14	18	2.2
19	2.4	26	11	4.0	52	37	176	17	329	65	10	2.4
20	1.7	16	43	4.1	34	1,510	59	11	51	288	8.2	2.4
21	4.0	13	23	4.5	26	107	39	7.3	21	27	7.6	2.3
22	14	9.6	12	5.2	429	49	34	321	14	36	17	2.5
23	6.1	5.4	9.2	5.1	103	31	20	172	11	35	22	13
24	3.0	5.0	247	4.9	36	22	14	47	7.9	19	8.1	3.6
25	2.1	4.5	271	4.4	25	16	16	176	6.1	9.7	6.3	2.6
26	2.0	4.3	53	5.3	22	13	65	89	5.6	7.6	5.5	2.3
27	1.7	3.8	32	5.2	230	11	48	34	5.1	6.9	4.7	2.4
28	6.3	3.4	29	4.3	105	9.0	20	22	5.0	6.0	4.1	4.0
29	46	2.9	24	4.6	---	7.9	13	15	5.5	7.7	4.1	2.9
30	34	3.7	19	146	---	135	10	9.4	4.4	35	3.8	1.9
31	10	---	13	82	---	51	---	19	---	66	7.8	---
TOTAL	382.44	1,006.6	1,833.0	435.2	1,690	3,440.9	3,985	1,834.6	1,663.0	1,791.8	960.9	100.7
MEAN	12.3	33.6	59.1	14.0	60.4	111	133	59.2	55.4	57.8	31.0	3.36
MAX	80	237	414	146	429	1,510	1,430	544	514	419	477	13
MIN	0.34	2.0	2.5	4.0	11	7.9	10	5.4	4.4	4.5	3.8	1.9
CFSM	0.51	1.40	2.46	0.58	2.51	4.62	5.53	2.47	2.31	2.41	1.29	0.14
IN.	0.59	1.56	2.84	0.67	2.62	5.33	6.18	2.84	2.58	2.78	1.49	0.16

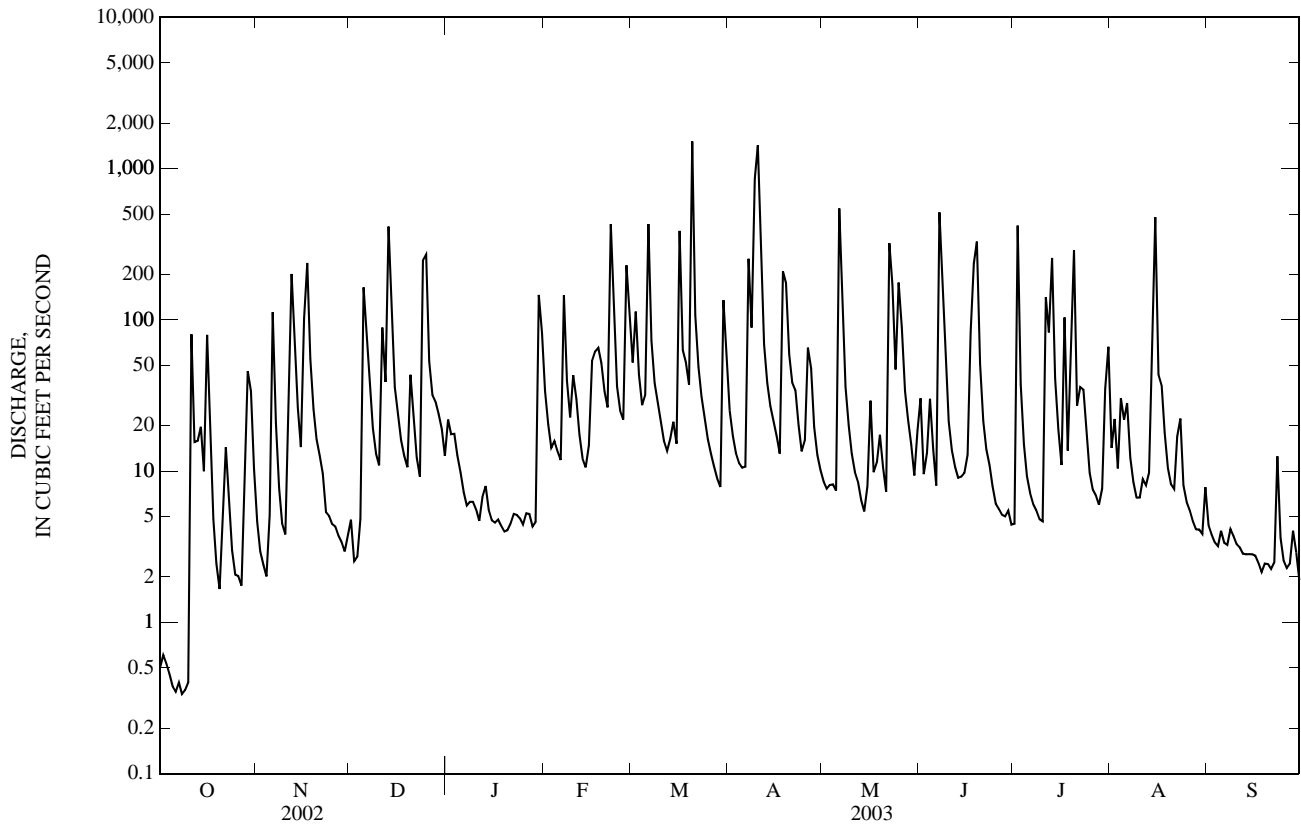
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2003, BY WATER YEAR (WY)

MEAN	5.19	10.6	18.9	19.6	32.1	45.6	39.7	17.2	18.3	15.6	10.2	4.89
MAX	12.3	33.6	59.1	33.1	60.4	111	133	59.2	55.4	57.8	31.0	6.73
(WY)	(2003)	(2003)	(2003)	(2000)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2000)
MIN	0.70	0.91	2.99	4.55	7.02	15.7	5.82	2.59	0.75	1.49	0.54	3.36
(WY)	(2001)	(2002)	(2001)	(2001)	(2001)	(2000)	(2001)	(2002)	(2002)	(2001)	(2001)	(2003)

02124692 GOOSE CREEK NEAR FAIRVIEW, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 2000 - 2003	
ANNUAL TOTAL	5,862.30		19,124.14			
ANNUAL MEAN	16.1		52.4		22.2	
HIGHEST ANNUAL MEAN					52.4	2003
LOWEST ANNUAL MEAN					6.25	2001
HIGHEST DAILY MEAN	414	Dec 13	1,510	Mar 20	1,510	Mar 20, 2003
LOWEST DAILY MEAN	0.00	Aug 12	0.34	Oct 8	0.00	Aug 12, 2002
ANNUAL SEVEN-DAY MINIMUM	0.01	Aug 10	0.38	Oct 4	0.01	Aug 10, 2002
MAXIMUM PEAK FLOW			2,950	Mar 20	2,950	Mar 20, 2003
MAXIMUM PEAK STAGE			10.17	Mar 20	10.17	Mar 20, 2003
INSTANTANEOUS LOW FLOW			0.25	Oct 8	0.00*	Aug 11, 2002
ANNUAL RUNOFF (CFSM)	0.67		2.18		0.92	
ANNUAL RUNOFF (INCHES)	9.09		29.64		12.54	
10 PERCENT EXCEEDS	36		109		39	
50 PERCENT EXCEEDS	2.6		13		3.0	
90 PERCENT EXCEEDS	0.21		2.9		0.38	

* See REMARKS.



02124692 GOOSE CREEK AT FAIRVIEW, NC—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 2000 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: November 1999 to current year.

pH: November 1999 to current year.

WATER TEMPERATURE: November 1999 to current year.

DISSOLVED OXYGEN: November 1999 to current year.

DISSOLVED OXYGEN, PERCENT SATURATION: November 1999 to current year.

INSTRUMENTATION.-- Water-quality monitor with satellite telemetry from November 1999 to current year, optical backscatterance sensor from April 2000 to current year.

REMARKS.--Station operated in cooperation with North Carolina Department of Transportation to characterize water-quality and suspended sediment concentrations in the Goose Creek basin. Dissolved oxygen, percent saturation, computed using barometric pressure of 747 mm Hg.

EXTREMES FOR PERIOD OF DAILY RECORD.--

CONSTITUENT	MAXIMUM RECORDED	MINIMUM RECORDED
SPECIFIC CONDUCTANCE, microsiemens	414, April 25, 2001	38, April 10, 2003
pH, standard units	8.2, March 9, 2000	6.1, March 21, 2001, July 20, 2003
WATER TEMPERATURE, °C	27.7, July 30, 2002	0.0, January 24, 25, 2003
DISSOLVED OXYGEN, mg/L	14.9, January 25, 28, 2003	2.5, August 24, 2002
DISSOLVED OXYGEN, PERCENT SATURATION,%	118, March 29, 2003	29, October 26, 2001

EXTREMES FOR CURRENT YEAR.--Extremes listed below may have been exceeded during periods of missing record.

CONSTITUENT	MAXIMUM RECORDED	MINIMUM RECORDED
SPECIFIC CONDUCTANCE, microsiemens	321, October 11	38, April 10
pH, standard units	7.9, April 6	6.1, July 20
WATER TEMPERATURE, °C	26.3, August 29	0.0, January 24, 25
DISSOLVED OXYGEN, mg/L	14.9, January 25, 28	4.3, October 13
DISSOLVED OXYGEN, PERCENT SATURATION,%	118, March 29	48, October 13

02124692 GOOSE CREEK AT FAIRVIEW, NC—Continued

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

Date	Time	Instantaneous discharge, cfs (00061)	Suspended sediment concentration mg/L (80154)	Suspended sediment load, tons/d (80155)	Date	Time	Instantaneous discharge, cfs (00061)	Suspended sediment concentration mg/L (80154)	Suspended sediment load, tons/d (80155)
OCT					JUL				
11...	1340	186	421	212	02...	0810	782	393	830
NOV					02...	0830	815	358	788
06...	1011	128	130	45	02...	0850	851	311	715
MAR					02...	1115	1,330	206	740
06...	1240	1,120	273	826	24...	1030	18	21	1.0
06...	1330	1,080	215	628	30...	1000	24	102	6.6
06...	1415	986	191	510	30...	1015	24	99	6.4
MAY					30...	1100	20	87	4.7
06...	1138	828	155	347	AUG				
06...	1236	382	219	226	15...	1030	85	82	19
06...	1321	283	257	197	15...	1045	81	75	16
					15...	1100	79	75	16

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	245	225	235	218	209	215	194	183	186	184	152	159
2	225	217	222	226	218	221	216	194	208	163	153	157
3	219	216	217	230	225	228	216	193	208	173	162	168
4	225	219	222	236	229	233	193	184	187	167	157	161
5	231	225	229	259	231	239	216	118	152	160	156	158
6	232	230	231	265	148	169	138	121	132	169	157	165
7	232	229	231	187	160	175	150	138	145	179	161	166
8	231	229	230	198	186	192	164	150	155	184	179	181
9	230	228	229	216	198	206	169	164	167	183	179	180
10	231	212	228	228	214	219	181	168	177	183	179	180
11	321	112	165	263	195	224	205	115	144	184	179	181
12	150	126	142	202	128	158	149	124	137	182	179	181
13	214	150	166	158	134	147	170	72	116	190	147	176
14	187	133	142	178	158	167	121	89	108	160	145	154
15	233	144	168	193	177	184	143	121	134	160	151	154
16	235	136	175	217	138	190	153	143	148	175	160	169
17	172	142	159	138	105	119	157	151	154	186	175	182
18	182	170	177	148	125	138	161	157	159	186	181	184
19	187	182	185	163	148	157	170	160	165	190	184	187
20	188	185	186	171	162	167	189	131	159	197	189	193
21	223	186	193	173	170	172	146	131	139	200	195	198
22	250	207	225	178	172	176	159	146	153	206	199	202
23	222	213	217	186	177	181	173	159	169	203	195	199
24	228	219	224	187	185	186	177	71	128	198	193	196
25	219	210	213	196	185	190	103	77	87	203	196	198
26	218	211	216	217	196	207	126	99	115	201	197	199
27	227	215	219	214	173	187	137	124	131	200	193	196
28	240	224	229	175	169	172	132	127	130	198	193	196
29	287	189	217	176	169	173	136	129	132	196	194	195
30	207	192	199	187	176	178	141	131	135	201	96	158
31	210	201	206	---	---	---	153	141	146	127	97	113
MONTH	321	112	203	265	105	186	216	71	149	206	96	177

02124692 GOOSE CREEK AT FAIRVIEW, NC—Continued

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	142	127	137	138	113	123	116	104	111	144	142	143
2	154	142	148	127	105	111	123	116	120	148	142	146
3	162	154	157	---	---	---	130	123	127	151	146	149
4	175	162	168	---	---	---	135	129	133	159	147	155
5	168	162	164	---	---	---	142	135	139	162	151	156
6	169	160	162	145	66	94	144	141	142	161	63	86
7	165	98	114	111	88	101	153	74	104	100	64	87
8	134	114	126	121	111	117	117	84	97	111	100	108
9	148	134	142	132	121	128	96	50	66	122	111	118
10	166	139	152	140	131	135	82	38	54	128	122	125
11	146	138	141	143	139	141	77	56	66	135	127	131
12	155	146	151	146	142	144	92	77	86	138	135	137
13	160	155	158	153	145	150	102	91	99	144	136	142
14	169	160	164	155	143	147	113	102	108	152	141	147
15	268	169	181	151	143	144	117	111	115	175	144	150
16	174	123	157	152	65	92	121	117	119	172	104	117
17	178	120	143	123	96	109	127	121	123	130	110	119
18	194	140	164	131	123	127	153	71	115	164	130	137
19	142	132	135	139	126	130	106	72	87	159	155	157
20	153	136	146	140	42	64	104	90	98	155	147	150
21	159	149	154	96	73	87	135	104	116	156	148	153
22	171	73	126	106	96	103	154	125	131	223	81	136
23	114	86	103	117	106	113	134	125	130	108	81	98
24	131	114	125	121	116	118	134	127	131	116	107	113
25	141	130	137	124	119	121	147	134	139	137	94	110
26	157	141	145	128	124	126	154	79	133	110	96	103
27	160	80	121	129	126	127	110	89	101	124	110	119
28	113	83	99	136	129	133	125	110	119	134	121	126
29	---	---	---	140	135	138	134	125	129	134	126	129
30	---	---	---	153	86	115	144	134	141	133	128	130
31	---	---	---	104	88	98	---	---	---	179	133	144
MONTH	268	73	144	---	---	---	154	38	113	223	63	130
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	143	122	127	158	151	155	121	99	112	171	134	154
2	138	125	132	153	66	98	185	118	154	---	---	---
3	173	138	149	114	96	108	165	152	154	157	145	153
4	169	151	158	124	114	119	201	126	140	168	157	165
5	155	152	153	130	123	126	165	131	149	169	166	168
6	155	150	153	139	130	136	148	129	141	167	166	166
7	177	62	108	145	137	141	156	143	153	168	165	167
8	104	59	86	149	142	144	165	156	162	168	165	167
9	122	104	116	152	148	149	168	161	165	171	165	169
10	124	112	121	153	149	151	168	164	166	173	169	171
11	129	124	127	182	79	139	175	159	166	173	167	170
12	132	128	130	120	83	112	167	147	159	174	171	172
13	135	131	133	---	---	---	218	161	175	176	173	174
14	139	134	136	---	---	---	174	40	153	176	175	176
15	139	120	129	---	---	---	92	39	73	177	175	176
16	138	118	123	143	137	141	153	92	108	179	175	177
17	122	74	92	144	62	124	111	94	103	181	176	179
18	116	64	103	138	124	133	123	111	118	188	179	185
19	113	57	89	155	52	140	128	121	124	187	183	185
20	112	105	109	94	50	78	142	128	134	185	180	183
21	120	112	118	110	94	105	148	142	144	189	185	186
22	125	119	122	129	74	110	150	117	144	188	168	184
23	126	122	124	117	77	99	136	125	129	200	165	176
24	127	124	126	125	117	122	147	125	136	175	151	167
25	139	125	133	137	124	129	160	147	153	151	140	142
26	152	139	146	148	137	143	166	157	159	147	141	143
27	153	149	151	155	147	151	168	164	166	165	147	157
28	154	149	152	158	149	154	170	167	169	174	164	170
29	156	154	155	167	149	155	173	168	171	170	168	169
30	156	152	154	178	74	91	175	171	174	175	170	173
31	---	---	---	108	73	87	176	168	172	---	---	---
MONTH	177	57	128	---	---	---	218	39	146	---	---	---

PEE DEE RIVER BASIN

02124692 GOOSE CREEK AT FAIRVIEW, NC—Continued

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	7.0	6.9	7.0	7.2	7.1	7.1	7.3	7.1	7.2	7.1	7.0	7.1
2	7.0	6.9	6.9	7.2	7.0	7.1	7.3	7.1	7.2	7.2	7.0	7.1
3	7.0	6.9	6.9	7.1	7.1	7.1	7.2	7.1	7.1	7.3	7.2	7.2
4	7.0	6.9	6.9	7.1	7.0	7.0	7.2	7.1	7.1	7.3	7.2	7.2
5	7.0	6.9	7.0	7.0	6.9	7.0	7.2	6.6	6.8	7.3	7.1	7.2
6	7.1	7.0	7.0	6.9	6.8	6.8	6.8	6.6	6.7	7.2	7.1	7.1
7	7.0	7.0	7.0	6.9	6.8	6.9	7.0	6.8	6.9	7.2	7.1	7.2
8	7.1	7.0	7.0	7.0	6.8	6.9	7.0	6.9	7.0	7.2	7.1	7.1
9	7.1	7.0	7.0	7.0	7.0	7.0	7.1	7.0	7.1	7.2	7.0	7.1
10	7.1	7.0	7.0	7.0	6.9	7.0	7.2	7.1	7.2	7.3	7.0	7.1
11	7.1	6.7	6.9	7.1	6.9	7.0	7.2	6.9	7.0	7.3	7.1	7.2
12	7.1	7.0	7.1	7.0	6.8	6.9	7.0	6.9	7.0	7.4	7.2	7.3
13	7.2	7.0	7.1	7.0	6.9	7.0	7.0	6.5	6.8	7.3	7.2	7.2
14	7.2	7.1	7.1	7.2	7.0	7.1	6.7	6.5	6.6	7.3	7.0	7.1
15	7.1	7.1	7.1	7.1	7.0	7.1	6.7	6.6	6.7	7.3	7.0	7.1
16	7.2	7.1	7.2	7.1	6.8	7.0	6.8	6.6	6.7	7.5	7.2	7.3
17	7.3	7.2	7.3	6.8	6.6	6.7	6.8	6.6	6.7	7.4	7.2	7.3
18	7.3	7.1	7.2	6.9	6.8	6.8	6.9	6.8	6.9	7.4	7.2	7.3
19	7.2	7.1	7.2	7.1	6.8	6.9	7.0	6.9	6.9	7.3	7.1	7.2
20	7.2	7.1	7.2	7.2	7.1	7.1	7.2	6.9	7.0	7.4	7.2	7.3
21	7.2	6.9	7.1	7.2	7.0	7.1	7.1	7.0	7.0	7.4	7.1	7.2
22	7.3	7.1	7.2	7.1	7.1	7.1	7.1	7.0	7.0	7.4	7.1	7.2
23	7.3	7.0	7.1	7.2	7.1	7.2	7.1	6.9	7.0	7.6	7.2	7.3
24	7.0	7.0	7.0	7.2	7.1	7.2	7.0	6.5	6.8	7.4	7.1	7.3
25	7.0	6.9	7.0	7.1	7.1	7.1	6.7	6.4	6.5	7.5	7.2	7.3
26	7.0	6.9	7.0	7.3	7.1	7.2	6.7	6.5	6.6	7.4	7.0	7.2
27	7.0	6.9	7.0	7.3	7.2	7.3	6.9	6.6	6.7	7.6	7.1	7.3
28	7.0	6.9	7.0	7.3	7.2	7.2	7.0	6.9	7.0	7.7	7.3	7.5
29	7.1	6.9	7.1	7.3	7.2	7.2	7.0	7.0	7.0	7.7	7.3	7.5
30	7.2	7.1	7.1	7.2	7.1	7.1	7.1	7.0	7.0	7.4	6.8	7.1
31	7.3	7.1	7.2	---	---	---	7.1	7.0	7.1	7.0	6.8	6.9
MONTH	7.3	6.7	7.1	7.3	6.6	7.0	7.3	6.4	6.9	7.7	6.8	7.2
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	7.2	7.0	7.1	6.9	6.7	6.8	7.2	7.0	7.1	7.1	7.0	7.1
2	7.3	7.1	7.2	6.9	6.7	6.8	7.3	7.0	7.1	7.2	7.1	7.1
3	7.3	7.1	7.2	6.8	6.7	6.8	7.4	7.0	7.2	7.2	7.1	7.1
4	7.2	7.0	7.1	6.9	6.7	6.9	7.6	7.1	7.3	7.2	7.1	7.1
5	7.3	7.0	7.1	7.2	6.9	7.1	7.4	7.1	7.2	7.2	7.1	7.2
6	7.2	6.9	7.1	7.1	6.6	6.8	7.9	7.0	7.3	7.2	6.4	6.7
7	6.9	6.6	6.7	6.9	6.7	6.8	7.2	6.8	6.9	6.7	6.4	6.6
8	6.8	6.6	6.7	6.9	6.8	6.8	7.1	6.8	6.9	6.8	6.7	6.8
9	6.9	6.7	6.8	6.9	6.8	6.8	7.0	6.4	6.6	6.9	6.8	6.8
10	7.0	6.7	6.8	7.0	6.8	6.9	6.8	6.4	6.6	6.8	6.8	6.8
11	7.1	7.0	7.0	7.1	6.8	6.9	6.6	6.5	6.6	6.9	6.8	6.8
12	7.2	7.0	7.1	7.2	6.9	7.1	6.6	6.5	6.6	6.9	6.8	6.8
13	7.3	7.1	7.2	7.2	7.0	7.1	6.6	6.5	6.5	6.9	6.8	6.8
14	7.3	7.1	7.2	7.3	7.0	7.1	6.9	6.5	6.7	7.0	6.8	6.9
15	7.5	7.2	7.3	7.2	7.0	7.1	7.0	6.8	6.9	7.0	6.8	7.0
16	7.3	7.1	7.2	7.1	6.6	6.7	7.1	6.9	6.9	7.0	6.8	6.8
17	7.2	7.1	7.2	7.0	6.8	6.9	7.1	6.9	7.0	7.0	6.8	6.9
18	7.3	7.1	7.2	7.1	6.9	7.0	7.1	6.6	6.9	7.1	7.0	7.0
19	7.3	7.1	7.2	7.2	7.0	7.1	6.7	6.3	6.5	7.2	7.0	7.1
20	7.3	7.0	7.2	7.1	6.5	6.7	6.6	6.5	6.6	7.2	7.0	7.1
21	7.2	7.0	7.1	6.9	6.6	6.8	6.6	6.6	6.6	7.0	7.0	7.0
22	7.1	6.6	6.9	7.0	6.8	7.0	6.6	6.6	6.6	7.0	6.4	6.8
23	6.8	6.6	6.7	7.1	7.0	7.1	7.1	6.6	6.9	6.7	6.4	6.6
24	6.9	6.8	6.8	7.2	7.0	7.1	7.1	7.0	7.1	6.8	6.7	6.7
25	6.8	6.7	6.8	7.2	7.0	7.1	7.1	7.0	7.0	6.8	6.5	6.7
26	7.0	6.8	6.9	7.3	7.1	7.2	7.0	6.6	6.9	6.6	6.5	6.6
27	7.0	6.6	6.9	7.4	7.1	7.2	6.8	6.7	6.8	6.7	6.6	6.6
28	6.8	6.6	6.7	7.6	7.2	7.3	7.0	6.7	6.9	6.8	6.7	6.8
29	---	---	---	7.8	7.2	7.4	7.1	7.0	7.0	6.9	6.8	6.8
30	---	---	---	7.2	7.0	7.1	7.1	7.0	7.0	6.9	6.9	6.9
31	---	---	---	7.2	7.0	7.1	---	---	---	7.0	6.9	6.9
MONTH	7.5	6.6	7.0	7.8	6.5	7.0	7.9	6.3	6.9	7.2	6.4	6.9

02124692 GOOSE CREEK AT FAIRVIEW, NC—Continued

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

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

PEE DEE RIVER BASIN

02124692 GOOSE CREEK AT FAIRVIEW, NC—Continued

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	21.6	20.0	20.7	12.4	11.7	12.1	6.6	5.2	5.9	11.8	8.3	10.3
2	21.8	19.9	20.9	11.7	10.3	10.7	5.2	3.7	4.6	10.9	10.0	10.2
3	22.2	20.5	21.3	10.6	9.9	10.3	6.1	4.8	5.4	10.6	9.3	10.1
4	22.5	20.6	21.6	11.3	10.5	10.9	5.5	3.8	4.6	9.3	6.4	7.5
5	23.2	21.2	22.2	11.9	11.0	11.3	5.0	2.5	3.9	6.5	4.9	5.8
6	22.0	20.4	21.2	13.2	11.8	12.6	6.1	5.0	5.4	6.2	5.0	5.7
7	21.6	19.5	20.5	12.2	10.2	10.7	5.6	4.1	4.9	5.0	3.6	4.2
8	20.5	17.6	19.0	10.4	8.9	9.7	5.2	3.7	4.6	5.7	3.7	4.6
9	18.2	17.2	17.7	11.4	9.4	10.4	5.7	4.6	5.2	8.0	5.4	6.7
10	18.7	17.1	17.9	14.5	11.2	12.7	5.5	4.7	5.1	8.9	7.5	8.4
11	20.0	18.1	19.1	17.0	14.5	16.0	6.4	5.0	5.8	7.5	4.8	6.1
12	20.2	19.4	19.8	16.7	15.1	16.2	7.6	6.4	7.0	4.8	3.1	3.7
13	20.4	19.7	19.9	15.1	12.5	14.1	7.5	6.5	7.0	3.7	2.5	3.1
14	19.8	17.2	18.6	12.5	10.3	11.1	8.0	7.1	7.5	4.1	2.3	3.2
15	17.2	14.8	15.8	11.5	9.4	10.4	7.2	5.5	6.3	3.9	2.8	3.4
16	16.4	14.8	15.5	13.2	11.5	12.3	7.1	5.2	6.2	3.3	2.0	2.6
17	16.1	14.7	15.2	13.2	11.9	12.8	7.0	5.9	6.4	3.4	2.1	2.7
18	14.9	13.5	14.0	11.9	9.7	10.4	7.1	6.2	6.7	2.1	0.8	1.4
19	13.6	12.2	13.1	9.7	8.0	9.0	8.5	7.1	7.7	1.4	0.1	0.8
20	14.3	13.3	13.8	10.1	8.4	9.3	11.4	8.5	10.4	3.1	0.7	1.9
21	15.7	14.3	15.0	11.1	9.9	10.5	9.8	7.2	8.0	4.3	2.5	3.5
22	15.0	14.6	14.8	10.8	8.9	10.3	7.9	6.3	7.1	4.7	3.5	4.1
23	14.9	14.4	14.6	8.9	7.4	8.2	7.9	6.6	7.3	3.8	0.8	2.5
24	14.6	14.2	14.5	8.6	6.5	7.5	7.6	6.5	7.2	1.0	0.0	0.4
25	14.6	14.2	14.4	9.0	6.6	7.7	8.3	6.9	7.6	1.2	0.0	0.6
26	14.9	13.9	14.4	8.7	7.1	7.9	6.9	5.4	6.0	1.8	0.4	1.1
27	15.8	14.8	15.3	8.3	7.0	7.8	5.6	3.8	4.8	1.4	0.5	1.0
28	16.5	15.6	15.8	7.0	5.4	6.1	5.1	3.5	4.4	2.1	0.2	1.1
29	15.9	14.2	15.0	5.7	3.7	4.7	6.5	4.4	5.4	3.9	1.6	2.8
30	14.2	13.3	13.5	7.0	5.5	6.3	6.5	5.1	6.0	5.6	3.9	4.9
31	13.3	12.4	12.8	---	---	---	8.3	5.9	6.9	5.5	4.7	5.1
MONTH	23.2	12.2	17.0	17.0	3.7	10.3	11.4	2.5	6.2	11.8	0.0	4.2
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	7.2	5.2	6.1	8.3	7.2	7.6	13.2	9.0	11.2	19.6	18.6	19.1
2	7.2	4.8	6.1	9.7	8.0	8.7	16.2	12.4	14.3	20.2	18.2	19.1
3	9.7	6.9	8.2	9.9	7.3	8.8	17.9	14.4	16.2	19.3	17.9	18.6
4	12.0	9.7	10.7	10.5	7.3	9.0	18.4	15.8	17.1	18.5	17.0	17.7
5	10.1	7.2	8.0	11.9	10.2	11.0	17.5	16.6	17.0	17.0	15.6	16.0
6	7.2	5.3	6.2	12.4	11.5	11.9	17.5	15.1	16.3	18.1	15.6	16.9
7	7.0	4.8	6.0	12.1	9.2	10.5	16.5	12.1	13.5	18.6	16.8	17.6
8	6.6	4.9	5.8	11.1	7.0	9.1	12.1	10.4	11.3	20.5	18.1	19.1
9	6.4	4.7	5.6	13.3	9.8	11.6	10.7	9.4	10.1	21.4	19.7	20.6
10	6.7	5.5	6.1	12.8	10.5	11.8	9.6	8.6	9.1	22.2	20.8	21.5
11	6.5	4.2	5.5	11.6	9.7	10.5	11.6	9.3	10.2	22.0	20.9	21.6
12	7.5	5.3	6.4	12.6	8.8	10.8	14.7	10.5	12.3	20.9	19.0	19.8
13	6.5	4.2	5.4	14.6	11.1	12.8	15.7	12.4	14.1	19.0	17.5	18.3
14	5.8	4.5	5.2	14.5	13.3	13.9	16.5	13.2	15.0	18.0	16.5	17.3
15	9.7	5.8	7.8	13.3	10.5	11.7	17.6	15.2	16.5	17.9	17.1	17.4
16	9.4	2.8	6.0	12.2	10.1	11.2	18.1	16.0	17.1	18.5	17.4	17.9
17	3.7	2.6	3.1	13.6	12.0	12.7	18.2	16.4	17.4	18.5	17.8	18.3
18	5.9	3.7	4.7	14.5	13.1	13.7	17.7	13.4	15.2	17.8	16.0	16.9
19	7.2	4.6	5.8	14.2	12.6	13.3	13.4	12.7	13.1	16.0	15.2	15.4
20	8.9	6.8	7.8	12.6	9.9	10.5	14.6	13.3	13.6	17.0	15.0	16.0
21	8.5	7.1	7.7	14.6	10.6	12.2	15.4	14.5	14.8	17.4	16.8	17.1
22	10.7	8.2	9.4	15.2	12.0	13.8	16.3	15.1	15.6	17.9	17.3	17.6
23	10.9	9.4	10.4	14.8	12.3	13.9	16.1	13.9	15.0	17.6	16.9	17.2
24	10.3	7.0	8.8	15.8	12.8	14.5	14.9	13.2	14.1	17.9	17.0	17.4
25	10.1	8.5	9.3	16.0	12.7	14.6	14.7	14.3	14.4	21.4	17.8	19.0
26	9.4	6.6	8.1	17.7	14.7	16.1	17.3	14.7	15.6	20.1	18.6	19.3
27	6.6	4.5	5.6	17.6	15.3	16.5	17.3	15.4	16.4	19.6	18.2	18.6
28	7.3	5.7	6.4	17.7	15.3	16.5	17.4	15.5	16.6	18.5	17.1	17.9
29	---	---	---	19.9	16.7	18.1	18.3	16.4	17.4	18.5	17.6	18.1
30	---	---	---	18.7	11.4	14.0	19.7	17.7	18.7	18.8	17.3	18.1
31	---	---	---	11.8	9.5	10.8	---	---	---	19.9	17.6	18.4
MONTH	12.0	2.6	6.9	19.9	7.0	12.3	19.7	8.6	14.6	22.2	15.0	18.2

02124692 GOOSE CREEK AT FAIRVIEW, NC—Continued

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	19.3	18.0	18.6	23.2	21.8	22.4	24.2	23.4	23.9	25.2	24.0	24.6
2	18.6	16.9	17.7	22.1	20.0	21.4	24.0	23.3	23.7	---	---	---
3	18.8	17.3	17.9	22.6	21.1	21.8	24.4	23.4	23.9	25.1	23.8	24.5
4	20.6	18.1	19.2	23.2	21.7	22.5	24.4	23.7	24.0	25.0	24.2	24.5
5	20.5	19.5	20.1	24.2	22.8	23.4	24.0	22.7	23.4	24.2	22.9	23.5
6	20.2	18.8	19.6	24.4	23.3	23.9	24.1	23.0	23.6	23.2	21.0	21.9
7	21.4	20.0	21.0	24.5	23.4	24.0	23.9	23.1	23.5	21.0	20.3	20.6
8	21.7	20.2	20.9	25.3	23.5	24.4	24.2	23.0	23.5	20.7	20.3	20.5
9	21.9	20.4	21.2	25.8	24.3	25.0	24.3	23.0	23.6	21.3	20.2	20.8
10	21.8	20.4	21.2	25.2	23.9	24.5	23.9	23.2	23.5	21.0	20.1	20.5
11	21.8	20.6	21.3	24.7	22.6	23.7	23.5	22.3	22.9	20.2	18.9	19.6
12	22.5	21.5	21.9	24.2	22.6	23.4	24.3	22.9	23.5	19.5	18.6	19.1
13	22.9	21.7	22.3	24.0	22.2	22.9	24.4	23.1	23.7	20.1	18.4	19.4
14	23.3	22.1	22.7	22.8	21.7	22.2	25.1	23.7	24.2	21.0	19.6	20.3
15	23.6	22.5	23.0	22.9	21.8	22.4	24.6	23.4	24.0	21.6	20.2	20.9
16	23.4	22.5	22.9	24.3	22.6	23.4	24.5	23.7	24.1	21.7	20.7	21.2
17	23.0	22.0	22.3	25.2	22.8	24.1	23.9	23.1	23.6	20.7	19.1	19.8
18	22.9	21.6	22.1	24.8	23.5	24.2	24.3	23.2	23.8	19.3	18.8	19.0
19	23.1	21.6	22.3	24.2	22.7	23.6	24.3	23.4	23.8	20.3	18.5	19.4
20	22.7	21.8	22.3	23.7	22.2	22.8	24.0	23.2	23.6	20.3	18.5	19.5
21	22.3	20.1	20.7	24.1	22.8	23.5	24.4	23.0	23.7	20.1	18.6	19.5
22	20.4	19.1	19.9	24.6	23.2	23.7	24.7	23.4	23.9	20.5	19.3	19.9
23	21.1	19.5	20.3	24.6	22.7	23.4	24.5	23.1	23.8	21.5	20.5	20.9
24	22.0	20.1	21.0	23.1	21.9	22.5	24.7	23.9	24.3	20.7	19.2	19.9
25	22.7	20.7	21.7	23.6	22.1	22.9	24.2	22.7	23.5	20.0	18.3	19.3
26	23.3	21.4	22.3	24.0	22.5	23.2	24.7	23.1	23.9	19.9	18.3	19.2
27	23.7	22.1	22.9	24.5	23.0	23.7	25.4	23.8	24.6	20.2	18.5	19.4
28	23.1	22.2	22.5	25.2	23.6	24.3	25.9	24.4	25.2	20.3	19.3	19.8
29	23.0	21.7	22.3	24.9	23.8	24.3	26.3	24.8	25.6	19.3	16.3	17.8
30	23.8	22.4	23.1	23.9	22.9	23.4	26.1	24.9	25.5	16.7	14.8	15.8
31	---	---	---	24.1	23.1	23.6	25.6	24.4	24.9	---	---	---
MONTH	23.8	16.9	21.2	25.8	20.0	23.4	26.3	22.3	24.0	---	---	---

02124692 GOOSE CREEK AT FAIRVIEW, NC—Continued

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	6.7	6.0	6.4	8.5	8.0	8.3	10.6	9.9	10.3	10.0	8.9	9.4
2	6.5	6.0	6.2	8.9	8.3	8.6	11.2	10.5	10.9	9.7	9.0	9.4
3	6.5	5.9	6.2	9.2	8.7	9.0	11.2	10.7	11.0	9.7	9.3	9.5
4	6.6	5.6	6.1	9.1	8.9	9.0	11.7	10.9	11.3	10.8	9.5	10.3
5	6.5	5.5	5.9	9.3	8.9	9.0	12.4	10.3	11.4	11.4	10.5	11.0
6	6.5	5.6	5.9	---	---	---	10.6	10.2	10.4	11.3	10.7	11.0
7	6.1	5.1	5.7	---	---	---	11.2	10.3	10.8	12.1	10.9	11.6
8	6.2	5.1	5.6	---	---	---	11.3	10.6	11.0	12.0	11.1	11.6
9	6.6	5.7	6.0	9.2	8.5	8.9	11.1	10.6	10.9	11.3	10.3	10.9
10	6.6	5.7	6.1	8.6	7.3	8.1	11.2	10.8	11.0	10.9	10.1	10.4
11	6.8	5.5	6.2	7.4	6.2	7.0	11.0	9.9	10.5	11.7	10.1	10.9
12	5.9	4.7	5.2	8.6	7.1	7.9	10.1	9.7	9.8	12.7	11.1	11.9
13	5.7	4.3	4.7	8.5	7.8	8.3	10.4	9.4	9.9	12.8	11.9	12.3
14	5.5	4.9	5.1	9.3	8.3	9.0	9.9	9.4	9.6	12.6	11.5	12.1
15	7.8	5.0	6.5	9.8	9.1	9.5	---	---	---	12.2	11.3	11.7
16	8.8	7.4	8.1	9.4	8.9	9.2	---	---	---	12.8	11.5	12.0
17	7.8	7.2	7.5	9.5	9.1	9.4	---	---	---	12.8	11.6	12.1
18	8.2	7.3	7.9	---	---	---	10.5	9.9	10.2	13.5	11.9	12.7
19	8.3	8.0	8.2	---	---	---	10.0	9.3	9.8	13.9	12.6	13.2
20	8.1	7.8	7.9	9.6	8.8	9.4	9.4	8.1	8.7	13.7	12.3	13.0
21	7.9	6.5	7.5	8.9	8.2	8.6	9.9	8.8	9.6	12.6	11.5	12.1
22	8.3	7.5	8.0	8.4	7.9	8.2	10.4	9.8	10.1	13.1	11.3	12.1
23	8.3	7.8	8.1	9.6	8.3	9.2	10.6	9.8	10.2	13.9	11.7	12.8
24	7.9	7.6	7.8	9.7	9.4	9.5	10.8	10.0	10.3	14.8	13.1	13.9
25	7.6	7.3	7.5	9.7	9.2	9.5	10.5	9.7	10.2	14.9	13.6	14.2
26	7.5	7.2	7.4	9.8	9.4	9.6	10.9	10.1	10.6	14.8	13.4	14.0
27	7.4	7.0	7.2	9.8	9.5	9.6	11.2	10.5	10.8	14.8	13.4	14.0
28	7.3	6.7	7.1	10.4	9.7	10.2	11.3	10.6	11.0	14.9	13.4	14.0
29	8.2	6.8	7.8	11.1	10.3	10.8	11.1	10.3	10.8	14.3	12.4	13.4
30	8.6	8.1	8.3	10.6	9.9	10.3	11.1	10.3	10.6	12.4	10.7	11.6
31	8.5	8.1	8.3	---	---	---	10.8	10.0	10.4	11.8	11.0	11.5
MONTH	8.8	4.3	6.9	---	---	---	---	---	---	14.9	8.9	12.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	11.3	10.3	10.9	10.6	9.8	10.2	10.3	8.7	9.5	7.1	6.6	6.8
2	11.2	10.0	10.6	10.3	9.3	9.9	9.8	8.1	8.9	6.8	6.2	6.6
3	11.3	9.7	10.4	10.3	9.2	9.8	9.8	7.8	8.6	6.8	5.9	6.4
4	10.3	9.3	9.8	10.1	8.9	9.6	10.0	7.5	8.5	7.1	6.7	6.9
5	11.9	9.6	10.7	9.5	8.6	9.0	9.4	7.4	8.2	7.7	7.0	7.4
6	12.5	10.9	11.6	8.9	8.4	8.6	10.7	7.8	8.9	8.0	6.2	7.3
7	12.1	10.1	11.1	9.5	8.4	9.0	9.4	8.0	8.8	7.8	7.3	7.6
8	11.0	10.1	10.4	10.4	9.0	9.7	9.8	8.7	8.9	7.4	6.7	7.2
9	10.9	10.0	10.4	9.8	8.7	9.2	10.9	9.7	10.3	6.9	6.3	6.7
10	11.0	9.8	10.4	---	---	---	11.1	10.3	10.7	6.7	6.1	6.4
11	11.5	10.2	10.8	---	---	---	10.7	9.7	10.3	6.5	6.0	6.2
12	11.3	10.1	10.6	10.2	8.7	9.4	10.1	8.7	9.6	6.9	6.1	6.5
13	11.7	10.2	10.9	9.9	8.3	9.0	9.3	8.4	8.9	7.3	6.7	7.0
14	11.6	10.5	11.0	9.8	8.0	8.8	9.4	8.2	8.9	7.6	6.9	7.3
15	11.1	9.5	10.4	9.9	8.3	9.2	8.9	7.7	8.3	7.5	7.1	7.3
16	12.0	9.2	10.4	10.2	8.9	9.5	8.4	7.2	7.9	7.8	6.7	7.2
17	12.0	11.5	11.8	9.2	8.4	8.8	8.0	6.9	7.4	6.9	6.6	6.7
18	11.8	10.7	11.4	8.9	8.2	8.6	8.6	6.7	7.4	7.7	6.7	7.2
19	11.8	10.2	11.1	8.8	8.2	8.4	---	---	---	8.1	7.4	7.8
20	11.3	10.1	10.6	9.3	8.4	9.0	---	---	---	8.0	7.6	7.9
21	11.4	9.9	10.6	9.2	8.3	8.8	---	---	---	7.7	7.4	7.5
22	10.5	9.1	9.8	9.2	8.3	8.7	---	---	---	8.1	7.2	7.7
23	9.8	9.0	9.3	---	---	---	---	---	---	8.2	7.5	8.0
24	10.5	9.3	10	---	---	---	9.0	8.1	8.6	8.2	7.8	8.0
25	10.5	9.2	9.9	9.7	8.2	8.9	8.5	8.2	8.3	8.3	7.3	7.8
26	10.5	9.4	10.0	9.6	8.0	8.7	8.4	7.7	8.2	8.1	7.5	7.8
27	11.7	10.4	11.1	9.9	7.9	8.7	8.1	7.6	7.9	7.9	7.5	7.7
28	11.3	10.6	11.1	10.4	8.1	9.0	8.2	7.4	7.8	8.0	7.4	7.7
29	---	---	---	10.6	7.9	8.9	7.8	7.1	7.4	7.7	7.3	7.5
30	---	---	---	10.1	7.7	8.8	7.3	6.8	7.1	7.6	7.2	7.4
31	---	---	---	9.8	9.0	9.5	---	---	---	7.4	6.7	7.2
MONTH	12.5	9.0	10.6	---	---	---	---	---	---	8.3	5.9	7.2

02124692 GOOSE CREEK AT FAIRVIEW, NC—Continued

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

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	7.3	6.8	7.1	5.4	4.9	5.2	5.8	5.2	5.5	6.4	5.8	6.1
2	7.4	6.8	7.2	7.2	5.2	6.1	6.6	5.4	6.0	---	---	---
3	7.2	6.6	7.0	5.9	4.8	5.4	6.6	5.7	6.1	6.5	5.9	6.1
4	7.0	6.2	6.7	5.8	4.8	5.1	6.9	6.2	6.6	6.5	5.8	6.1
5	6.9	6.2	6.4	6.1	5.4	5.8	6.8	6.2	6.4	6.8	5.9	6.3
6	6.9	6.3	6.5	6.3	5.8	6.0	6.7	6.1	6.5	7.0	6.2	6.6
7	7.0	6.3	6.6	6.7	6.2	6.4	6.4	6.0	6.2	7.2	6.6	6.9
8	7.4	6.7	7.0	6.7	6.2	6.4	6.2	5.8	6.0	7.2	6.6	6.9
9	7.0	6.2	6.7	6.7	6.1	6.3	5.9	5.5	5.8	7.4	6.7	7.0
10	6.6	6.2	6.4	6.7	6.0	6.3	5.8	5.4	5.6	7.4	6.7	6.9
11	6.7	6.3	6.5	6.6	5.9	6.3	6.6	5.8	6.2	7.5	6.6	7.0
12	6.6	6.3	6.4	6.2	5.1	5.8	6.5	5.9	6.2	7.6	6.7	7.0
13	6.6	6.1	6.4	---	---	---	6.4	5.7	6.1	7.4	6.6	6.9
14	6.5	6.1	6.3	---	---	---	7.2	5.5	5.9	7.0	6.2	6.5
15	6.6	6.2	6.4	---	---	---	7.4	6.5	7.0	7.0	6.1	6.4
16	7.0	6.0	6.3	6.1	5.7	5.9	7.3	6.5	6.8	6.9	5.6	6.1
17	7.1	6.6	6.9	6.9	5.7	6.3	7.2	6.4	6.8	6.2	5.5	5.8
18	7.2	6.3	6.9	6.8	6.3	6.6	6.6	6.2	6.5	6.0	5.4	5.7
19	7.3	6.3	7.0	6.5	5.8	6.3	6.4	6.0	6.2	5.8	5.4	5.6
20	7.1	6.7	7.0	6.0	5.4	5.8	6.6	6.0	6.3	6.0	5.5	5.7
21	7.2	6.7	7.0	6.7	5.8	6.3	6.8	6.4	6.6	6.4	5.7	6.0
22	7.3	6.9	7.1	6.6	6.0	6.4	7.1	6.4	6.7	6.5	6.0	6.2
23	7.2	6.8	7.0	6.6	5.8	6.3	6.9	6.4	6.6	6.5	5.8	6.1
24	7.0	6.5	6.8	6.8	6.2	6.6	6.6	6.2	6.4	5.8	5.3	5.6
25	6.9	6.1	6.5	6.6	5.8	6.3	6.8	6.2	6.4	5.7	5.2	5.4
26	6.5	6.0	6.3	6.3	5.7	6.0	6.8	6.2	6.4	5.6	5.1	5.3
27	6.3	5.8	6.0	6.2	5.8	6.0	6.7	6.0	6.3	5.5	5.1	5.3
28	6.2	5.8	6.0	6.2	5.8	6.0	6.5	5.7	6.1	5.6	4.9	5.2
29	6.3	5.6	6.0	6.4	5.8	6.1	6.0	5.5	5.7	6.3	5.2	5.7
30	5.7	5.0	5.5	6.7	5.8	6.4	6.0	5.5	5.7	7.0	6.2	6.6
31	---	---	---	6.9	5.6	6.3	6.6	5.7	6.2	---	---	---
MONTH	7.4	5.0	6.6	---	---	---	7.4	5.2	6.3	---	---	---

02124692 GOOSE CREEK AT FAIRVIEW, NC—Continued

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	77	69	73	81	76	79	87	81	84	89	83	86
2	74	69	71	81	77	79	90	83	86	88	82	85
3	76	68	71	84	79	82	92	85	88	89	84	86
4	77	65	71	85	82	83	91	87	89	92	83	87
5	77	64	69	88	82	84	94	82	88	94	87	90
6	75	64	68	---	---	---	87	82	84	92	86	89
7	70	58	64	---	---	---	89	82	86	95	87	91
8	68	58	62	---	---	---	90	84	86	96	88	91
9	71	61	64	84	79	81	90	85	87	96	88	91
10	72	61	65	81	73	78	90	86	88	96	86	90
11	76	60	68	78	65	72	89	82	85	97	84	89
12	66	53	59	88	74	82	85	80	83	99	86	92
13	64	48	52	86	77	82	87	80	83	98	90	93
14	61	53	55	86	79	83	84	80	82	98	88	92
15	79	53	67	90	83	87	---	---	---	95	85	90
16	90	77	83	91	86	88	---	---	---	97	85	90
17	79	74	77	92	88	90	---	---	---	98	86	91
18	81	73	78	---	---	---	88	83	85	99	87	92
19	81	78	79	---	---	---	85	81	83	101	89	94
20	79	77	78	85	80	83	82	74	80	104	90	96
21	79	66	76	81	75	79	85	79	83	97	90	93
22	83	76	81	76	72	74	89	83	85	104	87	94
23	83	79	82	84	72	80	91	83	86	105	90	96
24	79	76	78	83	79	81	90	85	87	106	92	98
25	76	73	75	83	79	81	89	83	87	107	95	101
26	76	72	74	85	80	82	90	84	87	109	96	101
27	76	72	74	85	81	83	88	84	86	107	96	100
28	76	69	73	86	81	84	90	83	86	110	94	101
29	82	70	79	88	82	86	90	84	87	110	94	101
30	84	80	81	88	82	85	91	84	87	96	86	93
31	82	78	80	---	---	---	91	84	87	94	89	92
MONTH	90	48	72	---	---	---	---	---	---	110	82	93
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	94	85	90	90	84	87	97	82	88	79	72	75
2	93	84	87	89	83	87	101	81	89	76	68	72
3	100	81	89	91	82	86	105	79	89	74	64	70
4	97	85	90	91	80	84	108	78	90	76	73	74
5	103	84	92	89	80	83	100	78	87	79	74	77
6	103	89	96	85	79	82	114	79	93	83	65	77
7	97	84	91	86	79	83	90	79	86	83	78	81
8	89	82	85	91	82	86	89	81	83	81	76	79
9	90	81	84	93	82	86	98	87	93	79	73	76
10	91	80	85	---	---	---	99	92	95	78	71	74
11	95	82	88	---	---	---	96	91	93	75	70	72
12	96	82	88	97	79	87	93	87	91	76	70	73
13	97	81	88	98	79	87	92	86	89	79	74	76
14	94	83	88	98	79	87	96	85	90	82	74	78
15	98	83	89	92	79	86	94	82	87	80	76	78
16	90	79	85	92	85	88	91	77	83	83	73	77
17	92	87	90	88	82	85	87	74	79	75	72	73
18	95	87	90	89	81	85	85	67	75	80	72	76
19	98	86	90	86	80	82	---	---	---	82	76	80
20	99	84	90	84	79	82	---	---	---	83	80	81
21	98	85	91	87	82	84	---	---	---	82	78	80
22	91	83	87	91	82	86	---	---	---	87	76	82
23	90	82	85	---	---	---	---	---	---	87	80	85
24	93	84	87	---	---	---	90	81	85	88	84	86
25	94	83	88	100	82	89	85	82	83	89	82	86
26	89	83	86	102	83	90	88	82	84	89	83	87
27	93	86	90	106	82	91	85	80	82	86	81	84
28	94	90	92	110	83	94	85	79	82	85	80	83
29	---	---	---	118	84	96	84	76	79	84	79	81
30	---	---	---	96	81	87	81	74	77	83	78	80
31	---	---	---	91	83	87	---	---	---	80	74	78
MONTH	103	79	89	---	---	---	---	---	---	89	64	78

02124692 GOOSE CREEK AT FAIRVIEW, NC—Continued

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

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

02124742 ROCKY RIVER NEAR STANFIELD, NC

LOCATION.--Lat 35°10'10", long 80°28'23", Union County, Hydrologic Unit 03040105, on right bank at bridge on Secondary Road 1606, 1.3 mi upstream from Crooked Creek, and 5.0 mi southwest of Stanfield

DRAINAGE AREA.--628 mi².

PERIOD OF RECORD.--April 2000 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 440 ft above NGVD of 1929 (from topographic map). Satellite telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges and those above 1,000 ft³/s, which are poor due to variable backwater. WSACC Rocky River waste water treatment plant discharged an average of 26.2 ft³/s during the current water year as treated effluent 16.5 mi upstream from station. Minimum discharge for period of record and current water year affected by regulation.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	72	231	200	416	808	1,260	1,150	518	4,270	1,400	683	428
2	65	186	191	433	513	2,760	779	511	1,130	6,120	404	356
3	64	162	190	411	413	1,360	640	543	799	3,680	329	250
4	57	145	193	481	387	718	557	3,930	2,900	1,020	515	219
5	58	149	2,520	382	492	611	511	2,380	2,410	538	1,840	320
6	57	1,620	3,030	337	356	7,030	536	6,220	1,130	402	1,450	483
7	50	815	1,410	312	1,670	6,600	4,860	5,340	7,560	330	607	291
8	55	380	818	298	1,020	1,390	7,230	2,110	14,000	358	1,800	247
9	54	269	591	292	547	839	9,530	1,070	9,840	336	1,520	230
10	54	221	474	277	534	653	16,500	763	2,250	234	808	210
11	1,780	260	1,330	258	537	542	22,000	614	1,020	388	1,170	194
12	1,530	2,390	1,380	244	423	483	12,900	531	713	623	1,340	180
13	1,150	3,490	3,290	233	363	451	1,830	469	912	1,450	693	180
14	1,750	976	5,350	e225	331	571	1,120	407	588	2,000	632	170
15	425	501	1,600	e216	368	483	859	363	506	1,090	1,790	163
16	2,560	740	759	e211	449	5,730	725	471	1,000	967	740	220
17	1,360	4,840	565	e210	503	4,760	636	458	6,320	1,770	631	196
18	421	2,160	460	e210	632	1,400	1,930	393	3,680	932	1,060	305
19	250	828	406	e209	1,180	1,030	7,810	512	8,850	3,650	538	151
20	186	557	758	e208	743	14,400	3,720	480	3,280	1,770	367	150
21	159	451	904	e207	579	18,900	1,530	403	1,140	582	329	134
22	360	390	522	e207	3,580	8,790	1,130	7,560	754	615	305	132
23	357	330	421	e207	6,740	1,410	863	18,100	605	888	398	645
24	218	289	2,400	e206	1,800	920	688	12,300	607	755	386	1,230
25	173	268	7,060	e215	704	721	627	6,820	418	539	350	520
26	159	255	3,460	230	547	617	1,080	10,700	376	369	261	337
27	165	243	1,060	223	2,660	557	2,000	5,380	347	346	237	267
28	155	231	691	208	4,050	509	943	2,260	435	294	215	281
29	634	212	549	210	---	469	681	1,160	382	249	221	277
30	491	204	464	844	---	2,510	585	1,450	351	918	225	209
31	325	---	410	2,460	---	3,670	---	1,240	---	588	229	---
TOTAL	15,194	23,793	43,456	11,080	32,929	92,144	105,950	95,456	78,573	35,201	22,073	8,975
MEAN	490	793	1,402	357	1,176	2,972	3,532	3,079	2,619	1,136	712	299
MAX	2,560	4,840	7,060	2,460	6,740	18,900	22,000	18,100	14,000	6,120	1,840	1,230
MIN	50	145	190	206	331	451	511	363	347	234	215	132
CFSM	0.78	1.26	2.23	0.57	1.87	4.73	5.62	4.90	4.17	1.81	1.13	0.48
IN.	0.90	1.41	2.57	0.66	1.95	5.46	6.28	5.65	4.65	2.09	1.31	0.53

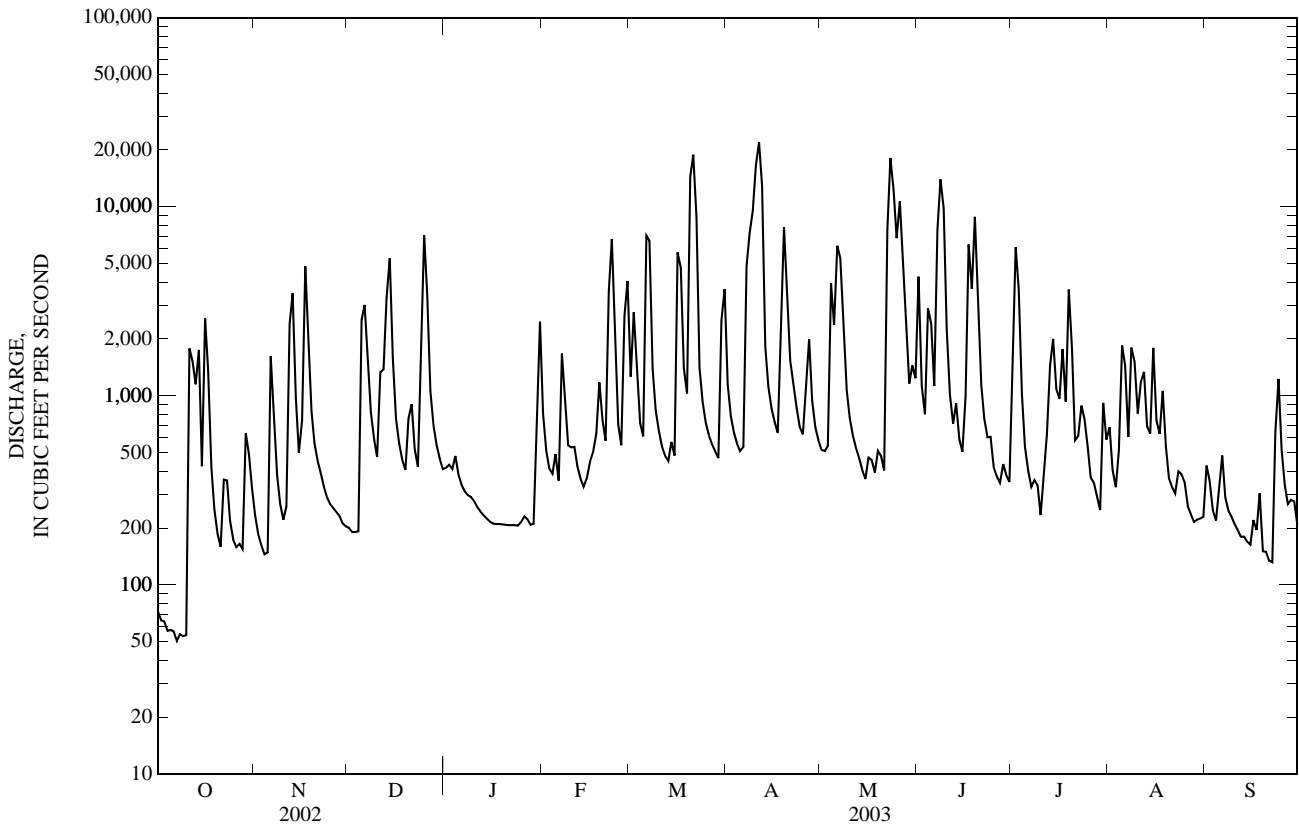
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2003, BY WATER YEAR (WY)

MEAN	213	331	545	369	584	1,444	1,145	886	760	374	263	230
MAX	490	793	1,402	601	1,176	2,972	3,532	3,079	2,619	1,136	712	314
(WY)	(2003)	(2003)	(2003)	(2002)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2000)
MIN	70.6	79.6	112	150	226	599	246	133	78.8	96.4	93.6	147
(WY)	(2001)	(2002)	(2001)	(2001)	(2001)	(2002)	(2001)	(2001)	(2002)	(2002)	(2002)	(2002)

02124742 ROCKY RIVER NEAR STANFIELD, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 2000 - 2003	
ANNUAL TOTAL	155,675		564,824		660	
ANNUAL MEAN	427		1,547		1,547	
HIGHEST ANNUAL MEAN					2003	
LOWEST ANNUAL MEAN					2001	
HIGHEST DAILY MEAN	7,060	Dec 25	22,000	Apr 11	22,000	Apr 11, 2003
LOWEST DAILY MEAN	36	Aug 12	50	Oct 7	35	Sep 18, 2000
ANNUAL SEVEN-DAY MINIMUM	40	Aug 7	55	Oct 4	40	Aug 7, 2002
MAXIMUM PEAK FLOW			23,200*	Apr 11	23,200*	Apr 11, 2003
MAXIMUM PEAK STAGE			14.50	Apr 11	14.50	Apr 11, 2003
INSTANTANEOUS LOW FLOW			44*	Oct 7	29*	Aug 12, 2002
ANNUAL RUNOFF (CFSM)	0.68		2.46		1.05	
ANNUAL RUNOFF (INCHES)	9.22		33.46		14.27	
10 PERCENT EXCEEDS	928		3,700		1,200	
50 PERCENT EXCEEDS	176		547		184	
90 PERCENT EXCEEDS	50		207		63	

e Estimated.
 * See REMARKS.



02125000 BIG BEAR CREEK NEAR RICHFIELD, NC

LOCATION.--Lat 35°20'05", long 80°20'08", Stanly County, Hydrologic Unit 03040105, on left bank 300 ft downstream of Little Creek, 400 ft upstream from bridge on Secondary Road 1134, and 10 mi southwest of Richfield.

DRAINAGE AREA.--55.6 mi².

PERIOD OF RECORD.--May 1954 to current year.

REVISED RECORDS.--WSP 1503: 1955, 1956(M). WDR NC-80-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 426.62 ft above NGVD of 1929. Satellite telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. No flow occurs several days in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of August 1921 reached a stage of about 19 ft, information from State Highway Commission.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.7	44	23	132	99	216	104	36	311	215	62	11
2	3.9	35	21	114	78	419	69	31	102	1,630	29	9.3
3	3.4	30	21	95	73	200	53	30	108	226	20	6.7
4	2.9	28	21	76	68	131	45	87	168	78	57	5.7
5	2.5	30	541	61	72	119	41	48	87	44	84	11
6	2.1	356	255	53	52	1,700	39	405	53	31	144	8.8
7	1.7	123	178	46	279	316	536	246	2,610	24	40	6.3
8	1.5	69	109	43	144	168	277	116	752	20	104	5.6
9	1.5	51	78	41	90	122	1,800	67	287	17	56	5.2
10	1.6	43	61	37	102	89	4,040	46	111	14	26	5.5
11	1,290	59	195	33	86	71	768	36	66	13	21	4.5
12	141	540	136	30	65	61	240	31	49	13	17	3.8
13	904	274	877	29	52	61	139	25	43	20	20	3.5
14	218	119	325	28	47	131	95	22	33	159	43	3.1
15	162	79	146	27	56	84	74	21	31	32	81	2.9
16	758	627	100	25	55	953	60	23	907	20	242	2.6
17	182	961	73	28	62	266	49	21	403	15	87	2.1
18	92	245	58	26	148	184	160	23	1,410	280	46	2.0
19	61	133	52	24	192	135	520	43	715	1,100	25	2.3
20	47	93	140	24	142	3,740	181	30	244	84	18	1.9
21	49	74	101	25	106	388	113	41	79	43	15	1.7
22	168	60	70	24	817	188	89	2,240	44	44	13	1.8
23	98	48	56	23	347	120	62	580	30	33	12	7.4
24	62	41	684	e23	153	90	49	207	21	28	18	8.6
25	48	37	737	e22	104	71	50	1,650	17	19	15	5.1
26	42	33	204	22	86	58	133	342	14	15	11	3.8
27	36	31	123	22	621	48	110	213	12	14	8.6	3.2
28	64	28	91	20	398	43	59	109	11	12	7.3	7.4
29	119	26	74	20	---	40	42	100	11	51	6.4	6.2
30	92	26	61	101	---	262	42	169	166	65	5.8	4.0
31	62	---	53	193	---	191	---	388	---	20	7.3	---
TOTAL	4,720.8	4,343	5,664	1,467	4,594	10,665	10,039	7,426	8,895	4,379	1,341.4	153.0
MEAN	152	145	183	47.3	164	344	335	240	296	141	43.3	5.10
MAX	1,290	961	877	193	817	3,740	4,040	2,240	2,610	1,630	242	11
MIN	1.5	26	21	20	47	40	39	21	11	12	5.8	1.7
CFSM	2.74	2.60	3.29	0.85	2.95	6.19	6.02	4.31	5.33	2.54	0.78	0.09
IN.	3.16	2.91	3.79	0.98	3.07	7.14	6.72	4.97	5.95	2.93	0.90	0.10

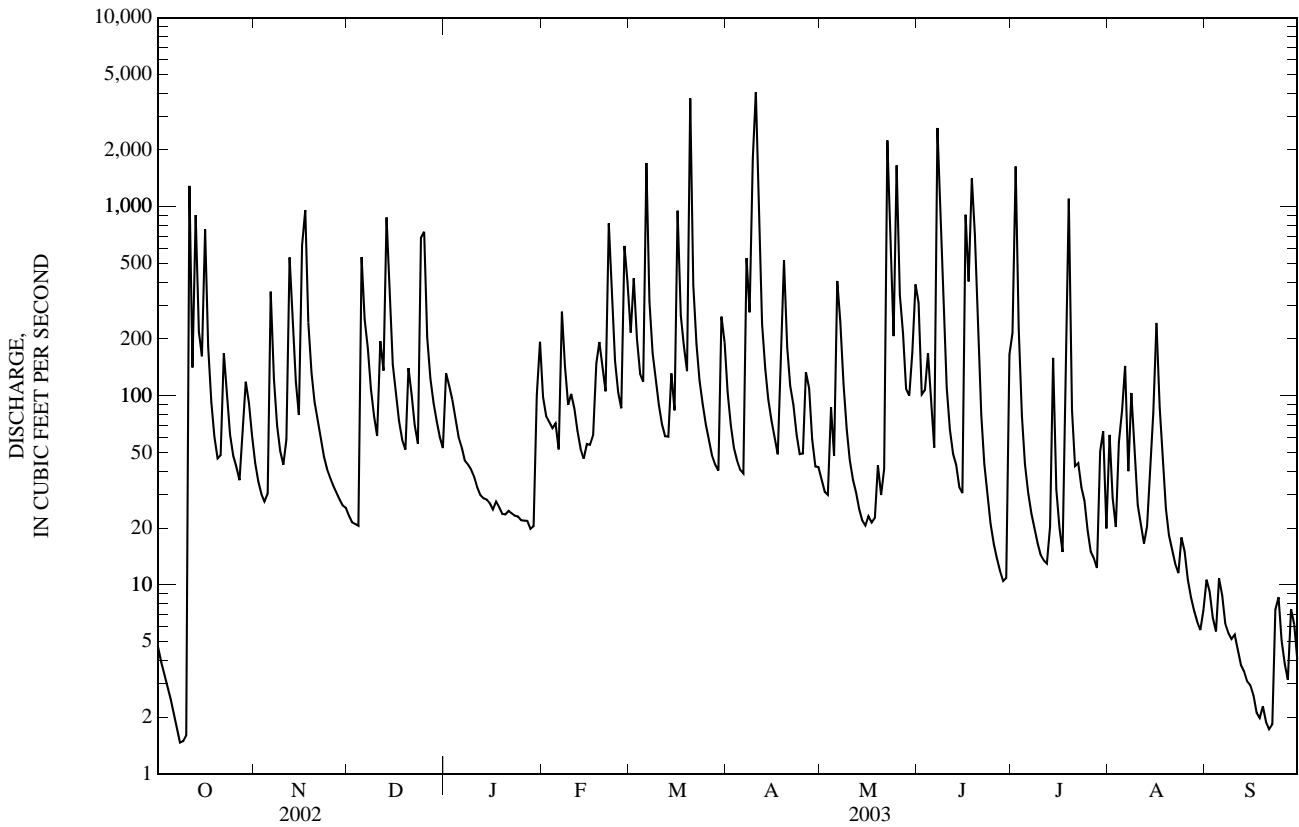
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 2003, BY WATER YEAR (WY)

	MEAN	MAX	MIN	CFSM	IN.
(WY)	42.4	355	0.006	2.74	3.16
(WY)	33.0	212	0.34	2.60	2.91
(WY)	56.4	186	2.12	3.29	3.79
(WY)	108	357	4.38	0.85	0.98
(WY)	131	284	16.2	2.95	3.07
(WY)	125	345	13.2	6.19	7.14
(WY)	76.3	335	6.87	6.02	6.72
(WY)	39.9	240	1.32	4.31	4.97
(WY)	32.8	296	0.24	5.33	5.95
(WY)	32.8	220	0.006	2.54	2.93
(WY)	23.9	223	0.002	0.78	0.90
(WY)	19.6	125	0.000	0.09	0.10

02125000 BIG BEAR CREEK NEAR RICHFIELD, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1954 - 2003	
ANNUAL TOTAL	21,722.94		63,687.2		59.9	
ANNUAL MEAN	59.5		174		174	
HIGHEST ANNUAL MEAN					18.2	2003
LOWEST ANNUAL MEAN					18.2	2001
HIGHEST DAILY MEAN	1,290	Oct 11	4,040	Apr 10	5,240	Oct 11, 1990
LOWEST DAILY MEAN	0.00	Jun 21	1.5	Oct 8	0.00	Sep 12, 1954
ANNUAL SEVEN-DAY MINIMUM	0.00	Jul 5	2.0	Oct 4	0.00	Sep 12, 1954
MAXIMUM PEAK FLOW			7,670	Mar 20	11,400	Jul 23, 1997
MAXIMUM PEAK STAGE			13.42	Mar 20	16.54	Jul 23, 1997
INSTANTANEOUS LOW FLOW			1.2	Oct 8	0.00*	Sep 12, 1954
ANNUAL RUNOFF (CFSM)	1.07		3.14		1.08	
ANNUAL RUNOFF (INCHES)	14.53		42.61		14.64	
10 PERCENT EXCEEDS	134		369		121	
50 PERCENT EXCEEDS	11		57		12	
90 PERCENT EXCEEDS	0.00		7.3		0.40	

e Estimated.
 * See REMARKS.



02126000 ROCKY RIVER NEAR NORWOOD, NC

LOCATION.--Lat 35°08'56", long 80°10'33", Stanly County, Hydrologic Unit 03040105, on left bank 1,000 ft downstream of Lanes Creek, 1.5 mi upstream from bridge on Secondary Road 1935, 6 mi southwest of Norwood, and 11.2 mi upstream from mouth.

DRAINAGE AREA.--1,372 mi².

PERIOD OF RECORD.--October 1929 to current year.

REVISED RECORDS.--WSP 852: 1937. WSP 1052: 1936(M). WSP 1503: 1935, 1945. WDR NC-80-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 212.91 ft above NGVD of 1929 (levels by U.S. Army Corps of Engineers). Satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Maximum gage height for period of record, from floodmark.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in August 1908 reached a stage of 35 ft, from information by local residents; discharge, 67,600 ft³/s.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	150	670	391	e990	2,440	4,700	2,490	1,050	6,440	2,300	1,480	911
2	127	494	366	e1,000	1,410	7,990	1,560	1,100	2,250	12,600	2,230	678
3	116	402	349	e990	1,060	4,630	1,230	961	1,410	9,140	1,180	441
4	108	351	349	e1,080	921	2,390	1,050	3,240	3,590	2,340	1,120	358
5	102	330	3,450	e900	1,240	1,850	936	3,690	3,540	1,270	6,170	320
6	95	3,030	6,820	e800	957	18,100	901	11,100	1,780	938	4,470	554
7	90	2,630	2,990	e740	5,370	16,700	4,680	11,400	9,860	779	1,580	453
8	91	1,110	1,790	e669	4,150	4,200	10,700	4,190	22,500	715	2,120	373
9	93	759	1,250	632	1,830	2,410	23,400	2,080	12,800	678	2,850	323
10	96	585	985	594	1,640	1,790	39,000	1,380	4,560	590	2,520	291
11	4,150	605	1,670	546	2,110	1,430	46,100	1,070	1,970	585	2,170	269
12	5,140	5,520	3,210	502	1,380	1,220	21,200	885	1,410	2,180	1,930	242
13	2,880	9,090	8,290	468	1,060	1,110	4,680	757	1,370	3,690	1,100	225
14	4,170	2,890	14,500	e456	887	1,430	2,650	653	1,060	5,190	963	221
15	1,320	1,470	3,770	e450	876	1,320	2,050	584	875	2,290	5,720	207
16	5,830	1,230	1,940	e440	1,140	10,000	1,700	853	2,480	1,650	4,770	200
17	3,920	10,400	1,390	e430	3,840	9,430	1,480	980	16,200	1,800	5,210	246
18	1,300	6,470	1,110	e420	2,900	3,980	1,730	702	6,600	1,630	1,890	249
19	754	2,420	943	e415	3,690	2,940	11,400	798	18,100	6,910	1,360	714
20	554	1,480	1,240	e410	2,400	32,200	6,800	839	6,910	3,720	773	295
21	457	1,130	2,280	e406	1,770	37,400	3,090	685	2,460	1,580	632	e233
22	602	942	1,330	e401	6,860	13,600	2,360	9,210	1,450	973	544	212
23	886	781	1,010	e400	15,000	3,090	1,880	24,800	1,090	1,190	529	1,150
24	594	659	3,730	e401	4,550	2,040	1,480	15,800	993	1,390	893	1,700
25	457	588	16,800	e403	2,130	1,560	1,300	12,300	766	1,010	712	936
26	400	542	8,260	406	1,570	1,320	1,490	14,500	650	761	515	660
27	367	501	2,750	427	6,740	1,190	2,830	7,210	581	651	414	535
28	356	468	e1,650	409	14,900	1,050	1,850	4,010	551	598	359	423
29	884	428	e1,300	397	---	951	1,320	1,970	631	529	325	400
30	1,360	401	e1,090	655	---	2,840	1,120	1,930	697	1,390	318	332
31	965	---	e960	5,890	---	6,310	---	2,070	---	1,780	671	---
TOTAL	38,414	58,376	97,963	23,127	94,821	201,171	204,457	142,797	135,574	72,847	57,518	14,151
MEAN	1,239	1,946	3,160	746	3,386	6,489	6,815	4,606	4,519	2,350	1,855	472
MAX	5,830	10,400	16,800	5,890	15,000	37,400	46,100	24,800	22,500	12,600	6,170	1,700
MIN	90	330	349	397	876	951	901	584	551	529	318	200
CFSM	0.90	1.42	2.30	0.54	2.47	4.73	4.97	3.36	3.29	1.71	1.35	0.34
IN.	1.04	1.58	2.66	0.63	2.57	5.45	5.54	3.87	3.68	1.98	1.56	0.38

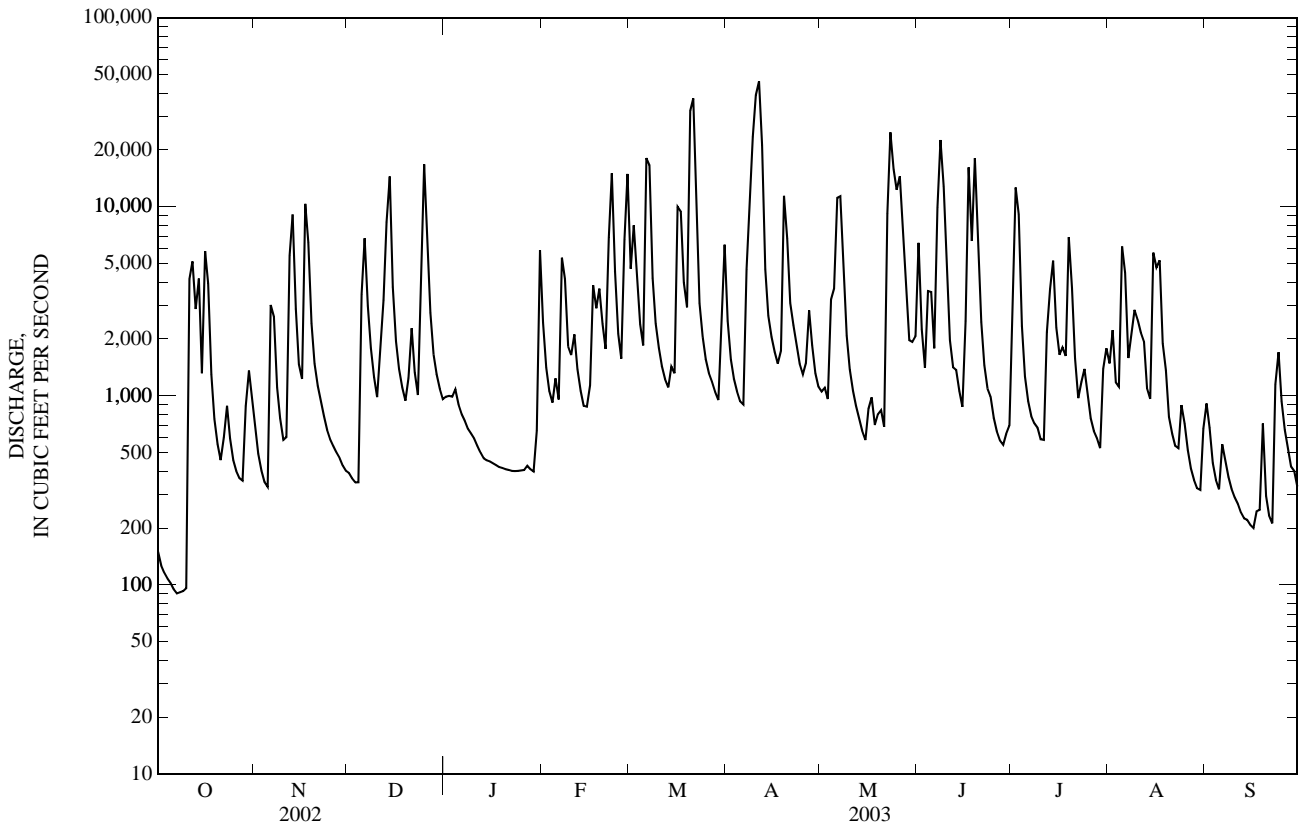
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 2003, BY WATER YEAR (WY)

MEAN	889	791	1,286	2,433	2,739	2,741	1,783	860	715	773	740	663
MAX	6,837	4,763	4,564	7,458	7,922	7,674	7,097	4,606	4,519	3,479	2,917	8,262
(WY)	(1991)	(1949)	(1933)	(1998)	(1960)	(1993)	(1936)	(2003)	(2003)	(1997)	(1967)	(1945)
MIN	45.9	54.1	105	152	321	412	234	140	88.5	95.6	82.4	41.0
(WY)	(1931)	(1942)	(1934)	(1934)	(1938)	(1981)	(1967)	(2002)	(1986)	(1986)	(1957)	(1954)

02126000 ROCKY RIVER NEAR NORWOOD, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1930 - 2003	
ANNUAL TOTAL	331,748		1,141,216			
ANNUAL MEAN	909		3,127		1,362	
HIGHEST ANNUAL MEAN					3,127	2003
LOWEST ANNUAL MEAN					406	2002
HIGHEST DAILY MEAN	16,800	Dec 25	46,100	Apr 11	85,600	Sep 18, 1945
LOWEST DAILY MEAN	72	May 29	90	Oct 7	19	Oct 28, 1931
ANNUAL SEVEN-DAY MINIMUM	74	Jun 19	96	Oct 4	26	Oct 7, 1954
MAXIMUM PEAK FLOW			54,500	Apr 10	105,000	Sep 18, 1945
MAXIMUM PEAK STAGE			30.03	Apr 10	46.37*	Sep 18, 1945
INSTANTANEOUS LOW FLOW			83	Oct 7	17	Oct 8, 1954
ANNUAL RUNOFF (CFSM)	0.66		2.28		0.99	
ANNUAL RUNOFF (INCHES)	8.99		30.94		13.48	
10 PERCENT EXCEEDS	2,400		7,520		2,970	
50 PERCENT EXCEEDS	281		1,240		402	
90 PERCENT EXCEEDS	93		371		105	

e Estimated.
 * See REMARKS.



02128000 LITTLE RIVER NEAR STAR, NC

LOCATION.--Lat 35°23'14", long 79°49'53", Montgomery County, Hydrologic Unit 03040104, on left bank 9 ft downstream from bridge on Secondary Road 1340, 50 ft upstream from Black Rock Branch, 0.2 mi upstream from Norfolk Southern Railway bridge, 0.3 mi downstream from West Fork Little River, and 3 mi west of Star.

DRAINAGE AREA.--106 mi².

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1949-54. April 1954 to current year.

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

GAGE.--Water-stage recorder. Datum of gage is 409.00 ft above NGVD of 1929. Satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are poor. No flow also occurred Aug. 13-15, 25-26, 2002.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in September 1945 reached a stage of about 20 ft, from information by local resident.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.82	41	29	576	123	332	162	97	239	97	164	146
2	0.72	29	28	435	83	506	126	135	125	795	503	111
3	0.59	22	27	180	68	302	111	94	120	485	149	86
4	0.51	19	27	145	65	185	102	137	218	164	142	84
5	0.53	18	421	107	129	151	96	122	145	117	788	265
6	0.46	151	380	89	81	1,760	99	379	111	99	1,540	111
7	0.38	140	289	78	361	556	485	292	150	90	270	86
8	0.44	59	148	72	243	231	562	158	411	85	467	80
9	0.51	40	107	70	121	165	1,710	114	376	81	506	76
10	1.5	30	85	65	113	134	e3,900	97	194	133	5,510	73
11	3,070	28	98	60	142	114	e2,400	87	128	95	1,330	69
12	2,060	184	187	55	101	103	452	81	120	94	275	66
13	117	458	595	53	80	100	256	73	126	88	332	65
14	61	130	778	53	71	185	186	68	107	90	253	65
15	42	73	198	52	72	145	156	67	98	85	398	64
16	363	77	115	50	78	396	141	69	96	78	175	62
17	218	971	87	51	88	277	128	68	123	72	152	57
18	74	493	72	50	93	169	123	72	158	79	290	152
19	43	154	65	e50	225	147	184	348	666	228	166	1,310
20	30	93	109	e49	211	3,670	161	154	313	115	130	191
21	23	71	153	49	156	1,500	128	100	160	83	117	119
22	40	60	90	47	796	314	121	936	122	73	108	100
23	56	50	71	47	868	200	112	1,060	105	75	133	1,350
24	41	43	257	e47	230	153	99	361	95	80	109	300
25	28	39	990	e46	141	129	97	1,380	89	84	114	138
26	23	37	342	e46	114	116	107	573	85	68	95	103
27	20	36	149	e45	343	107	109	232	81	65	88	89
28	18	33	106	e45	868	101	98	163	101	65	83	83
29	46	31	88	44	---	101	89	137	113	72	78	76
30	85	31	76	59	---	273	85	140	88	202	74	69
31	64	---	70	227	---	380	---	149	---	117	147	---
TOTAL	6,528.46	3,641	6,237	3,042	6,064	13,002	12,585	7,943	5,063	4,154	14,686	5,646
MEAN	211	121	201	98.1	217	419	420	256	169	134	474	188
MAX	3,070	971	990	576	868	3,670	3,900	1,380	666	795	5,510	1,350
MIN	0.38	18	27	44	65	100	85	67	81	65	74	57
CFSM	1.99	1.14	1.90	0.93	2.04	3.96	3.96	2.42	1.59	1.26	4.47	1.78
IN.	2.29	1.28	2.19	1.07	2.13	4.56	4.42	2.79	1.78	1.46	5.15	1.98

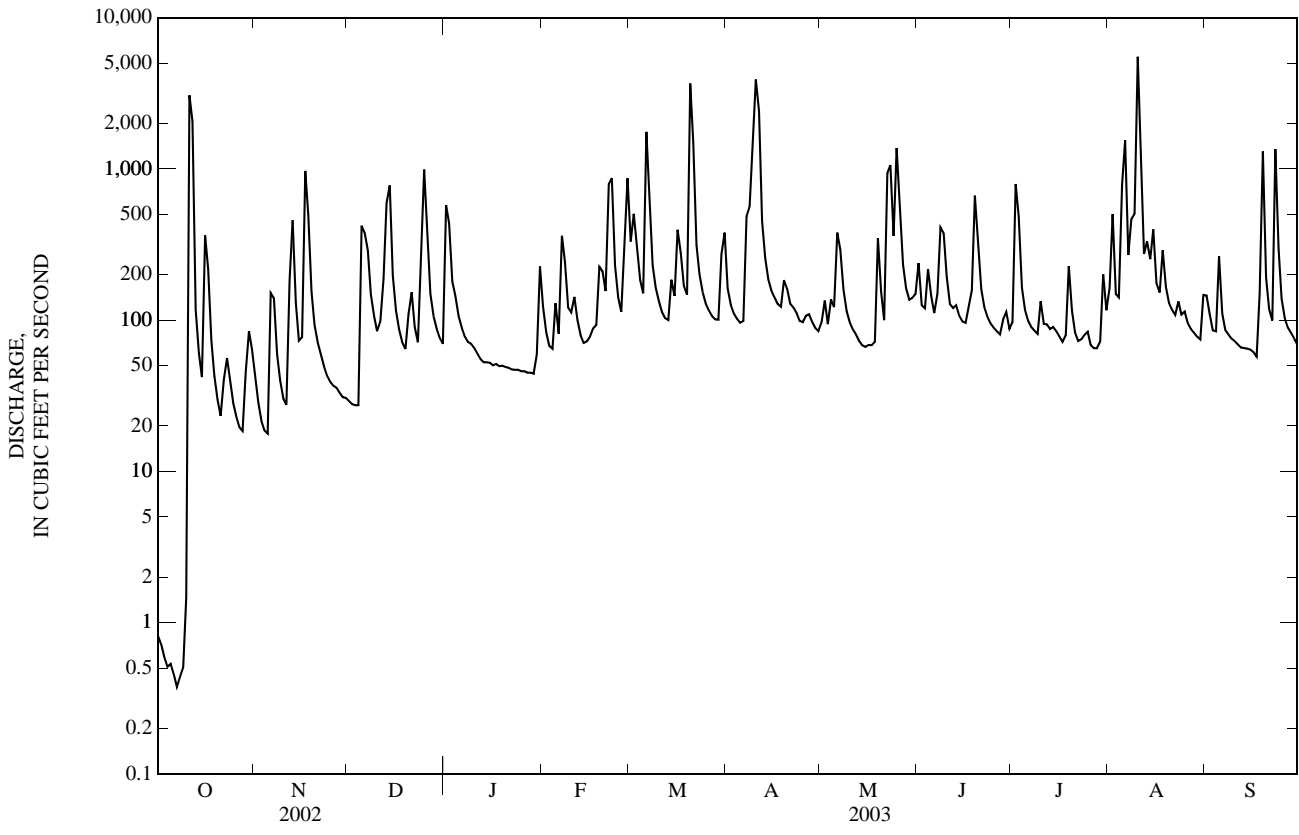
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 2003, BY WATER YEAR (WY)

MEAN	70.0	66.2	96.3	168	209	222	174	98.9	71.1	66.9	57.8	51.0
MAX	337	366	361	511	467	678	430	296	273	578	474	261
(WY)	(1991)	(1986)	(1973)	(1998)	(1960)	(1998)	(1958)	(1990)	(1972)	(1997)	(2003)	(1979)
MIN	4.03	7.77	11.0	23.5	38.6	47.0	38.0	13.7	2.55	1.20	0.50	0.76
(WY)	(1987)	(2002)	(2002)	(2001)	(2002)	(1967)	(1967)	(2002)	(2002)	(2002)	(2002)	(1968)

02128000 LITTLE RIVER NEAR STAR, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1954 - 2003	
ANNUAL TOTAL	25,698.61		88,591.46		112	
ANNUAL MEAN	70.4		243		243	
HIGHEST ANNUAL MEAN					2003	
LOWEST ANNUAL MEAN					27.4	
HIGHEST DAILY MEAN	3,070	Oct 11	5,510	Aug 10	9,800	Jul 23, 1997
LOWEST DAILY MEAN	0.00	Aug 12	0.38	Oct 7	0.00	Aug 12, 2002
ANNUAL SEVEN-DAY MINIMUM	0.00	Aug 10	0.49	Oct 3	0.00	Aug 10, 2002
MAXIMUM PEAK FLOW			10,600	Aug 10	15,400	Jul 23, 1997
MAXIMUM PEAK STAGE			15.40	Aug 10	18.60	Jul 23, 1997
INSTANTANEOUS LOW FLOW			0.34	Oct 8	0.00*	Aug 12, 2002
ANNUAL RUNOFF (CFSM)	0.66		2.29		1.06	
ANNUAL RUNOFF (INCHES)	9.02		31.09		14.41	
10 PERCENT EXCEEDS	134		474		196	
50 PERCENT EXCEEDS	23		107		49	
90 PERCENT EXCEEDS	0.27		42		8.9	

e Estimated.
 * See REMARKS.



02129000 PEE DEE RIVER NEAR ROCKINGHAM, NC

LOCATION.--Lat 34°56'45", long 79°52'11", Richmond County, Hydrologic Unit 03040201, on left bank at bridge on U.S. Highway 74, 2.5 mi upstream from Falling Creek, 3.3 mi downstream of Blewett Falls hydroelectric plant, 6 mi west of Rockingham, and 192 mi upstream from mouth in Winyah Bay.

DRAINAGE AREA.--6,863 mi².

PERIOD OF RECORD.--August 1906 to January 1912, October 1927 to current year. August 1906 to January 1912 published as "Yadkin River near Pee Dee".

REVISED RECORDS.--WSP 1203: 1928-37. WSP 1303: 1928-42 (monthly and yearly runoff), 1943-46 (adjusted monthly runoff). WSP 1503: 1906-12, 1928-32(m). WDR NC-80-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 120.68 ft above NGVD of 1929 (levels by U.S. Army Corps of Engineers). August 1906 to January 1912 nonrecording gage at site 3.3 mi upstream at different datum. Sept. 1927 to Sept. 30, 1931, water-stage recorder at present site at 121.68 ft. Telephone and satellite telemetry at station.

REMARKS.--Records good except those below 1000 ft³/s, which are fair. Flow regulated since 1928 by Blewett Falls Lake and five other reservoirs upstream. Prior to regulation, maximum discharge: 276,000 ft³/s, Aug. 27, 1908; gage height: 31.28 ft, present site and datum, from records of State Highway Commission. Prior to regulation, minimum discharge: 2,210 ft³/s, Sept. 3, 1907. Minimum discharge for period of record also occurred Dec. 2, 3, 1951; minimum daily discharge for period of record: 58 ft³/s, Dec 2, 1951, a result of abnormally low flow during shutdown of Blewett Falls hydroelectric plant to produce steady flow for current-meter measurements at this gaging station. Minimum discharge from normal regulations: 96 ft³/s, Oct. 25, 1943; minimum daily discharge: 120 ft³/s, Oct. 8, 1961.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	931	7,120	949	11,600	7,600	31,400	15,500	10,200	15,300	10,700	9,460	4,440
2	930	2,440	4,850	18,000	3,120	27,100	14,600	9,040	13,000	20,500	14,700	7,230
3	957	1,050	6,470	13,900	3,940	28,700	12,300	8,960	12,500	32,800	12,900	8,090
4	976	5,720	6,610	10,900	4,220	18,400	10,900	11,200	10,600	19,400	10,500	8,120
5	959	6,750	6,720	8,260	1,370	14,400	10,500	12,700	17,100	18,000	20,200	7,580
6	931	8,060	15,500	4,470	4,920	27,700	9,820	30,900	23,700	13,000	30,800	18,600
7	940	9,600	13,300	5,870	7,410	54,000	10,100	36,500	25,600	11,900	17,800	13,400
8	887	9,200	6,710	8,250	13,100	29,400	28,000	24,000	51,900	17,900	14,300	11,400
9	904	5,220	6,060	4,610	12,100	17,000	47,000	15,400	61,600	15,800	23,500	11,000
10	931	1,270	9,470	5,040	10,600	14,300	83,400	12,400	43,400	11,100	23,400	9,860
11	3,710	5,650	10,200	3,610	8,040	12,000	140,000	11,100	24,400	9,670	30,300	9,000
12	14,200	6,680	13,400	4,740	6,560	11,600	132,000	11,100	19,800	9,640	32,700	8,950
13	15,000	20,200	16,800	5,660	7,560	9,780	95,200	7,640	14,000	9,920	21,100	5,380
14	10,000	20,100	36,600	6,340	8,820	7,350	39,000	9,500	12,700	12,900	14,400	845
15	8,320	14,400	25,400	5,840	9,350	7,090	15,200	7,700	11,700	13,000	14,900	3,450
16	5,010	13,900	20,300	5,990	9,960	7,070	13,700	6,030	13,100	11,000	15,300	6,520
17	9,180	21,300	14,100	8,070	14,900	22,700	12,600	4,520	33,000	10,200	22,800	8,190
18	9,090	33,400	12,600	4,020	14,200	27,400	12,200	1,330	23,400	11,300	16,900	6,150
19	7,140	21,500	11,800	2,900	12,700	17,600	22,300	1,640	42,100	12,100	13,500	6,280
20	3,190	14,300	11,100	3,420	10,400	45,300	36,000	5,210	36,200	14,700	12,900	6,730
21	1,340	12,800	11,200	5,800	10,100	124,000	32,000	9,000	20,700	11,200	11,300	2,070
22	2,330	12,400	10,900	5,690	9,910	118,000	20,600	9,310	18,500	9,750	10,400	3,310
23	5,140	10,900	10,100	5,890	35,300	83,000	12,900	49,600	15,600	9,550	9,010	7,640
24	5,830	7,460	10,200	8,920	26,700	38,000	10,600	48,100	10,900	9,600	3,400	18,300
25	3,120	5,710	26,700	8,150	25,600	19,100	12,500	30,400	10,400	9,660	6,870	24,200
26	2,690	5,710	35,100	4,410	20,000	13,000	11,000	55,100	10,100	9,490	9,110	13,000
27	657	7,460	21,100	7,610	18,000	10,900	10,900	35,800	8,830	9,130	9,420	10,400
28	2,820	3,100	15,400	4,920	38,900	11,900	12,500	23,200	1,310	8,010	9,890	8,930
29	4,360	3,370	12,500	1,810	---	10,600	10,300	15,400	1,400	8,030	9,750	8,530
30	6,340	466	12,000	3,870	---	8,530	10,900	14,000	5,000	6,620	8,000	7,640
31	5,800	---	11,700	7,470	---	16,700	---	12,700	---	7,860	4,390	---
TOTAL	134,613	297,236	425,839	206,030	355,380	884,020	904,520	539,680	607,840	384,430	463,900	265,235
MEAN	4,342	9,908	13,740	6,646	12,690	28,520	30,150	17,410	20,260	12,400	14,960	8,841
MAX	15,000	33,400	36,600	18,000	38,900	124,000	140,000	55,100	61,600	32,800	32,700	24,200
MIN	657	466	949	1,810	1,370	7,070	9,820	1,330	1,310	6,620	3,400	845
†	+1,565	-103	+344	-1,162	+2,177	-372	-238	+91	+88	+1	-358	-264

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 2003,* BY WATER YEAR (WY)

MEAN	5,859	5,517	7,466	10,920	12,470	13,520	10,920	7,290	6,013	5,301	5,437	5,364
MAX	25,850	16,120	20,300	31,270	36,040	34,480	31,340	17,410	20,260	16,790	19,180	35,690
(WY)	(1991)	(1958)	(1933)	(1937)	(1960)	(1993)	(1936)	(2003)	(2003)	(1975)	(1928)	(1928)
MIN	503	419	1,598	2,475	3,032	4,117	2,692	1,955	1,853	1,668	979	1,008
(WY)	(2002)	(2002)	(2002)	(1956)	(2001)	(1981)	(1981)	(2002)	(1986)	(2002)	(2002)	(1954)

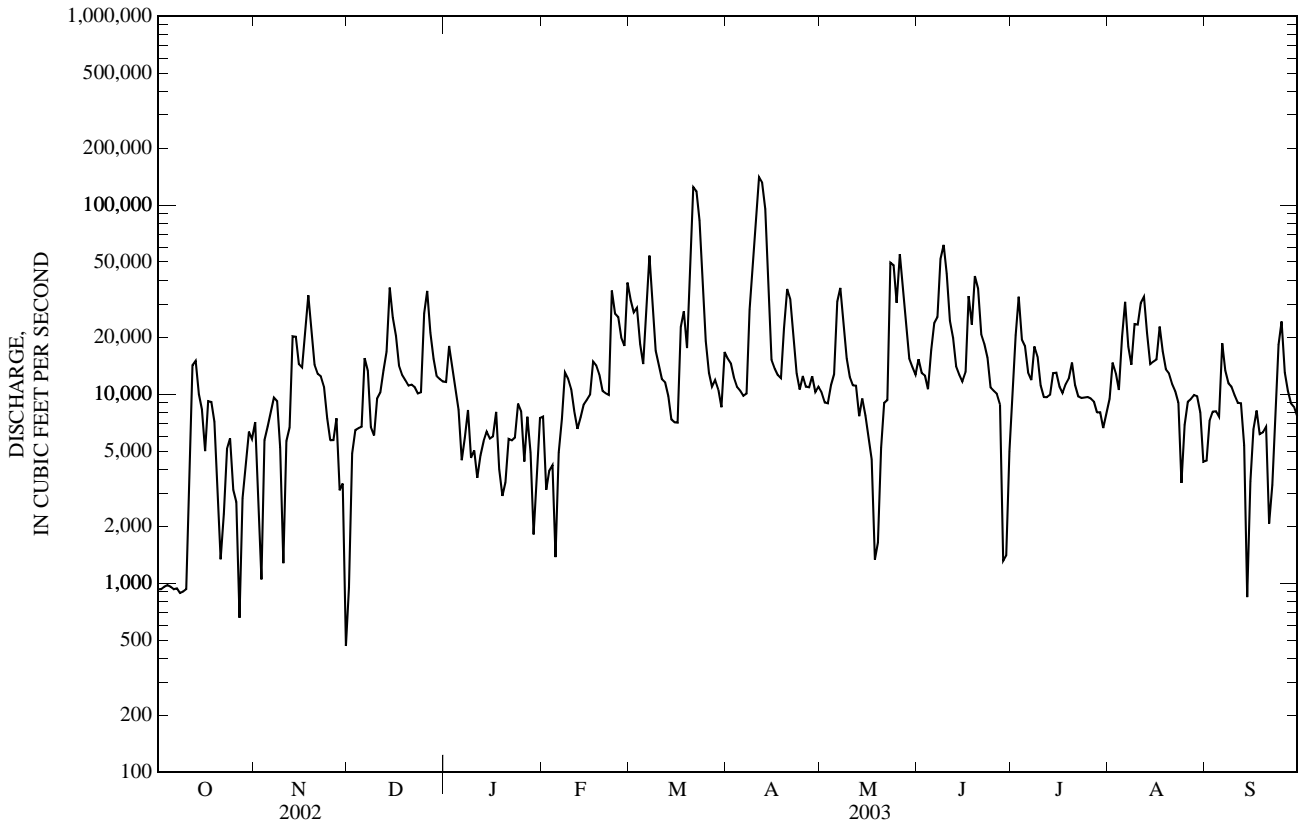
02129000 PEE DEE RIVER NEAR ROCKINGHAM, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1928 - 2003*	
ANNUAL TOTAL	1,622,948		5,468,723		7,984 (UNADJUSTED)	
ANNUAL MEAN	4,446		14,980		2,310 2003	
HIGHEST ANNUAL MEAN			‡15,120		2,310 2002	
LOWEST ANNUAL MEAN					242,000 Sep 18, 1945	
HIGHEST DAILY MEAN	36,600	Dec 14	140,000	Apr 11	58* Dec 2, 1951	
LOWEST DAILY MEAN	269	May 21	466	Nov 30	185 Sep 28, 1985	
ANNUAL SEVEN-DAY MINIMUM	933	Oct 4	933	Oct 4	270,000* Sep 18, 1945	
MAXIMUM PEAK FLOW			150,000	Apr 11	30.80* Sep 18, 1945	
MAXIMUM PEAK STAGE			20.20	Apr 11	50* Dec 2, 1951	
INSTANTANEOUS LOW FLOW			199	Sep 14		
10 PERCENT EXCEEDS	10,800		30,300		14,500	
50 PERCENT EXCEEDS	2,540		10,600		5,580	
90 PERCENT EXCEEDS	748		3,410		1,540	

† Change in contents, equivalent in cubic feet per second, in W. Kerr Scott Reservoir, provided by U.S. Army Corps of Engineers; High Rock Lake, Tuckertown Reservoir, and Badin Lake, provided by Yadkin, Inc.; Lake Tillery and Blewett Falls Lake, provided by Carolina Power and Light Company, Virginia.

‡ Adjusted for change in contents.

* For regulated period only (1928-2003). See REMARKS.



02132320 BIG SHOE HEEL CREEK NEAR LAURINBURG, NC

LOCATION.--Lat 34°45'02", long 79°23'11", Scotland County, Hydrologic Unit 03040204, at downstream side of bridge near center of span on U.S. Highway 74, 2.5 mi downstream of Jordan Creek, and 4.5 mi southeast of Laurinburg.

DRAINAGE AREA.-- 83.3 mi².

PERIOD OF RECORD.--Occasional discharge measurements, water years 1949-54, 1959, 1962, 1968-69. June 1987 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 170 ft above NGVD of 1929, from topographic map. Satellite telemetry at station.

REMARKS.--No estimated daily discharges. Records fair. Maximum discharge for period of record from rating curve extended above 600 ft³/s by logarithmic plotting. Minimum discharge for period of record also occurred Aug. 14, 2002. Minimum discharge for current water year also occurred Oct. 8.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	54	54	88	82	137	135	76	306	84	110	68
2	20	49	53	92	80	147	140	71	206	174	119	69
3	18	44	53	94	76	148	133	77	193	451	130	74
4	16	43	52	93	71	142	119	215	186	568	129	72
5	15	43	62	90	69	136	108	254	164	471	154	94
6	13	49	82	84	68	148	104	383	153	386	147	101
7	13	54	94	78	84	157	109	336	149	282	147	110
8	13	52	100	74	96	178	115	280	139	191	162	123
9	15	48	93	70	104	211	133	244	129	137	296	129
10	18	45	82	69	110	215	178	207	118	111	270	125
11	33	43	79	67	112	197	261	144	103	108	211	118
12	59	56	78	65	115	168	453	104	91	113	194	103
13	71	94	89	63	111	132	493	84	87	124	198	88
14	78	108	106	61	99	113	396	72	97	136	199	79
15	81	124	114	61	88	110	291	68	113	140	188	74
16	92	131	118	60	87	121	202	71	166	140	172	69
17	94	137	110	62	106	128	163	75	193	135	162	65
18	84	141	96	63	118	137	139	72	173	123	159	77
19	66	156	87	63	127	140	125	70	142	114	155	130
20	55	163	89	61	128	161	116	73	119	113	144	141
21	49	153	94	62	119	188	111	70	105	120	145	152
22	48	132	98	66	112	222	107	73	101	127	150	161
23	47	107	96	68	121	250	103	113	93	125	148	169
24	44	82	95	66	128	241	97	132	75	117	134	150
25	43	65	106	62	133	215	92	149	64	107	123	141
26	43	61	114	62	129	181	94	231	58	98	117	139
27	42	59	121	61	125	134	97	259	53	84	108	136
28	40	57	119	60	131	114	99	326	51	76	95	122
29	44	56	106	60	---	109	93	360	55	69	83	107
30	54	56	94	64	---	114	84	381	65	82	76	93
31	60	---	86	76	---	125	---	319	---	99	71	---
TOTAL	1,391	2,462	2,820	2,165	2,929	4,919	4,890	5,389	3,747	5,205	4,696	3,279
MEAN	44.9	82.1	91.0	69.8	105	159	163	174	125	168	151	109
MAX	94	163	121	94	133	250	493	383	306	568	296	169
MIN	13	43	52	60	68	109	84	68	51	69	71	65
CFSM	0.54	0.99	1.09	0.84	1.26	1.90	1.96	2.09	1.50	2.02	1.82	1.31
IN.	0.62	1.10	1.26	0.97	1.31	2.20	2.18	2.41	1.67	2.32	2.10	1.46

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

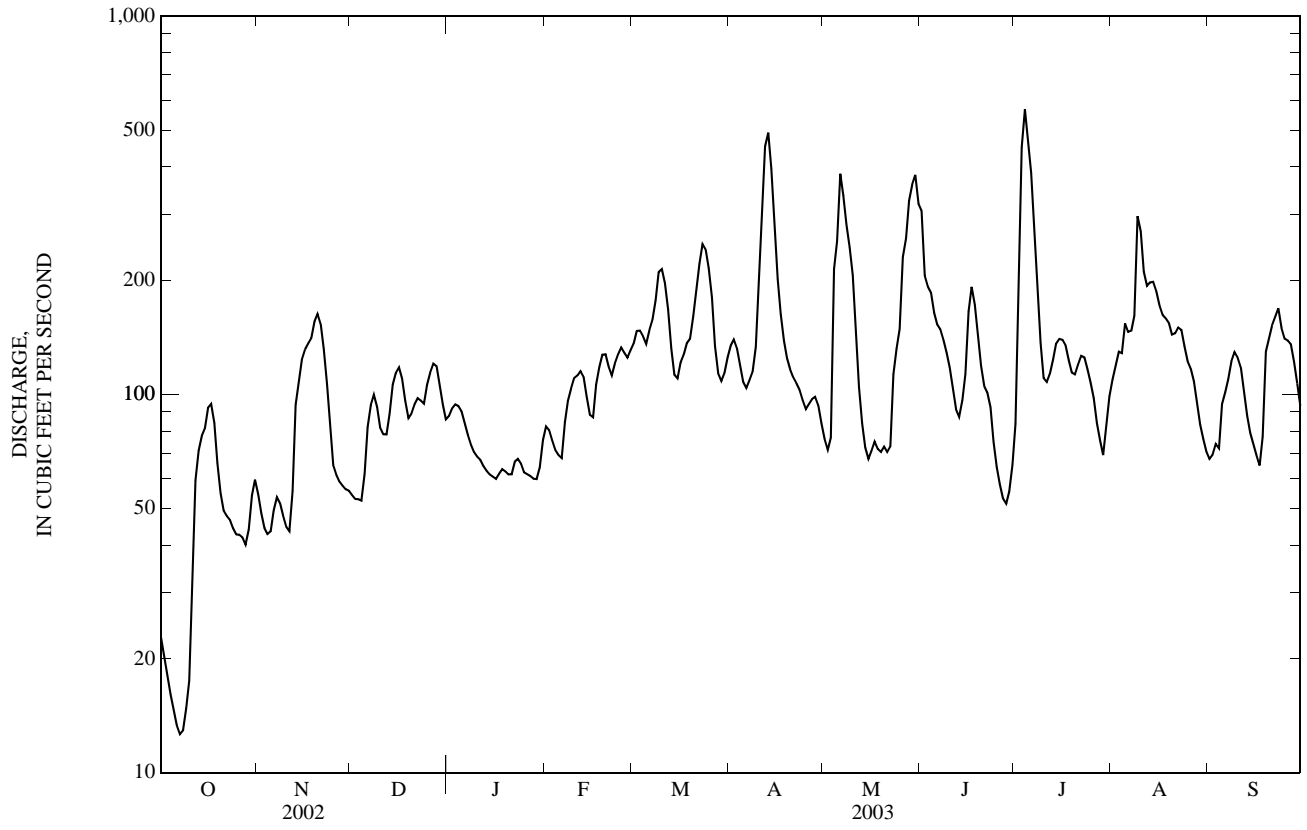
	85.7	84.2	93.7	134	137	145	108	72.7	61.2	61.2	65.3	75.9
MEAN	85.7	84.2	93.7	134	137	145	108	72.7	61.2	61.2	65.3	75.9
MAX	329	143	141	283	342	327	229	174	125	175	171	161
(WY)	(2000)	(1996)	(1990)	(2000)	(1998)	(1998)	(1998)	(2003)	(2003)	(1989)	(1991)	(1999)
MIN	26.9	29.8	34.9	69.3	62.0	55.1	58.2	21.8	14.3	6.76	11.0	20.3
(WY)	(2002)	(2002)	(2002)	(1989)	(1989)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(1990)

SUMMARY STATISTICS

	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1987 - 2003	
ANNUAL TOTAL	16,480.7		43,892			
ANNUAL MEAN	45.2		120		93.5	
HIGHEST ANNUAL MEAN					146	
LOWEST ANNUAL MEAN					34.6	
HIGHEST DAILY MEAN	164	Jan 26	568	Jul 4	1,150	Oct 20, 1999
LOWEST DAILY MEAN	1.0	Aug 14	13	Oct 6	1.0	Aug 14, 2002
ANNUAL SEVEN-DAY MINIMUM	2.3	Aug 10	15	Oct 3	2.3	Aug 10, 2002
MAXIMUM PEAK FLOW			608	Jul 4	1360*	Oct 19, 1999
MAXIMUM PEAK STAGE			4.46	Jul 4	5.03	Oct 19, 1999
INSTANTANEOUS LOW FLOW			12*	Oct 7	0.50*	Aug 13, 2002
ANNUAL RUNOFF (CFSM)	0.54		1.44		1.12	
ANNUAL RUNOFF (INCHES)	7.36		19.60		15.25	
10 PERCENT EXCEEDS	97		198		176	
50 PERCENT EXCEEDS	43		107		72	
90 PERCENT EXCEEDS	7.0		54		26	

* See REMARKS.

02132320 BIG SHOE HEEL CREEK NEAR LAURINBURG, NC—Continued



02133500 DROWNING CREEK NEAR HOFFMAN, NC

LOCATION.--Lat 35°03'39", long 79°29'38", Richmond County, Hydrologic Unit 03040203, on right bank 10 ft downstream of bridge on U.S. Highway 1, 1 mi upstream from Seaboard Coast Line Railroad bridge, 0.8 mi downstream of Deep Creek, and 4 mi northeast of Hoffman.

DRAINAGE AREA.--183 mi².

PERIOD OF RECORD.--October 1939 to current year.

REVISED RECORDS.--WSP 972: 1941(M). WDR NC-80-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 270 ft above NGVD of 1929, from topographic map. Satellite telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Since 1984, the town of Southern Pines has withdrawn water for public supply 0.5 mi upstream from the gage. These withdrawals cause some diurnal fluctuation at low to medium flow and may affect yearly minimums. A daily average of 4.7 ft³/s was diverted during the year. No flow for period of record also occurred on Aug. 15, 2002. Minimum discharge for current water year also occurred Oct. 8, 9.

REVISIONS.--Maximum discharge for water year 1999 to 1,070 ft³/s, Jan. 26, 1999, gage height 6.35 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	57	229	149	279	300	719	525	298	405	179	374	178
2	52	162	150	292	309	811	531	257	499	277	379	196
3	48	134	144	333	298	746	472	234	571	464	415	227
4	47	129	142	350	245	692	400	307	463	566	430	240
5	44	147	182	358	217	630	339	429	383	466	504	357
6	41	182	257	338	218	641	308	508	333	356	527	393
7	39	239	356	302	267	761	314	557	317	270	727	369
8	38	269	391	263	310	1,000	335	722	328	204	826	421
9	39	233	362	240	383	878	470	666	384	165	1,100	437
10	45	171	311	222	416	699	770	508	476	144	1,680	391
11	101	145	259	197	431	594	1,330	392	450	142	1,890	329
12	348	201	245	191	417	527	1,540	325	360	168	1,100	269
13	681	312	276	183	371	482	1,100	282	331	226	769	221
14	715	399	333	173	320	480	799	236	312	353	758	202
15	659	403	412	171	270	483	665	209	288	470	731	205
16	578	365	465	168	246	510	585	193	351	401	636	197
17	477	372	446	169	311	545	530	206	679	291	553	e185
18	403	415	384	161	396	551	490	232	704	214	521	194
19	314	481	317	166	421	521	451	253	696	195	557	413
20	210	500	290	165	439	547	443	298	611	212	566	630
21	201	441	311	164	414	659	445	355	496	233	488	725
22	263	373	360	173	415	849	433	429	430	212	414	556
23	279	297	354	178	481	836	402	471	378	183	356	458
24	222	253	347	172	567	669	376	506	316	174	322	421
25	169	227	357	151	630	563	345	562	260	192	305	446
26	150	202	431	148	569	486	339	521	211	183	284	464
27	146	183	496	160	558	430	347	505	178	146	270	393
28	153	168	499	155	662	397	359	531	167	179	238	331
29	228	168	434	151	---	364	366	518	197	228	216	293
30	285	154	359	175	---	386	335	438	183	320	192	269
31	298	---	298	233	---	467	---	381	---	372	180	---
TOTAL	7,330	7,954	10,117	6,581	10,881	18,923	16,144	12,329	11,757	8,185	18,308	10,410
MEAN	236	265	326	212	389	610	538	398	392	264	591	347
MAX	715	500	499	358	662	1,000	1,540	722	704	566	1,890	725
MIN	38	129	142	148	217	364	308	193	167	142	180	178
CFSM	1.29	1.45	1.78	1.16	2.12	3.34	2.94	2.17	2.14	1.44	3.23	1.90
IN.	1.49	1.62	2.06	1.34	2.21	3.85	3.28	2.51	2.39	1.66	3.72	2.12

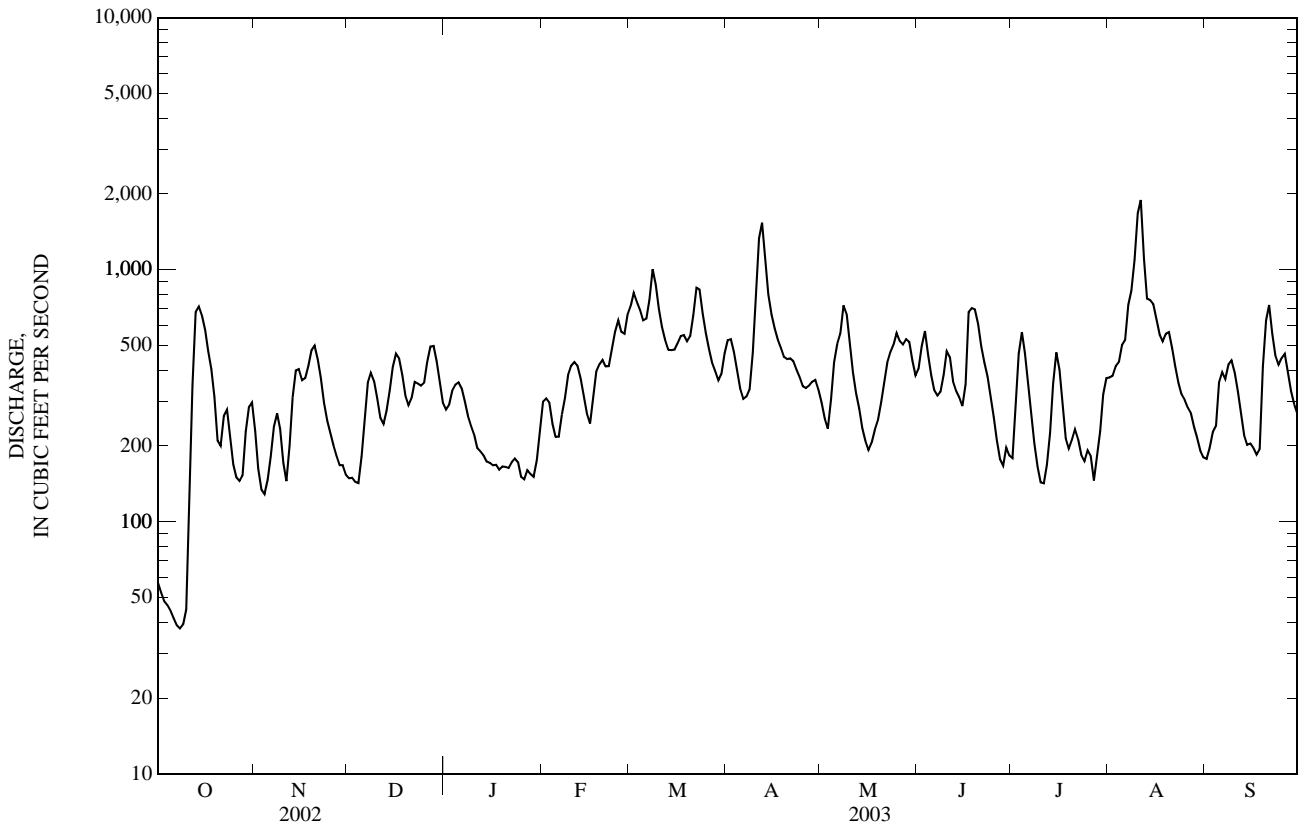
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2003, BY WATER YEAR (WY)

	198	228	260	322	358	379	324	226	172	190	186	182
MEAN	198	228	260	322	358	379	324	226	172	190	186	182
MAX	595	499	530	561	687	729	842	465	421	624	591	932
(WY)	(1965)	(1980)	(1973)	(1998)	(1960)	(1998)	(1973)	(1958)	(1976)	(1944)	(2003)	(1945)
MIN	48.5	76.5	107	145	147	157	111	49.2	11.0	11.2	12.8	28.8
(WY)	(1941)	(2002)	(2002)	(2001)	(1992)	(2002)	(1986)	(2002)	(2002)	(2002)	(2002)	(1968)

02133500 DROWNING CREEK NEAR HOFFMAN, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1940 - 2003	
ANNUAL TOTAL	51,479.08		138,919		251	
ANNUAL MEAN	141		381		94.8	
HIGHEST ANNUAL MEAN					397	1984
LOWEST ANNUAL MEAN					94.8	2002
HIGHEST DAILY MEAN	715	Oct 14	1,890	Aug 11	8,530	Sep 18, 1945
LOWEST DAILY MEAN	0.00	Aug 14	38	Oct 8	0.00	Aug 14, 2002
ANNUAL SEVEN-DAY MINIMUM	0.10	Aug 10	42	Oct 4	0.10	Aug 10, 2002
MAXIMUM PEAK FLOW			2,190	Aug 11	10,900	Sep 18, 1945
MAXIMUM PEAK STAGE			7.39	Aug 11	10.29	Sep 18, 1945
INSTANTANEOUS LOW FLOW			38	Oct 7	0.00*	Aug 14, 2002
ANNUAL RUNOFF (CFSM)	0.77		2.08		1.37	
ANNUAL RUNOFF (INCHES)	10.46		28.24		18.67	
10 PERCENT EXCEEDS	355		659		480	
50 PERCENT EXCEEDS	113		348		203	
90 PERCENT EXCEEDS	5.9		166		76	

e Estimated.
 * See REMARKS.



02133624 LUMBER RIVER NEAR MAXTON, NC

LOCATION.--Lat 34°46'23", long 79°19'54", Robeson County, Hydrologic Unit 03040203, at downstream side of bridge, near right center of span, on State Highway 71, 2.6 mi north of Maxton, and 7.5 mi upstream from Gum Swamp.

DRAINAGE AREA.--365 mi².

PERIOD OF RECORD.--Occasional discharge measurements, water years 1974, 1980-85. June 1987 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 180 ft above NGVD of 1929, from topographic map. Satellite telemetry at station.

REMARKS.--Records poor. Minimum discharge for period of also occurred on Aug. 14, 2002.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e150	449	398	998	450	1,150	932	789	1,230	497	601	631
2	e130	472	369	930	519	1,220	937	786	1,160	697	860	643
3	123	472	339	864	568	1,300	947	787	1,120	874	949	608
4	112	426	323	807	597	1,350	981	926	1,070	1,150	894	565
5	105	317	341	766	622	1,360	982	793	1,130	1,460	1,010	587
6	101	284	377	754	627	1,360	949	785	1,210	1,380	1,050	688
7	96	292	458	755	639	1,320	911	821	1,110	1,270	1,230	1,110
8	88	335	571	763	606	1,370	859	933	1,000	1,080	1,350	1,320
9	88	374	645	757	634	1,410	877	1,070	907	870	1,450	1,250
10	92	407	681	733	693	1,470	1,020	1,120	845	713	1,520	1,130
11	113	436	749	686	720	1,530	1,240	1,230	840	587	1,670	1,110
12	153	452	780	633	775	1,430	1,550	1,170	857	473	2,370	1,100
13	245	487	787	588	849	1,270	2,050	1,010	922	414	2,780	994
14	365	580	775	535	869	1,140	2,330	871	1,170	447	2,400	854
15	513	728	746	490	857	1,060	2,160	754	1,270	531	1,880	759
16	848	799	779	462	829	1,060	1,730	671	1,090	632	1,730	680
17	1,120	902	799	453	812	1,050	1,420	589	967	749	1,940	619
18	1,150	973	822	441	774	1,070	1,250	527	968	928	1,740	629
19	1,080	997	882	449	784	1,070	1,140	498	1,070	864	1,570	755
20	938	1,010	927	444	786	1,130	1,070	498	1,340	730	1,460	928
21	807	982	904	421	804	1,190	1,020	524	1,390	670	1,490	1,320
22	676	983	866	426	848	1,250	980	570	1,340	667	1,480	1,480
23	552	992	835	421	899	1,300	941	692	1,230	592	1,380	1,540
24	461	960	817	425	935	1,360	919	856	1,080	555	1,240	1,520
25	448	881	836	413	970	1,430	897	1,050	960	551	1,150	1,410
26	457	769	865	413	963	1,370	883	1,260	863	515	1,040	1,250
27	427	651	940	400	1,010	1,230	862	1,550	771	469	902	1,110
28	351	551	957	373	1,090	1,100	847	1,750	672	441	795	1,060
29	311	482	946	364	---	1,010	826	1,480	585	399	741	1,050
30	329	435	975	378	---	960	801	1,300	506	383	699	973
31	394	---	1,000	399	---	938	---	1,240	---	437	662	---
TOTAL	12,823	18,878	22,489	17,741	21,529	38,258	34,311	28,900	30,673	22,025	42,033	29,673
MEAN	414	629	725	572	769	1,234	1,144	932	1,022	710	1,356	989
MAX	1,150	1,010	1,000	998	1,090	1,530	2,330	1,750	1,390	1,460	2,780	1,540
MIN	88	284	323	364	450	938	801	498	506	383	601	565
CFSM	1.13	1.72	1.99	1.57	2.11	3.38	3.13	2.55	2.80	1.95	3.71	2.71
IN.	1.31	1.92	2.29	1.81	2.19	3.90	3.50	2.95	3.13	2.24	4.28	3.02

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

MEAN	391	418	463	609	639	695	596	395	333	306	330	369
MAX	827	661	725	926	1,205	1,267	1,144	932	1,022	710	1,356	989
(WY)	(2000)	(1996)	(2003)	(1998)	(1998)	(1998)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)
MIN	184	166	220	364	300	363	303	135	67.6	63.2	51.5	130
(WY)	(1988)	(2002)	(2002)	(1992)	(1992)	(1992)	(1992)	(2002)	(2002)	(2002)	(2002)	(1990)

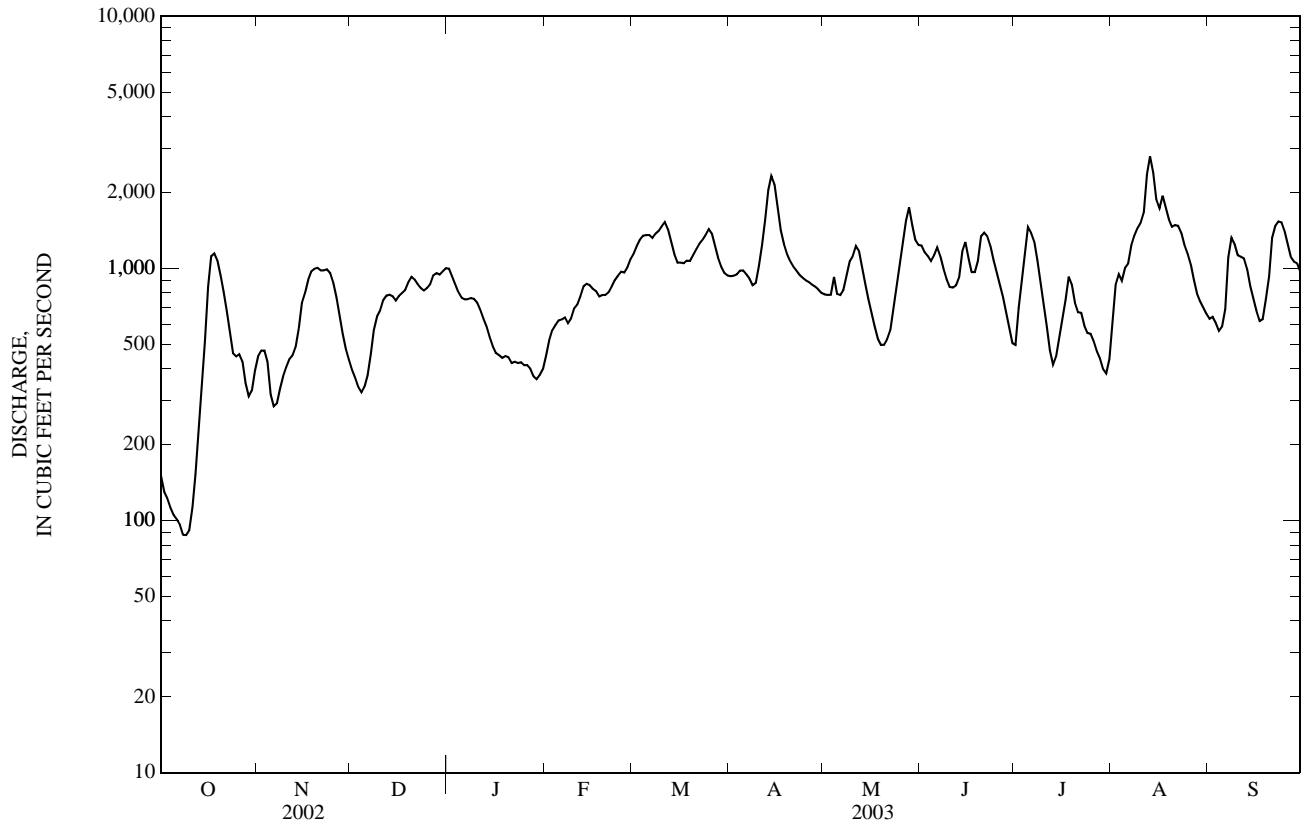
SUMMARY STATISTICS

	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1987 - 2003	
ANNUAL TOTAL	123,792		319,333			
ANNUAL MEAN	339		875		462	
HIGHEST ANNUAL MEAN					875	
LOWEST ANNUAL MEAN					243	
HIGHEST DAILY MEAN	1,560	Jan 27	2,780	Aug 13	3,070	Mar 22, 1998
LOWEST DAILY MEAN	28	Aug 13	88	Oct 8	28	Aug 13, 2002
ANNUAL SEVEN-DAY MINIMUM	32	Aug 10	97	Oct 4	32	Aug 10, 2002
MAXIMUM PEAK FLOW			2,860	Aug 13	3,380	Mar 22, 1998
MAXIMUM PEAK STAGE			12.98	Aug 13	13.52	Mar 22, 1998
INSTANTANEOUS LOW FLOW			85	Oct 9	27*	Aug 13, 2002
ANNUAL RUNOFF (CFSM)	0.93		2.40		1.27	
ANNUAL RUNOFF (INCHES)	12.62		32.55		17.20	
10 PERCENT EXCEEDS	811		1,370		868	
50 PERCENT EXCEEDS	245		857		402	
90 PERCENT EXCEEDS	54		404		154	

e Estimated.

* See REMARKS.

02133624 LUMBER RIVER NEAR MAXTON, NC—Continued



02134170 LUMBER RIVER AT LUMBERTON, NC

LOCATION.--Lat 34°37'13", long 79°00'38", Robeson County, Hydrologic Unit 03040203, on right bank at upstream side of bridge on Fifth Street in Lumberton and 1.0 mi below Saddletree Swamp.

DRAINAGE AREA.--708 mi².

PERIOD OF RECORD.--Occasional measurements water years 1954, 1959, 1967, July 2000 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 110 ft above NGVD of 1929, from topographic map. Satellite telemetry at station.

REMARKS.--No estimated daily discharges. Records good. Minimum discharge for period of record and current water year also occurred Aug. 14, 2002. Minimum discharge for current water year also occurred Oct. 11.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	162	446	689	1,080	579	1,370	1,620	920	2,440	680	675	815
2	170	423	621	1,130	586	1,480	1,510	878	2,280	1,020	674	743
3	169	417	572	1,160	588	1,530	1,400	863	2,120	1,820	701	685
4	162	434	545	1,170	600	1,540	1,310	1,110	1,980	1,950	908	655
5	152	451	557	1,130	616	1,560	1,250	1,350	1,820	1,730	1,460	734
6	142	478	553	1,070	640	1,930	1,200	1,520	1,680	1,520	1,870	758
7	136	479	547	1,000	745	2,400	1,200	1,630	1,550	1,480	1,970	750
8	163	450	544	940	794	2,460	1,280	1,560	1,580	1,690	1,960	735
9	128	415	544	891	826	2,320	1,490	1,400	1,620	1,710	1,910	749
10	119	401	559	860	892	2,140	1,850	1,250	1,600	1,570	1,940	874
11	181	409	615	843	923	2,020	2,330	1,160	1,450	1,370	1,920	1,130
12	297	533	681	821	917	1,970	2,390	1,160	1,260	1,130	1,870	1,200
13	309	753	768	790	921	1,940	2,270	1,170	1,070	985	1,870	1,140
14	335	780	862	758	917	1,920	2,200	1,200	938	1,450	2,040	1,080
15	324	767	918	726	914	1,860	2,280	1,190	867	1,430	2,500	1,050
16	376	742	951	693	949	1,840	2,470	1,080	836	1,500	2,690	996
17	408	806	944	666	1,090	1,800	2,530	940	915	1,670	2,550	905
18	433	879	917	637	1,190	1,730	2,380	824	1,130	1,680	2,260	935
19	463	939	892	609	1,230	1,660	2,120	742	1,120	1,600	2,040	1,320
20	525	979	920	586	1,210	1,760	1,860	674	978	1,490	2,020	1,290
21	645	1,010	952	574	1,170	2,260	1,650	615	871	1,460	2,030	1,290
22	781	1,030	962	581	1,140	2,350	1,480	599	863	1,410	2,030	1,330
23	819	1,020	958	584	1,170	2,240	1,340	845	1,030	1,260	1,910	1,500
24	776	993	970	584	1,150	2,100	1,230	1,180	1,200	1,090	1,780	1,660
25	705	961	1,030	577	1,130	2,000	1,160	1,180	1,210	987	1,700	1,780
26	628	936	1,040	572	1,110	1,930	1,140	1,100	1,120	1,150	1,590	1,830
27	553	922	1,030	567	1,140	1,880	1,130	1,180	959	916	1,420	1,820
28	503	891	1,010	559	1,270	1,850	1,080	1,480	826	780	1,260	1,790
29	505	837	978	553	---	1,790	1,030	1,870	739	721	1,130	1,660
30	501	766	973	560	---	1,730	970	2,280	694	695	1,010	1,450
31	481	---	998	570	---	1,690	---	2,480	---	682	902	---
TOTAL	12,051	21,347	25,100	23,841	26,407	59,050	49,150	37,430	38,746	40,626	52,590	34,654
MEAN	389	712	810	769	943	1,905	1,638	1,207	1,292	1,311	1,696	1,155
MAX	819	1,030	1,040	1,170	1,270	2,460	2,530	2,480	2,440	1,950	2,690	1,830
MIN	119	401	544	553	579	1,370	970	599	694	680	674	655
CFSM	0.55	1.01	1.14	1.09	1.33	2.69	2.31	1.71	1.82	1.85	2.40	1.63
IN.	0.63	1.12	1.32	1.25	1.39	3.10	2.58	1.97	2.04	2.13	2.76	1.82

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2003, BY WATER YEAR (WY)

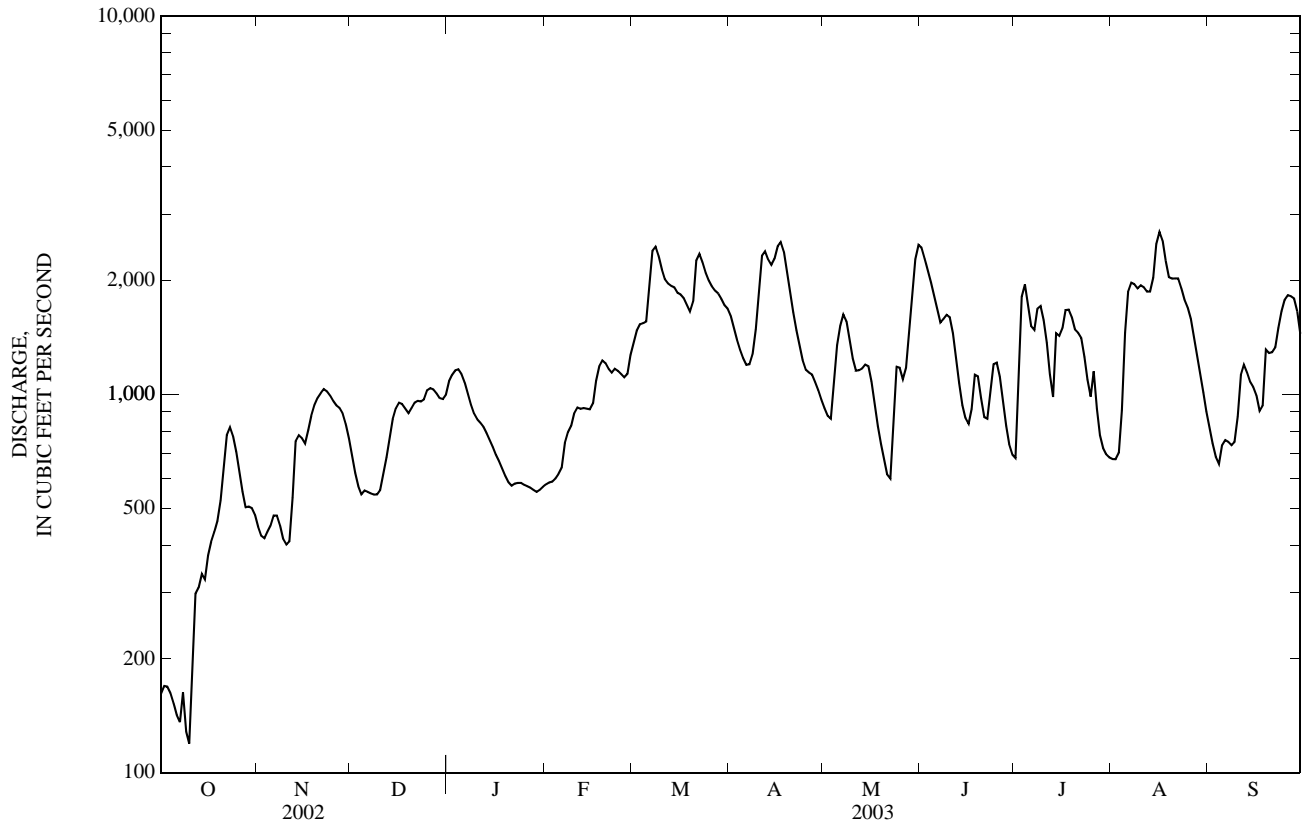
	2000	2001	2002	2003	2000	2001	2002	2003	2000	2001	2002	2003
MEAN	413	469	602	628	770	1,112	956	562	692	579	601	662
MAX	596	712	810	769	943	1,905	1,638	1,207	1,292	1,311	1,696	1,155
(WY)	(2001)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)
MIN	255	222	286	551	681	499	550	179	89.7	79.0	84.7	164
(WY)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)

SUMMARY STATISTICS

	FOR 2002 CALENDAR YEAR	FOR 2003 WATER YEAR	WATER YEARS 2000 - 2003
ANNUAL TOTAL	144,879	420,992	
ANNUAL MEAN	397	1,153	662
HIGHEST ANNUAL MEAN			1,153
LOWEST ANNUAL MEAN			301
HIGHEST DAILY MEAN	1,120	Feb 1	2,690
LOWEST DAILY MEAN	51	Aug 13	51
ANNUAL SEVEN-DAY MINIMUM	55	Aug 11	55
MAXIMUM PEAK FLOW		2,720	2,720
MAXIMUM PEAK STAGE		15.32	15.32
INSTANTANEOUS LOW FLOW		118*	51*
ANNUAL RUNOFF (CFSM)	0.56	1.63	0.94
ANNUAL RUNOFF (INCHES)	7.61	22.12	12.71
10 PERCENT EXCEEDS	897	1,960	1,450
50 PERCENT EXCEEDS	358	1,030	535
90 PERCENT EXCEEDS	71	540	136

* See REMARKS.

02134170 LUMBER RIVER AT LUMBERTON, NC—Continued



02134480 BIG SWAMP NEAR TARHEEL, NC

LOCATION.--Lat 34°42'38", long 78°50'13", Robeson County, Hydrologic Unit 03040203, on left bank at downstream side of bridge on Secondary Road 1004, and 2.8 mi southwest of Tarheel.

DRAINAGE AREA.--229 mi².

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1949-54, 1957-58, 1962-68. October 1985 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 105 ft above NGVD of 1929, from topographic map. Satellite telemetry at station.

REMARKS.--Records poor. No flow, also occurred Sept. 1-4, 1993, June 12-13, July 3-27, Aug. 7-28, 2002. Minimum discharge for current water year also occurred Oct. 4.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.0	51	82	258	130	346	401	218	903	58	331	222
2	3.4	50	74	267	135	394	407	207	862	195	433	201
3	2.1	45	69	281	139	417	425	192	777	398	566	178
4	1.7	41	65	301	142	424	413	191	683	581	623	156
5	1.8	40	76	304	142	415	385	184	598	690	849	164
6	1.8	45	90	292	142	451	355	179	523	649	1,280	160
7	2.2	51	102	276	170	518	342	188	462	556	1,260	164
8	2.6	53	111	261	187	639	348	197	439	462	1,170	186
9	3.2	54	117	249	200	639	388	203	410	389	1,100	224
10	3.6	52	123	234	224	578	534	208	389	338	935	251
11	25	51	133	217	254	528	950	210	375	310	764	251
12	57	69	140	202	263	488	1,180	205	372	277	641	239
13	62	127	155	187	269	451	1,130	191	359	262	568	228
14	71	166	182	173	268	431	1,030	169	330	369	553	219
15	76	215	196	160	259	406	907	140	294	414	528	209
16	85	276	211	149	252	406	782	115	261	484	490	195
17	96	317	225	142	268	410	662	101	242	636	482	175
18	97	333	230	135	278	456	566	83	239	786	420	176
19	87	339	227	127	303	489	493	76	219	822	374	248
20	76	336	227	121	326	554	437	76	220	765	347	268
21	66	320	224	119	330	737	393	74	321	752	329	314
22	59	298	219	125	330	988	356	73	396	718	313	433
23	52	272	217	126	335	940	329	141	360	621	304	541
24	45	247	219	124	324	787	305	209	311	542	321	558
25	40	218	231	123	317	683	288	257	267	457	338	511
26	36	191	233	123	310	613	282	312	228	395	333	457
27	31	161	233	120	316	558	277	338	192	355	318	411
28	27	130	239	115	332	503	265	339	149	334	302	374
29	30	107	245	112	---	465	249	416	107	307	285	343
30	38	93	245	117	---	446	232	695	74	319	268	314
31	45	---	240	125	---	420	---	830	---	310	246	---
TOTAL	1,227.4	4,748	5,380	5,665	6,945	16,580	15,111	7,017	11,362	14,551	17,071	8,370
MEAN	39.6	158	174	183	248	535	504	226	379	469	551	279
MAX	97	339	245	304	335	988	1,180	830	903	822	1,280	558
MIN	1.7	40	65	112	130	346	232	73	74	58	246	156
CFSM	0.17	0.69	0.76	0.80	1.08	2.34	2.20	0.99	1.65	2.05	2.40	1.22
IN.	0.20	0.77	0.87	0.92	1.13	2.69	2.45	1.14	1.85	2.36	2.77	1.36

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 2003, BY WATER YEAR (WY)

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
MEAN	179	158	214	404	386	416	267	121	109	106	139	209		
MAX	1,094	382	396	1,001	1,418	1,194	571	362	474	469	551	923		
(WY)	(2000)	(1993)	(1990)	(1993)	(1998)	(1998)	(1993)	(1999)	(1995)	(2003)	(2003)	(1999)		
MIN	3.43	15.3	30.1	92.9	127	121	66.8	11.5	2.05	0.069	8.42	6.98		
(WY)	(1999)	(1999)	(2002)	(1986)	(1986)	(2002)	(1986)	(2002)	(2002)	(2002)	(2002)	(1997)		

SUMMARY STATISTICS

FOR 2002 CALENDAR YEAR

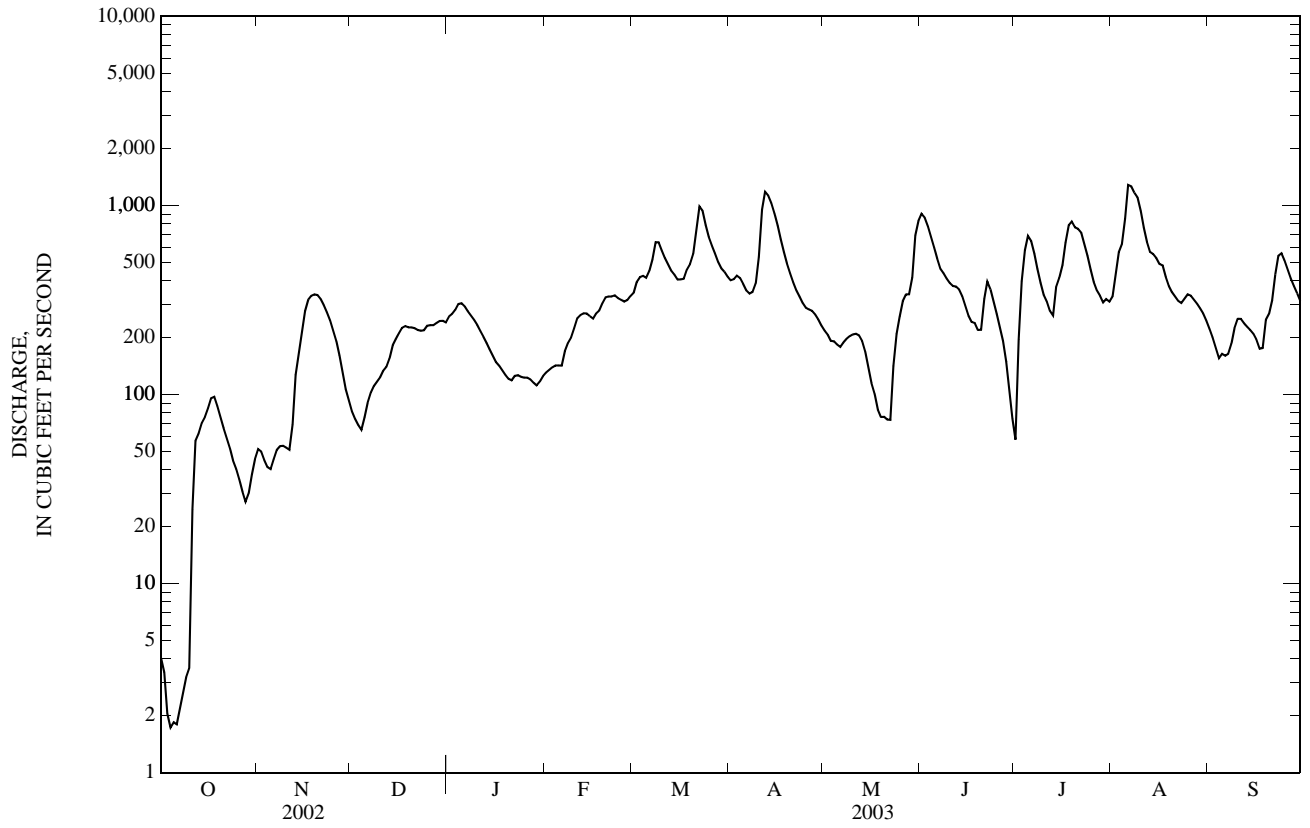
FOR 2003 WATER YEAR

WATER YEARS 1986 - 2003

ANNUAL TOTAL	32,024.21	114,027.4	
ANNUAL MEAN	87.7	312	225
HIGHEST ANNUAL MEAN			395
LOWEST ANNUAL MEAN			62.9
HIGHEST DAILY MEAN	631	Apr 3	1,280
LOWEST DAILY MEAN	0.00	Jun 12	1.7
ANNUAL SEVEN-DAY MINIMUM	0.00	Jul 3	2.2
MAXIMUM PEAK FLOW			1,350
MAXIMUM PEAK STAGE			12.31
INSTANTANEOUS LOW FLOW			1.5*
ANNUAL RUNOFF (CFSM)	0.38	1.36	0.98
ANNUAL RUNOFF (INCHES)	5.20	18.52	13.35
10 PERCENT EXCEEDS	233	628	500
50 PERCENT EXCEEDS	45	263	136
90 PERCENT EXCEEDS	0.00	66	11

* See REMARKS.

02134480 BIG SWAMP NEAR TARHEEL, NC—Continued



02134500 LUMBER RIVER AT BOARDMAN, NC

LOCATION.--Lat 34°26'33", long 78°57'37", Robeson County, Hydrologic Unit 03040203, on right bank 150 ft downstream of bridge on U.S. Highway 74, 1 mi downstream of Seaboard Coast Line Railroad bridge at Boardman, 1.5 mi downstream of Big Swamp, and 40.5 mi upstream from mouth.

DRAINAGE AREA.--1,228 mi².

PERIOD OF RECORD.--September 1929 to current year.

REVISED RECORDS.--WSP 1303: 1932(M). WDR NC-80-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 72.05 ft above NGVD of 1929 (levels by U.S. Army Corps of Engineers). Prior to Sept. 30, 1936, nonrecording gage at site 100 ft downstream at same datum. Sept. 30, 1936, to June 8, 1943, nonrecording gage at present site and datum. Satellite telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Maximum discharge for period of record also occurred Sept. 19, 1999. Minimum discharge for period of record also occurred Aug. 15, 2002.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of September 1928 reached a stage of 11.8 ft, from floodmark witnessed by local resident; discharge, 25,000 ft³/s. Flood of July 22, 1901, the highest during the period 1896-1913, reached a stage of 10.8 ft, from observations by Butters Lumber Co.; discharge, 14,800 ft³/s.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	155	524	992	1,260	692	1,710	2,810	1,670	2,780	1,200	1,600	1,390
2	149	506	943	1,310	691	1,800	2,620	1,590	2,900	1,390	1,480	1,270
3	149	490	882	1,330	692	1,860	2,450	1,540	3,030	1,960	1,380	1,160
4	151	477	818	1,340	695	1,900	2,260	1,800	3,120	2,310	1,320	1,080
5	149	466	782	1,340	697	1,940	2,060	2,030	3,200	2,760	1,290	1,060
6	143	471	740	1,350	707	2,440	1,900	2,240	3,220	2,830	1,320	1,020
7	136	472	703	1,340	777	3,360	1,810	2,290	3,140	2,860	1,490	987
8	135	471	673	1,310	817	4,100	1,780	2,310	3,080	2,840	1,850	977
9	133	474	651	1,260	864	4,180	1,890	2,310	2,910	2,700	2,250	965
10	132	474	639	1,200	952	4,250	2,310	2,240	2,700	e2,640	2,910	945
11	124	470	644	1,150	1,030	3,830	3,160	2,090	2,560	2,720	3,410	919
12	151	480	649	1,100	1,090	3,540	3,980	1,910	2,450	2,690	3,460	918
13	215	519	686	1,070	1,120	3,450	3,940	1,750	2,330	2,550	3,580	980
14	252	566	755	1,050	1,120	3,240	4,030	1,640	2,150	2,740	3,490	1,070
15	289	672	818	1,020	1,130	3,100	4,100	1,590	1,960	3,040	3,310	1,120
16	326	759	878	992	1,150	3,100	4,170	1,560	1,790	3,180	3,330	1,120
17	345	815	918	971	1,230	3,040	4,210	1,550	1,680	3,610	3,940	1,100
18	361	838	948	934	1,300	3,000	4,230	1,520	1,600	4,800	3,870	1,240
19	379	850	963	894	1,390	2,900	4,080	1,440	1,590	5,370	3,770	e1,490
20	396	877	992	859	1,470	3,120	3,520	1,330	1,760	4,880	3,240	e1,590
21	412	912	998	825	1,520	3,650	3,120	1,190	1,770	4,200	2,890	1,690
22	432	948	1,000	797	1,550	4,290	2,860	1,060	1,650	3,700	2,700	1,750
23	458	971	1,020	768	1,610	4,340	2,590	1,130	1,510	3,630	2,700	1,830
24	500	1,000	1,050	746	1,610	4,420	2,470	1,190	1,400	3,240	2,730	1,850
25	547	1,030	1,120	730	1,600	4,360	2,280	1,290	1,350	2,940	2,670	1,860
26	601	1,040	1,130	718	1,600	4,190	2,180	1,530	1,390	2,640	2,490	1,920
27	619	1,050	1,160	701	1,660	3,940	2,040	1,710	1,420	2,380	2,290	2,000
28	602	1,040	1,180	689	1,690	3,450	1,940	1,790	1,420	2,300	2,100	2,110
29	580	1,040	1,180	677	---	3,410	1,860	1,840	1,390	2,100	1,900	2,210
30	564	1,030	1,170	684	---	3,220	1,770	1,950	1,300	1,900	1,710	2,280
31	545	---	1,150	692	---	2,870	---	2,190	---	1,720	1,530	---
TOTAL	10,130	21,732	28,232	31,107	32,454	102,000	84,420	53,270	64,550	89,820	78,000	41,901
MEAN	327	724	911	1,003	1,159	3,290	2,814	1,718	2,152	2,897	2,516	1,397
MAX	619	1,050	1,180	1,350	1,690	4,420	4,230	2,310	3,220	5,370	3,940	2,280
MIN	124	466	639	677	691	1,710	1,770	1,060	1,300	1,200	1,290	918
CFSM	0.27	0.59	0.74	0.82	0.94	2.68	2.29	1.40	1.75	2.36	2.05	1.14
IN.	0.31	0.66	0.86	0.94	0.98	3.09	2.56	1.61	1.96	2.72	2.36	1.27

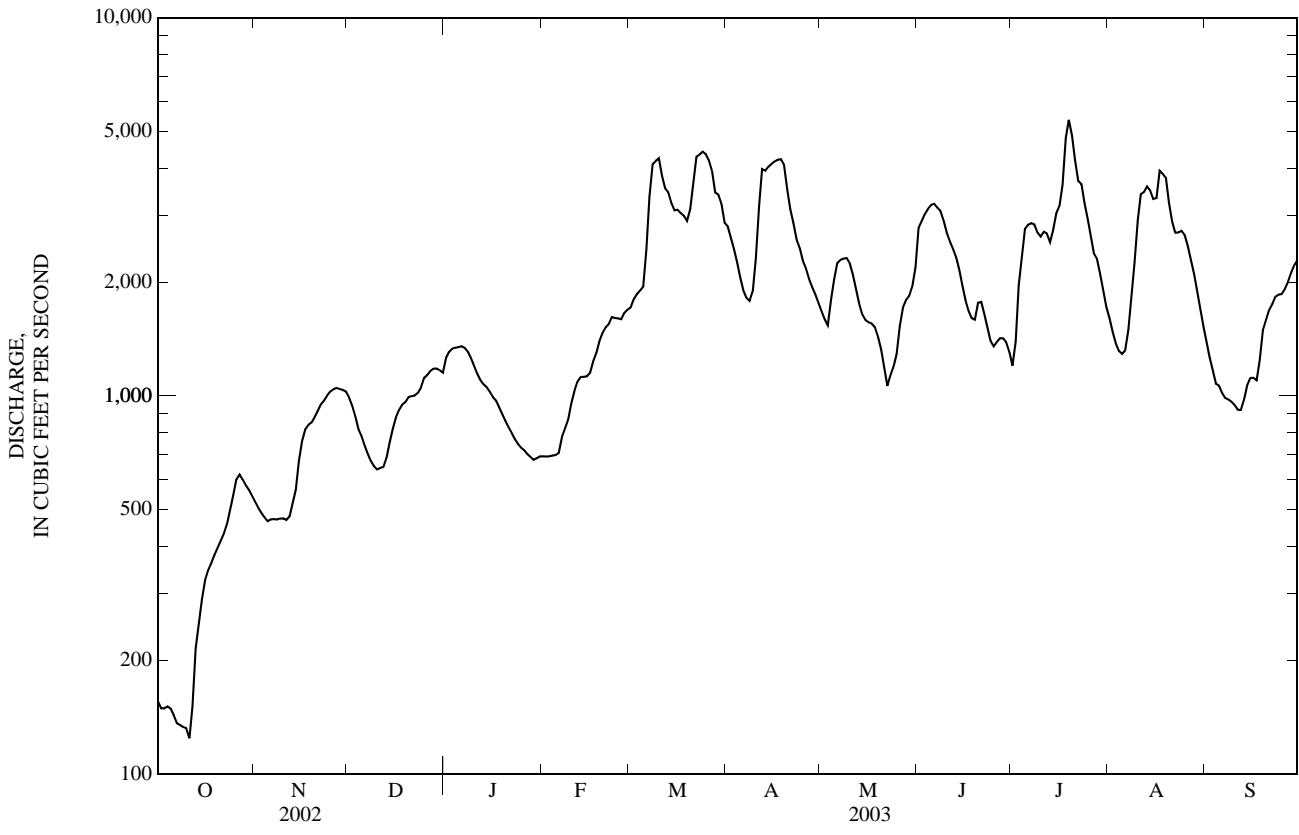
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 2003, BY WATER YEAR (WY)

MEAN	886	881	1,289	1,855	2,216	2,339	1,852	991	766	815	933	1,058
MAX	5,496	4,142	3,977	4,575	5,944	5,259	5,688	3,430	2,587	2,897	3,741	4,930
(WY)	(2000)	(1948)	(1949)	(1993)	(1998)	(1983)	(1936)	(1978)	(1969)	(2003)	(1974)	(1999)
MIN	141	211	237	262	429	611	420	249	110	80.8	84.5	92.2
(WY)	(1941)	(1934)	(1934)	(1934)	(1934)	(1934)	(1981)	(2002)	(2002)	(2002)	(2002)	(1968)

02134500 LUMBER RIVER AT BOARDMAN, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1930 - 2003	
ANNUAL TOTAL	179,946		637,616			
ANNUAL MEAN	493		1,747		1,319	
HIGHEST ANNUAL MEAN					2,391	1965
LOWEST ANNUAL MEAN					405	2002
HIGHEST DAILY MEAN	1,600	Apr 10	5,370	Jul 19	13,400	Sep 24, 1945
LOWEST DAILY MEAN	42	Aug 14	124	Oct 11	42	Aug 14, 2002
ANNUAL SEVEN-DAY MINIMUM	48	Aug 18	136	Oct 5	48	Aug 18, 2002
MAXIMUM PEAK FLOW			5,330	Jul 19	13,400*	Sep 24, 1945
MAXIMUM PEAK STAGE			8.61	Jul 19	10.70	Sep 19, 1999
INSTANTANEOUS LOW FLOW			121	Oct 11	40*	Aug 14, 2002
ANNUAL RUNOFF (CFSM)	0.40		1.42		1.07	
ANNUAL RUNOFF (INCHES)	5.45		19.32		14.59	
10 PERCENT EXCEEDS	1,040		3,430		2,820	
50 PERCENT EXCEEDS	396		1,490		955	
90 PERCENT EXCEEDS	75		522		290	

e Estimated.
 * See REMARKS.



LOCATION.--Lat 35°18'11", long 80°45'00", Mecklenburg County, Hydrologic Unit 03040105, Fire Station 27, Ken Hoffman Drive, Charlotte, NC.

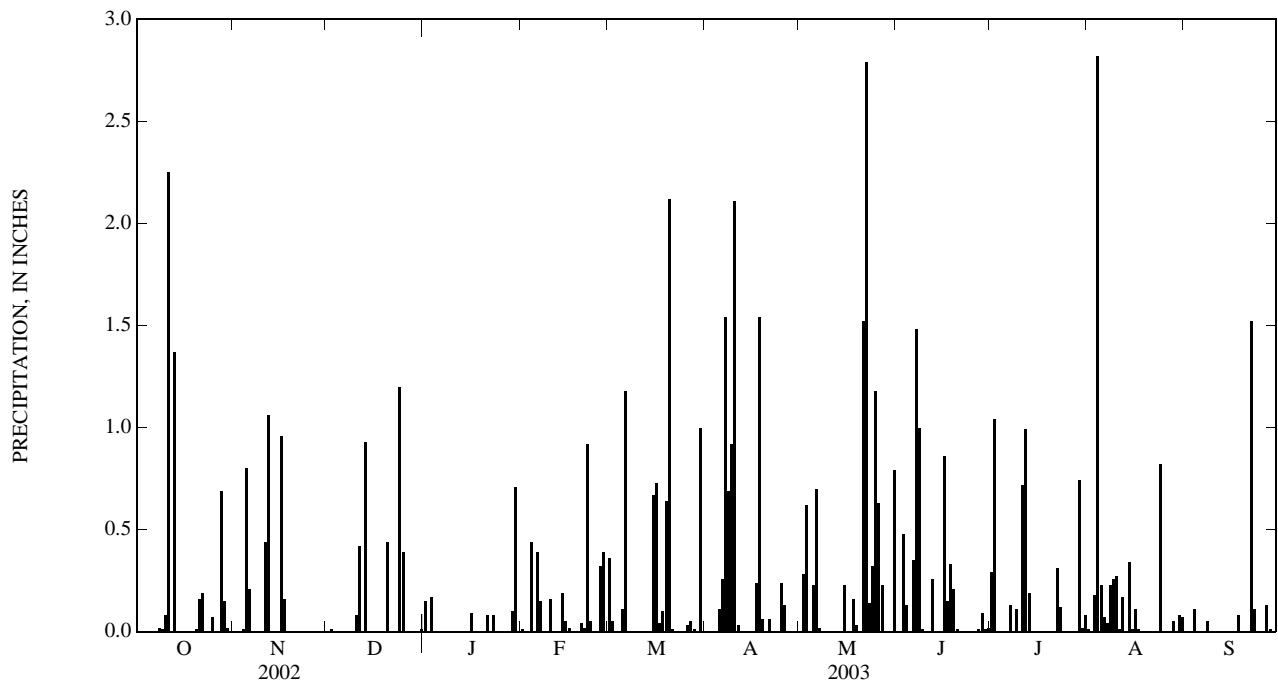
PERIOD OF RECORD.--September 1992 to current year. Records for period September 1992 to September 1998 published in USGS OFR 96-150, 98-67 and 99-273.

GAGE.--Tipping-bucket raingage and electronic datalogger. Radio telemetry at station.

REMARKS.--Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network. Collection of frozen precipitation during December 2002 and February 2003 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.15	0.01	0.36	0.00	0.00	0.00	0.29	0.01	0.00
2	0.00	0.00	0.01	0.00	0.00	0.05	0.00	0.28	0.00	1.04	0.00	0.00
3	0.00	0.00	0.00	0.17	0.00	0.00	0.00	0.62	0.48	0.00	0.18	0.00
4	0.00	0.01	0.00	0.00	0.44	0.00	0.00	0.00	0.13	0.00	2.82	0.11
5	0.00	0.80	---	0.00	0.00	0.11	0.11	0.23	0.00	0.00	0.23	0.00
6	0.00	0.21	---	0.00	0.39	1.18	0.26	0.70	0.35	0.00	0.07	0.00
7	0.00	0.00	0.00	0.00	0.15	0.00	1.54	0.02	1.48	0.13	0.04	0.00
8	0.02	0.00	0.00	0.00	0.00	0.00	0.69	0.00	1.00	0.00	0.23	0.05
9	0.01	0.00	0.00	0.00	0.00	0.00	0.92	0.00	0.01	0.11	0.26	0.00
10	0.08	0.00	0.08	0.00	0.16	0.00	2.11	0.00	0.00	0.00	0.27	0.00
11	2.25	0.44	0.42	0.00	0.00	0.00	0.03	0.00	0.00	0.72	0.01	0.00
12	0.00	1.06	0.00	0.00	0.00	0.00	0.00	0.00	0.26	0.99	0.17	0.00
13	1.37	0.00	0.93	0.00	0.00	0.00	0.00	0.00	0.00	0.19	0.00	0.00
14	0.00	0.00	0.00	0.00	0.19	0.00	0.00	0.00	0.00	0.00	0.34	0.00
15	0.00	0.00	0.00	0.00	0.05	0.67	0.00	0.23	0.00	0.00	0.01	0.00
16	0.00	0.96	0.00	0.09	0.02	0.73	0.00	0.00	0.86	0.00	0.11	0.00
17	0.00	0.16	0.00	0.00	---	0.04	0.24	0.00	0.15	---	0.01	0.00
18	0.00	0.00	0.00	0.00	---	0.10	1.54	0.16	0.33	---	0.00	0.08
19	0.00	0.00	0.00	0.00	0.00	0.64	0.06	0.03	0.21	---	0.00	0.00
20	0.01	0.00	0.44	0.00	0.04	2.12	0.00	0.00	0.01	---	0.00	0.00
21	0.16	0.00	0.00	0.08	0.02	0.01	0.06	1.52	0.00	---	0.00	0.00
22	0.19	0.00	0.00	0.00	0.92	0.00	0.00	2.79	0.00	0.31	0.00	1.52
23	0.00	0.00	0.00	0.08	0.05	0.00	0.00	0.14	0.00	0.12	0.00	0.11
24	0.00	0.00	1.20	0.00	0.00	0.00	0.00	0.32	0.00	0.00	0.82	0.00
25	0.07	0.00	0.39	---	0.00	0.00	0.24	1.18	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.32	0.03	0.13	0.63	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.39	0.05	0.00	0.23	0.01	0.00	0.00	0.13
28	0.69	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.09	0.00	0.05	0.01
29	0.15	0.00	0.00	0.10	---	0.00	0.00	0.00	0.01	0.74	0.00	0.00
30	0.02	0.00	0.00	0.71	---	1.00	0.00	0.00	0.02	0.02	0.08	0.00
31	0.00	---	0.01	0.00	---	0.00	---	0.79	---	0.08	0.07	---
TOTAL	5.02	3.64	---	---	---	7.10	7.93	9.87	5.40	---	5.78	2.01



351540080430045 CRN16

LOCATION.--Lat 35°15'42", long 80°43'08", Mecklenburg County, Hydrologic Unit 03040105, Reedy Creek Park Environmental Center, Rocky River Road, Charlotte, NC.

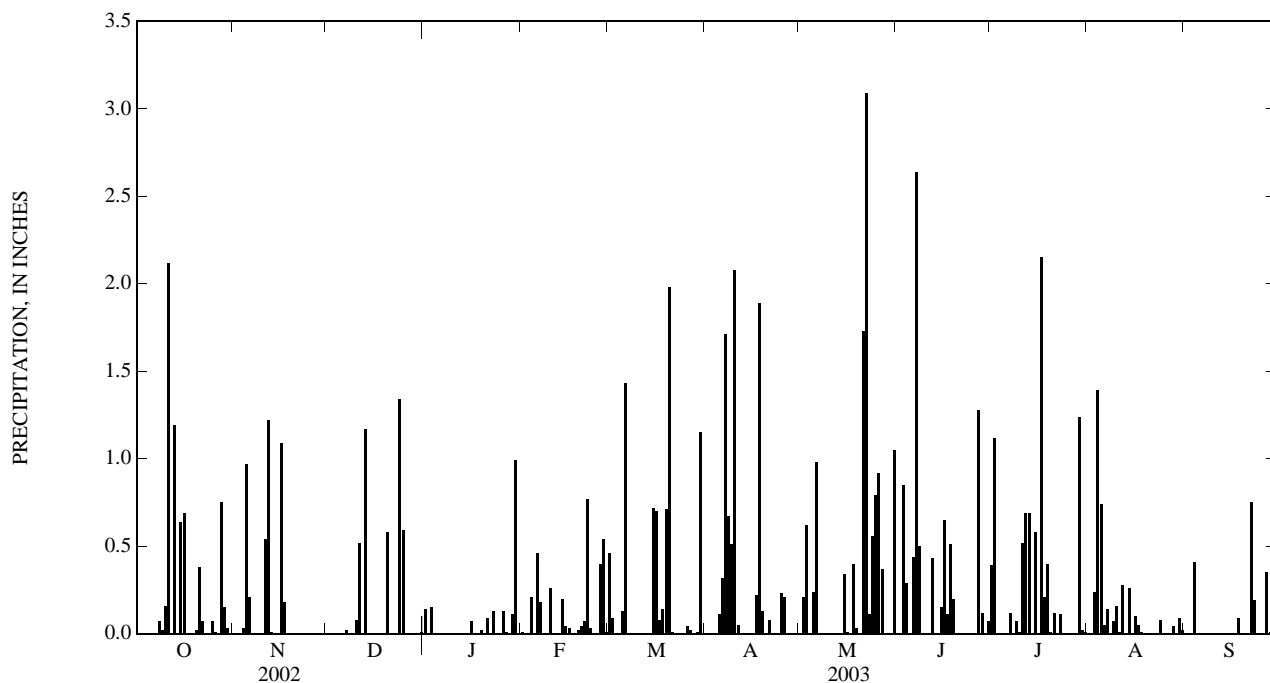
PERIOD OF RECORD.--March 1993 to current year. Records for period March 1993 to September 1998 published in USGS OFR 96-150, 98-67, and 99-273.

GAGE.--Tipping-bucket raingage and electronic datalogger. Radio telemetry at station.

REMARKS.--Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network. Collection of frozen precipitation during December 2002 and February 2003 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.14	0.01	0.46	0.00	0.00	0.00	0.39	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.21	0.00	1.12	0.00	0.00
3	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.62	0.85	0.00	0.24	0.00
4	0.00	0.03	0.00	0.00	0.21	0.00	0.00	0.00	0.29	0.00	1.39	0.41
5	0.00	0.97	---	0.00	0.00	0.13	0.11	0.24	0.00	0.00	0.74	0.00
6	0.00	0.21	---	0.00	0.46	1.43	0.32	0.98	0.44	0.00	0.05	0.00
7	0.00	0.00	0.02	0.00	0.18	0.00	1.71	---	2.64	0.12	0.14	0.00
8	0.07	0.00	0.00	0.00	0.00	0.00	0.67	---	0.50	0.00	0.00	0.00
9	0.02	0.00	0.00	0.00	0.00	0.00	0.51	---	0.00	0.07	0.07	0.00
10	0.16	0.00	0.08	0.00	0.26	0.00	2.08	---	0.00	0.01	0.16	0.00
11	2.12	0.54	0.52	0.00	0.00	0.00	0.05	---	0.00	0.52	0.01	0.00
12	0.00	1.22	0.00	0.00	0.00	0.00	0.00	---	0.43	0.69	0.28	0.00
13	1.19	0.01	1.17	0.00	0.00	0.00	0.00	1.00	0.00	0.69	0.00	0.00
14	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.26	0.00
15	0.64	0.00	0.00	0.00	0.04	0.72	0.00	0.34	0.15	0.58	0.00	0.00
16	0.69	1.09	0.00	0.07	0.03	0.70	0.00	0.01	0.65	0.00	0.10	0.00
17	0.00	0.18	0.00	0.00	---	0.08	0.22	0.00	0.11	2.15	0.05	0.00
18	0.00	0.00	0.00	0.00	---	0.14	1.89	0.40	0.51	0.21	0.01	0.09
19	0.00	0.00	0.00	0.02	0.02	0.71	0.13	0.03	0.20	0.40	0.00	0.00
20	0.02	0.00	0.58	0.00	0.04	1.98	0.00	0.00	0.00	0.01	0.00	0.00
21	0.38	0.00	0.00	0.09	0.07	0.01	0.08	1.73	0.00	0.12	0.00	0.00
22	0.07	0.00	0.00	0.00	0.77	0.00	0.00	3.09	0.00	0.00	0.00	0.75
23	0.00	0.00	0.00	0.13	0.03	0.00	0.00	0.11	0.00	0.11	0.00	0.19
24	0.00	0.00	1.34	---	0.00	0.00	0.00	0.56	0.00	0.00	0.08	0.00
25	0.07	0.00	0.59	0.00	0.00	0.00	0.23	0.79	0.00	0.00	0.00	0.00
26	0.01	0.00	0.00	0.13	0.40	0.04	0.21	0.92	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.01	0.54	0.02	0.00	0.37	1.28	0.00	0.00	0.35
28	0.75	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.12	0.00	0.04	0.01
29	0.15	0.00	0.00	0.11	---	0.01	0.00	0.00	0.00	1.24	0.00	0.00
30	0.03	0.00	0.00	0.99	---	1.15	0.00	0.00	0.07	0.02	0.09	0.00
31	0.00	---	0.01	0.00	---	0.00	---	1.05	---	0.01	0.02	---
TOTAL	6.37	4.25	---	---	---	7.67	8.21	---	8.24	8.46	3.73	1.80



LOCATION.--Lat 35°13'01", long 80°41'27", Mecklenburg County, Hydrologic Unit 03040105, Charles T. Myers golf course, Harrisburg Road, Charlotte, NC.

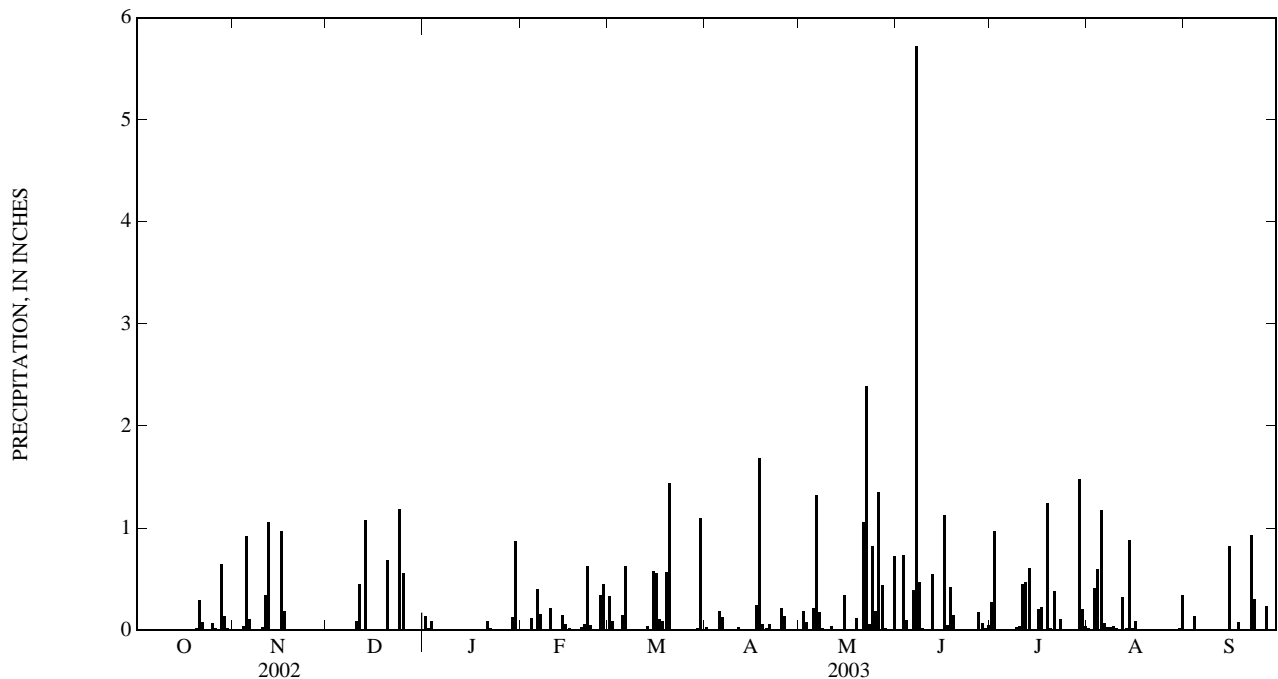
PERIOD OF RECORD.--October 1988 to current year. Records for period October 1988 to September 1998 published in USGS OFR 96-150, 98-67, and 99-273.

GAGE.--Tipping-bucket raingage and electronic datalogger. Radio telemetry at station.

REMARKS.--Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network. Collection of frozen precipitation during December 2002 and February 2003 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.13	0.00	0.33	0.02	0.00	0.00	0.27	0.01	0.00
2	0.00	0.00	0.00	0.01	0.00	0.08	0.00	0.18	0.00	0.97	0.00	0.00
3	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.07	0.73	0.00	0.41	0.00
4	0.00	0.03	---	0.00	0.11	0.00	0.00	0.00	0.09	0.00	0.59	0.13
5	0.00	0.92	---	0.00	0.00	0.14	0.18	0.21	0.00	0.00	1.17	0.00
6	0.00	0.10	---	0.00	0.40	0.62	0.12	1.32	0.39	0.00	0.06	0.00
7	0.00	0.00	---	0.00	0.15	0.00	---	0.17	5.72	0.00	0.02	0.00
8	---	0.00	---	0.00	0.00	0.00	---	0.01	0.47	0.00	0.02	0.00
9	---	0.00	0.00	0.00	0.00	0.00	---	0.00	0.01	0.02	0.03	0.00
10	---	0.02	0.08	0.00	0.21	0.00	---	0.00	0.00	0.03	0.01	0.00
11	---	0.34	0.45	0.00	0.00	0.00	0.02	0.03	0.00	0.45	0.00	0.00
12	---	1.05	0.00	0.00	0.00	0.00	0.00	0.00	0.54	0.47	0.32	0.00
13	---	0.00	1.07	0.00	0.00	0.03	0.00	0.00	0.00	0.60	0.01	0.00
14	---	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.88	0.00
15	---	0.00	0.00	0.00	0.05	0.57	0.00	0.34	0.00	0.00	0.01	0.82
16	---	0.96	0.00	0.00	0.01	0.55	0.00	0.00	1.12	0.20	0.08	0.00
17	---	0.18	0.00	0.00	---	0.10	0.24	0.00	0.04	0.22	0.00	0.00
18	0.00	0.00	0.00	0.00	---	0.08	1.68	0.00	0.42	0.00	0.00	0.07
19	0.00	0.00	0.00	0.00	0.00	0.56	0.05	0.11	0.14	1.24	0.00	0.00
20	0.01	0.00	0.68	0.00	0.02	1.44	0.01	0.00	0.00	0.01	0.00	0.00
21	0.29	0.00	0.00	0.08	0.05	0.00	0.05	1.05	0.00	0.38	0.00	0.00
22	0.07	0.00	0.00	0.01	0.62	0.00	0.00	2.39	0.00	0.00	0.00	0.93
23	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.05	0.00	0.10	0.00	0.30
24	0.00	0.00	1.18	---	0.00	0.00	0.00	0.82	0.00	0.00	0.00	0.00
25	0.06	0.00	0.55	---	0.00	0.00	0.21	0.18	0.00	0.00	0.00	0.00
26	0.01	0.00	0.00	0.00	0.34	0.00	0.13	1.35	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.44	0.17	0.00	0.00	0.23
28	0.64	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.06	0.00	0.00	0.00
29	0.13	0.00	0.00	0.12	---	0.01	0.00	0.00	0.01	1.48	0.00	0.00
30	0.01	0.00	0.00	0.87	---	1.09	0.00	0.00	0.04	0.20	0.01	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.72	---	0.03	0.34	---
TOTAL	---	3.60	---	---	---	5.60	---	9.45	9.95	6.67	3.97	2.48



352432080473745 CRN26

LOCATION.--Lat 35°24'33", long 80°47'38", Mecklenburg County, Hydrologic Unit 03040105, Bradford Airfield, Huntersville-Concord Road, Huntersville, NC.

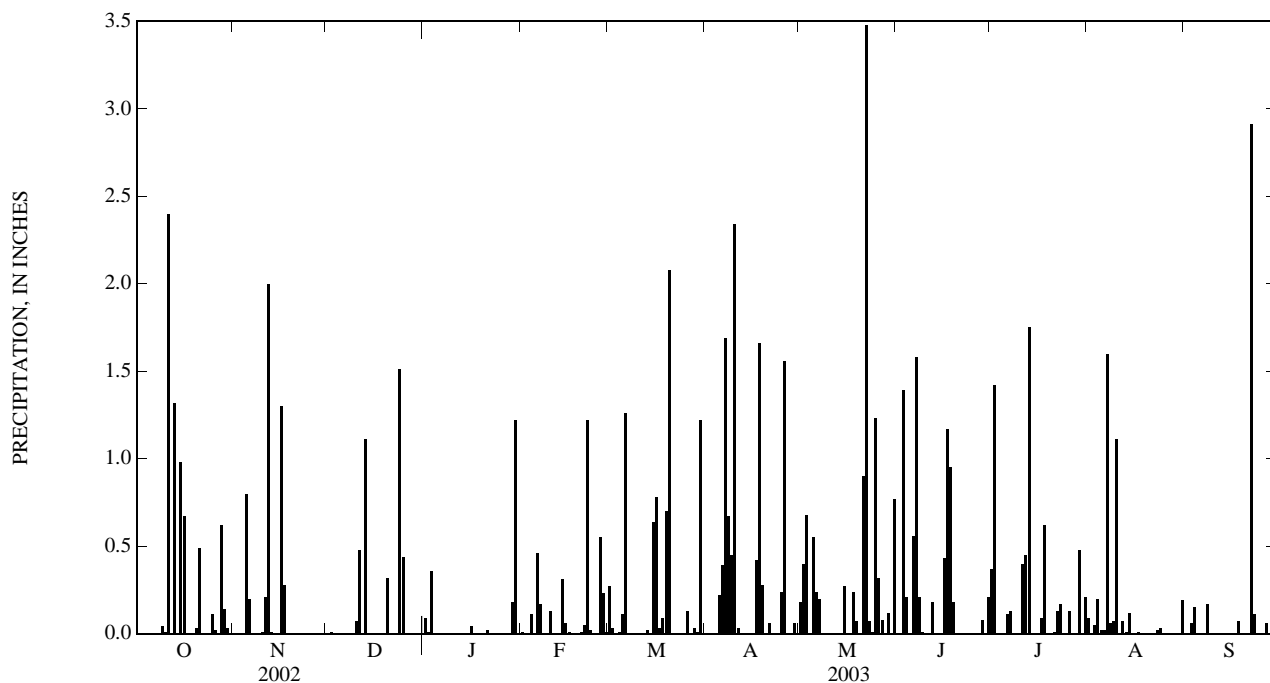
PERIOD OF RECORD.--June 1994 to current year. Records for period June 1994 to September 1998 published in USGS OFR 96-150, 98-67, and 99-273.

GAGE.--Tipping-bucket raingage and electronic datalogger. Radio telemetry at station.

REMARKS.--Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network. Collection of frozen precipitation during December 2002 and February 2003 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.09	0.01	0.27	0.00	0.18	0.00	0.37	0.09	0.00
2	0.00	0.00	0.01	0.01	0.00	0.03	0.00	0.40	0.00	1.42	0.00	0.00
3	0.00	0.00	0.00	0.36	0.00	0.00	0.00	0.68	1.39	0.00	0.05	0.06
4	0.00	0.00	---	0.00	0.11	0.01	0.00	0.00	0.21	0.00	0.20	0.15
5	0.00	0.80	---	0.00	0.00	0.11	0.22	0.55	0.00	0.00	0.02	0.00
6	0.00	0.20	---	0.00	0.46	1.26	0.39	0.24	0.56	0.11	0.02	0.00
7	0.00	0.00	---	0.00	0.17	0.00	1.69	0.20	1.58	0.13	1.60	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0.00	0.21	0.00	0.06	0.17
9	0.04	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.01	0.00	0.07	0.00
10	0.01	0.01	0.07	0.00	0.13	0.00	2.34	0.00	0.00	0.00	1.11	0.00
11	2.40	0.21	0.48	0.00	0.00	0.00	0.03	0.00	0.00	0.40	0.00	0.00
12	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.45	0.07	0.00
13	1.32	0.01	1.11	0.00	0.00	0.02	0.00	0.00	0.00	1.75	0.01	0.00
14	0.00	0.00	0.00	0.00	0.31	0.00	0.00	0.00	0.00	0.00	0.12	0.00
15	0.98	0.00	0.00	0.00	0.06	0.64	0.00	0.27	0.00	0.00	0.00	0.00
16	0.67	1.30	0.00	0.04	0.01	0.78	0.00	0.00	0.43	0.00	0.00	0.00
17	0.00	0.28	0.00	0.00	---	0.03	0.42	0.00	1.17	0.09	0.01	0.00
18	0.00	0.00	0.00	0.00	---	0.09	1.66	0.24	0.95	0.62	0.00	0.07
19	0.00	0.00	0.00	0.00	0.00	0.70	0.28	0.07	0.18	0.00	0.00	0.00
20	0.03	0.00	0.32	0.00	0.01	2.08	0.00	0.00	0.00	0.00	0.00	0.00
21	0.49	0.00	0.00	0.02	0.05	0.00	0.06	0.90	0.00	0.01	0.00	0.00
22	0.00	0.00	0.00	0.00	1.22	0.00	0.00	3.48	0.00	0.13	0.00	2.91
23	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.07	0.00	0.17	0.02	0.11
24	0.00	0.00	1.51	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.03	0.00
25	0.11	0.00	0.44	0.00	0.00	0.00	0.24	1.23	0.00	0.00	0.00	0.00
26	0.02	0.00	0.00	0.00	0.55	0.13	1.56	0.32	0.00	0.13	0.00	0.00
27	0.00	0.00	0.00	0.00	0.23	0.00	0.00	0.08	0.00	0.00	0.00	0.06
28	0.62	0.00	0.00	0.00	0.01	0.03	0.00	0.00	0.08	0.00	0.00	0.00
29	0.14	0.00	0.00	0.18	---	0.01	0.06	0.12	0.00	0.48	0.00	0.00
30	0.03	0.00	0.00	1.22	---	1.22	0.00	0.00	0.21	0.00	0.00	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.77	---	0.21	0.19	---
TOTAL	6.86	4.81	---	1.92	---	7.41	10.07	9.81	7.16	6.47	3.67	3.53



LOCATION.--Lat 35°12'20", long 80°33'08", Mecklenburg County, Hydrologic Unit 03040105, Clear Creek Boy Scout Camp, Belt Road, Midland, NC.

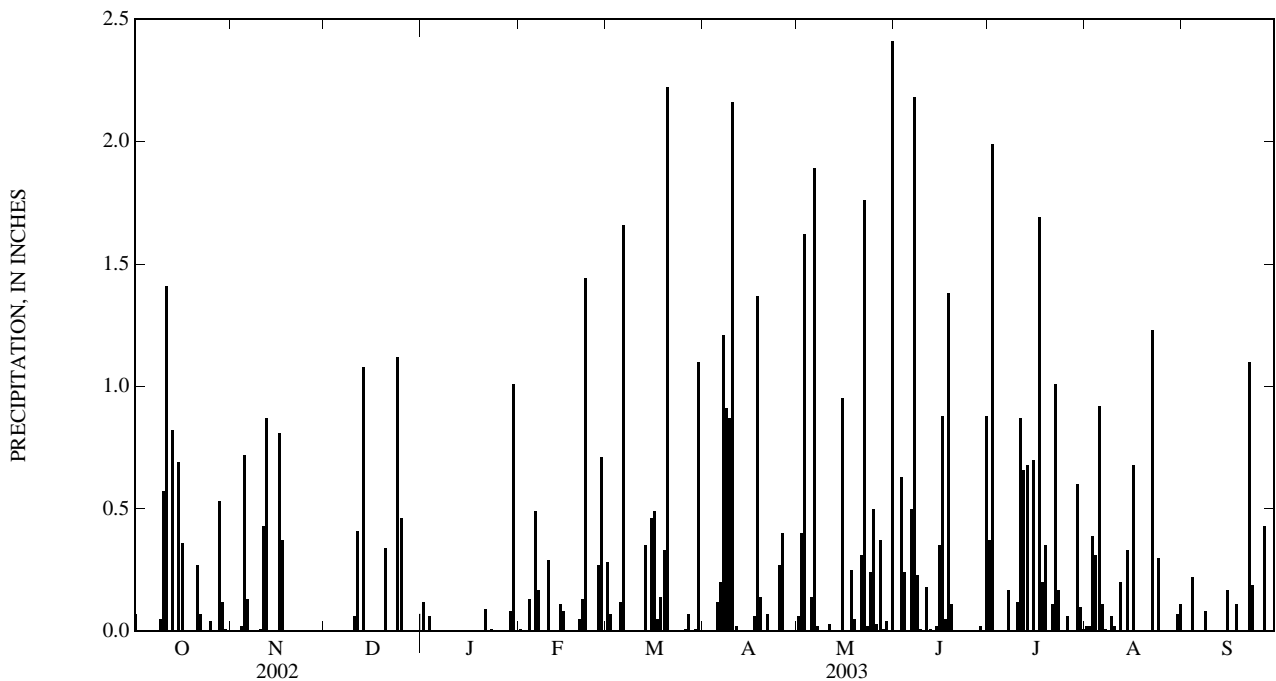
PERIOD OF RECORD.--February 1996 to current year. Records for period February 1996 to September 1998 published in USGS OFR 98-67 and 99-273.

GAGE.--Tipping-bucket raingage and electronic datalogger. Radio telemetry at station.

REMARKS.--Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network. Collection of frozen precipitation during December 2002 and February 2003 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.07	0.00	0.00	0.12	0.01	0.28	0.00	0.06	0.00	0.37	0.02	0.00
2	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.40	0.00	1.99	0.02	0.00
3	0.00	0.00	0.00	0.06	0.00	0.00	0.00	1.62	0.63	0.00	0.39	0.00
4	0.00	0.02	---	0.00	0.13	0.00	0.00	0.00	0.24	0.00	0.31	0.22
5	0.00	0.72	---	0.00	0.00	0.12	0.12	0.14	0.00	0.00	0.92	0.00
6	0.00	0.13	---	0.00	0.49	1.66	0.20	1.89	0.50	0.00	0.11	0.00
7	0.00	0.00	0.00	0.00	0.17	0.00	1.21	0.02	2.18	0.17	0.01	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.91	0.00	0.23	0.00	0.00	0.08
9	0.05	0.00	0.00	0.00	0.00	0.00	0.87	0.00	0.01	0.00	0.06	0.00
10	0.57	0.01	0.06	0.00	0.29	0.00	2.16	0.00	0.00	0.12	0.02	0.00
11	1.41	0.43	0.41	0.00	0.00	0.00	0.02	0.03	0.18	0.87	0.00	0.00
12	0.00	0.87	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.66	0.20	0.00
13	0.82	0.00	1.08	0.00	0.00	0.35	0.00	0.00	0.00	0.68	0.00	0.00
14	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.02	0.00	0.33	0.00
15	0.69	0.00	0.00	0.00	0.08	0.46	0.00	0.95	0.35	0.70	0.00	0.17
16	0.36	0.81	0.00	0.00	0.00	0.49	0.00	0.00	0.88	0.00	0.68	0.00
17	0.00	0.37	0.00	0.00	---	0.05	0.06	0.00	0.05	1.69	0.00	0.00
18	0.00	0.00	0.00	0.00	---	0.14	1.37	0.25	1.38	0.20	0.00	0.11
19	0.00	0.00	0.00	0.00	0.00	0.33	0.14	0.05	0.11	0.35	0.00	0.00
20	0.00	0.00	0.34	0.00	0.05	2.22	0.00	0.00	0.00	0.00	0.00	0.00
21	0.27	0.00	0.00	0.09	0.13	0.00	0.07	0.31	0.00	0.11	0.00	0.00
22	0.07	0.00	0.00	0.00	1.44	0.00	0.00	1.76	0.00	1.01	1.23	1.10
23	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.02	0.00	0.17	0.00	0.19
24	0.00	0.00	1.12	---	0.00	0.00	0.00	0.24	0.00	0.00	0.30	0.00
25	0.04	0.00	0.46	0.00	0.00	0.00	0.27	0.50	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.27	0.01	0.40	0.03	0.00	0.06	0.00	0.00
27	0.00	0.00	0.00	0.00	0.71	0.07	0.00	0.37	0.00	0.00	0.00	0.43
28	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.00	0.00	0.00
29	0.12	0.00	0.00	0.08	---	0.01	0.00	0.04	0.00	0.60	0.00	0.00
30	0.01	0.00	0.00	1.01	---	1.10	0.00	0.00	0.88	0.10	0.07	0.00
31	0.00	---	0.00	0.00	---	0.00	---	2.41	---	0.01	0.11	---
TOTAL	5.01	3.36	---	---	---	7.36	7.80	11.10	7.67	9.86	4.78	2.30



351455080374445 CRN30

LOCATION.--Lat 35°14'56", long 80°37'43", Mecklenburg County, Hydrologic Unit 03040105, private residence, Peach Orchard Road, Mint Hill, NC.

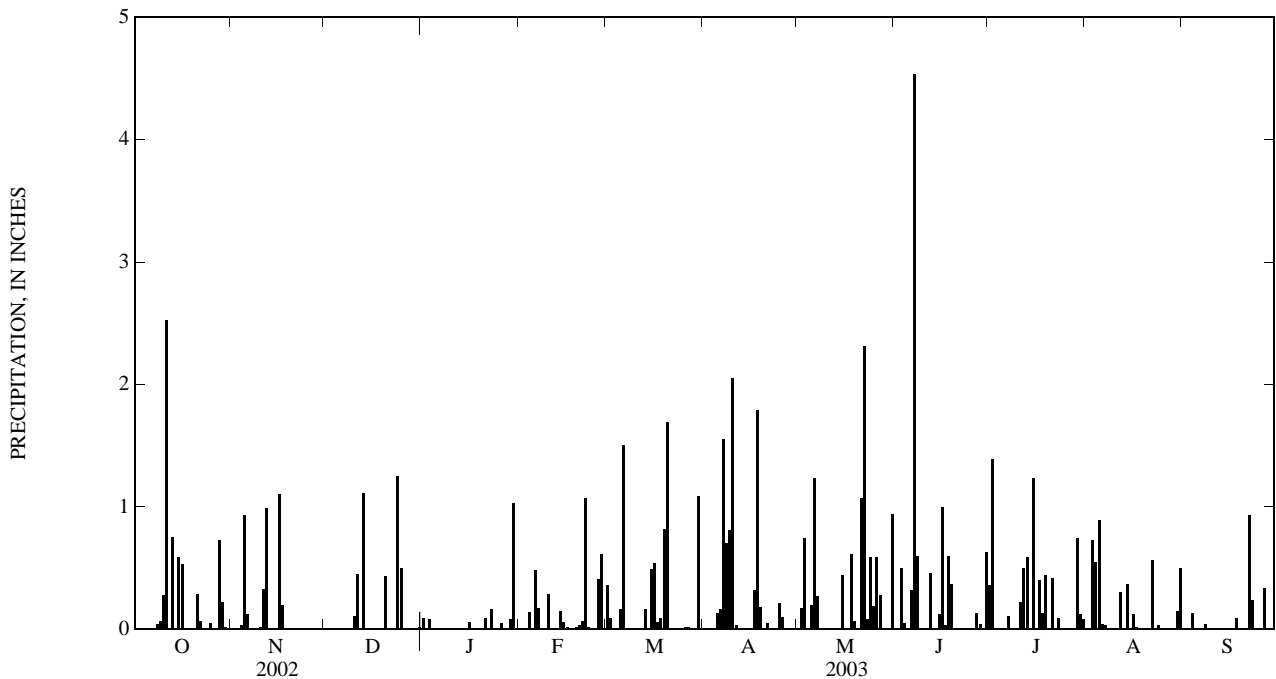
PERIOD OF RECORD.--February 1996 to current year. Records for period February 1996 to September 1998 published in USGS OFR 98-67 and 99-273.

GAGE.--Tipping-bucket raingage and electronic datalogger. Radio telemetry at station.

REMARKS.--Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network. Collection of frozen precipitation during December 2002 and February 2003 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.09	0.00	0.36	0.00	0.00	0.00	0.36	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.17	0.00	1.39	0.00	0.00
3	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.74	0.50	0.00	0.73	0.00
4	0.00	0.03	0.00	0.00	0.14	0.00	0.00	0.01	0.05	0.00	0.55	0.13
5	0.00	0.93	---	0.00	0.00	0.16	0.13	0.20	0.00	0.00	0.89	0.00
6	0.00	0.12	---	0.00	0.48	1.50	0.16	1.23	0.32	0.00	0.04	0.00
7	0.00	0.00	0.00	0.00	0.17	0.00	1.55	0.27	4.53	0.11	0.03	0.00
8	0.04	0.00	0.00	0.00	0.00	0.00	0.70	0.00	0.60	0.00	0.00	0.04
9	0.07	0.00	0.00	0.00	0.00	0.00	0.81	0.00	0.00	0.00	0.01	0.00
10	0.28	0.02	0.11	0.00	0.29	0.00	2.05	0.00	0.00	0.01	0.00	0.00
11	2.52	0.33	0.45	0.00	0.00	0.00	0.03	0.00	0.00	0.22	0.01	0.00
12	0.00	0.99	0.00	0.00	0.00	0.00	0.00	0.00	0.46	0.50	0.30	0.00
13	0.75	0.00	1.11	0.00	0.00	0.16	0.00	0.00	0.00	0.59	0.00	0.00
14	0.01	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.37	0.00
15	0.59	0.00	0.00	0.00	0.06	0.49	0.00	0.44	0.12	1.23	0.00	0.00
16	0.53	1.10	0.00	0.06	0.02	0.54	0.00	0.00	1.00	0.00	0.12	0.00
17	0.00	0.20	0.00	0.00	---	0.06	0.32	0.00	0.03	0.40	0.02	0.00
18	0.00	0.00	0.00	0.00	---	0.09	1.79	0.61	0.60	0.13	0.00	0.09
19	0.00	0.00	0.00	0.00	0.02	0.82	0.18	0.07	0.37	0.44	0.00	0.00
20	0.01	0.00	0.43	0.00	0.03	1.69	0.00	0.00	0.00	0.00	0.00	0.00
21	0.29	0.00	0.00	0.09	0.07	0.01	0.05	1.07	0.00	0.42	0.00	0.00
22	0.07	0.00	0.00	0.00	1.07	0.00	0.00	2.31	0.00	0.00	0.56	0.93
23	0.00	0.00	0.00	0.16	0.02	0.00	0.00	0.08	0.00	0.09	0.00	0.24
24	0.00	0.00	1.25	0.00	0.00	0.00	0.00	0.59	0.00	0.00	0.03	0.00
25	0.05	0.00	0.50	0.00	0.00	0.00	0.21	0.19	0.00	0.00	0.00	0.00
26	0.01	0.00	0.00	0.05	0.41	0.02	0.10	0.59	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.61	0.02	0.00	0.28	0.13	0.00	0.00	0.34
28	0.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.01
29	0.22	0.00	0.00	0.08	---	0.01	0.00	0.01	0.00	0.74	0.00	0.00
30	0.02	0.00	0.00	1.03	---	1.09	0.00	0.00	0.63	0.12	0.15	0.00
31	0.00	---	0.02	0.00	---	0.00	---	0.94	---	0.08	0.50	---
TOTAL	6.19	3.72	---	1.64	---	7.11	8.08	9.80	9.38	6.83	4.31	1.78



LOCATION.--Lat 35°10'29", long 80°38'54", Mecklenburg County, Hydrologic Unit 03040105, Bain Elementary School, Bain School Road, Mint Hill, NC.

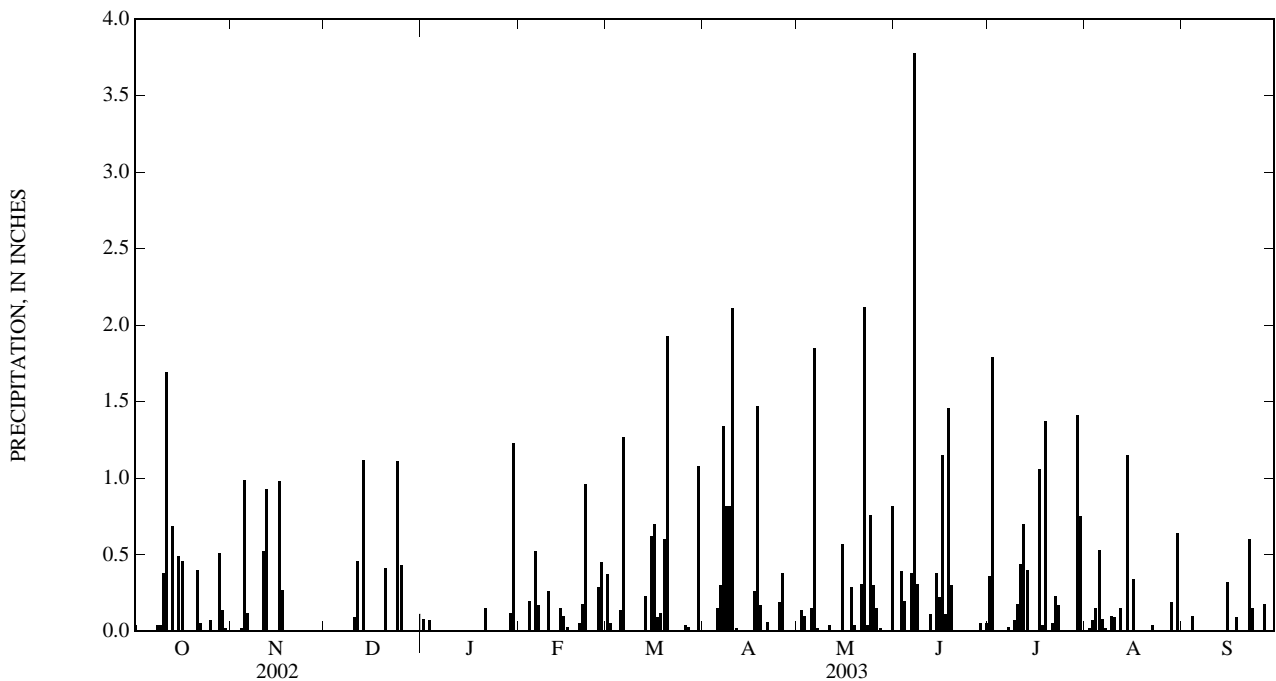
PERIOD OF RECORD.--February 1996 to current year. Records for period February 1996 to September 1998 published in USGS OFR 98-67 and 99-273.

GAGE.--Tipping-bucket raingage and electronic datalogger. Radio telemetry at station.

REMARKS.--Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network. Collection of frozen precipitation during December 2002 and February 2003 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.04	0.00	0.01	0.08	0.01	0.37	0.00	0.00	0.00	0.36	0.00	0.01
2	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.14	0.00	1.79	0.02	0.00
3	0.00	0.00	0.00	0.07	0.00	0.00	0.00	0.10	0.39	0.00	0.07	0.00
4	0.00	0.02	---	0.00	0.20	0.01	0.00	0.00	0.20	0.00	0.15	0.10
5	0.00	0.99	---	0.00	0.00	0.14	0.15	0.15	0.00	0.00	0.53	0.00
6	0.00	0.12	---	0.00	0.52	1.27	0.30	1.85	0.38	0.00	0.08	0.00
7	0.00	0.00	0.00	0.00	0.17	0.00	1.34	0.02	3.78	0.03	0.02	0.00
8	0.04	0.00	0.01	0.00	0.00	0.00	0.82	0.00	0.31	0.00	0.01	0.01
9	0.04	0.00	0.00	0.00	0.00	0.00	0.82	0.00	0.00	0.07	0.10	0.00
10	0.38	0.01	0.09	0.00	0.26	0.00	2.11	0.00	0.00	0.18	0.09	0.00
11	1.69	0.52	0.46	0.00	0.00	0.00	0.02	0.04	0.00	0.44	0.00	0.00
12	0.00	0.93	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.70	0.15	0.00
13	0.69	0.00	1.12	0.00	0.00	0.23	0.00	0.00	0.00	0.40	0.01	0.00
14	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.38	0.00	1.15	0.00
15	0.49	0.00	0.00	0.00	0.10	0.62	0.00	0.57	0.22	0.00	0.00	0.32
16	0.46	0.98	0.00	0.00	0.03	0.70	0.00	0.00	1.15	0.00	0.34	0.00
17	0.00	0.27	0.00	0.00	---	0.09	0.26	0.00	0.11	1.06	0.00	0.00
18	0.00	0.00	0.00	0.00	---	0.12	1.47	0.29	1.46	0.04	0.00	0.09
19	0.00	0.00	0.00	0.00	0.00	0.60	0.17	0.04	0.30	1.37	0.00	0.00
20	0.00	0.00	0.41	0.00	0.05	1.93	0.00	0.00	0.00	0.00	0.00	0.00
21	0.40	0.00	0.00	0.15	0.18	0.01	0.06	0.31	0.00	0.05	0.00	0.00
22	0.05	0.00	0.00	0.00	0.96	0.00	0.00	2.12	0.00	0.23	0.04	0.60
23	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.04	0.00	0.17	0.00	0.15
24	0.00	0.00	1.11	0.00	0.00	0.00	0.00	0.76	0.00	0.00	0.00	0.00
25	0.07	0.00	0.43	---	0.00	0.00	0.19	0.30	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.29	0.04	0.38	0.15	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.45	0.03	0.00	0.02	0.00	0.00	0.00	0.18
28	0.51	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.05	0.00	0.19	0.01
29	0.14	0.00	0.00	0.12	---	0.01	0.00	0.00	0.00	1.41	0.00	0.00
30	0.02	0.00	0.00	1.23	---	1.08	0.00	0.00	0.05	0.75	0.64	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.82	---	0.00	0.01	---
TOTAL	5.02	3.84	---	---	---	7.31	8.09	7.73	8.89	9.05	3.60	1.47



352000080414645 CRN33

LOCATION.--Lat 35°20'07", long 80°41'51", Mecklenburg County, Hydrologic Unit 03040105, Mallard Creek WWTP, U.S. Highway 29 North, Charlotte, NC.

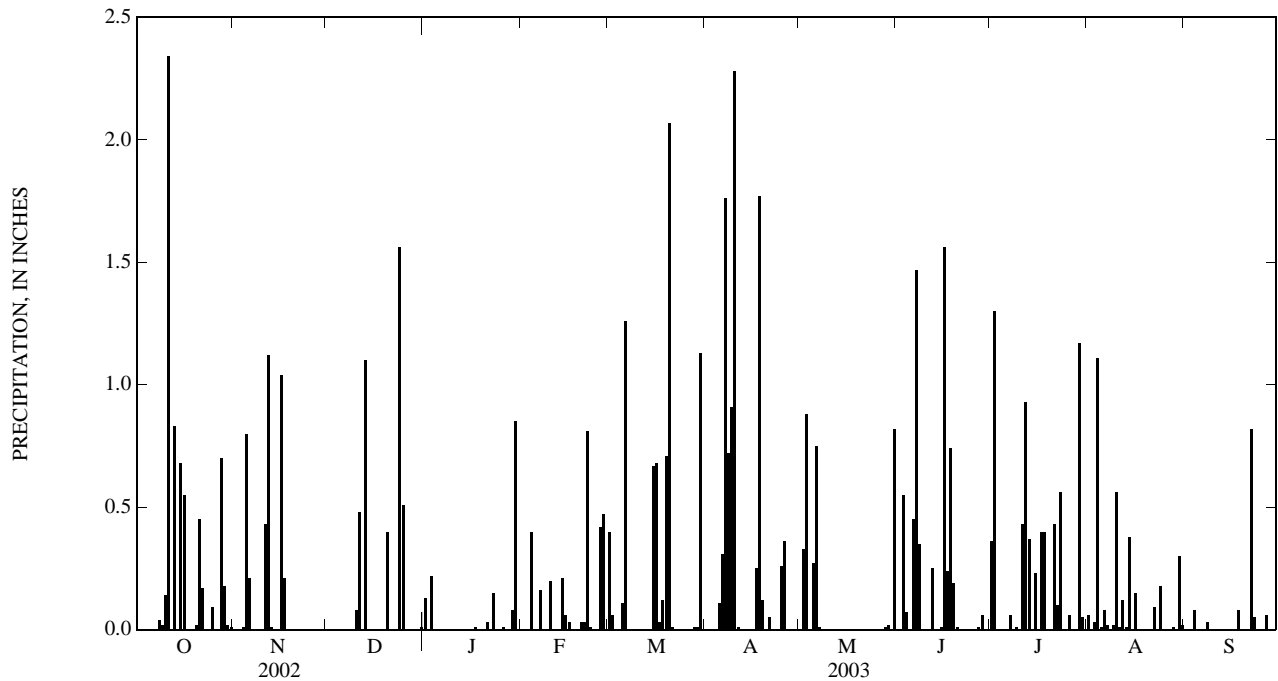
PERIOD OF RECORD.--December 1995 to current year. Records for period December 1995 to September 1998 published in USGS OFR 98-67 and 99-273.

GAGE.--Tipping-bucket raingage and electronic datalogger. Radio telemetry at station.

REMARKS.--Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network. Collection of frozen precipitation during December 2002 and February 2003 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.13	0.00	0.40	0.00	0.00	0.00	0.36	0.06	0.00
2	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.33	0.00	1.30	0.00	0.00
3	0.00	0.00	0.00	0.22	0.00	0.00	0.00	0.88	0.55	0.00	0.03	0.00
4	0.00	0.01	---	0.00	0.40	0.00	0.00	0.00	0.07	0.00	1.11	0.08
5	0.00	0.80	---	0.00	0.00	0.11	0.11	0.27	0.00	0.00	0.01	0.00
6	0.00	0.21	---	0.00	---	1.26	0.31	0.75	0.45	0.00	0.08	0.00
7	0.00	0.00	0.00	0.00	0.16	0.00	1.76	0.01	1.47	0.06	0.02	0.00
8	0.04	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.35	0.00	0.00	0.03
9	0.02	0.00	0.00	0.00	0.00	0.00	0.91	0.00	0.00	0.01	0.02	0.00
10	0.14	0.00	0.08	0.00	0.20	0.00	2.28	0.00	0.00	0.00	0.56	0.00
11	2.34	0.43	0.48	0.00	0.00	0.00	0.01	0.00	0.00	0.43	0.01	0.00
12	0.00	1.12	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.93	0.12	0.00
13	0.83	0.01	1.10	0.00	0.00	0.00	0.00	0.00	0.00	0.37	0.01	0.00
14	0.00	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.00	0.00	0.38	0.00
15	0.68	0.00	0.00	0.00	0.06	0.67	0.00	---	0.01	0.23	0.00	0.00
16	0.55	1.04	0.00	0.00	0.03	0.68	0.00	---	1.56	0.00	0.15	0.00
17	0.00	0.21	0.00	0.01	---	0.03	0.25	---	0.24	0.40	0.00	0.00
18	0.00	0.00	0.00	0.00	---	0.12	1.77	---	0.74	0.40	0.00	0.08
19	0.00	0.00	0.00	0.00	0.00	0.71	0.12	---	0.19	0.00	0.00	0.00
20	0.02	0.00	0.40	0.00	0.03	2.07	0.00	---	0.01	0.00	0.00	0.00
21	0.45	0.00	0.00	0.03	0.03	0.01	0.05	---	0.00	0.43	0.00	0.00
22	0.17	0.00	0.00	0.00	0.81	0.00	0.00	---	0.00	0.10	0.09	0.82
23	0.00	0.00	0.00	0.15	0.01	0.00	0.00	---	0.00	0.56	0.00	0.05
24	0.00	0.00	1.56	0.00	0.00	0.00	0.00	---	0.00	0.00	0.18	0.00
25	0.09	0.00	0.51	0.00	0.00	0.00	0.26	---	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.01	0.42	0.00	0.36	---	0.00	0.06	0.00	0.00
27	0.00	0.00	0.00	0.00	0.47	0.00	0.00	---	0.01	0.00	0.00	0.06
28	0.70	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.06	0.00	0.01	0.00
29	0.18	0.00	0.00	0.08	---	0.01	0.00	0.02	0.00	1.17	0.00	0.00
30	0.02	0.00	0.00	0.85	---	1.13	0.00	0.00	0.00	0.05	0.30	0.00
31	0.01	---	0.01	0.00	---	0.00	---	0.82	---	0.00	0.02	---
TOTAL	6.24	3.83	---	1.48	---	7.27	8.91	---	5.96	6.86	3.16	1.12



LOCATION.--Lat 35°29'22", long 80°47'32", Mecklenburg County, Hydrologic Unit 03040105, Westfork Substation, Shearer Road, Davidson, NC.

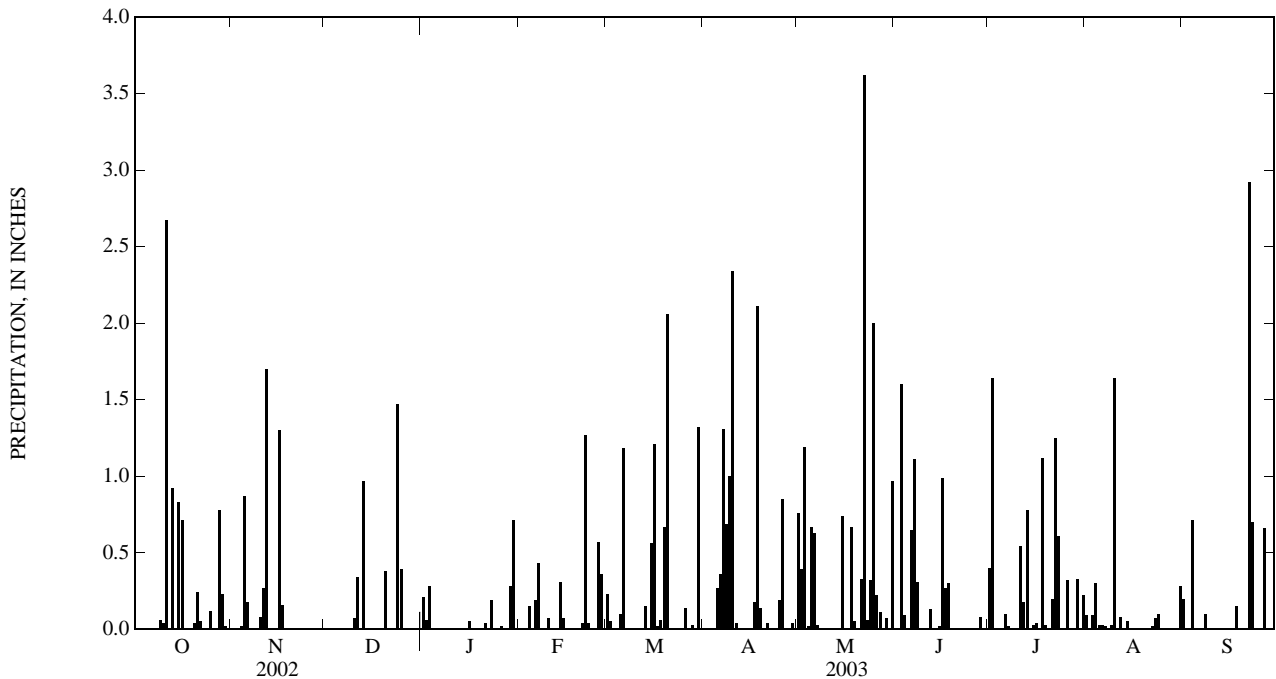
PERIOD OF RECORD.--February 1996 to current year. Records for period February 1996 to September 1998 published in USGS OFR 98-67 and 99-273.

GAGE.--Tipping-bucket raingage and electronic datalogger. Radio telemetry at station.

REMARKS.--Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network. Collection of frozen precipitation during December 2002 and February 2003 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.21	0.00	0.23	0.00	0.76	0.00	0.40	0.09	0.20
2	0.00	0.00	0.01	0.06	0.00	0.05	0.00	0.39	0.00	1.64	0.00	0.01
3	0.00	0.00	0.00	0.28	0.00	0.00	0.00	1.19	1.60	0.00	0.09	0.00
4	0.00	0.02	---	0.00	0.15	0.00	0.00	0.02	0.09	0.00	0.30	0.71
5	0.00	0.87	---	0.00	0.00	0.10	0.27	0.67	0.00	0.00	0.03	0.00
6	0.00	0.18	---	0.00	0.19	1.18	0.36	0.63	0.65	0.10	0.03	0.00
7	0.00	0.00	---	0.00	0.43	0.00	1.31	0.03	1.11	0.02	0.02	0.00
8	0.00	0.00	---	0.00	0.00	0.00	0.69	0.00	0.31	0.00	0.00	0.10
9	0.06	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.01	0.03	0.00
10	0.04	0.08	0.07	0.00	0.07	0.00	2.34	0.00	0.00	0.00	1.64	0.00
11	2.67	0.27	0.34	0.00	0.00	0.00	0.04	0.00	0.01	0.54	0.00	0.00
12	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.18	0.08	0.00
13	0.92	0.01	0.97	0.00	0.00	0.15	0.00	0.00	0.00	0.78	0.01	0.00
14	0.00	0.00	0.01	0.00	0.31	0.00	0.00	0.00	0.00	0.01	0.05	0.00
15	0.83	0.00	0.00	0.00	0.07	0.56	0.00	0.74	0.02	0.03	0.00	0.00
16	0.71	1.30	0.00	0.05	---	1.21	0.00	0.01	0.99	0.04	0.01	0.00
17	0.00	0.16	0.00	0.00	---	0.02	0.18	0.00	0.27	0.01	0.00	0.00
18	0.00	0.00	0.00	0.00	---	0.06	2.11	0.67	0.30	1.12	0.00	0.15
19	0.00	0.00	0.01	0.00	0.00	0.67	0.14	0.05	0.01	0.03	0.00	0.00
20	0.04	0.00	0.38	0.00	0.01	2.06	0.00	0.00	0.00	0.00	0.00	0.00
21	0.24	0.00	0.00	0.04	0.04	0.00	0.04	0.33	0.00	0.20	0.00	0.00
22	0.05	0.00	0.00	0.00	1.27	0.00	0.01	3.62	0.00	1.25	0.02	2.92
23	0.00	0.00	0.00	0.19	0.04	0.00	0.00	0.06	0.00	0.61	0.07	0.70
24	0.00	0.00	1.47	0.00	0.00	0.00	0.00	0.32	0.00	0.00	0.10	0.00
25	0.12	0.00	0.39	0.00	0.00	0.00	0.19	2.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.02	0.57	0.14	0.85	0.22	0.00	0.32	0.00	0.00
27	0.00	0.00	0.00	0.00	0.36	0.01	0.00	0.11	0.00	0.00	0.00	0.66
28	0.78	0.00	0.00	0.00	0.01	0.03	0.00	0.00	0.08	0.00	0.00	0.00
29	0.23	0.00	0.00	0.28	---	0.00	0.04	0.07	0.00	0.33	0.00	0.00
30	0.02	0.00	0.00	0.71	---	1.32	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	---	0.00	0.01	---	0.00	---	0.97	---	0.22	0.28	---
TOTAL	6.71	4.59	---	1.85	---	7.79	9.57	12.86	5.57	7.84	2.85	5.45



350634080405245 CRN39

LOCATION.--Lat 35°06'35", long 80°40'52", Mecklenburg County, Hydrologic Unit 03040105, private residence, Mount Harmony Church Road, Matthews, NC.

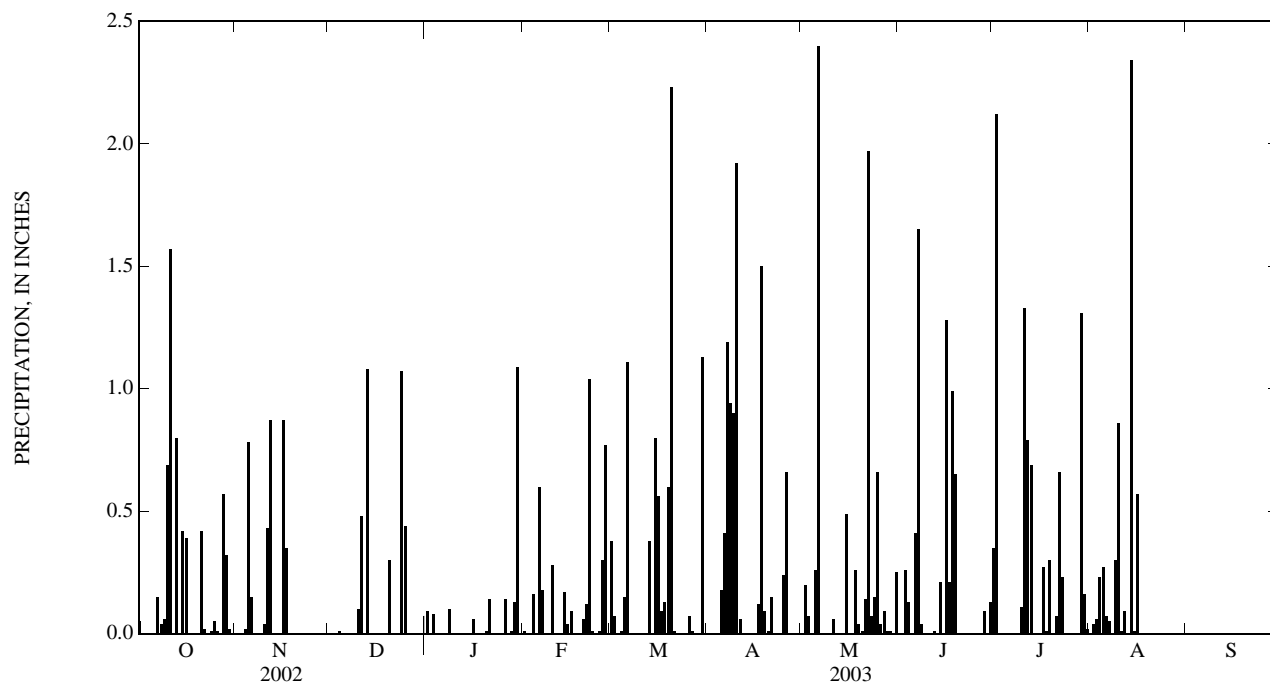
PERIOD OF RECORD.--February 1996 to current year. Records for period February 1996 to September 1998 published in USGS OFR 98-67 and 99-273.

GAGE.--Tipping-bucket raingage and electronic datalogger. Radio telemetry at station.

REMARKS.--Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network. Collection of frozen precipitation during December 2002 and February 2003 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.05	0.00	0.00	0.09	0.01	0.38	0.00	0.00	0.00	0.35	0.00	---
2	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.20	0.00	2.12	0.04	---
3	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.07	0.26	0.00	0.06	---
4	0.00	0.02	0.01	0.00	0.16	0.01	0.00	0.00	0.13	0.00	0.23	---
5	0.00	0.78	---	0.00	0.00	0.15	0.18	0.26	0.00	0.00	0.27	---
6	0.00	0.15	---	0.00	0.60	1.11	0.41	2.40	0.41	0.00	0.07	---
7	0.15	0.00	0.00	0.00	0.18	0.00	1.19	0.00	1.65	0.00	0.05	---
8	0.04	0.00	0.00	0.10	0.00	0.00	0.94	0.00	0.04	0.00	0.00	---
9	0.06	0.00	0.00	0.00	0.00	0.00	0.90	0.00	0.00	0.00	0.30	---
10	0.69	0.04	0.10	0.00	0.28	0.00	1.92	0.00	0.00	0.11	0.86	---
11	1.57	0.43	0.48	0.00	0.00	0.00	0.06	0.06	0.00	1.33	0.01	---
12	0.00	0.87	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.79	0.09	---
13	0.80	0.00	1.08	0.00	0.00	0.38	0.00	0.00	0.00	0.69	0.00	---
14	0.00	0.00	0.00	0.00	0.17	0.00	0.00	0.00	0.21	0.00	2.34	---
15	0.42	0.00	0.00	0.00	0.04	0.80	0.00	0.49	0.00	0.00	0.01	---
16	0.39	0.87	0.00	0.06	0.09	0.56	0.00	0.00	1.28	0.00	0.57	---
17	0.00	0.35	0.00	0.00	---	0.09	0.12	0.00	0.21	0.27	0.00	---
18	0.00	0.00	0.00	0.00	---	0.13	1.50	0.26	0.99	0.01	0.00	---
19	0.00	0.00	0.00	0.00	0.00	0.60	0.09	0.04	0.65	0.30	0.00	---
20	0.00	0.00	0.30	0.01	0.06	2.23	0.01	0.01	0.00	0.00	0.00	---
21	0.42	0.00	0.00	0.14	0.12	0.01	0.15	0.14	0.00	0.07	0.00	---
22	0.02	0.00	0.00	0.00	1.04	0.00	0.00	1.97	0.00	0.66	0.00	---
23	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.07	0.00	0.23	0.00	---
24	0.01	0.00	1.07	---	0.00	0.00	0.00	0.15	0.00	0.00	0.00	---
25	0.05	0.00	0.44	---	0.01	0.00	0.24	0.66	0.00	0.00	0.00	---
26	0.01	0.00	0.00	0.14	0.30	0.07	0.66	0.04	0.00	0.00	0.00	---
27	0.00	0.00	0.00	0.00	0.77	0.01	0.00	0.09	0.00	0.00	0.00	---
28	0.57	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.09	0.00	0.00	---
29	0.32	0.00	0.00	0.13	---	0.00	0.00	0.01	0.00	1.31	0.00	---
30	0.02	0.00	0.00	1.09	---	1.13	0.00	0.00	0.13	0.16	---	---
31	0.00	---	0.00	0.00	---	0.00	---	0.25	---	0.02	---	---
TOTAL	5.59	3.51	---	---	---	7.73	8.37	7.18	6.06	8.42	---	---



LOCATION.--Lat 35°27'19", long 80°48'43", Mecklenburg County, Hydrologic Unit 03040105, private residence, Mayes Road, Huntersville, NC.

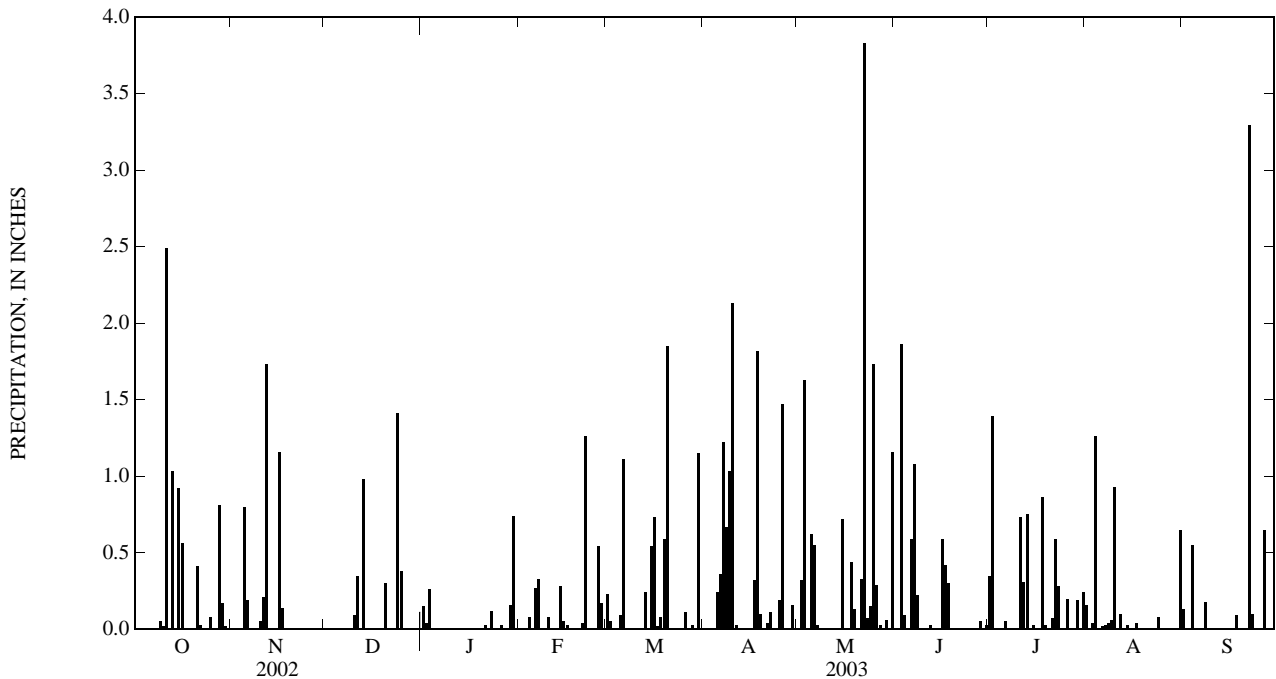
PERIOD OF RECORD.--January 1997 to current year. Records for period January 1997 to September 1998 published in USGS OFR 98-67 and 99-273.

GAGE.--Tipping-bucket raingage and electronic datalogger. Radio telemetry at station.

REMARKS.--Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network. Collection of frozen precipitation during December 2002 and February 2003 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.15	0.00	0.23	0.00	0.00	0.00	0.35	0.16	0.13
2	0.00	0.00	0.00	0.04	0.00	0.05	0.00	0.32	0.00	1.39	0.00	0.00
3	0.00	0.00	0.00	0.26	0.00	0.00	0.00	1.63	1.86	0.00	0.04	0.00
4	0.00	0.00	---	0.00	0.08	0.00	0.00	0.00	0.09	0.00	1.26	0.55
5	0.00	0.80	---	0.00	0.00	0.09	0.24	0.62	0.00	0.00	0.00	0.01
6	0.00	0.19	---	0.00	0.27	1.11	0.36	0.55	0.59	0.05	0.02	0.00
7	0.00	0.00	---	0.00	0.33	0.00	1.22	0.03	1.08	0.01	0.03	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0.00	0.22	0.00	0.04	0.18
9	0.05	0.00	0.00	0.00	0.00	0.00	1.03	0.00	0.01	0.00	0.06	0.00
10	0.02	0.05	0.09	0.00	0.08	0.00	2.13	0.00	0.00	0.00	0.93	0.00
11	2.49	0.21	0.35	0.00	0.00	0.00	0.03	0.00	0.01	0.73	0.00	0.00
12	0.00	1.73	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.31	0.10	0.00
13	1.03	0.01	0.98	0.00	0.00	0.24	0.00	0.00	0.00	0.75	0.01	0.00
14	0.00	0.00	0.00	0.00	0.28	0.00	0.00	0.00	0.00	0.01	0.03	0.00
15	0.92	0.00	0.00	0.00	0.05	0.54	0.00	0.72	0.00	0.03	0.01	0.00
16	0.56	1.16	0.00	0.00	0.03	0.73	0.00	0.01	0.59	0.01	0.00	0.00
17	0.00	0.14	0.00	0.00	---	0.02	0.32	0.00	0.42	0.00	0.04	0.00
18	0.00	0.00	0.00	0.00	---	0.08	1.82	0.44	0.30	0.86	0.00	0.09
19	0.00	0.00	0.01	0.00	0.00	0.59	0.10	0.13	0.00	0.03	0.00	0.00
20	0.01	0.00	0.30	0.00	0.01	1.85	0.00	0.00	0.00	0.00	0.00	0.00
21	0.41	0.00	0.00	0.03	0.04	0.01	0.04	0.33	0.00	0.07	0.00	0.00
22	0.03	0.00	0.00	0.00	1.26	0.00	0.11	3.83	0.00	0.59	0.00	3.29
23	0.00	0.00	0.00	0.12	0.01	0.00	0.00	0.07	0.00	0.28	0.00	0.10
24	0.00	0.00	1.41	0.00	0.00	0.00	0.00	0.15	0.00	0.01	0.08	0.00
25	0.08	0.00	0.38	0.00	0.00	0.00	0.19	1.73	0.00	0.00	0.00	0.00
26	0.01	0.00	0.00	0.03	0.54	0.11	1.47	0.29	0.00	0.20	0.00	0.00
27	0.01	0.00	0.00	0.00	0.17	0.01	0.00	0.03	0.00	0.00	0.00	0.65
28	0.81	0.00	0.00	0.00	0.01	0.03	0.00	0.00	0.05	0.00	0.00	0.00
29	0.17	0.00	0.00	0.16	---	0.00	0.16	0.06	0.00	0.19	0.00	0.00
30	0.02	0.00	0.00	0.74	---	1.15	0.00	0.00	0.03	0.01	0.00	0.00
31	0.00	---	0.00	0.01	---	0.00	---	1.16	---	0.24	0.65	---
TOTAL	6.62	4.29	---	1.54	---	6.84	9.89	12.10	5.28	6.12	3.46	5.00



352135080462045 CRN46

LOCATION.--Lat 35°21'36", long 80°46'20", Mecklenburg County, Hydrologic Unit 03040105, private residence, Johnston-Oehler Road, Charlotte, NC.

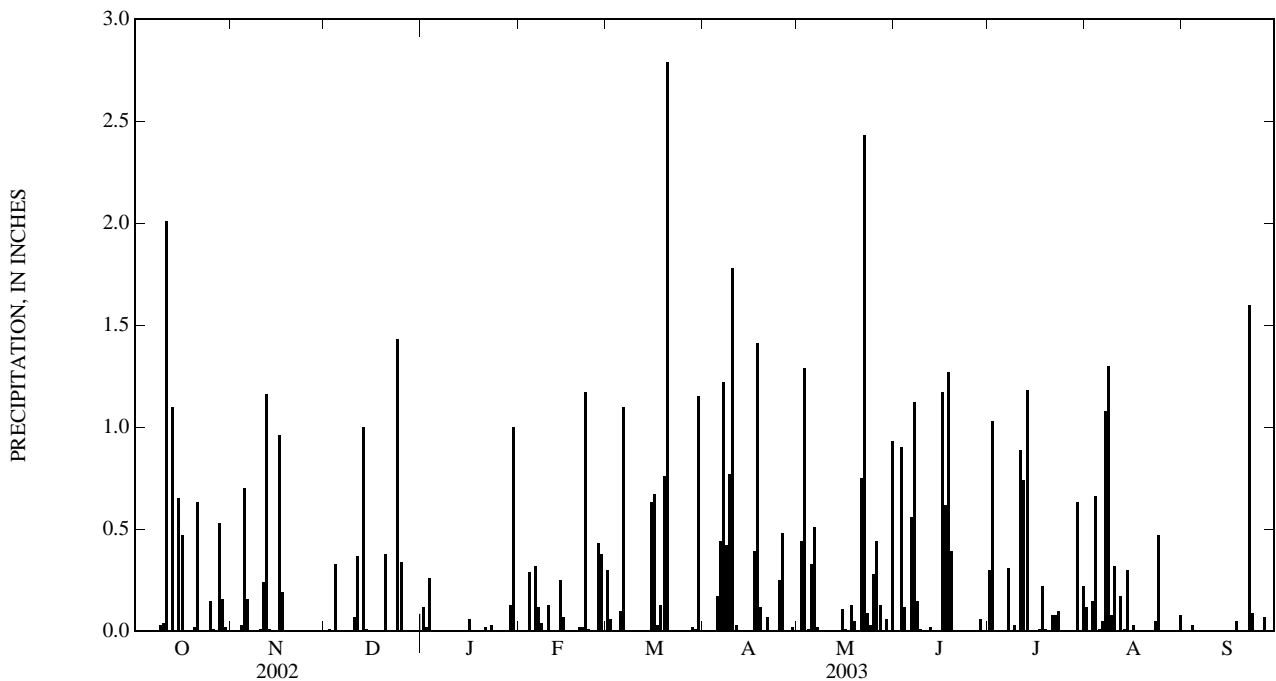
PERIOD OF RECORD.--January 1997 to current year. Records for period January 1997 to September 1998 published in USGS OFR 98-67 and 99-273.

GAGE.--Tipping-bucket raingage and electronic datalogger. Radio telemetry at station.

REMARKS.--Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network. Collection of frozen precipitation during December 2002 and February 2003 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.12	0.00	0.30	0.00	0.00	0.00	0.30	0.12	0.00
2	0.00	0.00	0.01	0.02	0.00	0.06	0.00	0.44	0.00	1.03	0.00	0.00
3	0.00	0.00	0.00	0.26	0.00	0.00	0.00	1.29	0.90	0.00	0.15	0.00
4	0.00	0.03	0.33	0.00	0.29	0.00	0.00	0.01	0.12	0.00	0.66	0.03
5	0.00	0.70	0.00	0.00	0.00	0.10	0.17	0.33	0.00	0.00	0.01	0.00
6	0.00	0.16	0.00	0.00	0.32	1.10	0.44	0.51	0.56	0.00	0.05	0.00
7	0.00	0.00	0.00	0.00	0.12	0.00	1.22	0.02	1.12	0.31	1.08	0.00
8	0.00	0.00	0.00	0.00	0.04	0.00	0.42	0.00	0.15	0.00	1.30	0.00
9	0.03	0.00	0.00	0.00	0.00	0.00	0.77	0.00	0.01	0.03	0.08	0.00
10	0.04	0.01	0.07	0.00	0.13	0.00	1.78	0.00	0.00	0.00	0.32	0.00
11	2.01	0.24	0.37	0.00	0.00	0.00	0.03	0.00	0.00	0.89	0.00	0.00
12	0.00	1.16	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.74	0.17	0.00
13	1.10	0.01	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.18	0.01	0.00
14	0.00	0.00	0.01	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.30	0.00
15	0.65	0.00	0.00	0.00	0.07	0.63	0.00	0.11	0.00	0.00	0.00	0.00
16	0.47	0.96	0.00	0.06	---	0.67	0.00	0.01	1.17	0.00	0.03	0.00
17	0.00	0.19	0.00	0.00	---	0.03	0.39	0.00	0.62	0.01	0.00	0.00
18	0.00	0.00	0.00	0.00	---	0.13	1.41	0.13	1.27	0.22	0.00	0.05
19	0.00	0.00	0.00	0.00	0.00	0.76	0.12	0.05	0.39	0.01	0.00	0.00
20	0.02	0.00	0.38	0.00	0.02	2.79	0.00	0.00	0.00	0.00	0.00	0.00
21	0.63	0.00	0.00	0.02	0.02	0.00	0.07	0.75	0.00	0.08	0.00	0.00
22	0.00	0.00	0.00	0.00	1.17	0.00	0.00	2.43	0.00	0.08	0.00	1.60
23	0.00	0.00	0.00	0.03	0.01	0.00	0.00	0.09	0.00	0.10	0.05	0.09
24	0.00	0.00	1.43	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.47	0.00
25	0.15	0.00	0.34	0.00	0.00	0.00	0.25	0.28	0.00	0.00	0.00	0.00
26	0.01	0.00	0.00	0.00	0.43	0.00	0.48	0.44	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.38	0.00	0.00	0.13	0.00	0.00	0.00	0.07
28	0.53	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.06	0.00	0.00	0.00
29	0.16	0.00	0.00	0.13	---	0.01	0.02	0.06	0.00	0.63	0.00	0.00
30	0.02	0.00	0.00	1.00	---	1.15	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.93	---	0.22	0.08	---
TOTAL	5.82	3.46	3.94	1.64	---	7.75	7.57	8.04	6.39	5.83	4.88	1.84



LOCATION.--Lat 35°26'23", long 80°43'41", Mecklenburg County, Hydrologic Unit 03040105, Odell Elementary School, Odell School Road, Concord, NC.

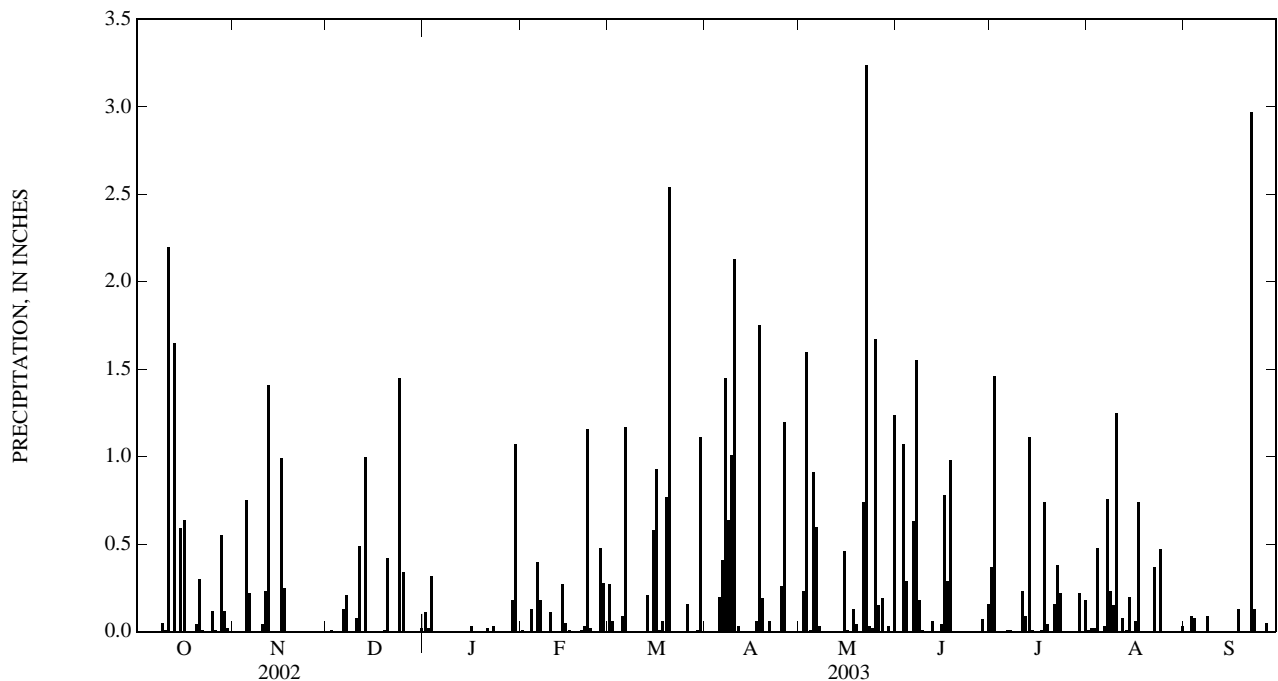
PERIOD OF RECORD.--October 2002 to September 2003. Records for October 2001 to September 2002 at site Odell Volunteer Fire Department, Concord, NC (station 352624080434645).

GAGE.--Tipping-bucket raingage and electronic datalogger. Radio telemetry at station.

REMARKS.--Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network. Collection of frozen precipitation during December 2002 and February 2003 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.11	0.01	0.27	0.00	0.00	0.00	0.37	0.01	0.00
2	0.00	0.00	0.01	0.02	0.00	0.06	0.00	0.23	0.00	1.46	0.02	0.00
3	0.00	0.00	0.00	0.32	0.00	0.00	0.00	1.60	1.07	0.00	0.02	0.09
4	0.00	0.00	0.00	0.00	0.13	0.00	0.00	0.01	0.29	0.00	0.48	0.08
5	0.00	0.75	0.00	0.00	0.00	0.09	0.20	0.91	0.00	0.00	0.00	0.00
6	0.00	0.22	0.13	0.00	0.40	1.17	0.41	0.60	0.63	0.01	0.03	0.00
7	0.00	0.00	0.21	0.00	0.18	0.00	1.45	0.03	1.55	0.01	0.76	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.64	0.00	0.18	0.00	0.23	0.09
9	0.05	0.00	0.00	0.00	0.00	0.00	1.01	0.00	0.01	0.00	0.15	0.00
10	0.01	0.04	0.08	0.00	0.11	0.00	2.13	0.00	0.00	0.00	1.25	0.00
11	2.20	0.23	0.49	0.00	0.00	0.00	0.03	0.00	0.00	0.23	0.00	0.00
12	0.00	1.41	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.09	0.08	0.00
13	1.65	0.00	1.00	0.00	0.00	0.21	0.00	0.00	0.00	1.11	0.01	0.00
14	0.00	0.00	0.00	0.00	0.27	0.00	0.00	0.00	0.00	0.01	0.20	0.00
15	0.59	0.00	0.00	0.00	0.05	0.58	0.00	0.46	0.04	0.00	0.00	0.00
16	0.64	0.99	0.00	0.03	0.01	0.93	0.00	0.01	0.78	0.00	0.06	0.00
17	0.00	0.25	0.00	0.00	---	0.01	0.06	0.00	0.29	0.01	0.74	0.00
18	0.00	0.00	0.00	0.00	---	0.06	1.75	0.13	0.98	0.74	0.00	0.13
19	0.00	0.00	0.01	0.00	0.00	0.77	0.19	0.04	0.00	0.04	0.00	0.00
20	0.04	0.00	0.42	0.00	0.01	2.54	0.00	0.00	0.00	0.00	0.00	0.00
21	0.30	0.00	0.00	0.02	0.03	0.00	0.06	0.74	0.00	0.16	0.00	0.00
22	0.01	0.00	0.00	0.00	1.16	0.00	0.00	3.24	0.00	0.38	0.37	2.97
23	0.00	0.00	0.00	0.03	0.02	0.00	0.00	0.03	0.00	0.22	0.00	0.13
24	0.00	0.00	1.45	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.47	0.00
25	0.12	0.00	0.34	0.00	0.00	0.00	0.26	1.67	0.00	0.00	0.00	0.00
26	0.01	0.00	0.00	0.00	0.48	0.16	1.20	0.15	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.28	0.00	0.00	0.19	0.00	0.00	0.00	0.05
28	0.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.00	0.00
29	0.12	0.00	0.00	0.18	---	0.01	0.00	0.03	0.00	0.22	0.00	0.00
30	0.02	0.00	0.00	1.07	---	1.11	0.00	0.00	0.16	0.00	0.00	0.00
31	0.00	---	0.02	0.00	---	0.00	---	1.24	---	0.18	0.03	---
TOTAL	6.31	3.89	4.16	1.78	---	7.97	9.39	11.33	6.11	5.24	4.91	3.54



351536080410645 CRN65

LOCATION.--Lat 35°15'36", long 80°41'06", Mecklenburg County, Hydrologic Unit 03040105, Reedy Creek Elementary School, Plaza Road Extension, Charlotte, NC.

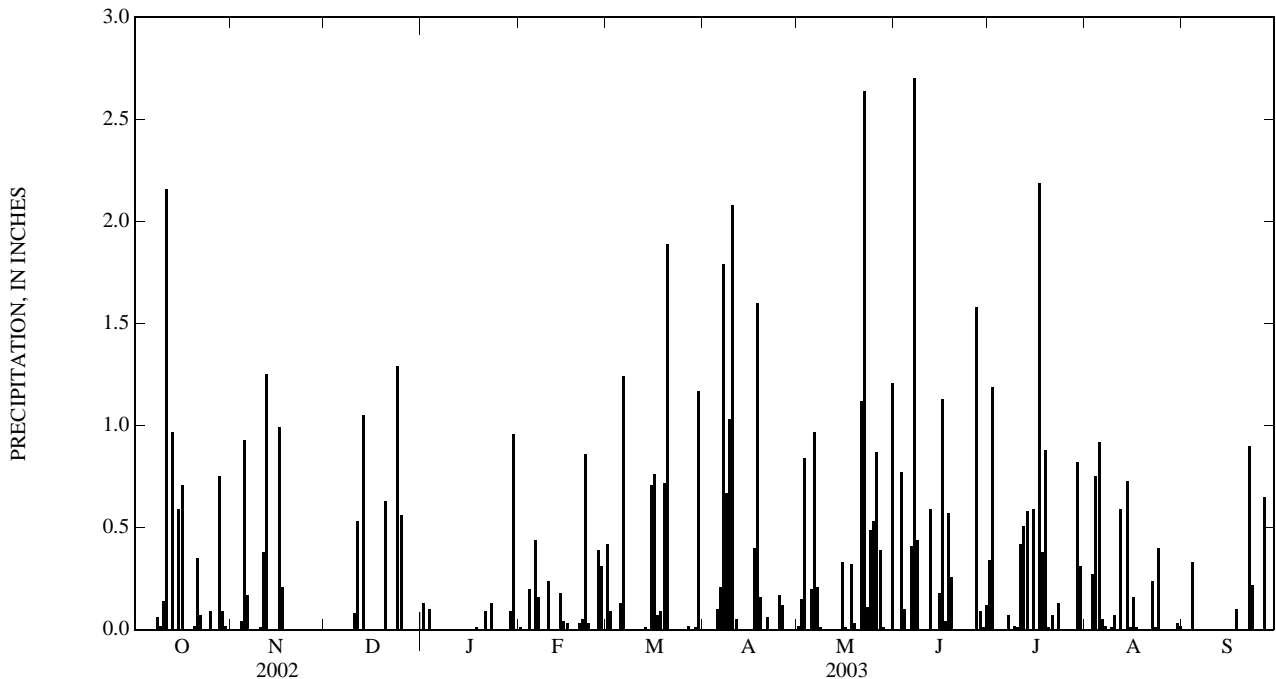
PERIOD OF RECORD.--October 2001 to current year.

GAGE.--Tipping-bucket raingage and electronic datalogger. Radio telemetry at station.

REMARKS.--Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network. Collection of frozen precipitation during December 2002 and February 2003 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.13	0.01	0.42	0.00	0.02	0.00	0.34	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.15	0.00	1.19	0.00	0.00
3	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.84	0.77	0.00	0.27	0.00
4	0.00	0.04	0.00	0.00	0.20	0.00	0.00	0.00	0.10	0.00	0.75	0.33
5	0.00	0.93	---	0.00	0.00	0.13	0.10	0.20	0.00	0.00	0.92	0.00
6	0.00	0.17	---	0.00	0.44	1.24	0.21	0.97	0.41	0.00	0.05	0.00
7	0.00	0.00	---	0.00	0.16	0.00	1.79	0.21	2.70	0.07	0.02	0.00
8	0.06	0.00	0.00	0.00	0.00	0.00	0.67	0.01	0.44	0.00	0.00	0.00
9	0.02	0.00	0.00	0.00	0.00	0.00	1.03	0.00	0.00	0.02	0.01	0.00
10	0.14	0.01	0.08	0.00	0.24	0.00	2.08	0.00	0.00	0.01	0.07	0.00
11	2.16	0.38	0.53	0.00	0.00	0.00	0.05	0.00	0.00	0.42	0.00	0.00
12	0.00	1.25	0.00	0.00	0.00	0.00	0.00	0.00	0.59	0.51	0.59	0.00
13	0.97	0.00	1.05	0.00	0.00	0.01	0.00	0.00	0.00	0.58	0.00	0.00
14	0.00	0.00	0.00	0.00	0.18	0.00	0.00	0.00	0.00	0.00	0.73	0.00
15	0.59	0.00	0.00	0.00	0.04	0.71	0.00	0.33	0.18	0.59	0.01	0.00
16	0.71	0.99	0.00	0.00	0.03	0.76	0.00	0.01	1.13	0.00	0.16	0.00
17	0.00	0.21	0.00	0.00	---	0.07	0.40	0.00	0.04	2.19	0.01	0.00
18	0.00	0.00	0.00	0.01	---	0.09	1.60	0.32	0.57	0.38	0.00	0.10
19	0.00	0.00	0.00	0.00	0.00	0.72	0.16	0.03	0.26	0.88	0.00	0.00
20	0.02	0.00	0.63	0.00	0.03	1.89	0.00	0.00	0.00	0.01	0.00	0.00
21	0.35	0.00	0.00	0.09	0.05	0.00	0.06	1.12	0.00	0.07	0.00	0.00
22	0.07	0.00	0.00	0.00	0.86	0.00	0.00	2.64	0.00	0.00	0.24	0.90
23	0.00	0.00	0.00	0.13	0.03	0.00	0.00	0.11	0.00	0.13	0.01	0.22
24	0.00	0.00	1.29	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.40	0.00
25	0.09	0.00	0.56	0.00	0.00	0.00	0.17	0.53	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.39	0.00	0.12	0.87	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.31	0.02	0.00	0.39	1.58	0.00	0.00	0.65
28	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.09	0.00	0.00	0.00
29	0.09	0.00	0.00	0.09	---	0.01	0.00	0.00	0.01	0.82	0.00	0.00
30	0.02	0.00	0.00	0.96	---	1.17	0.00	0.00	0.12	0.31	0.03	0.00
31	0.00	---	0.00	0.00	---	0.00	---	1.21	---	0.00	0.02	---
TOTAL	6.04	3.98	---	1.51	---	7.33	8.44	10.46	8.99	8.52	4.29	2.20



LOCATION.--Lat 35°08'57", long 80°38'32", Mecklenburg County, Hydrologic Unit 03040105, Thompson Road, Mint Hill, NC.

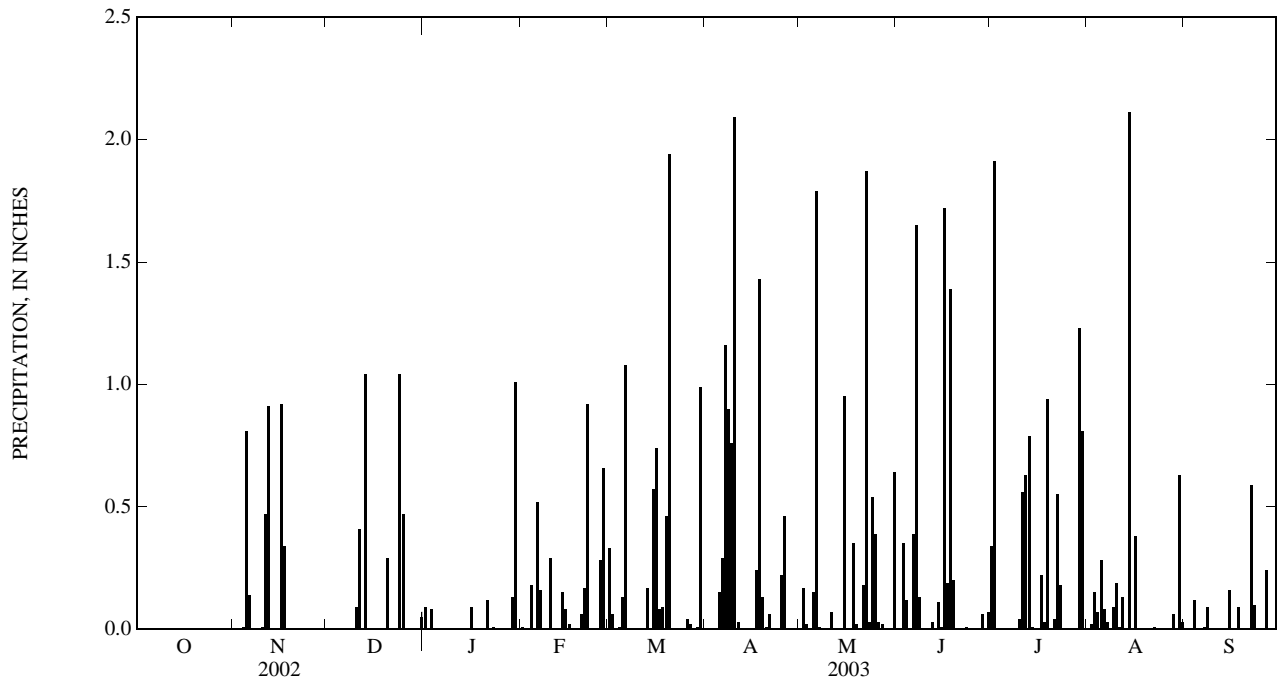
PERIOD OF RECORD.--November 2002 to September 2003

GAGE.--Tipping-bucket raingage and electronic datalogger. Radio telemetry at station.

REMARKS.--Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network. Collection of frozen precipitation during December 2002 and February 2003 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
 NOVEMBER 2002 TO SEPTEMBER 2003
 DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	0.00	0.00	0.09	0.01	0.33	0.00	0.00	0.00	0.34	0.00	0.00
2	---	0.00	0.00	0.00	0.00	0.06	0.00	0.17	0.00	1.91	0.02	0.00
3	---	0.00	0.00	0.08	0.00	0.00	0.00	0.02	0.35	0.00	0.15	0.00
4	---	0.01	---	0.00	0.18	0.01	0.00	0.00	0.12	0.00	0.07	0.12
5	---	0.81	---	0.00	0.00	0.13	0.15	0.15	0.00	0.00	0.28	0.00
6	---	0.14	---	0.00	0.52	1.08	0.29	1.79	0.39	0.00	0.08	0.00
7	---	0.00	0.00	0.00	0.16	0.00	1.16	0.01	1.65	0.00	0.03	0.01
8	---	0.00	0.00	0.00	0.00	0.00	0.90	0.00	0.13	0.00	0.00	0.09
9	---	0.00	0.00	0.00	0.00	0.00	0.76	0.00	0.00	0.00	0.09	0.00
10	---	0.01	0.09	0.00	0.29	0.00	2.09	0.00	0.00	0.04	0.19	0.00
11	---	0.47	0.41	0.00	0.00	0.00	0.03	0.07	0.00	0.56	0.01	0.00
12	---	0.91	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.63	0.13	0.00
13	---	0.00	1.04	0.00	0.00	0.17	0.00	0.00	0.00	0.79	0.00	0.00
14	---	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.11	0.01	2.11	0.00
15	---	0.00	0.00	0.00	0.08	0.57	0.00	0.95	0.01	0.00	0.00	0.16
16	---	0.92	0.00	0.09	0.02	0.74	0.00	0.00	1.72	0.00	0.38	0.00
17	---	0.34	0.00	0.00	---	0.08	0.24	0.00	0.19	0.22	0.00	0.00
18	---	0.00	0.00	0.00	---	0.09	1.43	0.35	1.39	0.03	0.00	0.09
19	---	0.00	0.00	0.00	0.00	0.46	0.13	0.02	0.20	0.94	0.00	0.00
20	---	0.00	0.29	0.00	0.06	1.94	0.01	0.00	0.00	0.00	0.00	0.00
21	---	0.00	0.00	0.12	0.17	0.00	0.06	0.18	0.00	0.04	0.00	0.00
22	---	0.00	0.00	0.00	0.92	0.00	0.00	1.87	0.00	0.55	0.01	0.59
23	---	0.00	0.00	0.01	0.00	0.00	0.00	0.03	0.01	0.18	0.00	0.10
24	---	0.00	1.04	0.00	0.00	0.00	0.00	0.54	0.00	0.00	0.00	0.00
25	---	0.00	0.47	---	0.00	0.00	0.22	0.39	0.00	0.00	0.00	0.00
26	---	0.00	0.00	0.00	0.28	0.04	0.46	0.03	0.00	0.00	0.00	0.00
27	---	0.00	0.00	0.00	0.66	0.02	0.00	0.02	0.00	0.00	0.00	0.24
28	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.06	0.00
29	---	0.00	0.00	0.13	---	0.01	0.00	0.00	0.00	1.23	0.00	0.00
30	---	0.00	0.00	1.01	---	0.99	0.00	0.00	0.07	0.81	0.63	0.00
31	---	---	0.05	0.00	---	0.00	---	0.64	---	0.00	0.03	---
TOTAL	---	3.61	---	---	---	6.72	7.93	7.23	6.43	8.28	4.27	1.40



351145080371945 CRN68

LOCATION.--Lat 35°11'45", long 80°37'20", Mecklenburg County, Hydrologic Unit 03040105, White Farm, Bartlett Road, Mint Hill, NC.

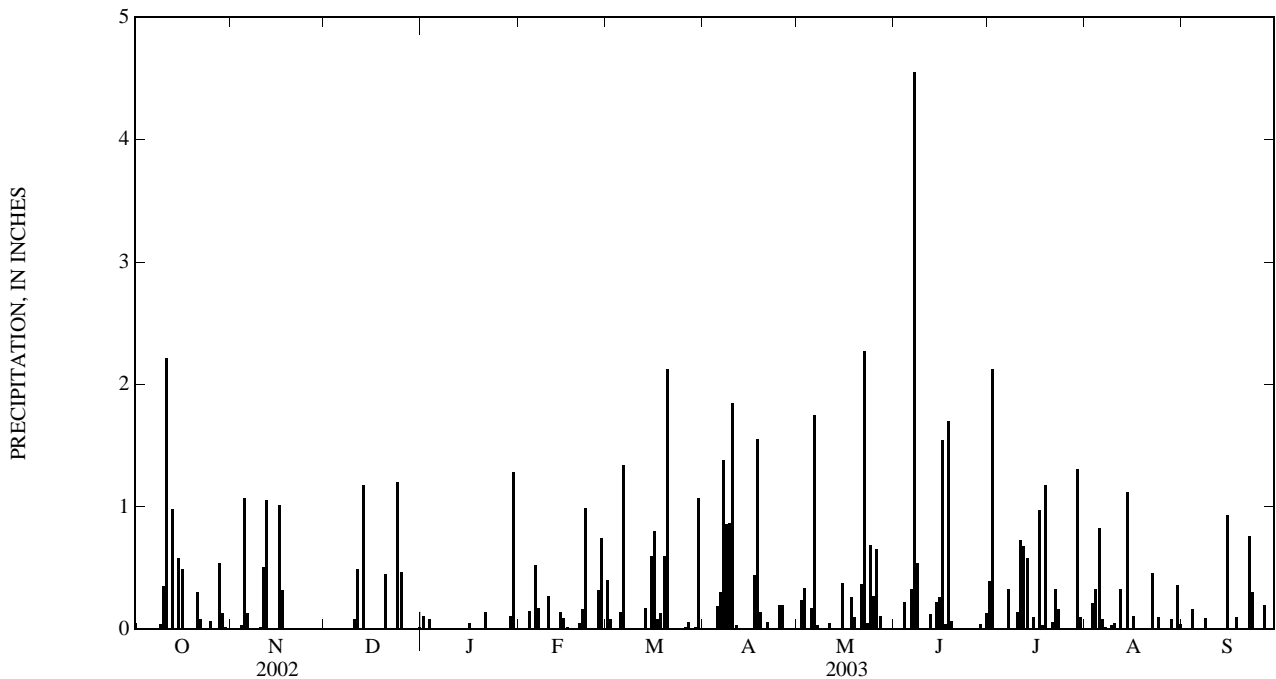
PERIOD OF RECORD.--October 2001 to current year.

GAGE.--Tipping-bucket raingage and electronic datalogger. Radio telemetry at station.

REMARKS.--Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network. Collection of frozen precipitation during December 2002 and February 2003 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.05	0.00	---	0.11	0.01	0.40	0.00	0.00	0.00	0.39	0.00	0.00
2	0.00	0.00	---	0.00	0.00	0.08	0.00	0.24	0.00	2.12	0.01	0.00
3	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.34	0.00	0.01	0.21	0.00
4	0.00	0.03	---	0.00	0.15	0.01	0.00	0.01	0.22	0.00	0.33	0.16
5	0.00	1.07	---	0.00	0.00	0.14	0.19	0.17	0.00	0.00	0.83	0.00
6	0.00	0.13	---	0.00	0.52	1.34	0.30	1.75	0.33	0.00	0.08	0.00
7	0.00	0.00	0.00	0.00	0.17	0.00	1.38	0.03	4.55	0.33	0.02	0.00
8	0.01	0.00	0.00	0.00	0.00	0.00	0.86	0.00	0.54	0.01	0.00	0.09
9	0.04	0.00	0.00	0.00	0.00	0.00	0.87	0.00	0.00	0.01	0.03	0.00
10	0.35	0.02	0.08	0.00	0.27	0.00	1.85	0.00	0.00	0.14	0.05	0.00
11	2.21	0.51	0.49	0.00	0.00	0.00	0.03	0.05	0.00	0.73	0.01	0.00
12	0.00	1.05	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.68	0.33	0.00
13	0.98	0.00	1.18	0.00	0.00	0.17	0.00	0.00	0.00	0.58	0.00	0.00
14	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.22	0.00	1.12	0.00
15	0.58	0.00	0.00	0.00	0.09	0.60	0.00	0.38	0.26	0.10	0.00	0.93
16	0.49	1.01	0.00	0.05	0.02	0.80	0.00	0.01	1.54	0.00	0.11	0.00
17	0.00	0.32	0.00	0.00	---	0.08	0.44	0.00	0.04	0.97	0.00	0.00
18	0.00	0.00	0.00	0.00	---	0.13	1.55	0.26	1.70	0.03	0.00	0.10
19	0.00	0.00	0.00	0.00	0.00	0.60	0.14	0.10	0.07	1.18	0.00	0.00
20	0.00	0.00	0.45	0.00	0.05	2.12	0.00	0.00	0.00	0.00	0.00	0.00
21	0.30	0.00	0.00	0.14	0.16	0.00	0.06	0.37	0.00	0.06	0.00	0.00
22	0.08	0.00	0.00	0.00	0.99	0.00	0.00	2.27	0.00	0.33	0.46	0.76
23	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.05	0.00	0.16	0.00	0.30
24	0.00	0.00	1.20	0.00	0.00	0.00	0.00	0.69	0.00	0.00	0.10	0.00
25	0.07	0.00	0.47	---	0.00	0.00	0.20	0.27	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.32	0.02	0.20	0.65	0.00	0.00	0.00	0.00
27	0.00	---	0.00	0.00	0.74	0.06	0.00	0.11	0.00	0.00	0.00	0.20
28	0.54	---	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.08	0.00
29	0.13	---	0.00	0.11	---	0.02	0.00	0.00	0.00	1.31	0.00	0.00
30	0.02	---	0.00	1.28	---	1.07	0.00	0.00	0.13	0.10	0.36	0.00
31	0.00	---	0.02	0.00	---	0.00	---	---	---	0.00	0.04	---
TOTAL	5.85	---	---	---	---	7.64	8.07	---	9.76	9.24	4.17	2.54



354822080521501 STATESVILLE - PRECIPITATION

LOCATION.--Lat 35°48'37", long 80°52'51", Iredell County, Hydrologic Unit 03040102, Statesville WWTP, Sunset Hill Road, Statesville, NC.

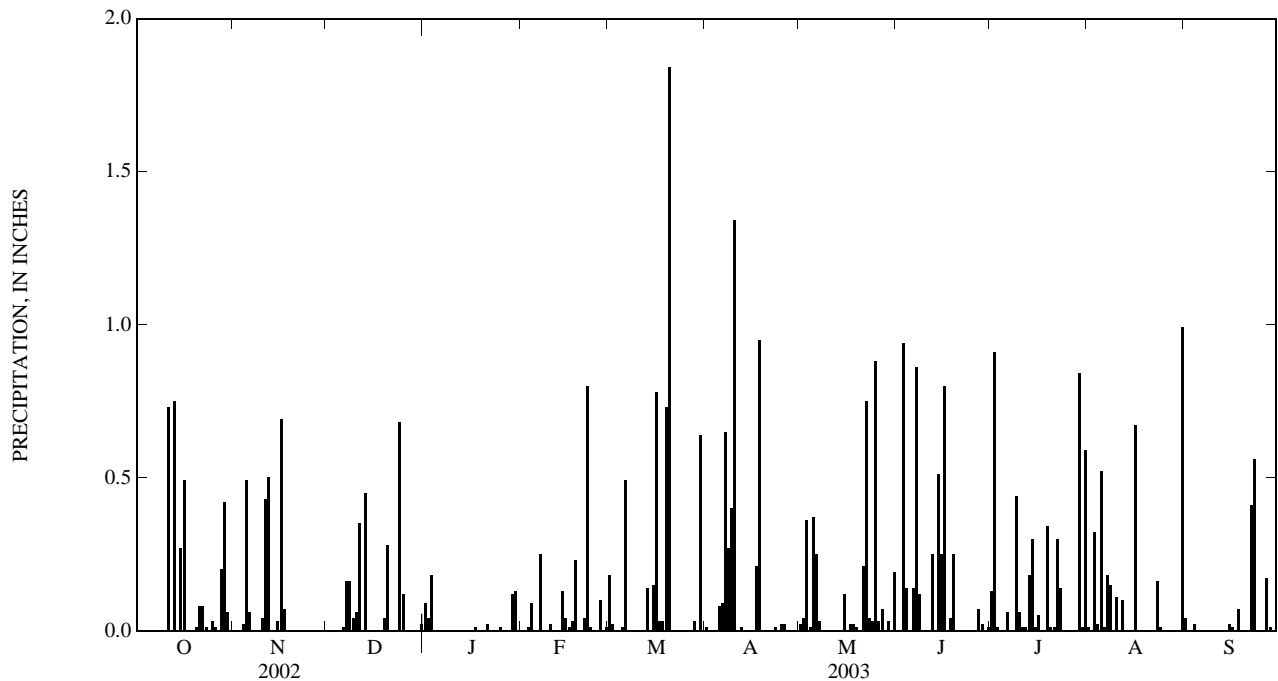
PERIOD OF RECORD.--October 1998 to current year.

GAGE.--Tipping-bucket raingage and electronic datalogger. Satellite telemetry at station.

REMARKS.--Precipitation data collected during freezing periods may not be accurately reflected in daily record; consequently, winter record is poor.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.09	0.00	0.18	0.01	0.02	0.00	0.13	0.01	0.04
2	0.00	0.00	0.00	0.04	0.00	0.02	0.00	0.04	0.00	0.91	0.00	0.00
3	0.00	0.00	0.00	0.18	0.01	0.00	0.00	0.36	0.94	0.01	0.32	0.00
4	0.00	0.02	0.00	0.00	0.09	0.00	0.00	0.01	0.14	0.00	0.02	0.02
5	0.00	0.49	0.00	0.00	0.00	0.01	0.08	0.37	0.00	0.00	0.52	0.00
6	0.00	0.06	0.01	0.00	0.00	0.49	0.09	0.25	0.14	0.06	0.01	0.00
7	0.00	0.00	0.16	0.00	0.25	0.00	0.65	0.03	0.86	0.00	0.18	0.00
8	0.00	0.00	0.16	0.00	0.00	0.00	0.27	0.00	0.12	0.00	0.15	0.00
9	0.00	0.00	0.04	0.00	0.00	0.00	0.40	0.00	0.00	0.44	0.00	0.00
10	0.00	0.04	0.06	0.00	0.02	0.00	1.34	0.00	0.00	0.06	0.11	0.00
11	0.73	0.43	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00
12	0.00	0.50	0.00	0.00	0.00	0.00	0.01	0.00	0.25	0.01	0.10	0.00
13	0.75	0.00	0.45	0.00	0.00	0.14	0.00	0.00	0.00	0.18	0.00	0.00
14	0.00	0.00	0.00	0.00	0.13	0.00	0.00	0.00	0.51	0.30	0.00	0.00
15	0.27	0.03	0.00	0.00	0.04	0.15	0.00	0.12	0.25	0.01	0.00	0.02
16	0.49	0.69	0.00	0.00	0.01	0.78	0.00	0.00	0.80	0.05	0.67	0.01
17	0.00	0.07	0.00	0.01	0.03	0.03	0.21	0.02	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.23	0.03	0.95	0.02	0.04	0.00	0.00	0.07
19	0.00	0.00	0.04	0.00	0.00	0.73	0.00	0.01	0.25	0.34	0.00	0.00
20	0.01	0.00	0.28	0.00	0.00	1.84	0.00	0.00	0.00	0.01	0.00	0.00
21	0.08	0.00	0.00	0.02	0.04	0.00	0.00	0.21	0.00	0.01	0.00	0.00
22	0.08	0.00	0.00	0.00	0.80	0.00	0.00	0.75	0.00	0.30	0.00	0.41
23	0.01	0.00	0.00	0.00	0.01	0.00	0.01	0.04	0.00	0.14	0.16	0.56
24	0.00	0.00	0.68	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.01	0.00
25	0.03	0.00	0.12	0.01	0.00	0.00	0.02	0.88	0.00	0.00	0.00	0.00
26	0.01	0.00	0.00	0.00	0.10	0.00	0.02	0.03	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.07	0.00	0.00	0.17
28	0.20	0.00	0.00	0.00	0.01	0.03	0.00	0.00	0.02	0.00	0.00	0.01
29	0.42	0.00	0.00	0.12	---	0.00	0.00	0.03	0.00	0.84	0.00	0.00
30	0.06	0.00	0.00	0.13	---	0.64	0.00	0.00	0.01	0.01	0.00	0.00
31	0.00	---	0.02	0.00	---	0.00	---	0.19	---	0.59	0.99	---
TOTAL	3.14	2.33	2.37	0.60	1.77	5.07	4.06	3.48	4.40	4.41	3.25	1.31



354057080362601 NC-193

LOCATION.--Lat 35°40'58", long 80°36'25", Rowan County, Hydrologic Unit 03040102, 0.75 mi south of Secondary Road 1526 on Piedmont Research Station road, 2.75 mi south of Barber.

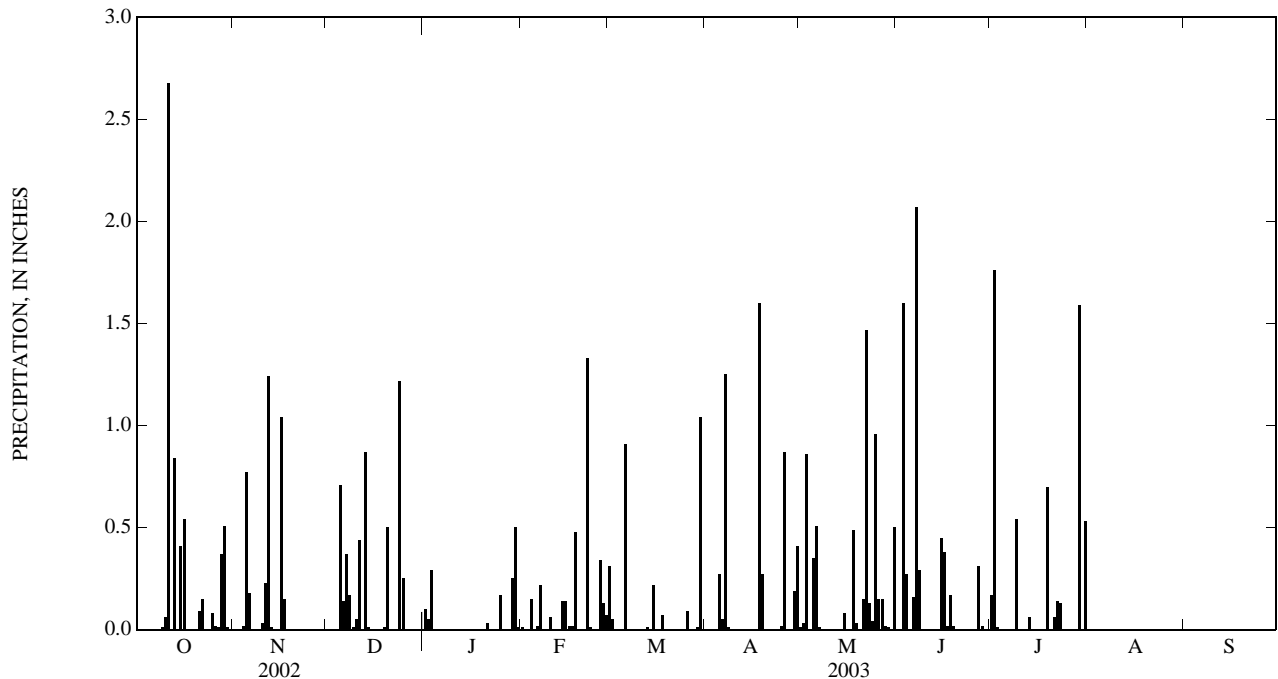
PERIOD OF RECORD.--April 1996 to current year.

GAGE.--Tipping-bucket raingage and electronic datalogger. Satellite telemetry at station.

REMARKS.--Gage is operated as part of climatic-effects network. Precipitation data collected during freezing periods may not be accurately reflected in daily record; consequently, winter record is poor.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.10	0.01	0.31	0.00	0.01	0.00	0.17	---	---
2	0.00	0.00	0.00	0.05	0.00	0.05	0.00	0.03	0.00	1.76	---	---
3	0.00	0.00	0.00	0.29	0.00	0.00	0.00	0.86	1.60	0.01	---	---
4	0.00	0.02	0.00	0.00	0.15	0.00	0.00	0.00	0.27	0.00	---	---
5	0.00	0.77	0.71	0.00	0.00	0.00	0.27	0.35	0.00	0.00	---	---
6	0.00	0.18	0.14	0.00	0.02	0.91	0.05	0.51	0.16	0.00	---	---
7	0.00	0.00	0.37	0.00	0.22	0.00	1.25	0.01	2.07	0.00	---	---
8	0.00	0.00	0.17	0.00	0.00	0.00	0.01	0.00	0.29	0.00	---	---
9	0.01	0.00	0.01	0.00	0.00	0.00	---	0.00	0.00	0.54	---	---
10	0.06	0.03	0.05	0.00	0.06	0.00	---	0.00	0.00	0.00	---	---
11	2.68	0.23	0.44	0.00	0.00	0.00	---	0.00	0.00	0.00	---	---
12	0.00	1.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	---	---
13	0.84	0.01	0.87	0.00	0.00	0.01	0.00	0.00	0.00	0.06	---	---
14	0.00	0.00	0.01	0.00	0.14	0.00	0.00	0.00	0.00	0.00	---	---
15	0.41	0.00	0.00	0.00	0.14	0.22	0.00	0.08	0.45	0.00	---	---
16	0.54	1.04	0.00	0.00	0.02	---	0.00	0.00	0.38	0.00	---	---
17	0.00	0.15	0.00	0.00	0.02	0.00	0.00	0.00	0.02	0.00	---	---
18	0.00	0.00	0.00	0.00	0.48	0.07	1.60	0.49	0.17	0.00	---	---
19	0.00	0.00	0.01	0.00	0.00	0.00	0.27	0.03	0.02	0.70	---	---
20	0.00	0.00	0.50	0.00	0.00	---	---	0.00	0.00	0.00	---	---
21	0.09	0.00	0.00	0.03	0.00	---	0.00	0.15	0.00	0.06	---	---
22	0.15	0.00	0.00	0.00	1.33	0.00	0.00	1.47	0.00	0.14	---	---
23	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.13	0.00	0.13	---	---
24	0.00	0.00	1.22	0.00	0.00	0.00	0.00	0.04	0.00	0.00	---	---
25	0.08	0.00	0.25	0.17	0.00	0.00	0.02	0.96	0.00	0.00	---	---
26	0.02	0.00	0.00	0.00	0.34	0.09	0.87	0.15	0.00	0.00	---	---
27	0.01	0.00	0.00	0.00	0.13	0.00	0.00	0.15	0.31	0.00	---	---
28	0.37	0.00	0.00	0.00	0.07	0.00	0.00	0.02	0.02	0.00	---	---
29	0.51	0.00	0.00	0.25	---	0.01	0.19	0.01	0.00	1.59	---	---
30	0.01	0.00	0.00	0.50	---	1.04	0.41	0.00	0.00	0.00	---	---
31	0.00	---	0.00	0.01	---	---	---	0.50	---	0.53	---	---
TOTAL	5.78	3.67	4.75	1.40	3.14	---	---	5.95	5.76	5.69	---	---



02137727 CATAWBA RIVER NEAR PLEASANT GARDENS, NC

LOCATION.--Lat 35°41'09", long 82°03'39", McDowell County, Hydrologic Unit 03050101, on right bank 18 ft downstream of bridge on Secondary Road 1221, 0.8 mi upstream from Buck Creek, 0.8 mi southeast of Pleasant Gardens, and at mile 297.

DRAINAGE AREA.--126 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1963, 1970-73, 1975. October 1980 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,230 ft above NGVD of 1929, from topographic map. Satellite telemetry at station.

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

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	121	105	e106	303	132	312	250	334	303	255	613	362
2	105	99	e104	256	127	296	241	379	281	2,770	414	294
3	95	94	e100	292	124	269	234	324	314	857	835	296
4	86	90	e110	266	137	249	229	286	363	653	755	287
5	80	101	e220	245	130	240	241	466	296	687	807	262
6	73	146	214	227	126	644	219	1,670	272	547	505	248
7	69	112	175	209	138	467	306	1,260	786	471	943	242
8	66	104	159	201	136	371	292	e920	811	398	964	236
9	64	98	151	190	136	327	518	e620	691	366	640	226
10	64	97	145	180	136	290	1,990	e470	481	346	1,110	219
11	66	226	509	169	136	264	1,620	e400	400	317	1,350	214
12	63	305	316	162	135	247	870	e360	392	311	770	209
13	62	272	474	158	135	234	642	e340	356	632	581	203
14	58	201	526	156	147	222	513	325	348	431	501	202
15	148	167	342	151	285	213	436	332	355	350	584	264
16	572	465	266	147	242	372	392	352	546	314	479	215
17	220	613	221	149	226	298	382	e420	424	295	451	199
18	147	349	192	137	213	423	2,490	e440	477	320	424	192
19	119	254	176	e144	213	708	1,010	e390	695	302	375	188
20	106	208	330	137	201	1,610	709	e340	454	277	355	181
21	100	207	245	139	192	976	607	e330	368	260	355	177
22	121	182	214	135	1,350	625	525	e900	326	252	341	257
23	99	161	190	134	936	485	450	e940	299	252	326	477
24	93	148	615	e124	535	407	405	e740	275	238	305	241
25	95	138	568	129	396	362	385	e580	258	227	292	217
26	117	129	380	124	351	330	385	e490	246	220	278	206
27	100	121	312	121	357	302	350	e420	242	216	267	202
28	100	115	272	118	342	283	323	374	252	212	273	223
29	115	111	245	126	---	275	309	356	303	242	331	195
30	122	110	223	152	---	322	294	342	241	253	302	188
31	115	---	208	138	---	271	---	331	---	1,230	310	---
TOTAL	3,561	5,528	8,308	5,319	7,714	12,694	17,617	16,231	11,855	14,501	16,836	7,122
MEAN	115	184	268	172	276	409	587	524	395	468	543	237
MAX	572	613	615	303	1,350	1,610	2,490	1,670	811	2,770	1,350	477
MIN	58	90	100	118	124	213	219	286	241	212	267	177
CFSM	0.90	1.45	2.11	1.35	2.17	3.22	4.62	4.12	3.11	3.68	4.28	1.87
IN.	1.04	1.62	2.43	1.56	2.26	3.72	5.16	4.75	3.47	4.25	4.93	2.09

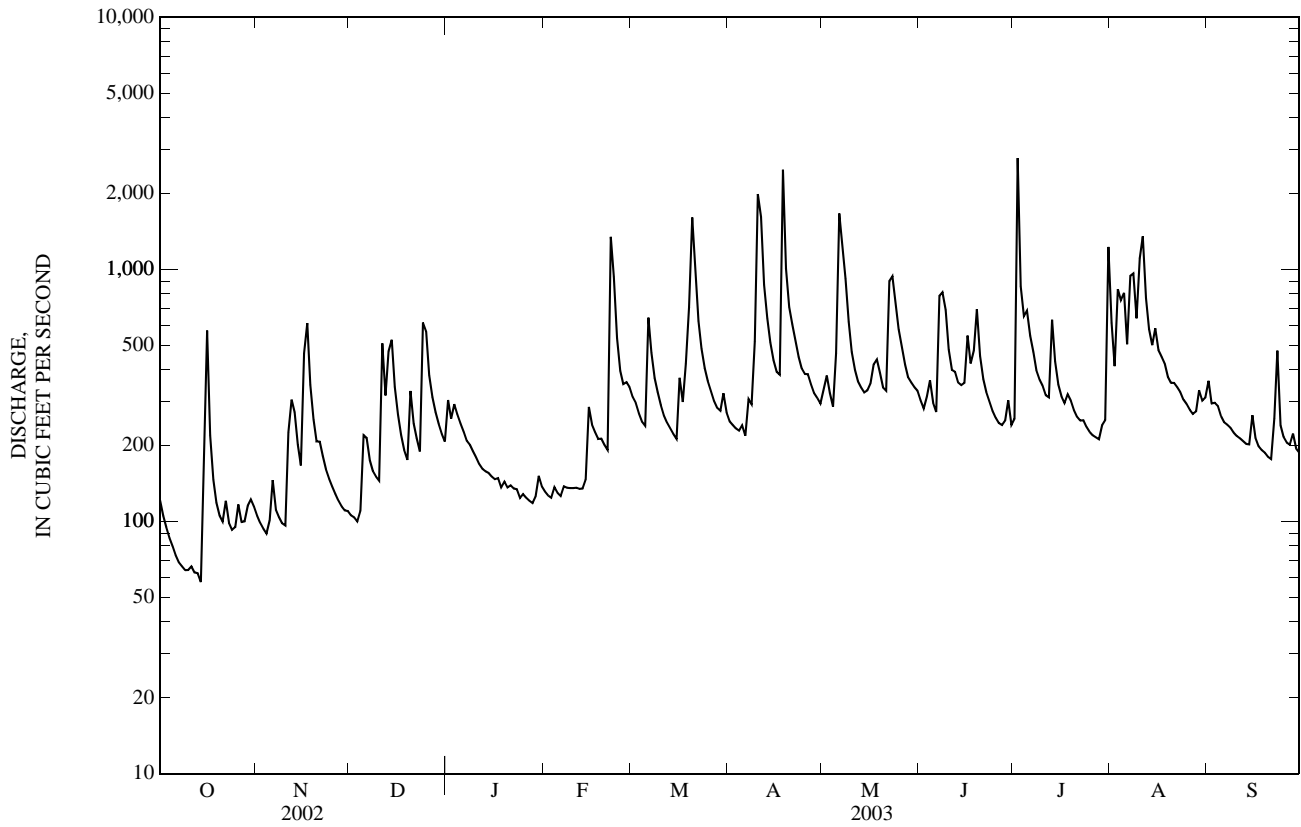
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 2003, BY WATER YEAR (WY)

	1977	1980	1984	1989	1995	1998	1999	2000	2001	2002	2003	
MEAN	177	200	220	270	323	344	319	247	206	169	200	162
MAX	550	606	573	620	739	622	688	524	652	468	543	435
(WY)	(1996)	(1986)	(1984)	(1995)	(1998)	(1990)	(1983)	(2003)	(1992)	(2003)	(2003)	(1989)
MIN	52.4	63.8	77.6	107	110	130	138	76.2	65.1	49.8	32.3	43.3
(WY)	(2001)	(2002)	(1989)	(1981)	(2001)	(1988)	(1986)	(2001)	(2001)	(2002)	(2002)	(1999)

02137727 CATAWBA RIVER NEAR PLEASANT GARDENS, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1981 - 2003	
ANNUAL TOTAL	48,090		127,286			
ANNUAL MEAN	132		349		236	
HIGHEST ANNUAL MEAN					351 1984	
LOWEST ANNUAL MEAN					103 2002	
HIGHEST DAILY MEAN	1,440	Sep 27	2,770	Jul 2	7,250	Aug 17, 1994
LOWEST DAILY MEAN	14	Sep 12	58	Oct 14	14	Sep 12, 2002
ANNUAL SEVEN-DAY MINIMUM	17	Aug 9	63	Oct 8	17	Aug 9, 2002
MAXIMUM PEAK FLOW			5,330	Jul 2	13,700	Aug 17, 1994
MAXIMUM PEAK STAGE			9.07	Jul 2	15.22	Aug 17, 1994
INSTANTANEOUS LOW FLOW			54	Oct 15	11	Sep 12, 2002
ANNUAL RUNOFF (CFSM)	1.04		2.75		1.86	
ANNUAL RUNOFF (INCHES)	14.09		37.28		25.23	
10 PERCENT EXCEEDS	232		641		418	
50 PERCENT EXCEEDS	105		272		170	
90 PERCENT EXCEEDS	34		115		72	

e Estimated.



PRECIPITATION RECORDS

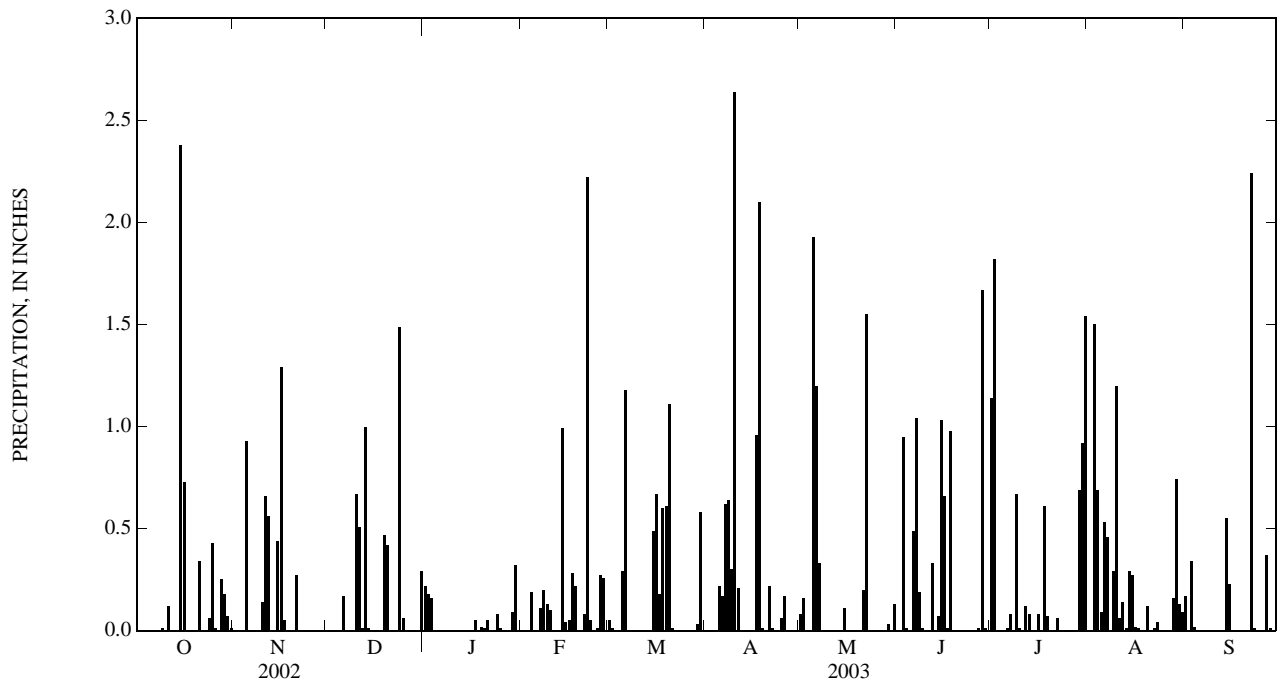
PERIOD OF RECORD.--November 2000 to current year.

GAGE.--Tipping-bucket raingage and electronic datalogger. Satellite and telephone telemetry at station.

REMARKS.--Gage is operated in cooperation with Duke Energy and the North Carolina Department of Environment and Natural Resources. Precipitation data collected during freezing periods may not be accurately reflected in daily record; consequently, winter record is poor.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.22	0.00	0.05	0.00	0.08	0.00	1.14	0.00	0.17
2	0.00	0.00	0.00	0.18	0.00	0.01	0.00	0.16	0.00	1.82	0.00	0.00
3	0.00	0.00	0.00	0.16	0.00	0.00	0.00	0.00	0.95	0.00	1.50	0.34
4	0.00	0.00	---	0.00	0.19	0.00	0.00	0.00	0.01	0.00	0.69	0.02
5	0.00	0.93	---	0.00	0.00	0.29	0.22	1.93	0.00	0.00	0.09	0.00
6	0.00	0.00	0.17	0.00	0.00	1.18	0.17	1.20	0.49	0.01	0.53	0.00
7	0.00	0.00	0.00	0.00	0.11	0.00	0.62	0.33	1.04	0.08	0.46	0.00
8	0.00	0.00	0.00	0.00	0.20	0.00	0.64	0.00	0.19	0.00	0.00	0.00
9	0.01	0.00	0.00	0.00	0.13	0.00	0.30	0.00	0.01	0.67	0.29	0.00
10	0.00	0.14	0.67	0.00	0.10	0.00	2.64	0.00	0.00	0.01	1.20	0.00
11	0.12	0.66	0.51	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.06	0.00
12	0.00	0.56	0.01	0.00	0.00	0.00	0.00	0.00	0.33	0.12	0.14	0.00
13	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.01	0.00
14	0.00	0.00	0.01	0.00	0.99	0.00	0.00	0.00	0.07	0.00	0.29	0.55
15	2.38	0.44	0.00	0.00	0.04	0.49	0.00	0.11	1.03	0.00	0.27	0.23
16	0.73	1.29	0.00	0.00	0.05	0.67	0.00	0.00	0.66	0.08	0.02	0.00
17	0.00	0.05	0.00	0.05	0.28	0.18	0.96	---	0.01	0.00	0.01	0.00
18	0.00	0.00	0.00	0.00	0.22	0.60	2.10	---	0.98	0.61	0.00	0.00
19	0.00	0.00	0.47	0.02	0.00	0.61	0.01	---	0.00	0.07	0.00	0.00
20	0.00	0.00	0.42	0.01	0.00	1.11	0.00	0.00	0.00	0.00	0.12	0.00
21	0.34	0.27	0.00	0.05	0.08	0.01	0.22	0.20	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	2.22	0.00	0.01	1.55	0.00	0.06	0.01	2.24
23	0.00	0.00	0.00	0.00	0.05	0.00	0.00	---	0.00	0.00	0.04	0.01
24	0.06	0.00	1.49	0.08	0.00	0.00	0.00	---	0.00	0.00	0.00	0.00
25	0.43	0.00	0.06	0.01	0.01	0.00	0.06	---	0.00	0.00	0.00	0.00
26	0.01	0.00	0.00	0.00	0.27	0.00	0.17	---	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.26	0.00	0.00	---	0.01	0.00	0.00	0.37
28	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.67	0.00	0.16	0.01
29	0.18	0.00	0.00	0.09	---	0.03	0.00	0.03	0.01	0.69	0.74	0.00
30	0.07	0.00	0.00	0.32	---	0.58	0.00	0.00	0.00	0.92	0.13	0.00
31	0.01	---	0.29	0.00	---	0.00	---	0.13	---	1.54	0.09	---
TOTAL	4.59	4.34	---	1.19	5.20	5.81	8.33	---	7.46	7.90	6.85	3.94



02138500 LINVILLE RIVER NEAR NEBO, NC

LOCATION.--Lat 35°47'41", long 81°53'24", Burke County, Hydrologic Unit 03050101, in Pisgah National Forest on right bank 370 ft upstream from bridge on State Highway 126, 0.2 mi downstream of Shooks Creek, 0.5 mi upstream from Lake James, 2.0 mi northeast of Longtown, and 6.0 mi northeast of Nebo.

DRAINAGE AREA.--66.7 mi².

PERIOD OF RECORD.--May 1907 to August 1908 (fragmentary). June 1922 to current year. Prior to 1908 published as "Linville River at Fonta Flora" and as "Linville River at Branch" 1923-70. Records for October to December 1908 "Linville River at Fonta Flora" published in WSP 242 have been found to be unreliable and should not be used.

REVISED RECORDS.--WSP 892: 1929, 1935, 1937. WSP 1503: 1923(M), 1924-28, 1930, 1932-33(M), 1938(M), 1939(P). WDR NC-80-1: Drainage area. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Datum of gage is 1,203.87 ft above NGVD of 1929. May 1907 to August 1908, nonrecording gage about 1.2 mi downstream at different datum. June 1922 to Aug. 27, 1937, nonrecording gage and Aug. 28, 1937, to Sept. 30, 1970, water-stage recorder at site on right bank 20 ft downstream of bridge on State Highway 126 at 1,204.87 ft. Oct. 1, 1970, to Sept. 30, 1973, at present site at 1,204.87 ft. Oct. 1, 1973, to Aug. 25, 1981, at present site at 1,204.87 ft. Satellite telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Maximum discharge for period of record, site and datum then in use, from rating curve extended above 6,400 ft³/s on basis of slope area measurement of peak flow. Minimum discharge for period of record, result of freezeup. Minimum discharge for current water year also occurred Oct. 15.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 1916 reached a stage of about 11 ft at former site and datum; discharge, 34,600 ft³/s.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	92	86	86	219	90	235	150	138	143	166	291	147
2	78	78	81	274	84	219	151	130	125	1,590	192	115
3	68	72	82	263	80	202	148	128	127	746	212	106
4	60	68	87	267	90	186	135	120	159	368	254	121
5	54	71	125	227	101	175	135	140	151	583	183	131
6	50	125	175	204	94	269	129	340	127	326	145	109
7	46	132	133	183	95	265	154	318	605	282	159	94
8	43	109	116	165	85	210	161	228	783	222	217	84
9	40	95	112	156	82	186	227	182	479	192	232	79
10	39	91	107	157	84	168	1,050	162	298	172	306	74
11	42	321	472	145	81	155	1,110	149	230	158	264	70
12	43	490	401	e132	79	144	684	136	216	147	224	68
13	42	418	444	e119	72	136	514	123	201	135	180	65
14	37	249	655	e111	76	131	374	114	196	125	165	62
15	49	187	375	e99	137	127	292	118	177	120	165	64
16	344	329	276	90	170	357	249	141	320	113	230	68
17	229	603	225	e81	151	346	222	123	486	108	185	63
18	137	364	191	e74	136	268	1,860	142	297	102	148	58
19	107	253	170	e75	137	455	853	137	304	115	133	55
20	91	203	280	e83	135	854	532	128	234	117	120	54
21	83	207	261	100	136	679	411	125	179	113	115	51
22	87	208	204	90	1,160	432	337	192	156	136	111	71
23	79	172	179	82	1,030	318	273	250	136	167	116	423
24	73	154	307	e74	525	258	233	234	121	128	134	144
25	68	142	419	e70	365	220	209	214	111	104	110	99
26	70	131	278	e68	292	196	197	262	107	91	94	78
27	69	123	219	e68	277	178	176	217	106	85	85	86
28	73	113	188	e68	268	165	159	173	111	80	83	143
29	83	101	168	80	---	160	148	157	122	79	85	122
30	85	93	154	99	---	173	141	146	125	87	87	94
31	89	---	143	95	---	165	---	147	---	92	119	---
TOTAL	2,550	5,788	7,113	4,018	6,112	8,032	11,414	5,314	6,932	7,049	5,144	2,998
MEAN	82.3	193	229	130	218	259	380	171	231	227	166	99.9
MAX	344	603	655	274	1,160	854	1,860	340	783	1,590	306	423
MIN	37	68	81	68	72	127	129	114	106	79	83	51
CFSM	1.23	2.89	3.44	1.94	3.27	3.88	5.70	2.57	3.46	3.41	2.49	1.50
IN.	1.42	3.23	3.97	2.24	3.41	4.48	6.37	2.96	3.87	3.93	2.87	1.67

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 2003, BY WATER YEAR (WY)

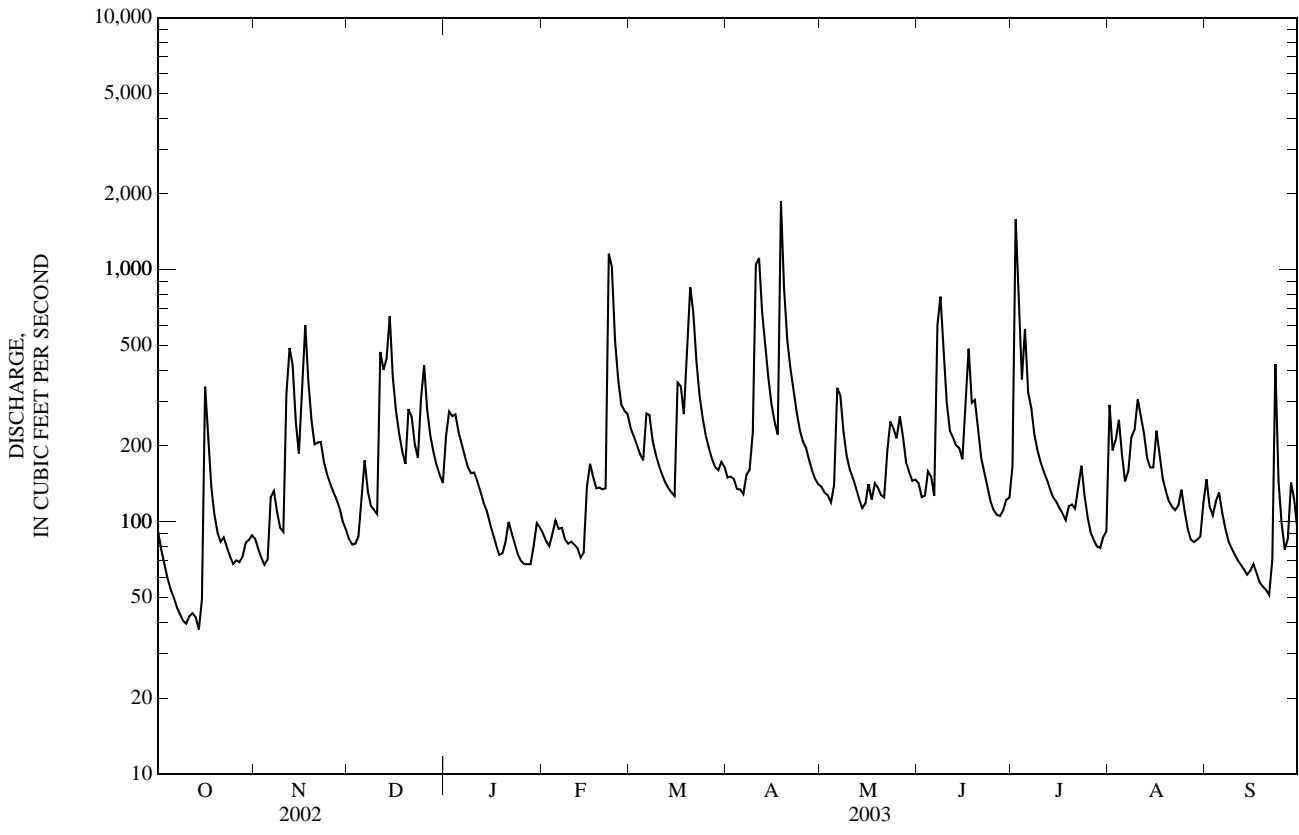
MEAN	122	136	138	175	191	231	201	148	129	98.6	118	111
MAX	433	678	349	664	569	632	479	369	598	449	1,084	606
(WY)	(1937)	(1978)	(1984)	(1995)	(1998)	(1979)	(1983)	(1976)	(1972)	(1989)	(1940)	(1979)
MIN	18.9	27.8	30.9	31.8	60.8	74.3	62.0	48.9	33.7	23.0	15.5	13.8
(WY)	(1955)	(1932)	(1940)	(1940)	(1941)	(1988)	(1986)	(1941)	(1941)	(1930)	(1925)	(1925)

SANTEE RIVER BASIN

02138500 LINVILLE RIVER NEAR NEBO, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1922 - 2003	
ANNUAL TOTAL	39,328		72,464		150	
ANNUAL MEAN	108		199		246	
HIGHEST ANNUAL MEAN					77.6	1979
LOWEST ANNUAL MEAN					1988	
HIGHEST DAILY MEAN	1,330	Sep 27	1,860	Apr 18	14,000	Aug 13, 1940
LOWEST DAILY MEAN	15	Sep 12	37	Oct 14	8.0	Sep 7, 1925
ANNUAL SEVEN-DAY MINIMUM	17	Sep 8	41	Oct 8	10	Aug 22, 1925
MAXIMUM PEAK FLOW			3,310	Apr 18	39,500*	Aug 13, 1940
MAXIMUM PEAK STAGE			4.60	Apr 18	11.40	Aug 13, 1940
INSTANTANEOUS LOW FLOW			35*	Oct 14	2.0*	Jan 9, 1956
ANNUAL RUNOFF (CFSM)	1.62		2.98		2.24	
ANNUAL RUNOFF (INCHES)	21.93		40.41		30.48	
10 PERCENT EXCEEDS	219		360		267	
50 PERCENT EXCEEDS	70		142		98	
90 PERCENT EXCEEDS	27		73		37	

e Estimated.
 * See REMARKS.



0213903612 CATAWBA RIVER AT CALVIN, NC

LOCATION.--Lat 35°44'23", long 81°43'43", Burke County, Hydrologic Unit 03050101, on right bank at City of Morganton's water intake, 0.5 mi upstream from Canoe Creek, and 0.5 mi north of Calvin.

DRAINAGE AREA.--508 mi².

PERIOD OF RECORD.--July 1991 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,002.40 ft above NGVD of 1929 (levels by City of Morganton). Satellite telemetry at station.

REMARKS.--No estimated daily discharges. Records fair. City of Morganton diverted about 11.6 ft³/s from Catawba River for municipal water supply. Considerable regulation, at times, caused by Lake James (station 02138519), 6.5 mi upstream. Maximum discharge for period of record computed on basis of releases from Lake James. Minimum discharge for period of record and current water year affected by regulation.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	205	353	1,030	249	320	1,310	1,330	1,410	1,420	1,420	705	674
2	194	361	534	753	305	1,300	1,320	1,470	1,390	2,920	524	523
3	191	353	197	1,260	392	1,290	1,300	1,540	1,380	2,720	681	531
4	187	356	700	1,290	396	1,260	1,300	1,420	1,310	2,580	1,620	483
5	183	359	1,030	1,260	396	1,240	1,320	1,470	1,410	2,350	1,400	664
6	185	400	644	1,260	481	1,500	1,350	2,160	1,390	2,240	1,350	690
7	175	379	493	1,240	489	1,430	1,120	2,420	1,780	1,560	2,340	690
8	172	367	477	1,210	494	1,370	671	2,360	2,330	1,750	2,830	515
9	171	368	441	1,170	475	1,330	889	2,150	1,930	1,810	2,770	984
10	174	361	986	1,220	480	1,300	2,490	1,940	1,970	1,820	2,260	1,680
11	218	591	1,010	1,270	483	1,290	4,020	1,770	1,840	1,320	2,400	2,040
12	404	686	1,330	1,260	474	1,280	3,540	1,630	1,680	1,850	2,690	682
13	244	681	1,490	1,270	472	1,250	3,120	1,520	1,630	2,660	2,590	684
14	106	598	1,580	987	479	1,270	2,640	1,430	1,550	2,540	2,530	683
15	182	582	1,360	698	544	1,250	2,270	1,480	1,750	2,590	2,630	913
16	758	727	1,290	1,170	542	1,370	1,920	1,460	2,120	2,530	2,650	916
17	418	602	1,320	1,010	631	874	1,730	1,430	1,800	2,240	2,230	918
18	286	529	1,170	318	645	832	5,020	1,500	1,700	1,720	1,240	898
19	236	438	1,200	313	643	1,400	5,490	1,420	1,820	1,750	2,480	924
20	206	748	1,460	469	625	1,960	4,310	1,370	1,750	1,800	2,240	662
21	210	1,170	1,340	473	615	984	3,460	1,370	1,640	1,560	1,350	663
22	202	1,030	1,270	475	1,580	1,060	2,970	1,730	1,530	1,690	1,360	909
23	194	581	1,240	473	1,860	1,520	2,470	1,740	1,450	1,570	1,350	706
24	184	575	1,630	935	1,530	1,440	2,110	1,680	1,410	1,270	1,340	760
25	181	712	1,690	809	1,370	1,380	1,860	1,570	1,400	1,140	1,320	919
26	199	1,250	1,460	311	1,340	1,340	1,750	1,590	1,390	750	1,420	910
27	187	1,230	1,380	300	1,340	1,330	1,660	1,570	1,390	738	1,510	703
28	193	1,230	1,300	319	1,320	1,310	1,540	1,480	1,410	730	812	713
29	196	1,200	1,240	316	---	1,310	1,430	1,490	1,460	666	1,100	763
30	199	1,210	1,110	330	---	1,430	1,380	1,440	1,420	393	1,530	936
31	194	---	239	327	---	1,380	---	1,430	---	524	1,080	---
TOTAL	7,034	20,027	33,641	24,745	20,721	40,590	67,780	50,440	48,450	53,201	54,332	24,736
MEAN	227	668	1,085	798	740	1,309	2,259	1,627	1,615	1,716	1,753	825
MAX	758	1,250	1,690	1,290	1,860	1,960	5,490	2,420	2,330	2,920	2,830	2,040
MIN	106	353	197	249	305	832	671	1,370	1,310	393	524	483
†	+203	+92	+60	-159	+301	+104	+54	-21	-86	-113	-161	+103

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 2003, BY WATER YEAR (WY)

MEAN	559	625	784	1,154	1,148	1,179	1,111	852	841	669	822	569
MAX	1,943	1,615	1,700	2,438	2,659	2,093	2,259	1,627	2,103	1,716	2,078	1,146
(WY)	(1996)	(1993)	(1993)	(1995)	(1998)	(1993)	(2003)	(2003)	(1992)	(2003)	(1994)	(1995)
MIN	227	294	298	327	291	409	437	322	355	380	278	200
(WY)	(2003)	(2001)	(1999)	(2002)	(2002)	(1999)	(1999)	(2002)	(2001)	(2001)	(2002)	(2002)

SANTEE RIVER BASIN

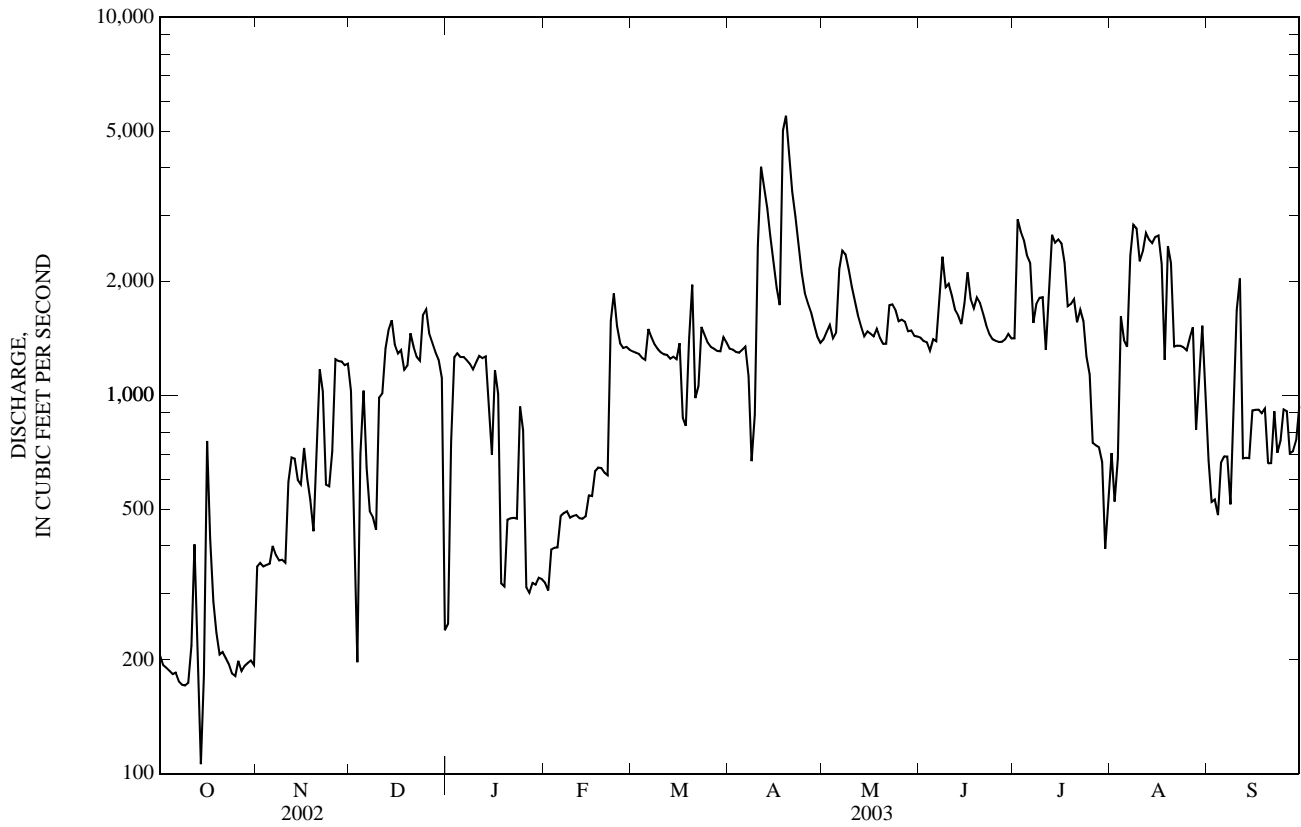
0213903612 CATAWBA RIVER AT CALVIN, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1991 - 2003	
ANNUAL TOTAL	165,255		445,697		857 (UNADJUSTED)	
ANNUAL MEAN	453		1,221 ‡1,250		1,230 1993	
HIGHEST ANNUAL MEAN					376 2002	
LOWEST ANNUAL MEAN					12,300 Aug 18, 1994	
HIGHEST DAILY MEAN	1,690	Dec 25	5,490	Apr 19	36	Sep 12, 2002
LOWEST DAILY MEAN	36	Sep 12	106	Oct 14	112	Oct 10, 1993
ANNUAL SEVEN-DAY MINIMUM	147	Sep 8	178	Oct 4	12,300*	Aug 18, 1994
MAXIMUM PEAK FLOW			6,860	Apr 18	16.40	Aug 18, 1994
MAXIMUM PEAK STAGE			8.02	Apr 18	2.1*	Sep 12, 2002
INSTANTANEOUS LOW FLOW			29*	Oct 9		
10 PERCENT EXCEEDS	1,030		2,240		1,740	
50 PERCENT EXCEEDS	361		1,270		604	
90 PERCENT EXCEEDS	189		317		264	

† Change in contents, equivalent in cubic feet per second, in Lake James, provided by Duke Power Company.

‡ Adjusted for change in contents.

** See REMARKS.



02140991 JOHNS RIVER AT ARNEYS STORE, NC

LOCATION.--Lat 35°50'01", long 81°42'42", Burke County, Hydrologic Unit 03050101, on right bank 12 ft downstream of bridge on Secondary Road 1438, 0.2 mi downstream of Sims Branch, and 0.8 mi northeast of Arneys Store.

DRAINAGE AREA.--201 mi².

PERIOD OF RECORD.--Occasional discharge measurements, water years 1974-84. May 1985 to current year.

REVISED RECORDS.--WDR NC-87-1: 1985-86 (P).

GAGE.--Water-stage recorder. Datum of gage is 1,001.74 ft above NGVD of 1929. Satellite and telephone telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Maximum discharge for period of record from rating curve extended above 11,000 ft³/s on basis of slope-area measurement; maximum gage height from high-water mark in gage house. Minimum discharge for period of record also occurred Sept. 14, 2002.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	184	168	188	434	181	476	424	e460	392	477	821	836
2	150	162	180	435	181	461	408	468	349	2,360	624	604
3	130	152	176	487	176	426	387	435	396	1,550	673	549
4	115	148	182	480	195	392	368	398	593	831	741	695
5	105	158	318	432	208	376	371	510	451	938	598	611
6	96	314	345	398	181	589	354	751	389	1,200	542	525
7	91	239	264	362	195	550	483	661	1,180	1,080	999	480
8	89	204	238	341	186	469	462	555	1,330	791	951	448
9	85	189	236	322	173	432	689	485	845	706	815	417
10	87	185	234	300	179	397	2,350	444	681	664	e1,130	390
11	124	660	803	276	185	367	2,460	418	588	595	e970	370
12	131	747	683	257	179	350	1,090	397	565	532	e840	351
13	106	645	770	247	173	334	816	368	564	539	666	340
14	92	473	961	239	175	321	702	351	564	547	597	325
15	117	380	670	228	293	305	636	e344	621	500	794	326
16	812	570	541	217	303	1,000	582	e374	889	511	801	321
17	439	911	452	e211	297	792	538	406	2,010	496	657	296
18	257	643	392	e211	287	662	2,580	451	1,020	488	580	287
19	198	492	352	e207	352	666	1,520	398	1,230	606	526	280
20	171	409	593	e207	344	1,470	986	371	866	486	487	268
21	158	391	494	209	332	1,210	840	362	705	436	479	260
22	171	366	417	198	1,840	824	754	524	620	495	487	282
23	148	311	372	198	1,600	693	678	595	542	564	467	973
24	136	282	595	e187	820	616	625	578	491	434	437	423
25	136	262	754	e180	659	544	587	526	445	387	401	345
26	163	241	574	e172	565	496	581	568	414	356	377	320
27	151	227	479	e168	539	456	524	625	412	339	358	336
28	150	212	424	e168	536	424	483	491	392	329	622	440
29	185	203	383	176	---	417	458	441	385	330	454	330
30	186	198	347	205	---	543	437	418	381	520	602	311
31	178	---	321	194	---	479	---	422	---	431	990	---
TOTAL	5,341	10,542	13,738	8,346	11,334	17,537	24,173	14,595	20,310	20,518	20,486	12,739
MEAN	172	351	443	269	405	566	806	471	677	662	661	425
MAX	812	911	961	487	1,840	1,470	2,580	751	2,010	2,360	1,130	973
MIN	85	148	176	168	173	305	354	344	349	329	358	260
CFSM	0.86	1.75	2.20	1.34	2.01	2.81	4.01	2.34	3.37	3.29	3.29	2.11
IN.	0.99	1.95	2.54	1.54	2.10	3.25	4.47	2.70	3.76	3.80	3.79	2.36

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 2003, BY WATER YEAR (WY)

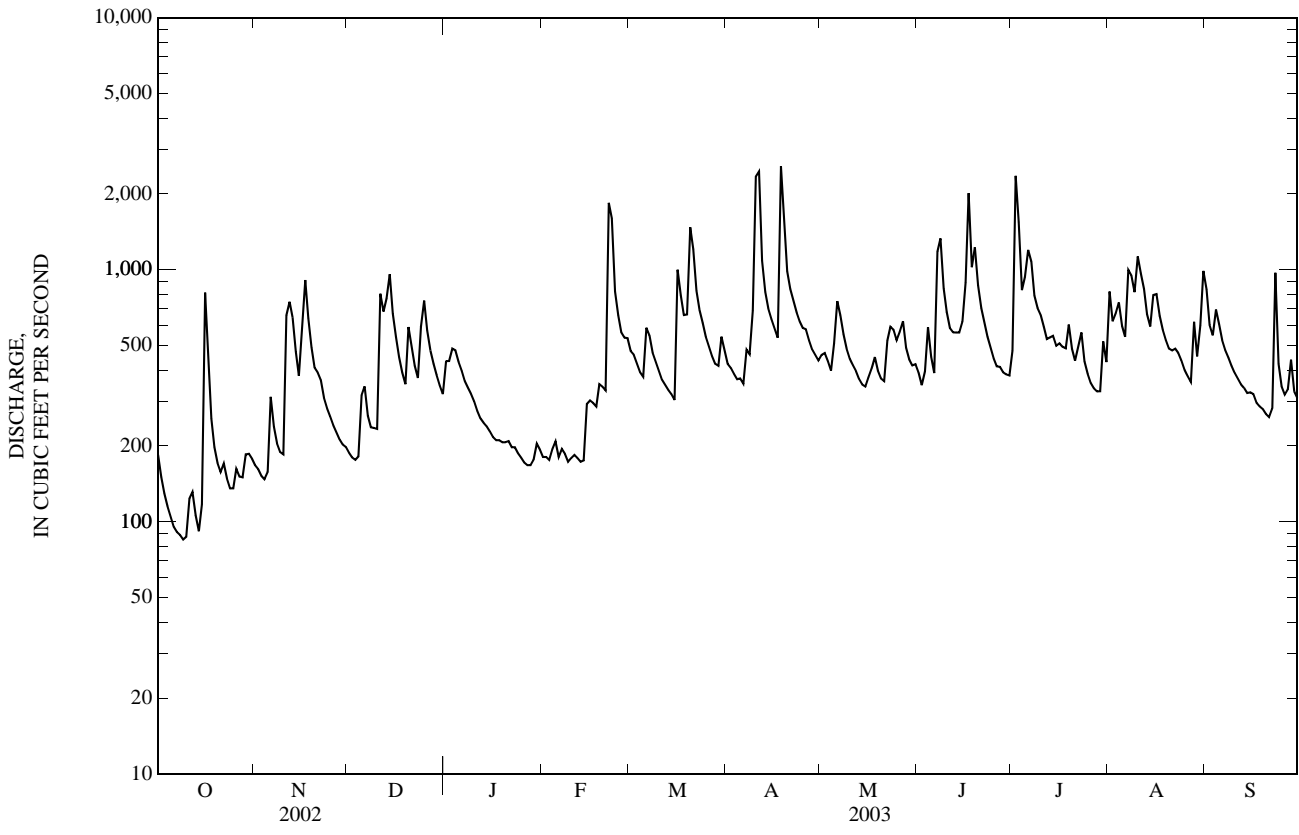
MEAN	254	312	309	426	405	541	469	340	326	255	299	231
MAX	890	938	602	1,388	838	1,151	883	595	963	662	1,070	808
(WY)	(1991)	(1993)	(1997)	(1995)	(1990)	(1993)	(1987)	(1993)	(1992)	(2003)	(1994)	(1989)
MIN	79.1	104	113	170	138	179	206	128	94.5	75.5	42.6	88.7
(WY)	(2001)	(2002)	(1989)	(2001)	(2001)	(1988)	(1986)	(2001)	(2002)	(1988)	(2002)	(1999)

SANTEE RIVER BASIN

02140991 JOHNS RIVER AT ARNEYS STORE, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1985 - 2003	
ANNUAL TOTAL	77,284		179,659			
ANNUAL MEAN	212		492		348	
HIGHEST ANNUAL MEAN					502	1993
LOWEST ANNUAL MEAN					164	2002
HIGHEST DAILY MEAN	1,980	Sep 27	2,580	Apr 18	16,100	Jan 15, 1995
LOWEST DAILY MEAN	19	Sep 13	85	Oct 9	19	Sep 13, 2002
ANNUAL SEVEN-DAY MINIMUM	24	Sep 8	95	Oct 4	24	Sep 8, 2002
MAXIMUM PEAK FLOW			4,880	Apr 10	42,300*	Aug 17, 1994
MAXIMUM PEAK STAGE			10.73	Apr 10	25.23*	Aug 17, 1994
INSTANTANEOUS LOW FLOW			84	Oct 9	19*	Sep 13, 2002
ANNUAL RUNOFF (CFSM)	1.05		2.45		1.73	
ANNUAL RUNOFF (INCHES)	14.30		33.25		23.50	
10 PERCENT EXCEEDS	430		827		620	
50 PERCENT EXCEEDS	160		426		247	
90 PERCENT EXCEEDS	49		176		100	

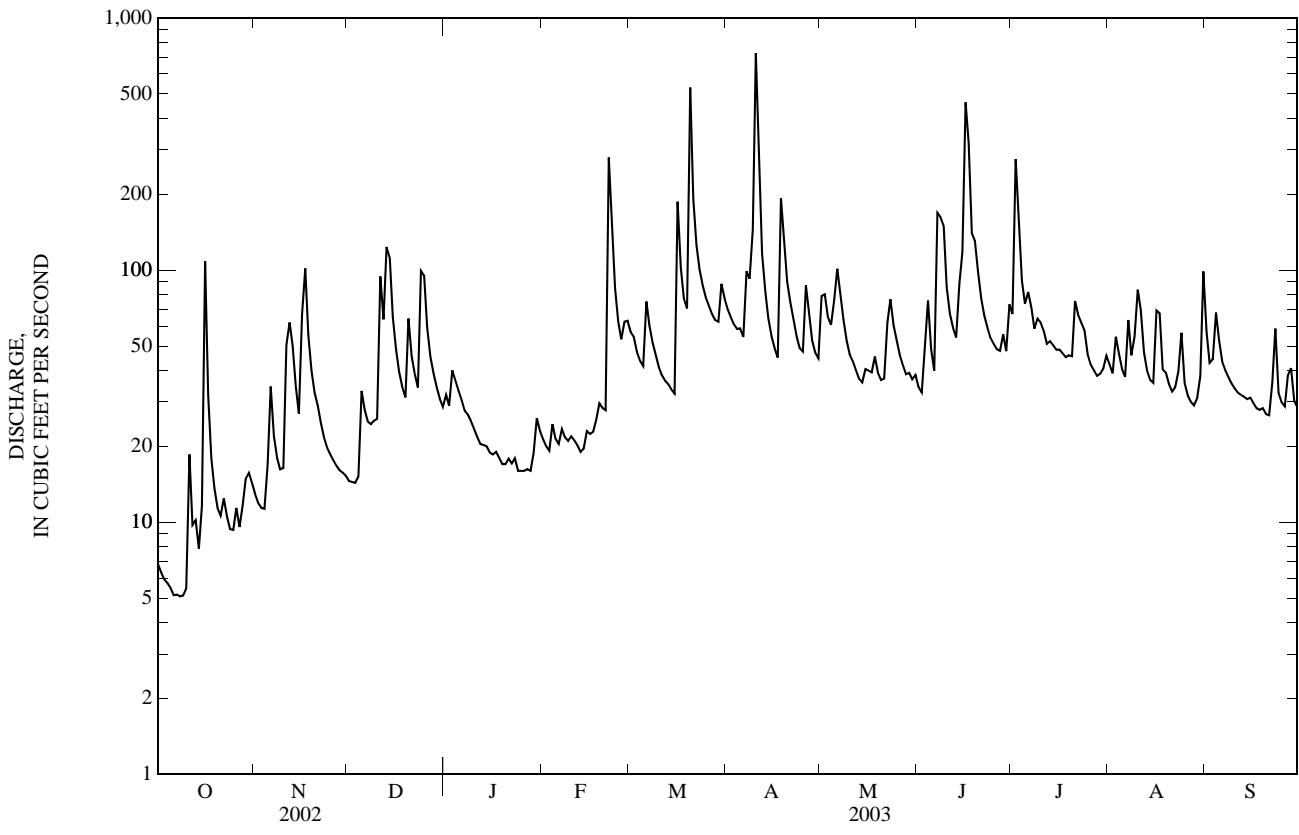
e Estimated.
 * See REMARKS.



02142000 LOWER LITTLE RIVER NEAR ALL HEALING SPRINGS, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1953 - 2003 [®]	
ANNUAL TOTAL	6,722.5		19,642.2		38.1	
ANNUAL MEAN	18.4		53.8		65.2	
HIGHEST ANNUAL MEAN					13.7	
LOWEST ANNUAL MEAN					2002	
HIGHEST DAILY MEAN	124	Dec 13	724	Apr 10	2,270	Aug 10, 1970
LOWEST DAILY MEAN	1.5	Sep 12	5.1	Oct 6	1.5	Sep 12, 2002
ANNUAL SEVEN-DAY MINIMUM	2.0	Sep 8	5.3	Oct 4	2.0	Sep 8, 2002
MAXIMUM PEAK FLOW			1,490	Apr 10	4,850	Aug 10, 1970
MAXIMUM PEAK STAGE			9.03	Apr 10	15.68	Aug 10, 1970
INSTANTANEOUS LOW FLOW			4.7*	Oct 8	0.32*	Jan 3, 2001
ANNUAL RUNOFF (CFSM)	0.65		1.91		1.35	
ANNUAL RUNOFF (INCHES)	8.87		25.91		18.37	
10 PERCENT EXCEEDS	36		92		67	
50 PERCENT EXCEEDS	13		40		26	
90 PERCENT EXCEEDS	3.9		16		11	

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



02142000 LOWER LITTLE RIVER NEAR ALL HEALING SPRINGS, NC—Continued

PRECIPITATION RECORDS

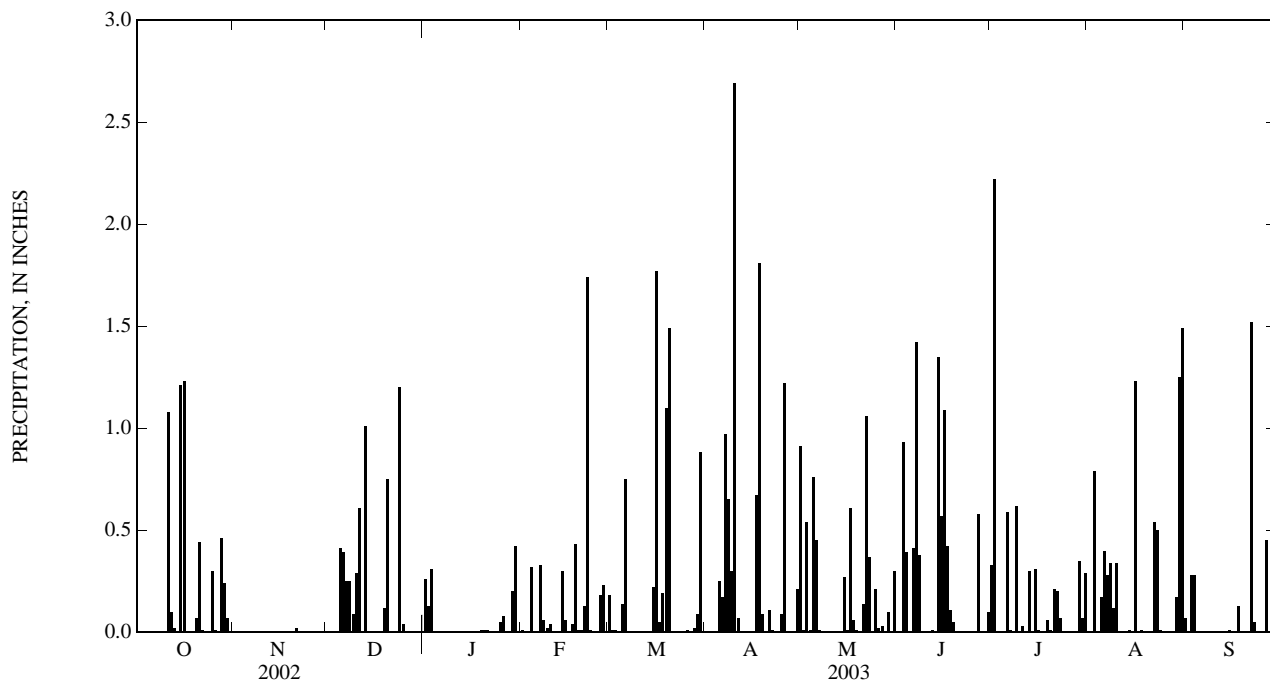
PERIOD OF RECORD.--August 2001 to current year.

GAGE.--Tipping-bucket raingage and electronic datalogger. Satellite telemetry at station.

REMARKS.--Precipitation data collected during freezing periods may not be accurately reflected in daily record; consequently, winter record is poor.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.26	0.01	0.18	0.00	0.91	0.00	0.33	0.00	0.07
2	0.00	0.00	0.00	0.13	0.00	0.01	0.00	0.01	0.00	2.22	0.00	0.00
3	0.00	0.00	0.00	0.31	0.00	0.01	0.00	0.54	0.93	0.00	0.79	0.28
4	0.00	0.00	0.00	0.00	0.32	0.00	0.00	0.01	0.39	0.00	0.00	0.28
5	0.00	---	0.41	0.00	0.00	0.14	0.25	0.76	0.00	0.00	0.17	0.00
6	0.00	---	0.39	0.00	0.00	0.75	0.17	0.45	0.41	0.59	0.40	0.00
7	0.00	---	0.25	0.00	0.33	0.00	0.97	0.01	1.42	0.01	0.28	0.00
8	0.00	---	0.25	0.00	0.06	0.00	0.65	0.00	0.38	0.00	0.34	0.00
9	0.00	---	0.09	0.00	0.02	0.00	0.30	0.00	0.00	0.62	0.12	0.00
10	0.00	---	0.29	0.00	0.04	0.00	2.69	0.00	0.00	0.00	0.34	0.00
11	1.08	---	0.61	0.00	0.00	0.00	0.07	0.00	0.00	0.03	0.00	0.00
12	0.10	---	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00
13	0.02	---	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.30	0.00	0.00
14	0.00	---	0.00	0.00	0.30	0.00	0.00	0.00	1.35	0.00	0.01	0.00
15	1.21	---	0.00	0.00	0.06	0.22	0.00	0.27	0.57	0.31	0.00	0.01
16	1.23	---	0.00	0.00	0.00	1.77	0.00	0.01	1.09	0.01	1.23	0.00
17	0.00	---	0.00	0.00	0.04	0.05	0.67	0.61	0.42	0.00	0.00	0.00
18	0.00	---	0.00	0.00	0.43	0.19	1.81	0.06	0.11	0.00	0.01	0.13
19	0.00	---	0.12	0.01	0.01	1.10	0.09	0.01	0.05	0.06	0.00	0.00
20	0.07	---	0.75	0.01	0.01	1.49	0.00	0.00	0.00	0.01	0.00	0.00
21	0.44	0.02	0.00	0.01	0.13	0.00	0.11	0.14	0.00	0.21	0.00	0.00
22	0.01	0.00	0.00	0.00	1.74	0.00	0.01	1.06	0.00	0.20	0.54	1.52
23	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.37	0.00	0.07	0.50	0.05
24	0.00	0.00	1.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
25	0.30	0.00	0.04	0.05	0.00	0.00	0.09	0.21	0.00	0.00	0.00	0.00
26	0.01	0.00	0.00	0.08	0.18	0.01	1.22	0.02	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.23	0.00	0.00	0.03	0.58	0.00	0.00	0.45
28	0.46	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00
29	0.24	0.00	0.00	0.20	---	0.09	0.00	0.10	0.00	0.35	0.17	0.00
30	0.07	0.00	0.00	0.42	---	0.88	0.21	0.00	0.10	0.07	1.25	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.30	---	0.29	1.49	---
TOTAL	5.24	---	5.41	1.48	3.92	6.91	9.31	5.88	7.81	5.68	7.65	2.79



0214253830 NORWOOD CREEK NEAR TROUTMAN, NC

LOCATION.--Lat 35°40'50", long 80°56'43", Iredell County, Hydrologic Unit 03050101, on left upstream wingwall of culvert on Secondary Road 1328, 0.4 mi upstream from Lake Norman, 0.7 mi downstream of Powder Spring Branch, 1.0 mi northeast of East Monbo, and 3.7 mi southwest of Troutman.

DRAINAGE AREA.--7.18 mi².

PERIOD OF RECORD.--December 1983 to current year.

GAGE.--Water-stage recorder. Datum of gage is 761.09 ft above NGVD of 1929. Satellite telemetry at station.

REMARKS.--Records poor.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.9	3.2	4.7	9.4	8.4	12	9.2	5.3	4.2	6.3	9.9	6.7
2	2.9	3.0	4.6	8.9	7.9	18	8.3	5.3	4.0	27	7.6	5.9
3	2.7	3.2	4.6	10	7.7	11	7.7	6.9	48	13	8.2	5.7
4	2.8	3.3	4.8	9.6	7.9	9.4	7.3	7.1	18	9.5	8.7	10
5	2.7	3.9	17	8.9	7.5	8.9	6.9	6.9	7.9	8.6	7.2	7.2
6	2.6	7.9	14	8.5	7.4	34	6.5	23	5.2	8.2	6.7	5.9
7	2.4	5.3	11	8.2	9.4	14	31	13	39	7.9	7.2	5.7
8	2.4	4.8	8.7	8.1	9.3	11	13	7.6	39	7.6	7.4	5.5
9	2.3	4.5	7.7	8.0	8.4	10	47	6.0	7.9	7.7	8.1	5.4
10	2.2	4.5	7.4	7.8	8.2	9.5	364	5.4	5.2	8.0	7.1	5.3
11	2.7	9.4	36	8.0	7.8	9.1	114	5.2	4.5	7.5	7.0	5.2
12	2.1	35	14	8.0	7.6	8.8	21	4.9	4.3	7.3	6.6	5.2
13	2.4	9.5	48	8.0	7.4	8.7	14	4.7	4.1	7.6	6.6	5.2
14	2.2	6.1	18	8.0	7.5	8.6	11	4.6	4.0	7.3	6.2	5.1
15	2.0	5.8	9.2	7.8	8.2	8.4	9.8	4.7	4.3	7.2	6.0	5.2
16	3.1	19	7.4	7.5	8.2	28	9.1	4.7	e300	7.0	57	5.1
17	2.1	28	6.4	e7.4	8.2	14	8.5	4.6	71	6.9	38	5.0
18	1.8	11	6.0	7.3	9.5	11	92	5.2	18	6.8	9.0	5.0
19	1.7	8.1	5.9	7.2	11	11	31	4.9	14	6.8	9.9	5.1
20	1.6	7.0	8.5	e7.1	10	e550	12	4.5	11	6.8	7.4	5.0
21	1.7	6.5	6.7	e7.1	9.3	37	9.3	4.6	8.7	6.8	6.8	5.0
22	1.8	5.9	6.0	e7.1	153	19	8.2	11	7.9	7.3	6.8	5.2
23	2.1	5.7	5.6	e7.0	31	15	7.4	15	7.5	8.9	6.6	8.2
24	1.8	5.5	81	e7.0	14	12	6.9	8.5	7.2	8.1	6.3	5.3
25	1.8	5.3	35	e7.0	11	11	6.7	23	7.0	6.9	6.1	4.9
26	1.8	5.1	17	e7.0	9.6	10	7.0	9.6	6.6	6.7	5.9	4.9
27	1.8	5.0	13	7.0	13	9.6	6.3	7.0	6.6	6.7	5.8	5.0
28	2.3	4.9	11	7.0	15	9.3	6.0	5.4	6.7	6.6	5.7	5.3
29	3.2	4.8	10	7.7	---	8.8	5.7	4.9	6.4	21	5.9	4.7
30	4.5	4.8	9.6	9.8	---	18	5.5	4.6	6.0	14	5.7	4.7
31	3.7	---	9.2	9.3	---	12	---	4.7	---	9.8	7.7	---
TOTAL	74.1	236.0	448.0	246.7	423.4	957.1	892.3	232.8	684.2	277.8	301.1	167.6
MEAN	2.39	7.87	14.5	7.96	15.1	30.9	29.7	7.51	22.8	8.96	9.71	5.59
MAX	4.5	35	81	10	153	550	364	23	300	27	57	10
MIN	1.6	3.0	4.6	7.0	7.4	8.4	5.5	4.5	4.0	6.3	5.7	4.7
CFSM	0.33	1.10	2.01	1.11	2.11	4.30	4.14	1.05	3.18	1.25	1.35	0.78
IN.	0.38	1.22	2.32	1.28	2.19	4.96	4.62	1.21	3.54	1.44	1.56	0.87

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 2003, BY WATER YEAR (WY)

MEAN	7.90	7.00	8.11	10.1	12.4	13.9	11.6	7.02	6.82	5.38	5.14	4.31
MAX	36.1	16.9	15.8	21.0	25.1	35.2	29.7	15.2	24.4	22.1	13.0	10.5
(WY)	(1991)	(1993)	(1984)	(1993)	(1990)	(1993)	(2003)	(1990)	(1992)	(1989)	(1994)	(1989)
MIN	1.01	1.38	1.97	2.81	3.54	4.49	3.60	2.39	1.61	1.41	0.85	1.53
(WY)	(2002)	(2002)	(2002)	(2001)	(2002)	(1999)	(1986)	(2001)	(1986)	(2000)	(2000)	(2001)

SUMMARY STATISTICS

FOR 2002 CALENDAR YEAR

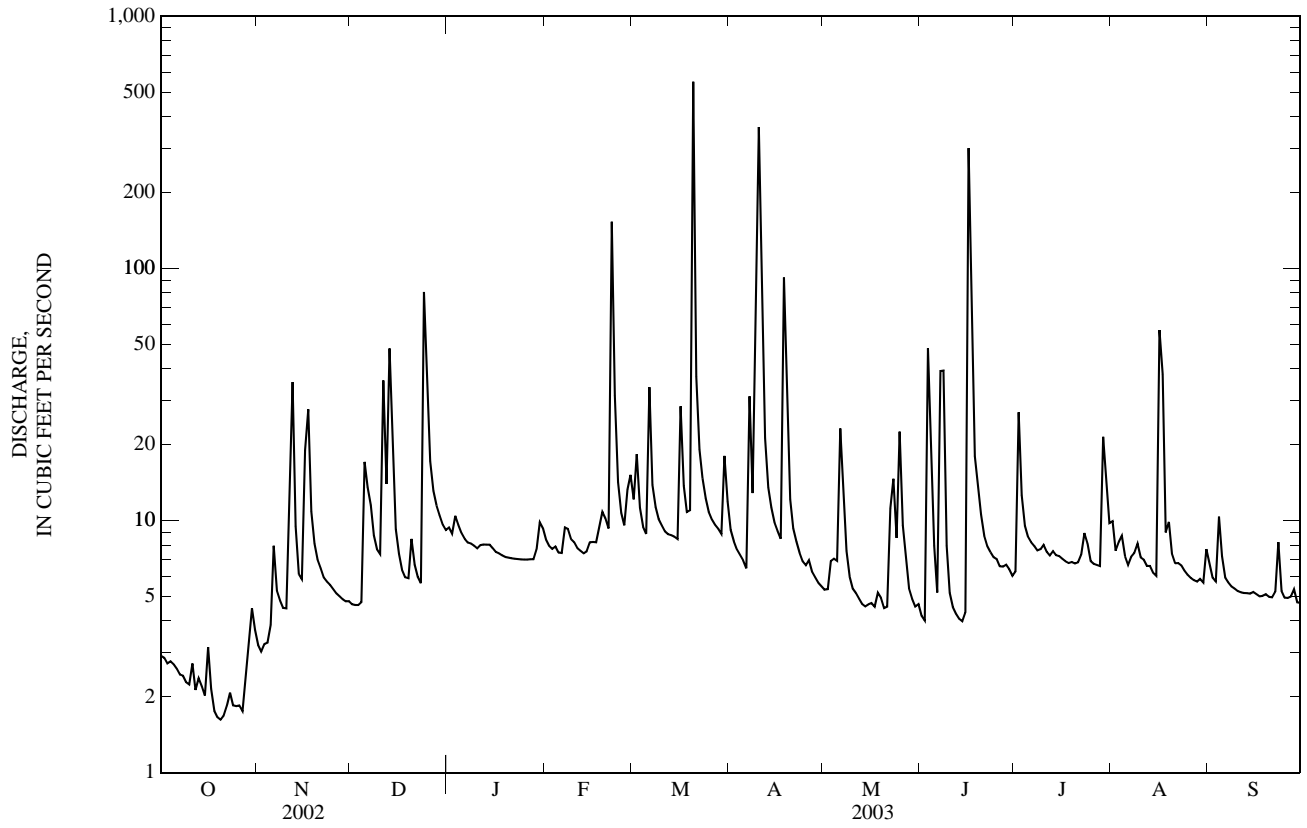
FOR 2003 WATER YEAR

WATER YEARS 1984 - 2003

ANNUAL TOTAL	1,636.88	4,941.1	
ANNUAL MEAN	4.48	13.5	8.12
HIGHEST ANNUAL MEAN			13.5 2003
LOWEST ANNUAL MEAN			2.77 2002
HIGHEST DAILY MEAN	81 Dec 24	550 Mar 20	550 Mar 20, 2003
LOWEST DAILY MEAN	0.48 Aug 10	1.6 Oct 20	0.48 Aug 10, 2002
ANNUAL SEVEN-DAY MINIMUM	0.58 Sep 7	1.8 Oct 18	0.58 Sep 7, 2002
MAXIMUM PEAK STAGE		10.18 Jun 16	10.18 Jun 16, 2003
INSTANTANEOUS PEAK FLOW		NOT DETERMINED	NOT DETERMINED
INSTANTANEOUS LOW FLOW		1.6 Oct 20	0.40 Aug 21, 2002
ANNUAL RUNOFF (CFSM)	0.62	1.89	1.13
ANNUAL RUNOFF (INCHES)	8.48	25.60	15.37
10 PERCENT EXCEEDS	6.4	18	11
50 PERCENT EXCEEDS	3.2	7.3	5.1
90 PERCENT EXCEEDS	1.1	4.0	2.3

e Estimated.

0214253830 NORWOOD CREEK NEAR TROUTMAN, NC—Continued



LOCATION.--Lat 35°27'50", long 80°52'35", Mecklenburg County, Hydrologic Unit 03050101, McDowell Creek at Westmoreland Road near Cornelius, NC.

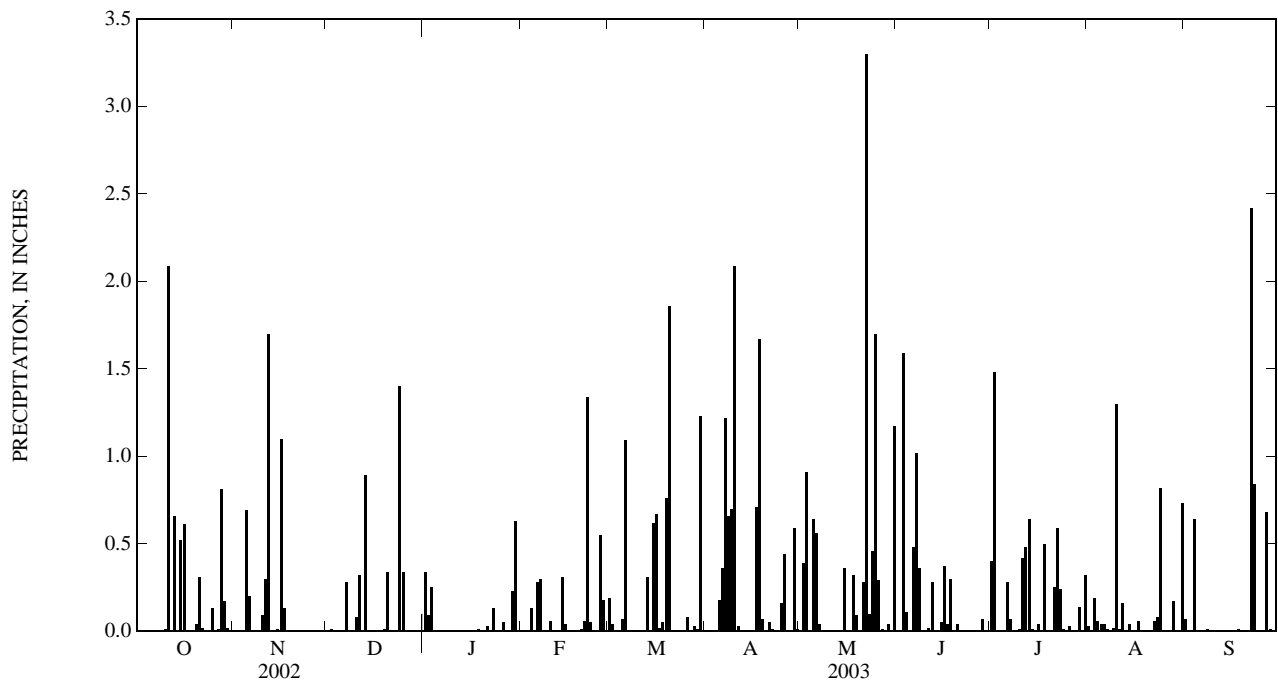
PERIOD OF RECORD.-- May 1994 to current year. Records for period May 1994 to September 1998 published in USGS OFR 96-150, 98-67, and 99-273.

GAGE.--Tipping-bucket raingage and electronic datalogger. Radio telemetry at station.

REMARKS.--Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network. Collection of frozen precipitation during December 2002 and February 2003 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.34	0.00	0.19	0.00	0.00	0.00	0.40	0.03	0.07
2	0.00	0.00	0.01	0.09	0.00	0.04	0.00	0.39	0.00	1.48	0.00	0.00
3	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.91	1.59	0.00	0.19	0.00
4	0.00	0.00	---	0.00	0.13	0.00	0.00	0.00	0.11	0.00	0.06	0.64
5	0.00	0.69	---	0.00	0.00	0.07	0.18	0.64	0.00	0.00	0.04	0.00
6	0.00	0.20	---	0.00	0.28	1.09	0.36	0.56	0.48	0.28	0.04	0.00
7	0.00	0.00	0.28	0.00	0.30	0.00	1.22	0.04	1.02	0.07	0.01	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.66	0.00	0.36	0.00	0.00	0.01
9	0.00	0.00	0.00	0.00	0.00	0.00	0.70	0.00	0.00	0.00	0.02	0.00
10	0.01	0.09	0.08	0.00	0.06	0.00	2.09	0.00	0.00	0.01	1.30	0.00
11	2.09	0.30	0.32	0.00	0.00	0.00	0.03	0.00	0.02	0.42	0.01	0.00
12	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.28	0.48	0.16	0.00
13	0.66	0.00	0.89	0.00	0.00	0.31	0.00	0.00	0.00	0.64	0.00	0.00
14	0.00	0.00	0.00	0.00	0.31	0.00	0.00	0.00	0.00	0.01	0.04	0.00
15	0.52	0.01	0.00	0.00	0.04	0.62	0.00	0.36	0.05	0.00	0.00	0.00
16	0.61	1.10	0.00	0.00	---	0.67	0.00	0.00	0.37	0.04	0.00	0.00
17	0.00	0.13	0.00	0.00	---	0.02	0.71	0.00	0.04	0.00	0.06	0.00
18	0.00	0.00	0.00	0.01	---	0.05	1.67	0.32	0.30	0.50	0.00	0.01
19	0.00	0.00	0.01	0.00	0.00	0.76	0.07	0.09	0.00	0.00	0.00	0.00
20	0.04	0.00	0.34	0.00	0.01	1.86	0.00	0.00	0.04	0.00	0.00	0.00
21	0.31	0.00	0.00	0.03	0.06	0.00	0.05	0.28	0.00	0.25	0.00	0.00
22	0.02	0.00	0.00	0.00	1.34	0.00	0.01	3.30	0.00	0.59	0.06	2.42
23	0.00	0.00	0.00	0.13	0.05	0.00	0.00	0.10	0.00	0.24	0.08	0.84
24	0.00	0.00	1.40	0.00	0.00	0.00	0.00	0.46	0.00	0.01	0.82	0.00
25	0.13	0.00	0.34	0.00	0.00	0.00	0.16	1.70	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.05	0.55	0.08	0.44	0.29	0.00	0.03	0.00	0.00
27	0.01	0.00	0.00	0.00	0.18	0.00	0.00	0.01	0.00	0.00	0.00	0.68
28	0.81	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.07	0.00	0.17	0.01
29	0.17	0.00	0.00	0.23	---	0.01	0.59	0.04	0.00	0.14	0.00	0.00
30	0.02	0.00	0.00	0.63	---	1.23	0.01	0.00	0.00	0.00	0.00	0.00
31	0.00	---	0.00	0.00	---	0.00	---	1.17	---	0.32	0.73	---
TOTAL	5.40	4.22	---	1.76	---	7.03	8.95	10.66	4.73	5.91	3.82	4.68



0214266000 MCDOWELL CREEK NEAR CHARLOTTE, NC

LOCATION.--Lat 35°23'23", long 80°55'16", Mecklenburg County, Hydrologic Unit 03050101, on right bank at downstream side of bridge on Secondary Road 2074, 2.1 mi downstream of Torrence Creek, 2.8 mi south of Hicks Crossroads, 12.1 mi northwest of city hall, Charlotte.

DRAINAGE AREA.-26.3-mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1996 to current year. Streamflow data for November 1996 to September 1997 previously published in U.S. Geological Survey Open-File Report 98-67.

GAGE.--Water-stage recorder. Datum of gage is 644.87 ft, North American Vertical Datum of 1988. Radio telemetry at station.

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

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.1	7.8	8.4	29	28	45	31	21	87	8.3	28	17
2	2.9	7.0	8.4	21	21	80	23	24	24	218	16	17
3	3.0	6.6	7.9	48	18	34	20	59	341	41	30	9.3
4	3.0	6.3	8.7	23	20	26	18	156	340	20	43	30
5	2.7	26	313	20	15	26	24	73	48	17	35	15
6	2.8	96	103	18	15	380	17	313	27	21	15	10
7	2.9	15	49	16	93	85	395	93	391	30	13	8.8
8	2.7	11	32	16	26	41	111	36	340	22	13	15
9	2.6	8.5	22	15	20	31	e450	23	81	15	12	11
10	2.3	7.9	17	14	19	26	1,270	18	32	13	45	8.8
11	211	17	78	13	17	23	435	15	22	33	67	8.0
12	20	424	26	13	15	21	102	e14	24	25	17	8.0
13	97	97	265	14	14	20	81	e12	19	228	25	7.6
14	17	29	108	13	16	24	57	e10	15	189	14	7.9
15	15	19	34	13	27	38	27	e14	12	37	14	7.5
16	195	151	26	13	20	371	23	22	49	25	13	e6.4
17	22	149	21	13	23	73	20	12	22	25	12	e5.8
18	10	31	18	12	79	49	465	26	44	31	12	6.5
19	7.2	22	16	12	44	35	297	25	36	72	11	6.4
20	6.3	17	44	12	27	1,070	101	13	18	22	10	6.5
21	18	15	21	12	22	249	52	20	13	20	11	6.0
22	15	12	17	11	301	58	39	1,230	11	34	12	16
23	7.8	11	14	15	202	35	31	533	10	34	12	298
24	6.7	10	304	18	48	27	28	72	9.7	22	19	27
25	6.3	8.9	316	16	33	22	28	570	8.9	17	11	17
26	7.7	8.6	66	13	43	19	262	99	8.6	22	9.6	14
27	6.3	8.3	38	12	212	20	47	138	9.8	20	9.6	21
28	66	8.6	30	12	89	16	26	35	9.6	15	8.3	52
29	30	8.5	24	18	---	16	95	27	9.0	14	10	15
30	15	8.6	19	158	---	252	46	20	8.1	17	8.6	15
31	9.9	---	18	55	---	64	---	165	---	16	17	---
TOTAL	817.2	1,247.6	2,072.4	688	1,507	3,276	4,621	3,888	2,069.7	1,323.3	573.1	693.5
MEAN	26.4	41.6	66.9	22.2	53.8	106	154	125	69.0	42.7	18.5	23.1
MAX	211	424	316	158	301	1,070	1,270	1,230	391	228	67	298
MIN	2.3	6.3	7.9	11	14	16	17	10	8.1	8.3	8.3	5.8
CFSM	1.00	1.58	2.54	0.84	2.05	4.02	5.86	4.77	2.62	1.62	0.70	0.88
IN.	1.16	1.76	2.93	0.97	2.13	4.63	6.54	5.50	2.93	1.87	0.81	0.98

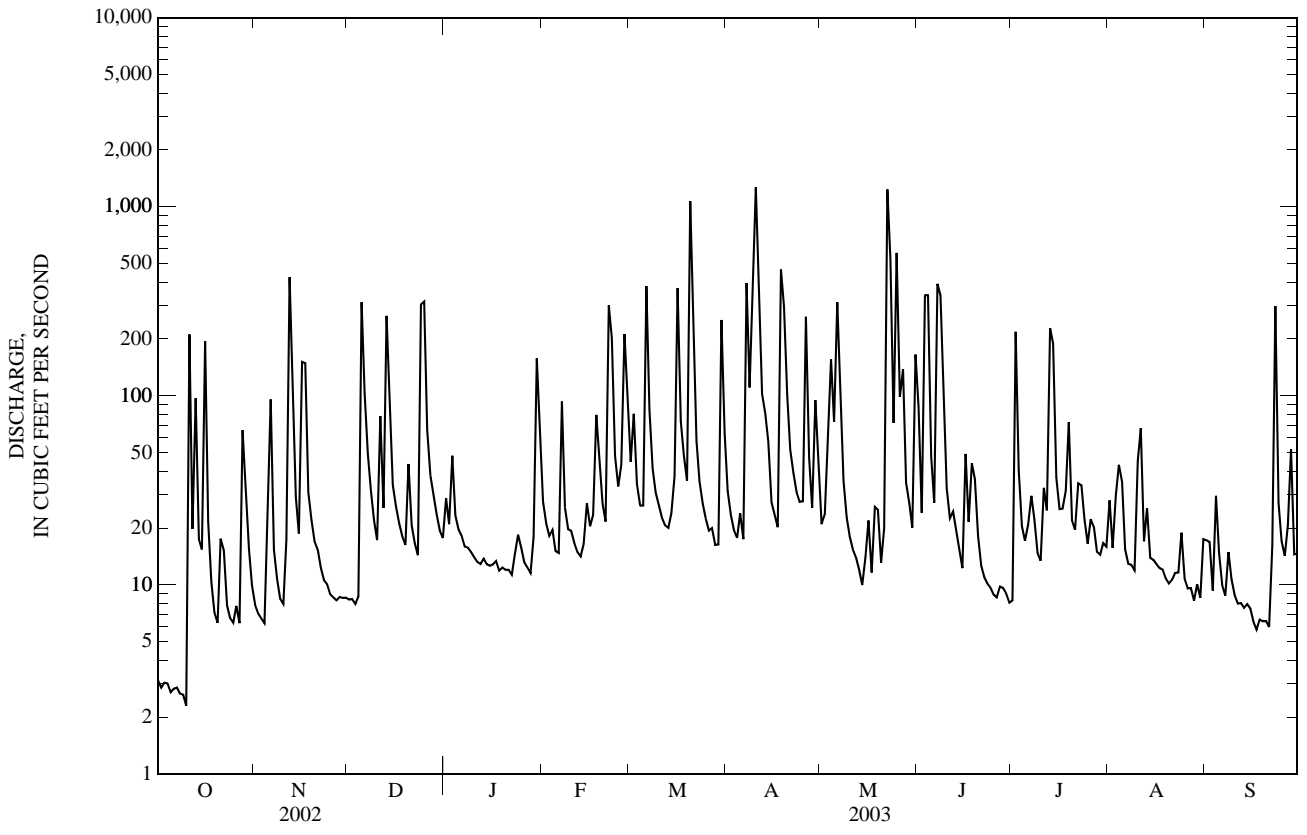
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2003, BY WATER YEAR (WY)

	1997	1998	1999	2000	2001	2002	2003	2003	2003	2003	2003	1997
MEAN	15.1	17.7	26.3	34.4	39.1	45.4	40.3	30.8	18.6	17.6	8.10	14.3
MAX	36.3	41.6	66.9	94.0	73.3	106	154	125	69.0	42.7	18.5	24.0
(WY)	(1998)	(2003)	(2003)	(1998)	(1998)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(1997)
MIN	3.63	3.21	6.40	10.2	15.4	12.1	8.61	8.96	5.20	4.68	2.50	5.35
(WY)	(2001)	(2002)	(2002)	(2001)	(2001)	(1999)	(2002)	(1999)	(2000)	(1999)	(1999)	(1999)

0214266000 MCDOWELL CREEK NEAR CHARLOTTE, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1997 - 2003	
ANNUAL TOTAL	8,114.1		22,776.8			
ANNUAL MEAN	22.2		62.4		25.2	
HIGHEST ANNUAL MEAN					62.4	2003
LOWEST ANNUAL MEAN					10.6	1999
HIGHEST DAILY MEAN	424	Nov 12	1,270	Apr 10	1,270	Apr 10, 2003
LOWEST DAILY MEAN	1.3	Jul 8	2.3	Oct 10	0.59	Sep 25, 1999
ANNUAL SEVEN-DAY MINIMUM	1.5	Jul 7	2.7	Oct 4	0.99	Sep 20, 1999
MAXIMUM PEAK FLOW			2,690	May 22	2,690	May 22, 2003
MAXIMUM PEAK STAGE			13.55	May 22	13.55	May 22, 2003
INSTANTANEOUS LOW FLOW			2.0*	Oct 9	0.29	Sep 23, 1999
ANNUAL RUNOFF (CFSM)	0.85		2.37		0.96	
ANNUAL RUNOFF (INCHES)	11.48		32.22		13.04	
10 PERCENT EXCEEDS	50		157		45	
50 PERCENT EXCEEDS	8.2		20		8.9	
90 PERCENT EXCEEDS	2.5		8.3		3.2	

e Estimated.
 * See REMARKS.



0214266000 MCDOWELL CREEK NEAR CHARLOTTE, NC—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1997, 2000 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: November 1996 to September 1997.

WATER TEMPERATURE: November 1996 to September 1997.

SUSPENDED-SEDIMENT DISCHARGE: October 2000 to current year.

INSTRUMENTATION.--Water-quality monitor from November 1996 to September 1997. Optical backscatterance sensor from April 2000 to current year.

REMARKS.--Station operated in cooperation with Mecklenburg County to characterize water quality and suspended sediment in McDowell Creek basin.

Miscellaneous water-quality data collected from November 1996 to September 1997 published in U.S. Geological Survey Open File Report 98-67.

Continuous record of suspended-sediment concentration was computed by using a relation between optical backscatterance readings and measured suspended-sediment concentrations. Sediment discharge was computed as the product of continuous suspended-sediment concentration and continuous discharge.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 602 microsiemens, June 19, 1997; minimum recorded, 39 microsiemens, July 23, 1997.

WATER TEMPERATURE: Maximum recorded 33.2°C, July 21, 1997; minimum recorded, 0.1°C, Dec. 21, 1996.

SEDIMENT DISCHARGE: Maximum recorded, 3000 tons, May 22, 2003; minimum recorded, .01 tons, Sept. 8, 9, 12, Oct. 2, 8, 2002.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT LOAD: Maximum recorded, 3000 tons, May 22, minimum recorded, .01 tons, Oct. 2, 8.

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

Date	Time	Instantaneous discharge, cfs (00061)	Suspended sediment concentration mg/L (80154)	Suspended sediment load, tons/d (80155)	Date	Time	Instantaneous discharge, cfs (00061)	Suspended sediment concentration mg/L (80154)	Suspended sediment load, tons/d (80155)
OCT					SEP				
16...	0708	438	820	970	23...	0900	529	340	486
16...	0752	439	567	672	24...	1345	29	60	4.7
NOV					24...	1430	25	87	5.9
12...	1204	569	488	750	24...	1515	27	81	5.9
AUG									
12...	1430	14	32	1.2					
13...	0915	19	69	3.5					
13...	1000	18	65	3.1					

SANTEE RIVER BASIN

0214266000 MCDOWELL CREEK NEAR CHARLOTTE, NC—Continued

 SEDIMENT LOAD, TONS
 WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
 DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.02	---	---	6.4	2.6	5.5	---	2.0	36	0.38	6.1	2.2
2	0.01	---	---	1.6	1.5	18	1.7	4.0	2.8	155	1.2	2.3
3	0.13	---	0.14	12	0.88	2.4	1.1	81	393	6.8	13	0.41
4	---	---	0.25	1.8	1.3	1.1	1.9	155	143	1.9	77	28
5	---	17	---	0.90	---	1.5	2.8	33	10	0.84	18	2.1
6	---	66	---	1.1	---	371	1.4	210	4.4	2.9	1.5	0.48
7	---	---	9.7	0.50	---	---	265	21	380	8.9	2.0	0.29
8	0.01	0.69	---	0.52	2.1	---	33	5.9	213	2.6	1.4	2.2
9	---	0.28	---	0.50	0.80	---	---	1.8	25	0.76	0.74	0.53
10	---	0.22	---	---	0.76	3.9	1,490	1.2	4.9	0.58	---	0.30
11	359	5.2	---	---	0.63	1.9	141	0.93	3.7	16	---	0.25
12	---	---	---	---	0.51	2.0	16	0.76	6.5	8.2	---	0.22
13	---	---	214	---	0.56	1.4	8.8	---	4.1	248	9.0	0.21
14	4.1	---	28	---	1.1	---	5.4	---	1.6	---	0.93	0.23
15	---	---	2.6	0.32	2.7	---	2.0	---	1.0	---	0.72	0.27
16	195	---	1.5	0.30	1.2	---	2.1	12	41	1.9	0.67	---
17	---	---	1.0	0.21	1.3	---	4.5	0.68	3.3	2.7	0.66	---
18	---	---	0.73	0.11	31	---	353	11	19	32	0.49	0.11
19	---	---	0.52	0.13	6.3	---	134	5.6	9.9	50	0.46	0.12
20	---	---	13	---	1.3	---	15	0.89	2.3	1.7	0.36	0.18
21	---	1.1	1.5	0.27	0.78	---	---	5.9	0.93	1.1	0.38	0.21
22	3.6	0.38	0.71	0.28	---	9.3	---	3,000	0.64	18	1.0	20
23	---	0.26	0.47	0.40	---	4.0	---	166	0.48	9.0	0.57	---
24	---	0.25	---	---	---	2.4	---	10	0.44	1.9	4.4	---
25	0.57	0.31	---	---	---	2.2	---	400	0.38	1.1	0.55	1.4
26	---	0.36	---	---	---	1.1	254	22	0.36	6.7	0.39	---
27	---	0.99	---	---	119	1.2	7.5	77	1.7	2.9	0.42	---
28	---	0.68	---	0.19	18	1.1	2.1	3.5	0.56	0.76	0.37	---
29	10	0.51	---	2.7	---	1.9	123	2.2	0.40	0.73	0.59	0.74
30	2.0	---	---	125	---	176	16	1.2	0.38	1.3	0.32	---
31	---	---	0.87	11	---	---	---	233	---	1.2	6.2	---
TOTAL	---	---	---	---	---	---	---	---	1,310.77	---	---	---

0214266000 MCDOWELL CREEK NEAR CHARLOTTE—Continued

PRECIPITATION RECORDS

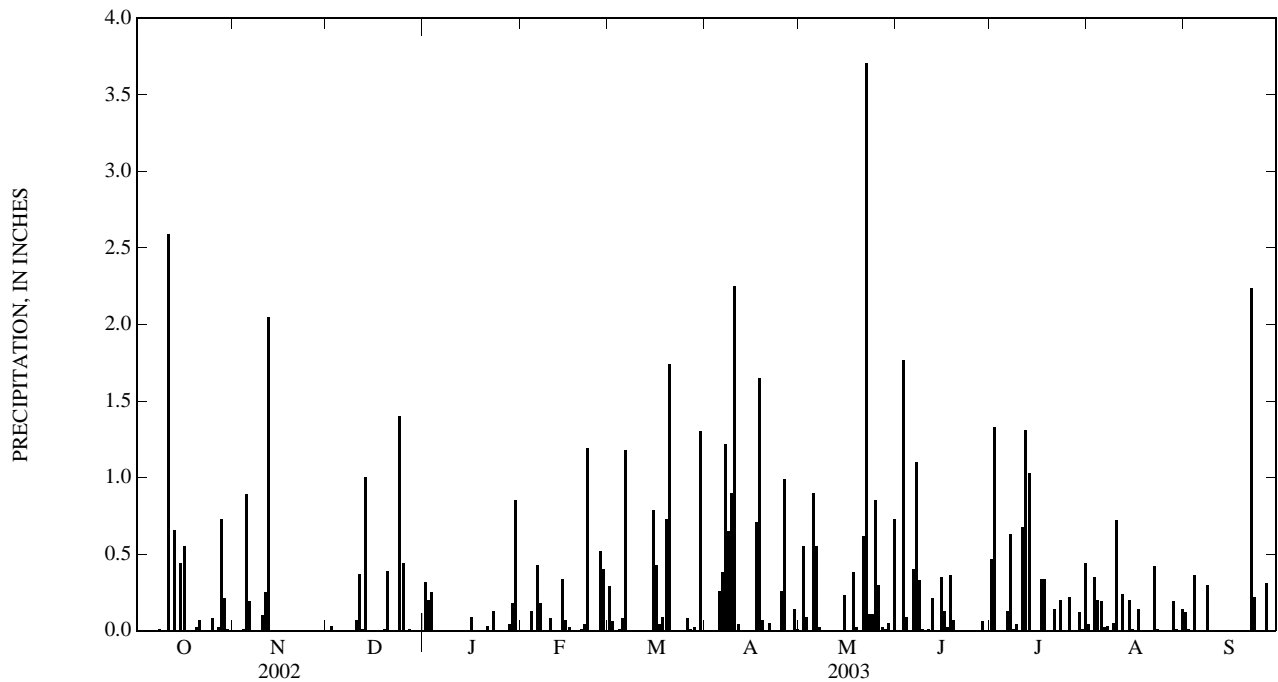
PERIOD OF RECORD.-- November 1996 to current year. Records for period November 1996 to September 1998 published in USGS OFR 98-67, and 99-273.

GAGE.--Tipping-bucket raingage and electronic datalogger. Radio telemetry at station.

REMARKS.--Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network. Collection of frozen precipitation during December 2002, January and February 2003 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.32	0.00	0.29	0.00	0.00	0.00	0.47	0.04	0.12
2	0.00	0.00	0.03	0.20	0.00	0.06	0.00	0.55	0.00	1.33	0.00	0.01
3	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.09	1.77	0.00	0.35	0.00
4	0.00	0.01	---	0.00	0.13	0.01	0.00	0.00	0.09	0.00	0.20	0.36
5	0.00	0.89	---	0.00	0.00	0.08	0.26	0.90	0.00	0.00	0.19	0.00
6	0.00	0.19	---	0.00	0.43	1.18	0.38	0.55	0.40	0.13	0.02	0.00
7	0.00	0.00	---	0.00	0.18	0.00	1.22	0.02	1.10	0.63	0.03	0.00
8	0.01	0.00	0.00	0.00	0.00	0.00	0.65	0.00	0.33	0.01	0.00	0.30
9	0.00	0.00	0.00	0.00	0.00	0.00	0.90	0.00	0.01	0.04	0.05	0.00
10	0.00	0.10	0.07	0.00	0.08	0.00	2.25	0.00	0.00	0.00	0.72	0.00
11	2.59	0.25	0.37	0.00	0.00	0.00	0.04	0.00	0.01	0.68	0.00	0.00
12	0.00	2.05	0.01	0.00	0.00	0.00	0.00	0.00	0.21	1.31	0.24	0.00
13	0.66	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.03	0.00	0.00
14	0.00	---	0.00	0.00	0.34	0.00	0.00	0.00	0.00	0.00	0.20	0.00
15	0.44	---	0.00	0.00	0.07	0.79	0.00	0.23	0.35	0.00	0.01	0.00
16	0.55	---	0.00	0.09	0.02	0.43	0.00	0.00	0.13	0.00	0.00	0.00
17	0.00	---	0.00	0.00	---	0.04	0.71	0.00	0.02	0.34	0.14	0.00
18	0.00	---	0.00	0.00	---	0.09	1.65	0.38	0.36	0.34	0.00	0.00
19	0.00	0.00	0.01	0.00	0.00	0.73	0.07	0.02	0.07	0.00	0.00	0.00
20	0.02	0.00	0.39	0.00	0.01	1.74	0.00	0.00	0.00	0.00	0.00	0.00
21	0.07	0.00	0.00	0.03	0.04	0.00	0.05	0.62	0.00	0.14	0.00	0.00
22	0.00	0.00	0.00	0.00	1.19	0.00	0.00	3.71	0.00	0.00	0.42	2.24
23	0.00	0.00	0.00	0.13	0.00	0.00	0.00	0.11	0.00	0.20	0.01	0.22
24	0.00	0.00	1.40	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.00
25	0.08	0.00	0.44	0.00	0.00	0.00	0.26	0.85	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.52	0.08	0.99	0.30	0.00	0.22	0.00	0.00
27	0.02	0.00	0.01	0.00	0.40	0.01	0.00	0.02	0.00	0.00	0.00	0.31
28	0.73	0.00	0.00	0.04	0.00	0.02	0.00	0.01	0.06	0.00	0.19	0.00
29	0.21	0.00	0.00	0.18	---	0.00	0.14	0.05	0.00	0.12	0.01	0.00
30	0.01	0.00	0.00	0.85	---	1.30	0.01	0.00	0.00	0.01	0.00	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.73	---	0.44	0.14	---
TOTAL	5.39	---	---	2.09	---	6.85	9.58	9.25	4.91	7.44	2.96	3.56



LOCATION.--Lat 35°21'55", long 80°53'11", Mecklenburg County, Hydrologic Unit 03050101, Gar Creek at McCoy Road near Oakdale, NC.

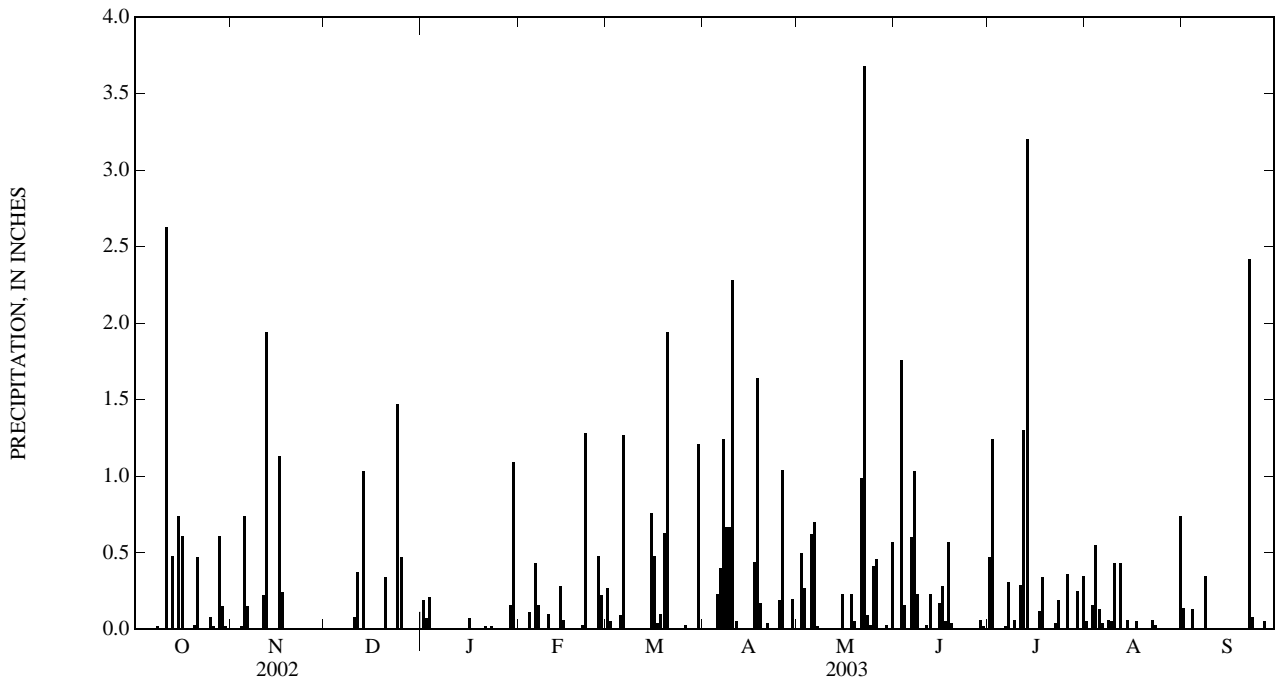
PERIOD OF RECORD.--April 1994 to current year. Records for period April 1994 to September 1998 published in USGS OFR 96-150, 98-67, and 99-273.

GAGE.--Tipping-bucket raingage and electronic datalogger. Radio telemetry at station.

REMARKS.--Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network. Collection of frozen precipitation during December 2002 and February 2003 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.19	0.01	0.27	0.00	0.00	0.00	0.47	0.05	0.14
2	0.00	0.00	0.01	0.07	0.00	0.05	0.00	0.50	0.00	1.24	0.00	0.00
3	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.27	1.76	0.00	0.16	0.00
4	0.00	0.02	---	0.00	0.11	0.00	0.00	0.00	0.16	0.00	0.55	0.13
5	0.00	0.74	---	0.00	0.00	0.09	0.23	0.62	0.00	0.00	0.13	0.00
6	0.00	0.15	---	0.00	0.43	1.27	0.40	0.70	0.60	0.02	0.04	0.00
7	0.00	0.00	---	0.00	0.16	0.00	1.24	0.02	1.03	0.31	0.01	0.00
8	0.02	0.00	---	0.00	0.00	0.00	0.67	0.00	0.23	0.00	0.06	0.35
9	0.01	0.00	0.00	0.00	0.00	0.00	0.67	0.00	0.00	0.06	0.05	0.00
10	0.00	0.01	0.08	0.00	0.10	0.00	2.28	0.00	0.00	0.00	0.43	0.00
11	2.63	0.22	0.37	0.00	0.00	0.00	0.05	0.00	0.03	0.29	0.00	0.00
12	0.00	1.94	0.00	0.00	0.00	0.00	0.00	0.00	0.23	1.30	0.43	0.00
13	0.48	0.01	1.03	0.00	0.00	0.00	0.00	0.00	0.00	3.20	0.00	0.00
14	0.00	0.00	0.01	0.00	0.28	0.00	0.00	0.00	0.00	0.00	0.06	0.00
15	0.74	0.00	0.00	0.00	0.06	0.76	0.00	0.23	0.17	0.00	0.00	0.00
16	0.61	1.13	0.00	0.07	0.01	0.48	0.00	0.01	0.28	0.00	0.01	0.00
17	0.00	0.24	0.00	0.00	---	0.04	0.44	0.00	0.05	0.12	0.05	0.00
18	0.00	0.00	0.00	0.00	---	0.10	1.64	0.23	0.57	0.34	0.00	0.01
19	0.00	0.00	0.01	0.00	0.00	0.63	0.17	0.05	0.04	0.00	0.00	0.00
20	0.03	0.00	0.34	0.00	0.01	1.94	0.00	0.00	0.00	0.00	0.00	0.00
21	0.47	0.00	0.00	0.02	0.03	0.00	0.04	0.99	0.00	0.01	0.00	0.00
22	0.01	0.00	0.00	0.00	1.28	0.00	0.00	3.68	0.00	0.04	0.06	2.42
23	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.09	0.00	0.19	0.03	0.08
24	0.00	0.00	1.47	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00
25	0.08	0.00	0.47	0.00	0.00	0.00	0.19	0.41	0.00	0.00	0.00	0.00
26	0.02	0.00	0.00	0.00	0.48	0.03	1.04	0.46	0.00	0.36	0.00	0.00
27	0.00	0.00	0.00	0.00	0.22	0.01	0.00	0.01	0.00	0.00	0.00	0.05
28	0.61	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.06	0.00	0.00	0.01
29	0.15	0.00	0.00	0.16	---	0.00	0.20	0.03	0.02	0.25	0.00	0.00
30	0.02	0.00	0.00	1.09	---	1.21	0.00	0.00	0.00	0.01	0.00	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.57	---	0.35	0.74	---
TOTAL	5.88	4.46	---	1.83	---	6.89	9.26	8.90	5.23	8.56	2.86	3.19



0214267600 CRN35

LOCATION.--Lat 35°20'03", long 80°59'12", Gaston County, Hydrologic Unit 03050101, Catawba River at Mountain Island Dam, Mount Holly, NC.

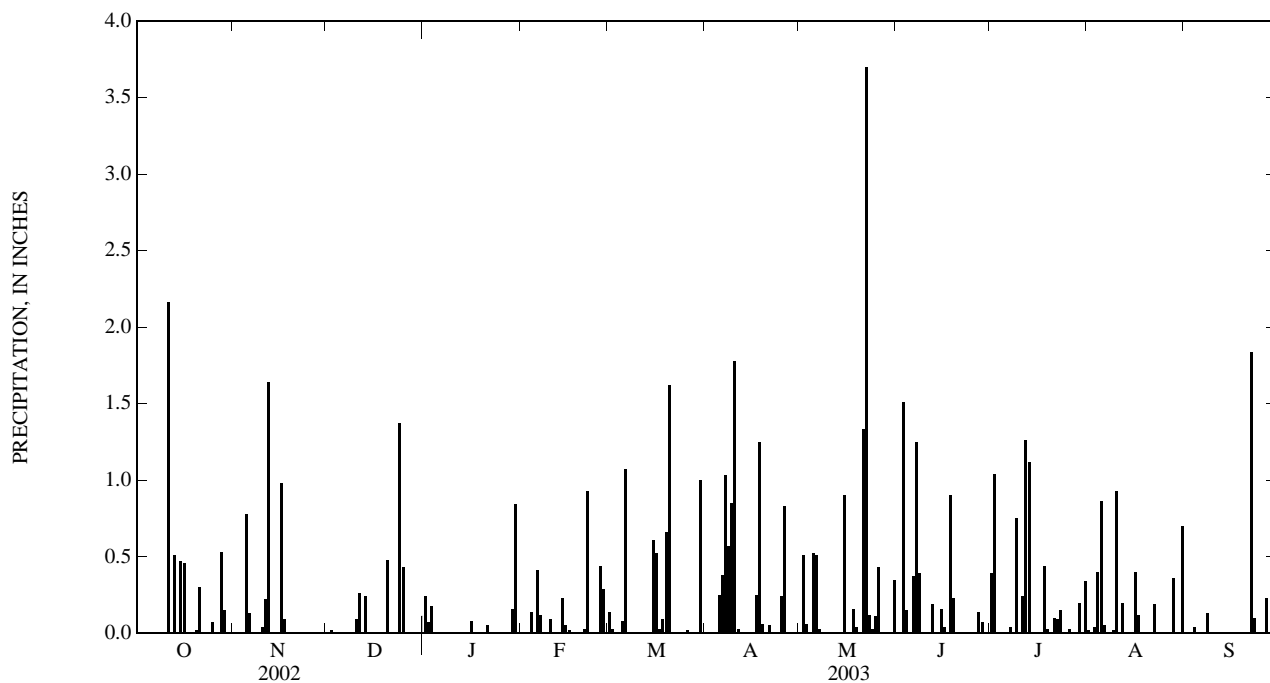
PERIOD OF RECORD.--January 1996 to current year. Records for period January 1996 to September 1998 published in USGS OFR 98-67 and 99-273.

GAGE.--Tipping-bucket raingage and electronic datalogger. Radio telemetry at station.

REMARKS.--Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network. Collection of frozen precipitation during December 2002 and February 2003 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.24	0.01	0.14	0.00	0.00	0.00	0.39	0.02	0.01
2	0.00	0.00	0.02	0.07	0.00	0.03	0.00	0.51	0.00	1.04	0.00	0.00
3	0.00	0.00	0.00	0.18	0.00	0.00	0.00	0.06	1.51	0.00	0.04	0.00
4	0.00	0.00	---	0.00	0.14	0.01	0.00	0.00	0.15	0.00	0.40	0.04
5	0.00	0.78	---	0.00	0.00	0.08	0.25	0.52	0.00	0.00	0.86	0.00
6	0.00	0.13	---	0.00	0.41	1.07	0.38	0.51	0.37	0.00	0.05	0.00
7	0.00	0.00	0.00	0.01	0.12	0.00	1.03	0.03	1.25	0.04	0.01	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.57	0.00	0.39	0.00	0.00	0.13
9	0.01	0.00	0.00	0.00	0.00	0.00	0.85	0.00	0.00	0.75	0.02	0.00
10	0.00	0.04	0.09	0.00	0.09	0.00	1.78	0.00	0.00	0.01	0.93	0.00
11	2.16	0.22	0.26	0.00	0.00	0.00	0.03	0.00	0.01	0.24	0.00	0.00
12	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.19	1.26	0.20	0.00
13	0.51	0.01	0.24	0.00	0.00	0.00	0.00	0.00	0.00	1.12	0.00	0.00
14	0.00	0.00	0.01	0.00	0.23	0.00	0.00	0.00	0.00	0.00	0.01	0.00
15	0.47	0.00	0.00	0.00	0.05	0.61	0.00	0.90	0.16	0.00	0.00	0.00
16	0.46	0.98	0.00	0.08	0.02	0.52	0.00	0.00	0.04	0.01	0.40	0.00
17	0.00	0.09	0.00	0.00	---	0.03	0.25	0.00	0.00	0.01	0.12	0.00
18	0.00	0.00	0.00	0.00	---	0.09	1.25	0.16	0.90	0.44	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.66	0.06	0.04	0.23	0.03	0.00	0.00
20	0.02	0.00	0.48	0.00	0.01	1.62	0.00	0.00	0.00	0.00	0.00	0.00
21	0.30	0.00	0.00	0.05	0.03	0.00	0.05	1.33	0.00	0.10	0.00	0.00
22	0.01	0.00	0.00	0.00	0.93	0.00	0.00	3.70	0.00	0.09	0.19	1.84
23	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.12	0.00	0.15	0.00	0.10
24	0.00	0.00	1.37	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00
25	0.07	0.00	0.43	0.00	0.00	0.00	0.24	0.11	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.44	0.02	0.83	0.43	0.00	0.03	0.00	0.00
27	0.00	0.00	0.00	0.00	0.29	0.00	0.00	0.00	0.14	0.00	0.00	0.23
28	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.36	0.00
29	0.15	0.00	0.00	0.16	---	0.00	0.01	0.00	0.00	0.20	0.00	0.00
30	0.01	0.00	0.00	0.84	---	1.00	0.00	0.00	0.00	0.00	0.00	0.00
31	0.01	---	0.00	0.00	---	0.00	---	0.35	---	0.34	0.70	---
TOTAL	4.71	3.89	---	1.63	---	5.88	7.58	8.80	5.41	6.25	4.31	2.35



0214269560 KILLIAN CREEK NEAR MARIPOSA, NC

LOCATION.--Lat 35°26'03", long 81°01'48", Lincoln County, Hydrologic Unit 03050101, on right bank, 1,000 ft upstream from Forney Creek, 1.5 mi northwest of Lowesville, 1.7 mi upstream from bridge on Secondary Road 1511, and 2.4 mi northeast of Mariposa.

DRAINAGE AREA.--36.4 mi².

PERIOD OF RECORD.-- October 1990 to June 1993, December 1994 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 643.085 ft above NGVD of 1929 (levels by Duke Power Co). Satellite telemetry at station.

REMARKS.--Records poor. Station was established to study low-flow conditions for Duke Power Co., no structure exists near the site for measuring high-stage flow; therefore, a peak flow was not determined to coincide with the peak stage for the year. Missing values on the daily values table are days when the flow exceeded the rating. Minimum discharge for current water year also occurred Oct. 7, 8, 9. Minimum discharges may be affected by diversions by Duke Power. No flow also occurred Aug. 14, Sept. 10-13, 2002.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.6	9.3	11	32	33	56	52	45	---	47	56	30
2	2.8	8.9	11	30	28	68	46	45	72	---	37	23
3	2.4	8.6	11	36	26	53	42	63	---	---	36	21
4	1.7	8.6	11	31	27	44	39	58	---	72	34	---
5	1.6	9.7	---	28	25	41	41	60	---	60	34	---
6	1.3	31	69	26	24	---	38	---	96	55	33	25
7	1.2	16	54	25	42	---	---	---	---	52	33	25
8	1.3	12	38	25	35	55	---	81	---	42	34	24
9	1.4	11	30	24	30	47	---	62	---	32	30	22
10	1.7	10	27	23	28	41	---	53	---	34	29	21
11	---	11	---	21	26	38	---	50	91	38	30	20
12	17	---	57	20	25	35	---	47	81	40	27	19
13	18	---	---	20	23	34	79	43	74	---	29	19
14	14	27	---	20	24	32	65	41	68	48	31	18
15	8.5	21	50	19	29	31	57	42	66	37	32	18
16	39	---	38	19	28	---	53	58	---	35	27	18
17	19	---	32	20	28	69	49	45	---	37	---	17
18	10	43	28	e20	33	54	---	48	73	33	48	16
19	8.3	29	26	e19	46	---	---	---	70	35	31	16
20	7.2	24	50	e18	36	---	---	49	62	32	29	15
21	7.0	21	38	e19	32	---	90	45	58	32	27	15
22	7.1	19	30	e18	---	81	78	---	55	36	26	17
23	7.6	16	27	e18	---	61	65	---	53	37	26	---
24	6.9	15	---	e18	67	52	59	---	50	36	27	35
25	6.6	14	---	e19	50	47	57	---	49	30	25	27
26	7.4	13	73	e19	46	44	70	---	47	28	24	24
27	6.8	14	51	e20	81	42	58	---	45	28	22	23
28	8.4	13	43	e20	79	41	51	---	63	27	21	33
29	16	12	38	22	---	41	49	84	50	---	21	23
30	15	12	34	47	---	---	47	72	46	---	20	21
31	11	---	32	44	---	72	---	---	---	38	27	---

SUMMARY STATISTICS

FOR 2002 CALENDAR YEAR

FOR 2003 WATER YEAR

WATER YEARS 1991 - 2003[@]

LOWEST DAILY MEAN
MAXIMUM PEAK STAGE
INSTANTANEOUS LOW FLOW

0.00 Aug 13

1.2 Oct 7

0.00 Aug 13, 2002

12.99 Mar 20

15.25 Apr 29, 1997

1.2* Oct 6

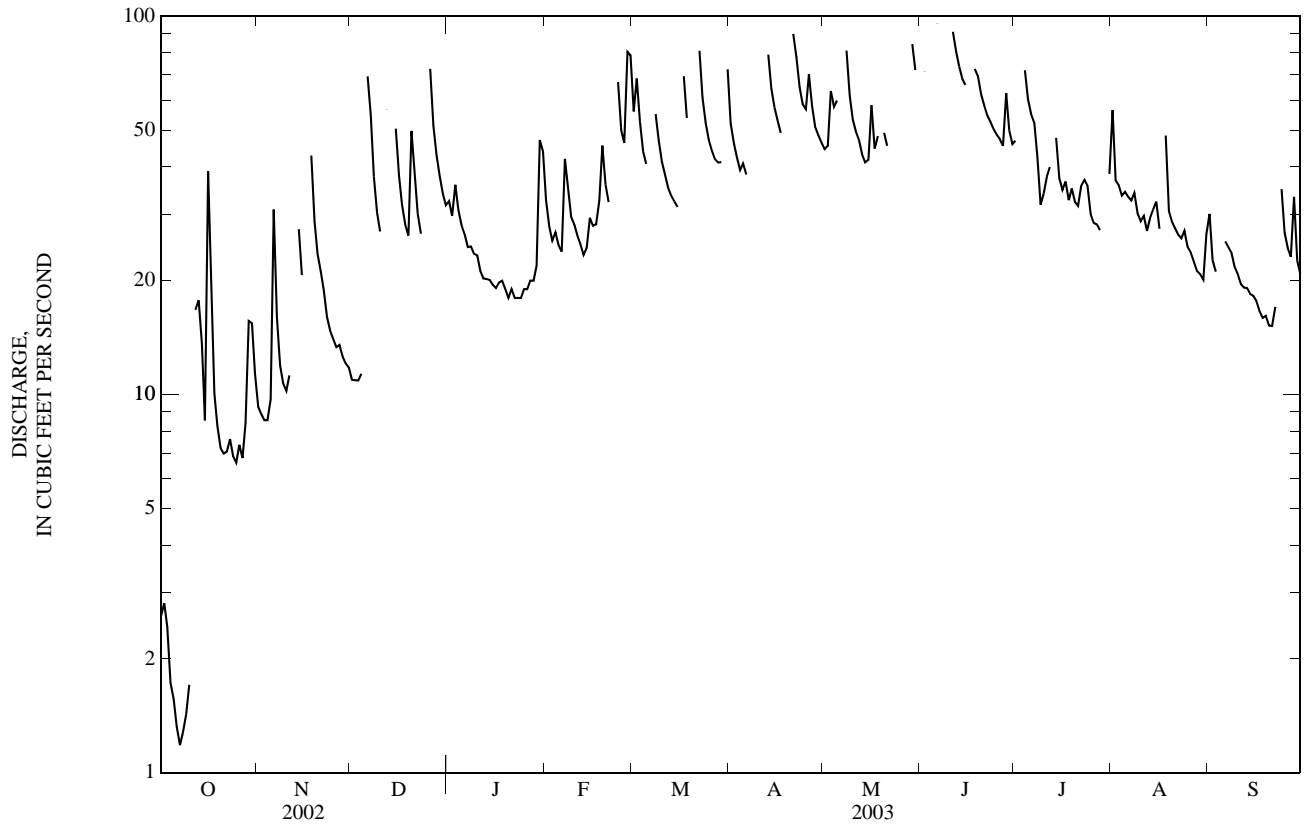
0.00* Aug 13, 2002

e. Estimated.

[@] See PERIOD OF RECORD.

* See REMARKS.

0214269560 KILLIAN CREEK NEAR MARIPOSA, NC—Continued



02142900 LONG CREEK NEAR PAW CREEK, NC

LOCATION.--Lat 35°19'43", long 80°54'35", Mecklenburg County, Hydrologic Unit 03050101, on right bank at upstream side of bridge on Secondary Road 2042, 600 ft downstream of McIntyre Creek, 1.2 mi upstream from Gutter Branch, and 3.6 mi north of Paw Creek.

DRAINAGE AREA.--16.4 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1965 to current year.

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 647.69 ft above North American Vertical Datum of 1988. Radio telemetry at station.

REMARKS.--Records poor. Frequent diversions during summer months for irrigation by upstream golf course. Minimum discharge for period of record based on discharge measurement made Aug. 15, 2002, and may be lower.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.68	3.1	3.5	20	23	31	18	10	22	4.0	21	28
2	0.47	2.5	3.4	16	17	56	14	25	12	106	6.8	11
3	0.33	2.2	3.5	29	14	25	12	27	113	18	11	7.5
4	0.31	2.1	4.3	16	31	19	11	30	55	9.3	146	5.8
5	0.35	14	211	13	18	20	15	24	25	6.6	78	5.6
6	0.28	50	46	11	15	328	12	119	18	5.1	30	4.9
7	0.20	9.6	30	9.9	62	41	402	40	304	15	50	4.6
8	0.12	4.7	19	10	23	24	58	21	109	10	37	4.5
9	0.73	3.4	14	9.5	17	19	254	15	47	20	20	e5.0
10	0.44	2.9	12	8.5	20	16	1,000	12	21	13	25	4.5
11	189	10	53	7.1	15	14	124	10	16	14	27	4.0
12	11	283	21	6.3	13	13	38	9.0	19	15	43	3.5
13	34	36	220	6.2	12	12	24	7.2	15	296	41	3.4
14	9.4	16	46	6.3	13	11	18	6.2	13	269	17	3.2
15	14	11	22	5.8	23	22	15	11	11	32	18	3.0
16	175	116	16	5.6	16	208	13	16	167	19	13	e2.8
17	12	82	13	e5.6	21	36	12	8.6	e154	23	10	e2.7
18	4.8	27	12	e5.4	44	36	224	11	e245	12	8.3	e2.6
19	3.0	15	11	5.4	31	26	91	13	e148	18	6.6	2.6
20	2.1	11	30	5.7	22	1,020	36	8.2	e33	8.4	5.9	2.5
21	7.7	9.7	16	5.9	18	52	26	86	18	6.5	5.4	2.6
22	15	7.3	12	6.1	269	27	21	1,190	13	7.4	5.0	25
23	3.7	e6.6	10	e5.8	50	19	15	114	9.9	7.0	4.8	184
24	2.4	e5.8	345	e5.7	26	15	13	38	7.6	6.3	23	11
25	2.3	4.5	131	e5.6	19	13	19	48	5.9	4.1	7.9	5.9
26	5.9	4.1	35	e5.5	24	11	72	26	5.0	8.3	5.5	4.2
27	2.2	3.9	22	e5.4	87	10	27	59	4.5	6.8	5.0	3.6
28	30	3.7	17	5.6	44	9.6	17	20	6.5	3.7	4.4	4.8
29	23	3.6	15	12	---	10	14	15	4.8	21	4.0	3.6
30	10	3.6	13	155	---	122	13	13	3.9	18	3.7	2.9
31	4.7	---	13	42	---	30	---	37	---	8.3	36	---
TOTAL	565.11	754.3	1,419.7	456.9	987	2,295.6	2,628	2,069.2	1,626.1	1,010.8	719.3	359.3
MEAN	18.2	25.1	45.8	14.7	35.2	74.1	87.6	66.7	54.2	32.6	23.2	12.0
MAX	189	283	345	155	269	1,020	1,000	1,190	304	296	146	184
MIN	0.12	2.1	3.4	5.4	12	9.6	11	6.2	3.9	3.7	3.7	2.5
CFSM	1.11	1.53	2.79	0.90	2.15	4.52	5.34	4.07	3.31	1.99	1.41	0.73
IN.	1.28	1.71	3.22	1.04	2.24	5.21	5.96	4.69	3.69	2.29	1.63	0.81

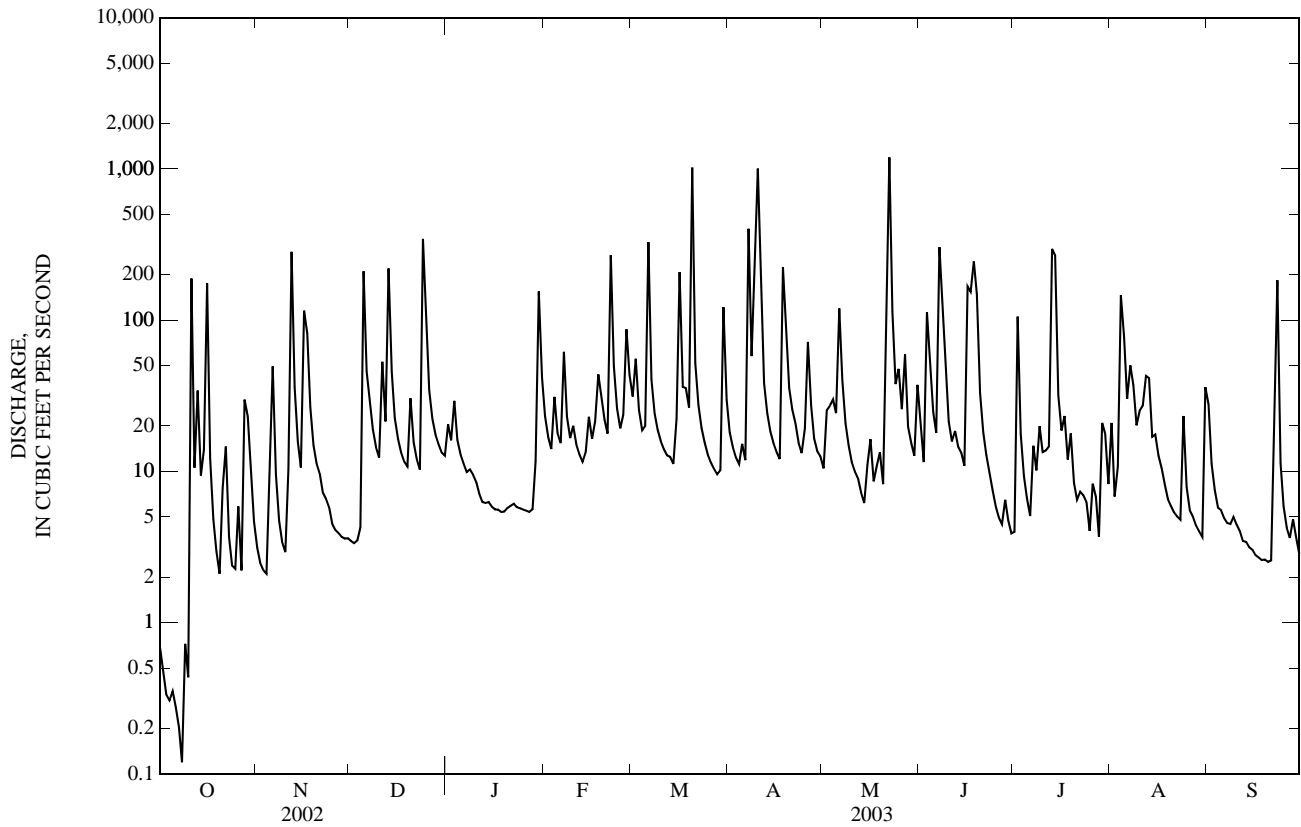
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 2003, BY WATER YEAR (WY)

MEAN	14.0	14.3	19.1	29.1	32.9	35.4	21.1	17.0	12.4	8.98	9.65	8.22
MAX	70.8	91.3	59.5	74.4	78.4	86.8	87.6	101	66.5	58.4	59.0	66.2
(WY)	(1991)	(1986)	(1984)	(1993)	(1979)	(1993)	(2003)	(1975)	(1982)	(1997)	(1967)	(1975)
MIN	1.16	1.39	2.53	4.04	6.42	8.31	4.38	3.60	1.68	1.08	1.07	1.27
(WY)	(2002)	(2002)	(1966)	(1981)	(2002)	(1999)	(1967)	(1981)	(1986)	(1986)	(2001)	(1986)

02142900 LONG CREEK NEAR PAW CREEK, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1965 - 2003	
ANNUAL TOTAL	4,904.63		14,891.31		18.6	
ANNUAL MEAN	13.4		40.8		40.8	
HIGHEST ANNUAL MEAN					6.45	2003
LOWEST ANNUAL MEAN					0.03	2002
HIGHEST DAILY MEAN	345	Dec 24	1,190	May 22	1,600	Oct 9, 1976
LOWEST DAILY MEAN	0.03	Aug 14	0.12	Oct 8	0.03	Aug 14, 2002
ANNUAL SEVEN-DAY MINIMUM	0.06	Aug 9	0.29	Oct 2	0.06	Aug 9, 2002
MAXIMUM PEAK FLOW			1,890	May 22	4,300	Jun 18, 1982
MAXIMUM PEAK STAGE			11.97	May 22	13.45	Jul 23, 1997
INSTANTANEOUS LOW FLOW			NOT DETERMINED		0.03*	Aug 15, 2002
ANNUAL RUNOFF (CFSM)	0.82		2.49		1.13	
ANNUAL RUNOFF (INCHES)	11.13		33.78		15.37	
10 PERCENT EXCEEDS	27		86		30	
50 PERCENT EXCEEDS	3.5		13		6.6	
90 PERCENT EXCEEDS	0.47		3.6		1.8	

e Estimated.
 * See REMARKS.



PRECIPITATION RECORDS

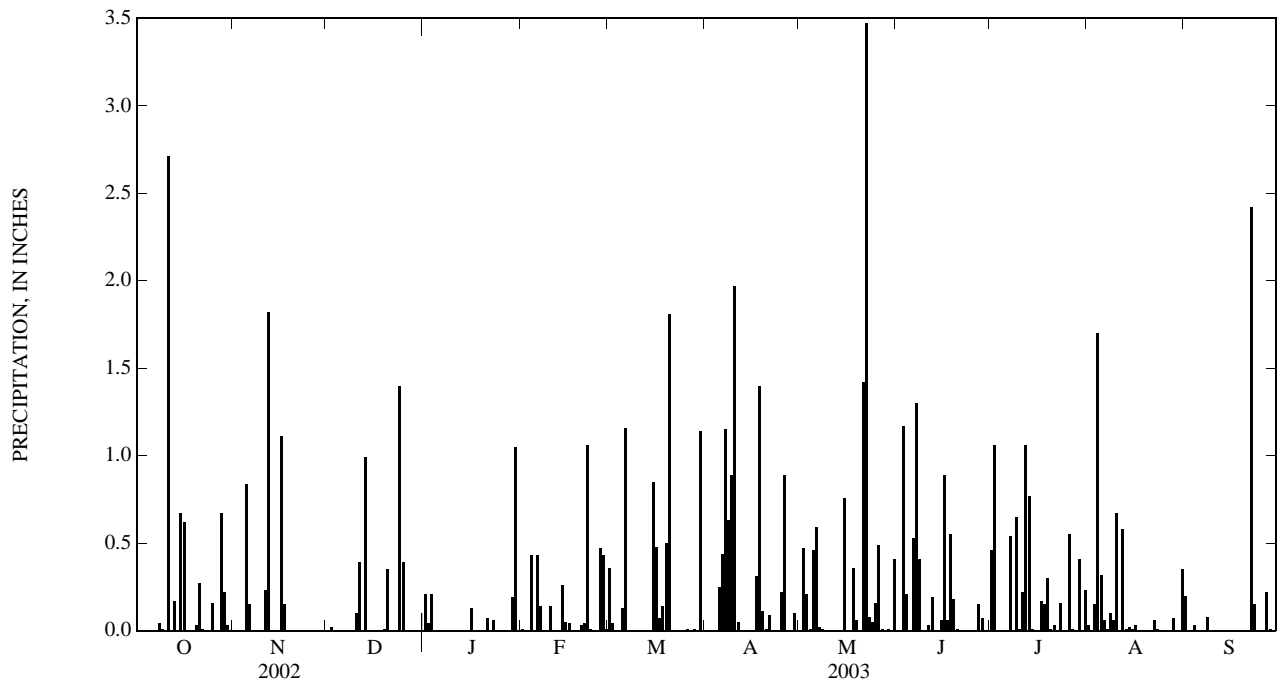
PERIOD OF RECORD.--March 1993 to current year. Records for period March 1993 to September 1998 published in USGS OFR 96-150, 98-67, and 99-273.

GAGE.--Tipping-bucket raingage and electronic datalogger. Radio telemetry at station.

REMARKS.--Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network. Collection of frozen precipitation during December 2002 and February 2003 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.21	0.01	0.36	0.00	0.00	0.00	0.46	0.03	0.20
2	0.00	0.00	0.02	0.04	0.00	0.04	0.00	0.47	0.00	1.06	0.00	0.00
3	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.21	1.17	0.00	0.15	0.00
4	0.00	0.00	---	0.00	0.43	0.00	0.00	0.01	0.21	0.00	1.70	0.03
5	0.00	0.84	---	0.00	0.00	0.13	0.25	0.46	0.00	0.00	0.32	0.00
6	0.00	0.15	---	0.00	0.43	1.16	0.44	0.59	0.53	0.00	0.06	0.00
7	0.00	0.00	0.00	0.00	0.14	0.00	1.15	0.02	1.30	0.54	0.01	0.00
8	0.04	0.00	0.00	0.00	0.00	0.00	0.63	0.01	0.41	0.00	0.10	0.08
9	0.01	0.00	0.00	0.00	0.00	0.00	0.89	0.00	0.00	0.65	0.06	0.00
10	0.00	0.00	0.10	0.00	0.14	0.00	1.97	0.00	0.00	0.01	0.67	0.00
11	2.71	0.23	0.39	0.00	0.00	0.00	0.05	0.00	0.03	0.22	0.00	0.00
12	0.00	1.82	0.00	0.00	0.00	0.00	0.00	0.00	0.19	1.06	0.58	0.00
13	0.17	0.00	0.99	0.00	0.00	0.00	0.00	0.00	0.00	0.77	0.01	0.00
14	0.00	0.00	0.00	0.00	0.26	0.00	0.00	0.00	0.00	0.01	0.02	0.00
15	0.67	0.00	0.00	0.00	0.00	0.05	0.85	0.00	0.76	0.00	0.01	0.00
16	0.62	1.11	0.00	0.13	0.04	0.48	0.00	0.00	0.89	0.00	0.03	0.00
17	0.00	0.15	0.00	0.00	---	0.07	0.31	0.00	0.06	0.17	0.00	0.00
18	0.00	0.00	0.00	0.00	---	0.14	1.40	0.36	0.55	0.15	0.00	0.00
19	0.00	0.00	0.01	0.00	0.00	0.50	0.11	0.06	0.18	0.30	0.00	0.00
20	0.03	0.00	0.35	0.00	0.03	1.81	0.01	0.00	0.01	0.01	0.00	0.00
21	0.27	0.00	0.00	0.07	0.04	0.00	0.09	1.42	0.00	0.03	0.00	0.00
22	0.01	0.00	0.00	0.00	1.06	0.00	0.00	3.47	0.00	0.00	0.06	2.42
23	0.00	0.00	0.00	0.06	0.01	0.00	0.00	0.08	0.00	0.16	0.01	0.15
24	0.00	0.00	1.40	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00
25	0.16	0.00	0.39	0.00	0.00	0.00	0.22	0.16	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.47	0.01	0.89	0.49	0.00	0.55	0.00	0.00
27	0.00	0.00	0.00	0.00	0.43	0.00	0.00	0.01	0.15	0.01	0.00	0.22
28	0.67	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.07	0.00	0.07	0.01
29	0.22	0.00	0.00	0.19	---	0.00	0.10	0.01	0.00	0.41	0.00	0.00
30	0.03	0.00	0.00	1.05	---	1.14	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.41	---	0.23	0.35	---
TOTAL	5.61	4.30	---	1.96	---	6.70	8.51	9.05	5.81	6.80	4.24	3.11



0214291555 LONG CREEK NEAR RHYNE, NC

LOCATION.--Lat 35°18'02", long 80°58'22", Mecklenburg County, Hydrologic Unit 03050101, on right bank 1.6 mi downstream of Gum Branch, .6 mi upstream from bridge on NC Highway 27 and 0.55 mi northwest of Rhyne.

DRAINAGE AREA.--31.49 mi².

PERIOD OF RECORD.-- October 1998 to current year.

GAGE.--Water-stage recorder. Elevation of gage 610 ft above NGVD of 1929, from topographic map. Radio telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Frequent diversions during summer months for irrigation by upstream golf course. Minimum discharge for current water year and period of record affected by regulation. Minimum discharge for period of record also occurred on Sept. 3, 2001. Minimum discharge for current water year also occurred Oct. 8, 9.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	5.7	5.0	34	47	67	44	18	49	11	36	45
2	1.1	4.5	5.6	29	33	133	36	30	26	179	12	15
3	0.76	3.8	5.8	50	27	52	32	46	256	38	19	11
4	0.74	3.6	8.8	29	61	36	29	47	140	19	155	10
5	0.57	17	365	23	35	37	33	33	48	14	374	10
6	0.57	115	108	21	28	603	29	198	32	12	76	9.2
7	0.53	17	67	19	139	98	654	86	637	51	35	9.0
8	0.45	8.3	40	18	45	53	122	39	354	27	74	9.9
9	0.70	6.2	30	18	31	41	474	26	124	99	38	12
10	1.2	5.1	27	17	35	35	1,690	20	47	42	88	7.8
11	314	14	114	15	27	31	361	17	34	26	81	7.1
12	27	498	45	14	21	28	86	15	35	63	42	6.1
13	61	90	401	14	19	27	55	14	32	374	102	6.2
14	23	29	119	14	20	25	44	14	26	343	31	6.0
15	30	16	50	14	37	39	38	116	22	50	28	7.3
16	253	166	36	e14	27	444	35	72	171	33	32	6.6
17	26	199	28	e14	35	77	32	23	165	49	19	5.7
18	11	51	23	e14	86	72	354	27	285	20	15	5.6
19	7.5	23	21	14	62	53	225	32	190	76	13	6.0
20	5.9	14	59	14	40	1,740	73	19	55	43	12	5.5
21	7.8	11	31	14	31	159	50	128	33	20	12	5.5
22	27	9.2	23	14	461	75	41	2,390	24	15	19	36
23	7.7	7.6	19	e15	e140	56	30	544	19	14	12	299
24	5.4	6.6	537	e16	e50	47	25	90	17	14	25	26
25	4.8	6.2	314	e15	38	41	32	96	14	10	11	17
26	8.8	5.6	75	e14	42	38	129	58	13	14	9.9	14
27	5.0	5.4	44	e14	203	36	52	153	13	16	9.2	14
28	57	5.5	34	14	106	33	30	46	14	9.6	12	17
29	48	5.6	29	21	---	33	25	36	12	16	11	12
30	18	5.2	25	311	---	237	23	29	11	37	8.2	11
31	9.2	---	22	101	---	75	---	68	---	16	61	---
TOTAL	965.02	1,354.1	2,711.2	948	1,926	4,521	4,883	4,530	2,898	1,750.6	1,472.3	652.5
MEAN	31.1	45.1	87.5	30.6	68.8	146	163	146	96.6	56.5	47.5	21.8
MAX	314	498	537	311	461	1,740	1,690	2,390	637	374	374	299
MIN	0.45	3.6	5.0	14	19	25	23	14	11	9.6	8.2	5.5
CFM	0.99	1.43	2.78	0.97	2.18	4.63	5.17	4.64	3.07	1.79	1.51	0.69
IN.	1.14	1.60	3.20	1.12	2.28	5.34	5.77	5.35	3.42	2.07	1.74	0.77

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2003, BY WATER YEAR (WY)

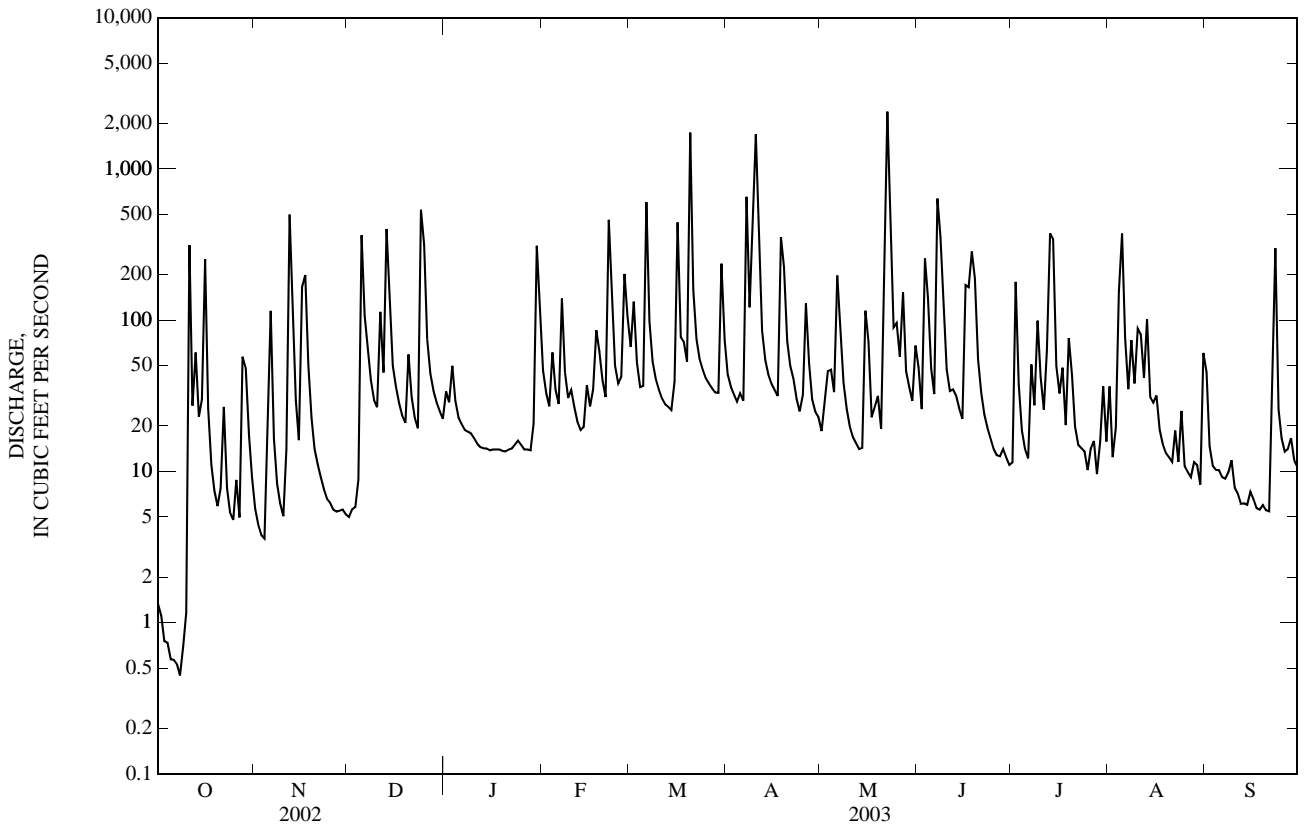
	13.1	14.9	25.8	28.2	34.5	62.7	48.2	36.0	24.7	19.3	14.4	12.6
MEAN	13.1	14.9	25.8	28.2	34.5	62.7	48.2	36.0	24.7	19.3	14.4	12.6
MAX	31.1	45.1	87.5	39.8	68.8	146	163	146	96.6	56.5	47.5	21.7
(WY)	(2003)	(2003)	(2003)	(1999)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)
MIN	1.60	3.29	6.29	9.69	13.9	13.0	9.02	7.61	5.00	4.66	1.43	5.41
(WY)	(2002)	(2002)	(2002)	(2001)	(2002)	(1999)	(2002)	(2001)	(2002)	(2001)	(2001)	(1999)

SANTEE RIVER BASIN

0214291555 LONG CREEK NEAR RHYNE, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1999 - 2003	
ANNUAL TOTAL	8,609.96		28,611.72		27.8	
ANNUAL MEAN	23.6		78.4		78.4	
HIGHEST ANNUAL MEAN					10.7	2002
LOWEST ANNUAL MEAN					0.23	Aug 8, 2002
HIGHEST DAILY MEAN	537	Dec 24	2,390	May 22	2,390	May 22, 2003
LOWEST DAILY MEAN	0.12	Sep 13	0.45	Oct 8	0.12	Sep 13, 2002
ANNUAL SEVEN-DAY MINIMUM	0.23	Aug 8	0.62	Oct 3	0.23	Aug 8, 2002
MAXIMUM PEAK FLOW			3,570	May 22	3,570	May 22, 2003
MAXIMUM PEAK STAGE			12.04	May 22	12.04	May 22, 2003
INSTANTANEOUS LOW FLOW			0.37*	Oct 7	0.02*	Sep 2, 2001
ANNUAL RUNOFF (CFSM)	0.75		2.49		0.88	
ANNUAL RUNOFF (INCHES)	10.17		33.80		12.01	
10 PERCENT EXCEEDS	50		165		48	
50 PERCENT EXCEEDS	6.0		29		7.4	
90 PERCENT EXCEEDS	0.98		6.2		1.9	

e Estimated.
 * See REMARKS.



0214295600 PAW CREEK AT WILKINSON BOULEVARD NEAR CHARLOTTE, NC

LOCATION.--Lat 35°14'25", long 80°58'28", Mecklenburg County, Hydrologic Unit 03050101, on left bank on downstream side of culvert at U.S. Highway 74, 0.7 mi downstream of Interstate Highway 85, and 2.5 mi northwest of airport in Charlotte.

DRAINAGE AREA.--10.8 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 568.92 ft above NGVD of 1929 (Mecklenburg County benchmark). Prior to October 1, 1999 at same site at datum 570.92 ft. Radio telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Minimum discharge for period of record also occurred Sept. 24, 2002.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.42	3.6	2.6	7.5	10	26	12	5.3	16	4.5	19	37
2	0.34	3.8	3.1	4.2	6.7	41	9.8	8.8	7.6	52	5.8	7.4
3	0.31	3.2	2.5	11	5.4	15	8.3	9.9	57	6.6	9.7	5.4
4	0.22	3.8	2.9	4.5	26	11	8.0	5.9	31	4.7	63	5.4
5	0.29	17	97	3.5	9.2	13	10	7.0	11	4.3	75	5.3
6	0.21	45	25	3.4	7.9	197	8.4	69	8.8	3.8	13	4.2
7	0.34	8.0	14	2.7	47	29	202	20	301	7.9	7.5	3.9
8	0.23	4.7	8.8	2.7	12	e12	47	9.8	110	4.6	16	4.4
9	0.38	3.7	6.8	e2.7	7.7	e9.5	151	7.1	73	36	122	4.2
10	0.48	3.1	5.1	2.7	12	e8.1	444	6.0	17	9.7	82	3.6
11	130	10	39	2.2	7.1	e7.8	86	5.2	13	24	34	3.6
12	8.8	164	9.9	2.2	6.5	e7.2	24	5.0	13	11	45	3.4
13	113	37	122	2.4	6.9	e7.1	14	5.0	11	59	36	3.5
14	12	13	31	1.9	8.2	6.5	9.8	4.7	9.6	9.7	79	3.3
15	21	7.6	12	1.8	11	15	e7.0	155	9.1	5.4	31	6.8
16	81	68	8.3	1.7	9.3	120	e6.2	78	55	4.3	23	3.7
17	9.7	56	6.5	2.9	17	21	e6.0	18	20	52	8.2	3.5
18	4.8	18	4.6	1.7	31	23	115	22	42	6.5	5.9	3.0
19	4.3	9.9	4.7	1.7	19	14	64	16	24	25	4.1	2.9
20	2.8	7.6	17	e1.7	12	433	18	12	9.7	16	3.6	2.9
21	7.3	6.3	5.5	e2.6	9.3	43	14	50	6.4	11	3.2	2.8
22	9.9	4.9	4.1	e2.0	121	18	11	e800	5.7	9.2	13	29
23	2.3	4.0	3.5	e4.0	36	12	8.5	104	5.6	7.2	5.4	64
24	1.7	3.8	161	e3.0	14	9.4	7.4	33	4.9	5.6	2.8	5.9
25	2.0	3.4	87	3.1	10	7.9	12	93	4.5	4.1	2.5	4.6
26	3.7	3.1	21	3.5	16	6.8	14	32	4.4	18	2.5	4.2
27	1.7	3.0	9.9	3.3	62	6.5	7.7	63	4.2	7.4	2.4	3.9
28	27	2.7	6.8	2.5	28	6.5	5.9	15	4.7	4.8	7.1	8.4
29	15	2.4	5.2	5.8	---	6.5	8.3	11	4.5	10	7.0	4.1
30	7.9	2.7	4.2	89	---	77	8.3	8.5	4.2	9.0	2.2	3.2
31	4.8	---	3.7	24	---	22	---	52	---	11	20	---
TOTAL	473.92	523.3	734.7	207.9	568.2	1,231.8	1,347.6	1,731.2	887.9	444.3	750.9	247.5
MEAN	15.3	17.4	23.7	6.71	20.3	39.7	44.9	55.8	29.6	14.3	24.2	8.25
MAX	130	164	161	89	121	433	444	800	301	59	122	64
MIN	0.21	2.4	2.5	1.7	5.4	6.5	5.9	4.7	4.2	3.8	2.2	2.8
CFSM	1.42	1.62	2.19	0.62	1.88	3.68	4.16	5.17	2.74	1.33	2.24	0.76
IN.	1.63	1.80	2.53	0.72	1.96	4.24	4.64	5.96	3.06	1.53	2.59	0.85

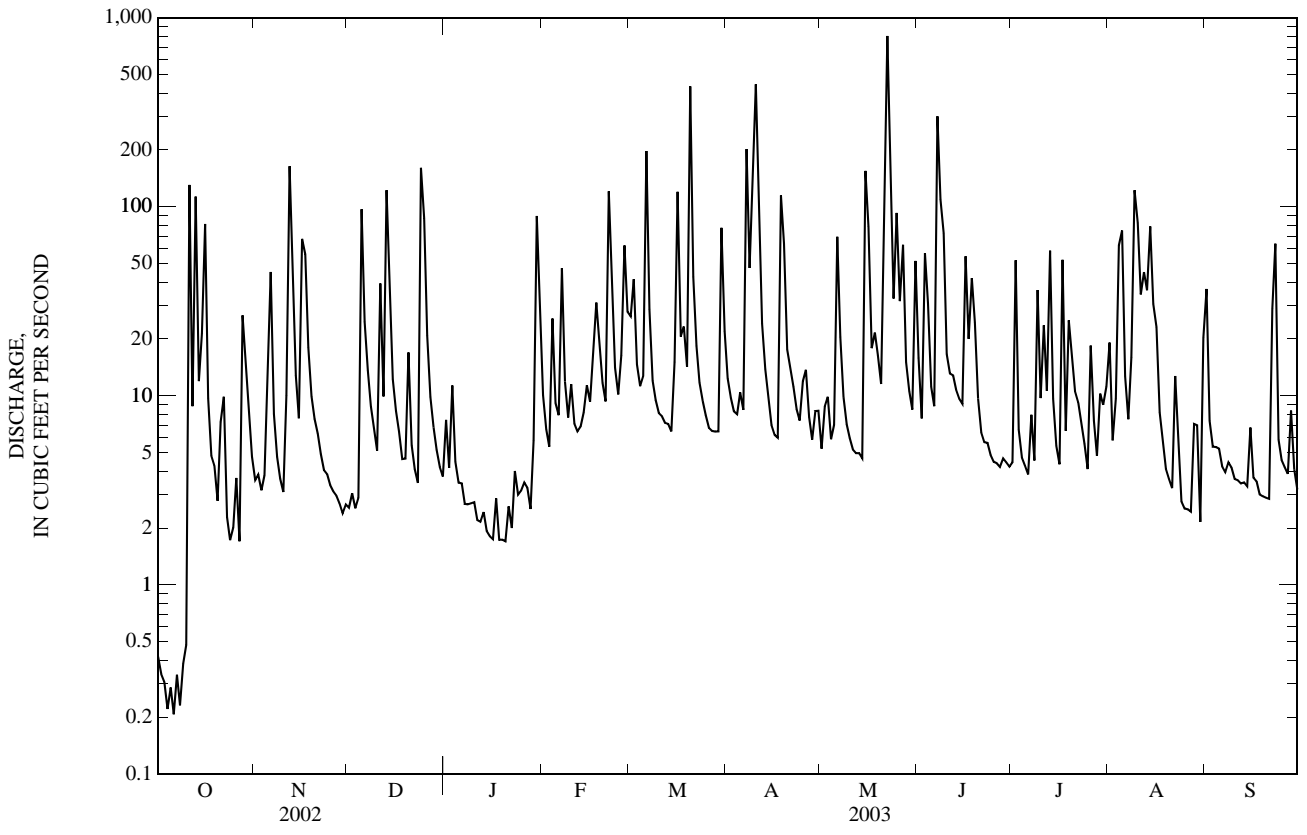
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 2003, BY WATER YEAR (WY)

MEAN	7.73	8.31	8.33	13.6	16.6	17.4	15.6	11.6	8.42	8.12	6.46	5.34
MAX	23.0	26.1	23.7	28.9	33.4	39.7	44.9	55.8	29.6	35.2	24.2	9.18
(WY)	(1996)	(1996)	(2003)	(1998)	(1995)	(2003)	(2003)	(2003)	(2003)	(1997)	(2003)	(2000)
MIN	0.73	0.59	2.27	2.79	3.27	4.54	3.29	3.21	1.59	1.35	0.33	2.22
(WY)	(2002)	(2002)	(2002)	(2001)	(2002)	(1999)	(2001)	(2000)	(2001)	(2001)	(2001)	(1999)

0214295600 PAW CREEK AT WILKINSON BOULEVARD NEAR CHARLOTTE, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1995 - 2003	
ANNUAL TOTAL	3,172.06		9,149.22		10.6	
ANNUAL MEAN	8.69		25.1		25.1	
HIGHEST ANNUAL MEAN					3.93	2003
LOWEST ANNUAL MEAN					3.93	2001
HIGHEST DAILY MEAN	164	Nov 12	800	May 22	835	Jul 23, 1997
LOWEST DAILY MEAN	0.12	Sep 13	0.21	Oct 6	0.06	Oct 30, 2001
ANNUAL SEVEN-DAY MINIMUM	0.18	Sep 7	0.28	Oct 2	0.11	Oct 29, 2001
MAXIMUM PEAK FLOW			1,370	Jun 7	2,740	Jul 23, 1997
MAXIMUM PEAK STAGE			10.21	Jun 7	10.21	Jun 7, 2003
INSTANTANEOUS LOW FLOW			0.16	Oct 8	0.03*	Sep 12, 2002
ANNUAL RUNOFF (CFSM)	0.80		2.32		0.98	
ANNUAL RUNOFF (INCHES)	10.93		31.51		13.32	
10 PERCENT EXCEEDS	21		63		20	
50 PERCENT EXCEEDS	2.9		8.0		3.4	
90 PERCENT EXCEEDS	0.48		2.7		0.83	

e Estimated.
 * See REMARKS.



0214297160 BEAVERDAM CREEK ABOVE WINDY GAP ROAD NEAR SHOPTON, NC

LOCATION.-Lat 35°10'11", long 80°59'16", Mecklenburg County, Hydrologic Unit 03050101, on right bank 200 feet above Windy Gap Road, and 1.6 mi west of North Carolina Highway 160 and Shopton.

DRAINAGE AREA.-4.47 mi².

PERIOD OF RECORD.-January 2003 to September 2003.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 560 ft above NGVD of 1929 (from topographic map). Radio telemetry at site.

REMARKS.-Records poor. Missing values on the daily values table are days when flow affected by backwater from Lake Wylie. Minimum discharge for current period, result of freezeup.

DISCHARGE, CUBIC FEET PER SECOND
FOR PERIOD JANUARY TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	e2.8	4.1	7.1	3.0	1.5	4.2	1.9	1.5	1.9
2	---	---	---	e1.8	2.7	14	2.4	1.9	3.5	7.2	1.2	1.1
3	---	---	---	e3.3	2.2	5.3	2.0	1.9	6.5	1.7	2.5	1.0
4	---	---	---	e1.6	2.1	3.4	1.8	1.7	7.1	1.0	5.8	1.5
5	---	---	---	e1.5	1.8	2.8	1.8	1.8	4.8	0.86	12	1.4
6	---	---	---	e1.5	1.6	39	1.8	e21	3.6	0.79	4.0	1.1
7	---	---	---	e1.4	7.1	11	55	e10	---	0.74	3.0	1.1
8	---	---	---	1.3	3.2	5.5	13	4.6	---	0.72	2.6	1.2
9	---	---	---	1.3	2.1	3.9	43	3.0	13	0.70	9.7	1.1
10	---	---	---	1.1	2.7	2.9	---	2.2	7.5	e0.74	16	1.0
11	---	---	---	0.99	2.0	2.2	31	2.0	5.7	2.2	12	0.97
12	---	---	---	0.93	1.7	1.9	13	1.7	4.8	1.9	4.4	0.95
13	---	---	---	0.93	1.4	1.6	8.1	1.5	4.0	5.6	3.4	0.97
14	---	---	---	0.90	1.5	1.5	6.0	1.4	3.4	1.8	14	0.93
15	---	---	---	0.90	1.6	1.7	4.7	13	3.4	1.3	13	1.0
16	---	---	---	0.91	1.7	16	3.7	14	3.1	1.1	5.0	1.0
17	---	---	---	0.94	1.9	6.4	3.1	4.6	3.0	1.1	3.7	0.77
18	---	---	---	0.79	3.0	7.1	24	4.2	3.2	1.1	3.1	0.77
19	---	---	---	0.78	3.6	5.4	24	4.3	3.1	1.0	2.6	e1.2
20	---	---	---	0.79	2.5	---	10	3.0	2.7	0.95	2.4	e0.80
21	---	---	---	0.88	2.1	15	6.7	23	2.3	2.4	2.2	e1.0
22	---	---	---	0.83	24	6.8	4.9	---	2.1	2.0	2.1	e3.8
23	---	---	---	e1.0	12	4.5	3.8	38	2.0	1.2	2.2	e6.0
24	---	---	---	e0.82	4.7	3.3	3.0	e10	1.8	1.0	1.9	1.00
25	---	---	---	e0.80	3.0	2.6	3.2	e18	1.8	0.90	2.0	0.91
26	---	---	---	e0.90	3.1	2.2	3.0	e12	1.7	0.97	2.0	0.88
27	---	---	---	e0.86	13	1.9	2.2	e30	1.6	1.0	2.0	0.89
28	---	---	---	0.84	9.1	1.6	1.9	11	2.2	0.94	2.3	1.1
29	---	---	---	1.2	---	1.6	1.8	7.3	1.7	2.1	1.5	0.85
30	---	---	---	13	---	9.5	1.6	5.7	1.6	1.6	0.99	0.81
31	---	---	---	8.4	---	5.0	---	5.4	---	1.6	1.1	---
TOTAL	---	---	---	55.99	121.5	192.7	283.5	259.7	105.4	50.11	142.19	39.00
MEAN	---	---	---	1.81	4.34	6.42	9.78	8.66	3.76	1.62	4.59	1.30
MAX	---	---	---	13	24	39	55	38	13	7.2	16	6.0
MIN	---	---	---	0.78	1.4	1.5	1.6	1.4	1.6	0.70	0.99	0.77
CFSM	---	---	---	0.40	0.97	1.44	2.19	1.94	0.84	0.36	1.03	0.29
IN.	---	---	---	0.47	1.01	1.60	2.36	2.16	0.88	0.42	1.18	0.32

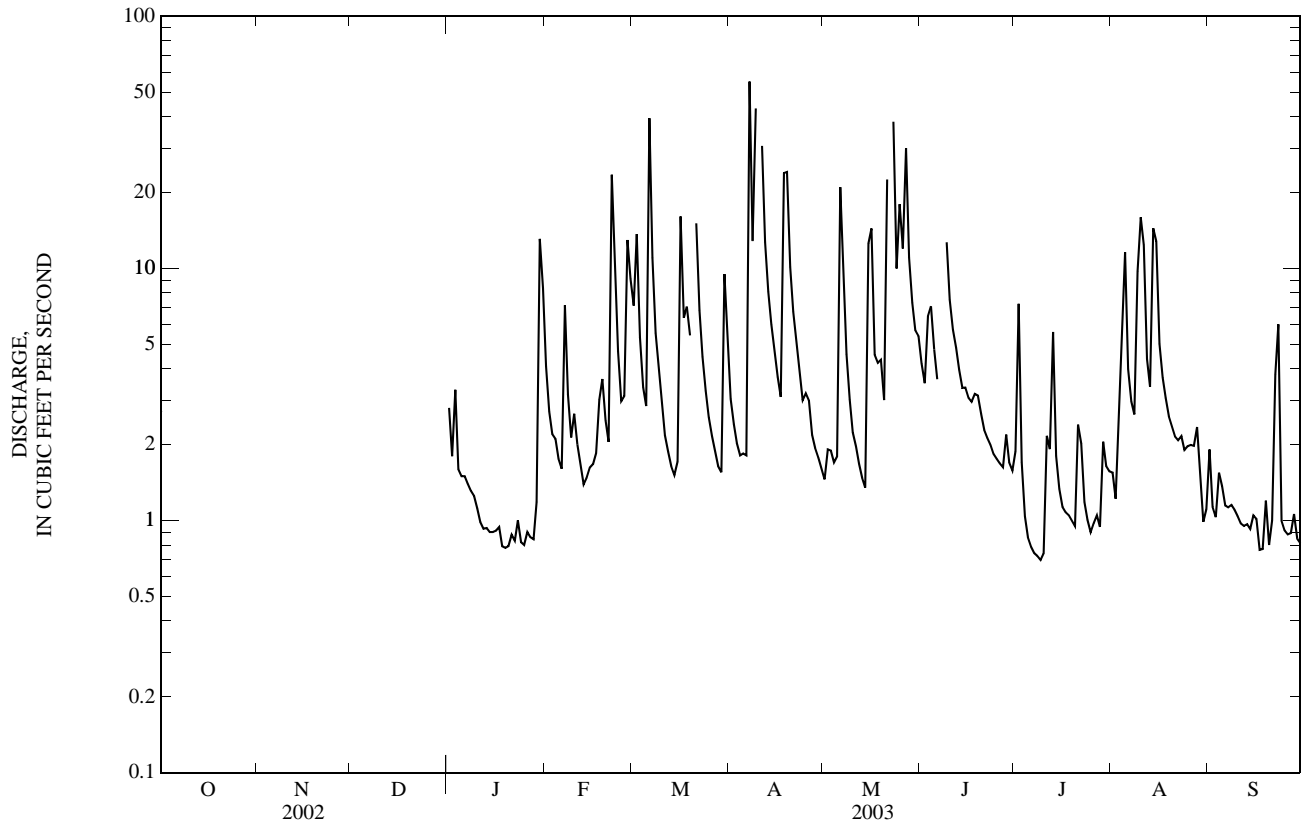
STATISTICS OF MONTHLY MEAN DATA FOR PERIOD JANUARY TO SEPTEMBER 2003

MEAN	---	---	---	1.81	4.34	6.42	9.78	8.66	3.76	1.62	4.59	1.30
MAX	---	---	---	1.81	4.34	6.42	9.78	8.66	3.76	1.62	4.59	1.30
(WY)	---	---	---	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)
MIN	---	---	---	1.81	4.34	6.42	9.78	8.66	3.76	1.62	4.59	1.30
(WY)	---	---	---	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)

SUMMARY STATISTICS	FOR PERIOD JANUARY TO SEPTEMBER 2003
MAXIMUM PEAK FLOW	NOT DETERMINED*
MAXIMUM PEAK STAGE	5.91 Jun 7
INSTANTANEOUS LOW FLOW	0.57* Jan 23

e Estimated.
* See REMARKS.

0214297160 BEAVERDAM CREEK ABOVE WINDY GAP ROAD NEAR SHOPTON, NC—Continued

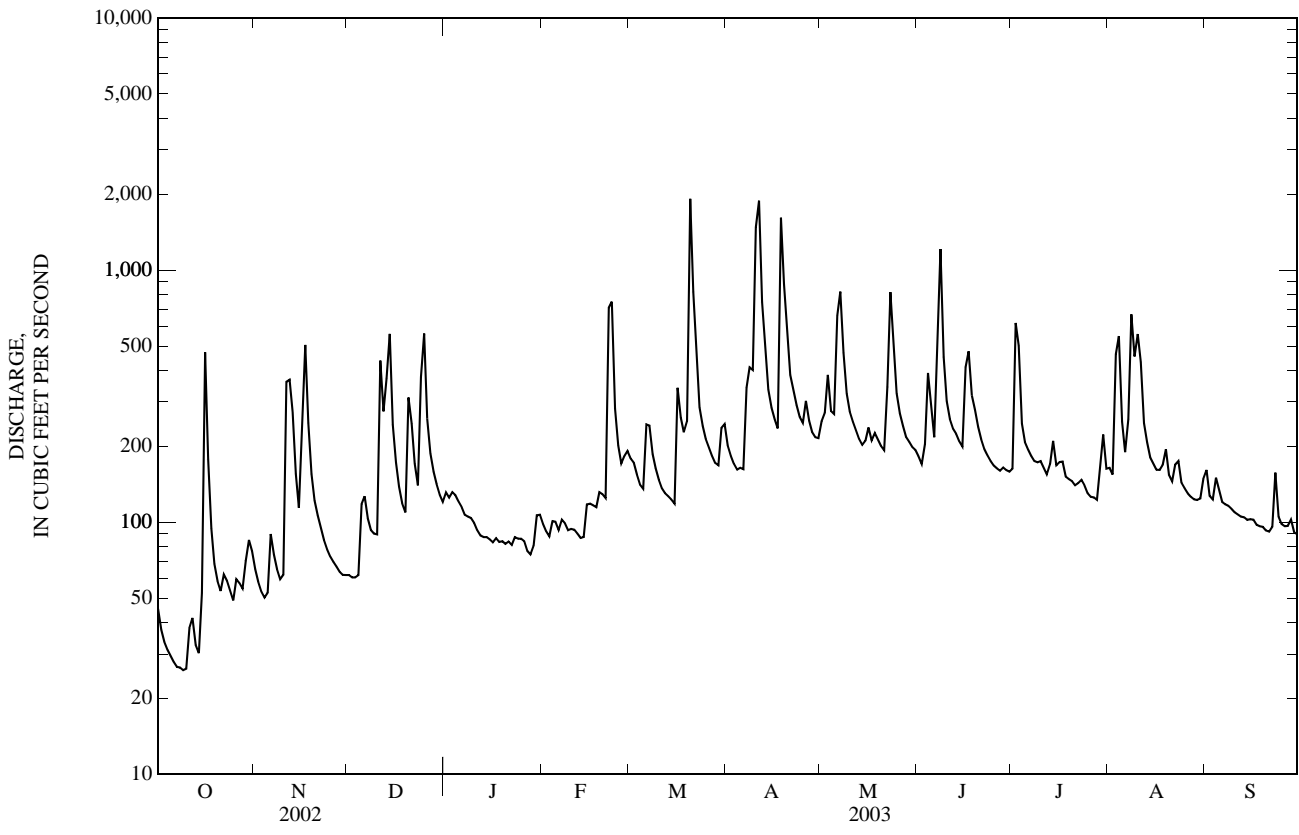


SANTEE RIVER BASIN

02143000 HENRY FORK NEAR HENRY RIVER, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1926 - 2003 [@]	
ANNUAL TOTAL	25,149.0		76,817		133	
ANNUAL MEAN	68.9		210		221	
HIGHEST ANNUAL MEAN					45.5	
LOWEST ANNUAL MEAN					10,100	
HIGHEST DAILY MEAN	560	Dec 25	1,920	Mar 20	10,100	Oct 2, 1929
LOWEST DAILY MEAN	5.5	Aug 11	26	Oct 9	4.0	Nov 15, 1942
ANNUAL SEVEN-DAY MINIMUM	5.8	Aug 8	28	Oct 4	5.8	Aug 8, 2002
MAXIMUM PEAK FLOW			3,250	Apr 18	15,300*	Oct 2, 1929
MAXIMUM PEAK STAGE			7.84	Apr 18	18.71	Oct 12, 1990
INSTANTANEOUS LOW FLOW			26*	Oct 8	3.0	Dec 20, 1942
ANNUAL RUNOFF (CFSM)	0.83		2.53		1.60	
ANNUAL RUNOFF (INCHES)	11.24		34.35		21.70	
10 PERCENT EXCEEDS	145		405		220	
50 PERCENT EXCEEDS	45		157		92	
90 PERCENT EXCEEDS	11		63		41	

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



02143040 JACOB FORK AT RAMSEY, NC

LOCATION.--Lat 35°35'26", long 81°34'01", Burke County, Hydrologic Unit 03050102, on left bank 16 ft downstream of bridge on Secondary Road 1924, 0.6 mi downstream of Queens Creek, and 0.6 mi north of Ramsey.

DRAINAGE AREA.--25.7 mi²

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1960-61. October 1961 to current year.

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

GAGE.--Water-stage recorder. Datum of gage is 1,103.00 ft above NGVD of 1929. Satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Maximum discharge for period of record, from rating curve extended above 3,400 ft³/s on basis of contracted-opening measurement of peak flow. Minimum discharge for current water year also occurred Oct. 9.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of August 1940 reached a stage of about 39 ft, from information by local resident. Flood of July 1916 reached a stage of about 19 ft, from information by North Carolina State Highway Commission.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	29	17	58	43	88	73	84	54	74	77	49
2	13	23	16	53	37	81	64	111	48	559	59	46
3	12	20	15	67	34	65	58	147	74	208	352	55
4	11	17	16	67	43	54	54	106	205	118	191	61
5	9.9	21	40	56	39	51	56	116	109	94	102	48
6	9.1	39	37	48	36	125	48	348	76	87	83	45
7	8.6	33	30	43	40	111	215	260	713	78	385	43
8	8.2	27	27	42	34	77	162	170	423	70	258	42
9	8.1	23	27	41	32	64	203	114	206	69	164	42
10	8.7	32	28	37	33	53	598	90	141	70	241	40
11	17	359	195	33	32	46	528	79	112	62	254	38
12	13	174	95	31	31	42	219	70	96	59	147	37
13	14	117	204	30	30	40	142	61	88	362	123	37
14	12	62	248	29	33	38	109	57	81	163	100	36
15	32	44	113	28	56	37	93	74	86	104	91	37
16	312	126	77	27	54	127	85	68	268	82	84	36
17	85	227	55	29	47	112	79	70	358	69	85	34
18	35	95	44	27	45	147	804	83	182	63	75	35
19	23	57	40	e26	52	169	295	77	205	60	77	34
20	18	44	193	26	54	776	186	68	145	56	75	32
21	21	39	119	27	54	290	152	63	110	53	75	30
22	30	34	77	26	357	155	130	266	93	52	78	38
23	24	29	57	27	234	112	110	436	83	55	67	60
24	20	25	222	e25	109	90	98	214	75	50	62	35
25	19	23	232	e24	76	77	96	139	69	45	59	33
26	26	21	118	24	63	70	117	104	65	43	55	33
27	23	20	83	24	69	62	95	89	65	42	52	33
28	24	18	68	23	74	57	85	74	67	41	51	35
29	38	18	57	30	---	57	82	70	60	51	50	31
30	57	18	48	53	---	100	84	62	85	50	49	29
31	39	---	45	53	---	89	---	62	---	68	50	---
TOTAL	985.6	1,814	2,643	1,134	1,841	3,462	5,120	3,832	4,442	3,057	3,671	1,184
MEAN	31.8	60.5	85.3	36.6	65.8	112	171	124	148	98.6	118	39.5
MAX	312	359	248	67	357	776	804	436	713	559	385	61
MIN	8.1	17	15	23	30	37	48	57	48	41	49	29
CFSM	1.24	2.35	3.32	1.42	2.56	4.35	6.64	4.81	5.76	3.84	4.61	1.54
IN.	1.43	2.63	3.83	1.64	2.66	5.01	7.41	5.55	6.43	4.42	5.31	1.71

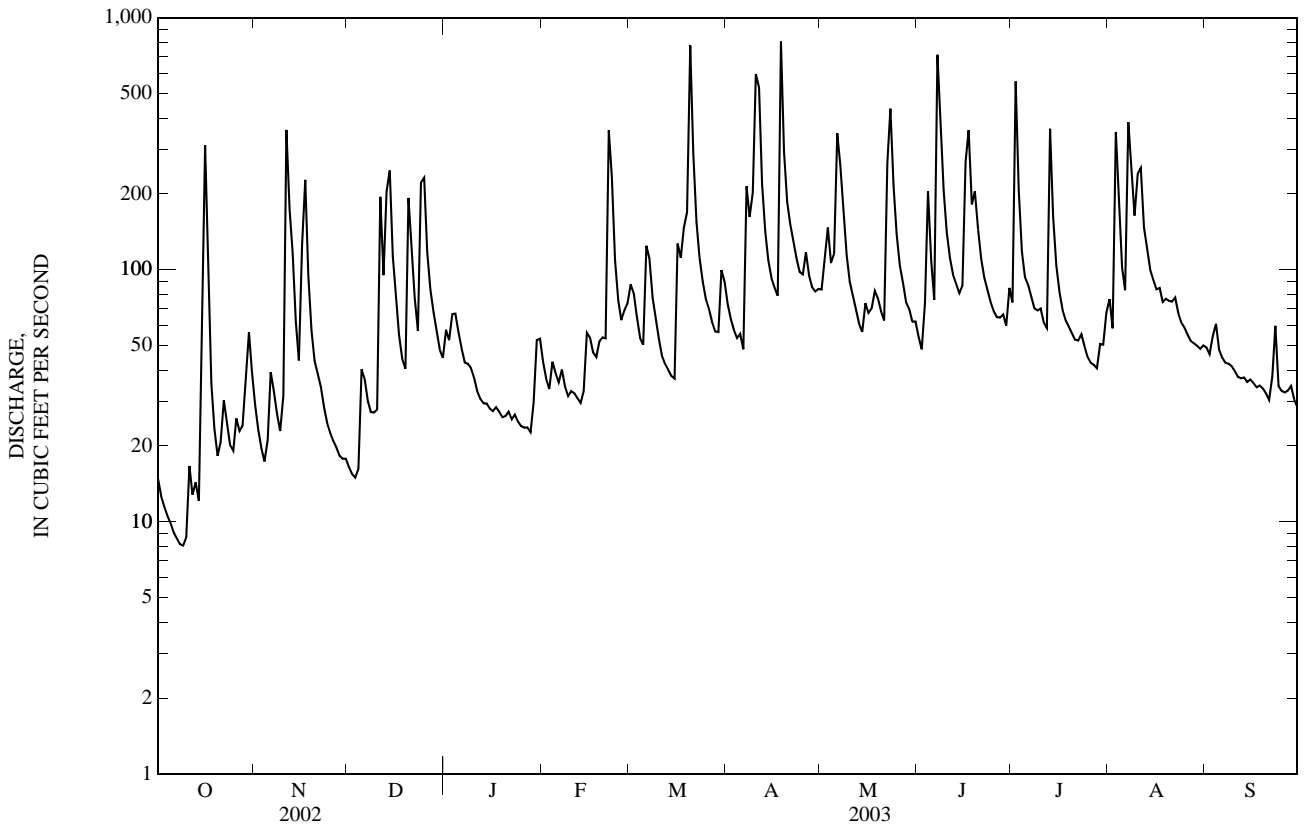
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 2003, BY WATER YEAR (WY)

	39.5	40.7	46.8	57.8	65.3	76.8	68.9	52.8	42.7	34.3	33.9	28.1
MEAN												
MAX	154	130	92.6	131	134	177	171	124	148	98.6	152	102
(WY)	(1965)	(1978)	(1984)	(1993)	(1966)	(1975)	(2003)	(2003)	(2003)	(2003)	(1970)	(1989)
MIN	7.83	8.49	14.5	15.6	19.3	27.4	19.4	9.93	4.98	2.87	4.48	7.94
(WY)	(2001)	(2002)	(2002)	(2001)	(2001)	(1988)	(2002)	(2001)	(2002)	(2002)	(2002)	(2001)

02143040 JACOB FORK AT RAMSEY, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1962 - 2003	
ANNUAL TOTAL	10,518.49		33,185.6		48.9	
ANNUAL MEAN	28.8		90.9		90.9	
HIGHEST ANNUAL MEAN					16.6	2003
LOWEST ANNUAL MEAN					16.6	2002
HIGHEST DAILY MEAN	424	Sep 27	804	Apr 18	1,730	Nov 6, 1977
LOWEST DAILY MEAN	0.87	Aug 13	8.1	Oct 9	0.87	Aug 13, 2002
ANNUAL SEVEN-DAY MINIMUM	0.90	Aug 7	9.1	Oct 4	0.90	Aug 7, 2002
MAXIMUM PEAK FLOW			1,960	Jun 7	7,220*	Oct 17, 1975
MAXIMUM PEAK STAGE			10.06	Jun 7	19.74	Oct 17, 1975
INSTANTANEOUS LOW FLOW			7.7*	Oct 8	0.79	Aug 14, 2002
ANNUAL RUNOFF (CFSM)	1.12		3.54		1.90	
ANNUAL RUNOFF (INCHES)	15.23		48.04		25.85	
10 PERCENT EXCEEDS	61		204		86	
50 PERCENT EXCEEDS	14		59		32	
90 PERCENT EXCEEDS	2.9		24		13	

e Estimated.
 * See REMARKS.



02143040 JACOB FORK AT RAMSEY, NC—Continued

PRECIPITATION RECORDS

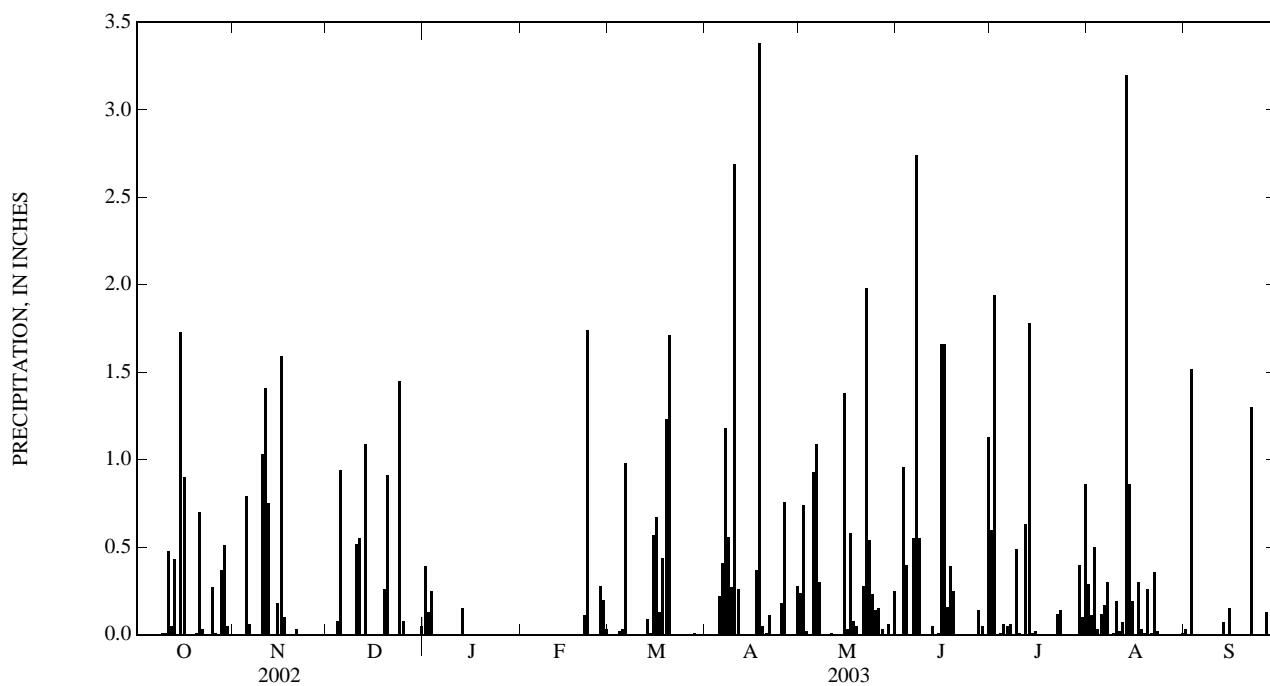
PERIOD OF RECORD.--November 2000 to current year.

GAGE.--Tipping-bucket raingage and electronic datalogger. Satellite telemetry at station.

REMARKS.--Gage is operated in cooperation with North Carolina Department of Environment and Natural Resources. Precipitation data collected during freezing periods may not be accurately reflected in daily record; consequently, winter record is poor.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

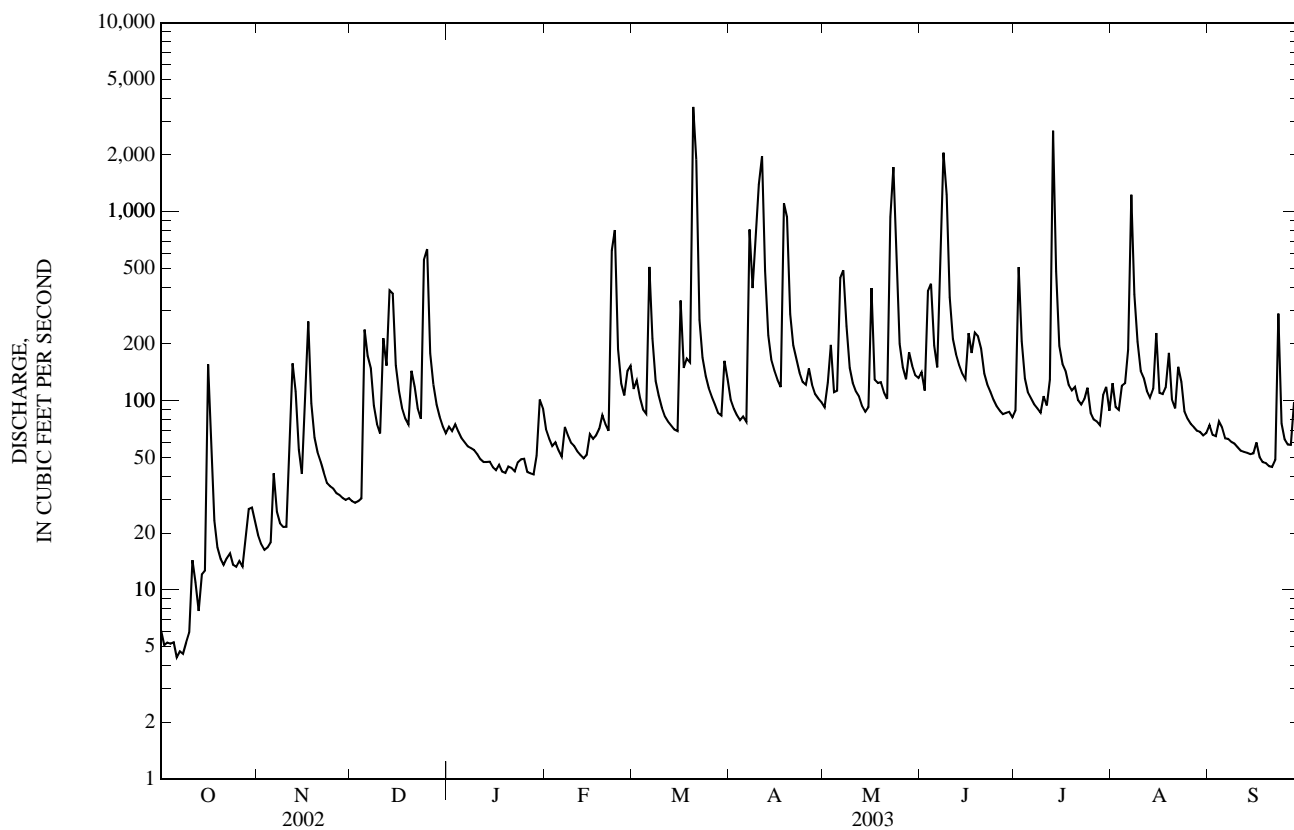
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.39	---	0.00	0.00	0.24	0.00	0.60	0.29	0.03
2	0.00	0.00	0.00	0.13	---	0.00	0.00	0.74	0.00	1.94	0.11	0.00
3	0.00	0.00	0.00	0.25	---	0.00	0.00	0.02	0.96	0.00	0.50	1.52
4	0.00	0.00	0.08	0.00	---	0.02	0.00	0.00	0.40	0.01	0.03	0.00
5	0.00	0.79	0.94	0.00	---	0.03	0.22	0.93	0.00	0.06	0.12	0.00
6	0.00	0.06	0.00	0.00	---	0.98	0.41	1.09	0.55	0.05	0.17	0.00
7	0.00	0.00	0.00	0.00	---	0.00	1.18	0.30	2.74	0.06	0.30	0.00
8	0.00	0.00	0.00	0.00	---	0.00	0.56	0.00	0.55	0.00	0.00	0.00
9	0.01	0.00	0.00	0.00	---	0.00	0.27	0.00	0.00	0.49	0.01	0.00
10	0.01	1.03	0.52	0.00	---	0.00	2.69	0.00	0.00	0.01	0.19	0.00
11	0.48	1.41	0.55	0.00	---	0.00	0.26	0.01	0.00	0.00	0.02	0.00
12	0.05	0.75	0.00	0.00	---	0.00	0.00	0.00	0.05	0.63	0.07	0.00
13	0.43	0.00	1.09	0.15	---	0.09	0.00	0.00	0.00	1.78	3.20	0.07
14	0.00	0.00	0.00	0.00	---	0.01	0.00	0.00	0.01	0.01	0.86	0.00
15	1.73	0.18	0.00	0.00	---	0.57	0.00	1.38	1.66	0.02	0.19	0.15
16	0.90	1.59	0.00	---	---	0.67	0.00	0.03	1.66	0.00	0.00	0.00
17	0.00	0.10	0.00	---	---	0.13	0.37	0.58	0.16	0.00	0.30	0.00
18	0.00	0.00	0.00	---	---	0.44	3.38	0.08	0.39	0.00	0.03	0.00
19	0.00	0.00	0.26	---	---	1.23	0.05	0.05	0.25	0.00	0.01	0.00
20	0.01	0.00	0.91	---	---	1.71	0.01	0.00	0.00	0.00	0.26	0.00
21	0.70	0.03	0.00	---	0.11	0.00	0.11	0.28	0.00	0.00	0.01	0.00
22	0.03	0.00	0.00	---	1.74	0.00	0.00	1.98	0.00	0.12	0.36	1.30
23	0.00	0.00	0.00	---	0.00	0.00	0.00	0.54	0.00	0.14	0.02	0.00
24	0.00	0.00	1.45	---	0.00	0.00	0.00	0.23	0.00	0.00	0.00	0.00
25	0.27	0.00	0.08	---	0.00	0.00	0.18	0.14	0.00	0.00	0.00	0.00
26	0.01	0.00	0.00	---	0.28	0.00	0.76	0.15	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	---	0.20	0.00	0.00	0.03	0.14	0.00	0.00	0.13
28	0.37	0.00	0.00	---	0.03	0.01	0.00	0.00	0.05	0.00	0.00	0.00
29	0.51	0.00	0.00	---	---	---	0.00	0.06	0.00	0.40	0.00	0.00
30	0.05	0.00	0.00	---	---	---	0.28	0.00	1.13	0.10	0.00	0.00
31	0.00	---	0.05	---	---	0.00	---	0.25	---	0.86	0.01	---
TOTAL	5.56	5.94	5.93	---	---	---	10.73	9.11	10.70	7.28	7.06	3.20



02143500 INDIAN CREEK NEAR LABORATORY, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1951 - 2003	
ANNUAL TOTAL	13,638.96		62,549.7		87.8	
ANNUAL MEAN	37.4		171		171	
HIGHEST ANNUAL MEAN					171	2003
LOWEST ANNUAL MEAN					21.8	2002
HIGHEST DAILY MEAN	635	Dec 25	3,590	Mar 20	4,350	Aug 10, 1970
LOWEST DAILY MEAN	0.32	Aug 12	4.4	Oct 6	0.32	Aug 12, 2002
ANNUAL SEVEN-DAY MINIMUM	0.45	Aug 9	4.9	Oct 2	0.45	Aug 9, 2002
MAXIMUM PEAK FLOW			6,330	Mar 20	8,450	Aug 10, 1970
MAXIMUM PEAK STAGE			9.06	Mar 20	10.61	Aug 10, 1970
INSTANTANEOUS LOW FLOW			3.5*	Oct 6	0.25*	Aug 12, 2002
ANNUAL RUNOFF (CFSM)	0.54		2.48		1.27	
ANNUAL RUNOFF (INCHES)	7.33		33.62		17.24	
10 PERCENT EXCEEDS	81		288		148	
50 PERCENT EXCEEDS	21		91		55	
90 PERCENT EXCEEDS	1.4		27		22	

e Estimated.
 * See REMARKS.



02144000 LONG CREEK NEAR BESSEMER CITY, NC

LOCATION.--Lat 35°18'23", long 81°14'05", Gaston County, Hydrologic Unit 03050102, on right bank 700 ft upstream from bridge on Secondary Road 1456, 3.3 mi northeast of Bessemer City, and 8.2 mi upstream from mouth.

DRAINAGE AREA.--31.8 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1952 to current year. Monthly discharge only for some periods, published in WSP 1723.

REVISED RECORDS.--WSP 1723: 1959-60 (M). WSP 1904: 1959-60. WDR NC-80-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 706.1 ft above NGVD of 1929. Satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Bessemer City diverts water upstream from gaging station for water supply and returns treated effluent to South Fork Catawba River downstream of mouth of Long Creek causing some diurnal fluctuation; a daily average of 0.64 ft³/s was diverted during the year. Minimum discharge for current water year also occurred Oct. 2, 3, 4, 5, 6, 8, 9, 10.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 1916 reached a stage of 26 ft, from high-water mark on left bank 1,500 ft upstream, from information by local resident.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.96	4.5	8.7	21	30	44	45	39	41	32	84	41
2	0.86	3.7	8.4	20	24	49	41	39	38	345	48	28
3	0.85	3.5	8.6	24	22	37	38	41	261	100	43	25
4	0.84	3.3	8.6	20	21	32	35	37	143	53	46	26
5	0.88	4.9	56	18	18	31	38	40	68	43	239	27
6	0.90	20	40	17	17	308	40	90	52	40	265	23
7	0.91	8.0	32	16	35	85	294	84	123	37	105	23
8	0.93	5.8	24	16	24	48	114	58	321	35	64	23
9	1.2	5.0	22	16	21	39	311	46	281	34	51	22
10	0.83	4.8	17	15	21	33	1,010	40	76	36	70	21
11	27	6.7	51	13	19	29	497	38	56	42	68	20
12	5.2	102	33	13	17	28	120	37	52	57	46	20
13	6.1	41	159	13	16	26	75	33	51	277	44	20
14	5.4	21	75	12	17	26	60	33	46	75	100	20
15	3.2	15	36	e12	23	26	53	65	50	50	182	20
16	31	66	27	e12	23	92	48	85	101	42	51	20
17	7.6	97	23	e11	24	45	44	47	103	46	69	17
18	3.4	37	19	e11	27	59	528	52	66	38	50	17
19	2.3	25	17	e11	30	57	171	54	59	62	129	16
20	1.9	21	52	e11	25	1,160	86	46	48	e400	43	16
21	7.4	18	31	e11	23	202	68	43	43	e180	36	16
22	5.0	16	23	e11	418	79	59	1,600	40	e120	44	26
23	2.9	12	19	e10	178	56	50	909	37	e90	56	144
24	2.2	11	272	e10	52	48	45	128	36	59	34	32
25	2.1	13	152	e10	38	45	46	106	35	44	31	25
26	2.4	12	53	e10	36	42	93	68	32	40	30	23
27	2.3	11	36	e10	81	39	56	104	31	39	29	23
28	8.7	9.4	30	e12	65	37	46	57	34	36	27	45
29	14	9.3	26	18	---	36	43	51	32	60	26	25
30	8.0	9.4	22	59	---	82	42	47	30	66	25	22
31	5.8	---	19	44	---	56	---	45	---	50	30	---
TOTAL	163.06	616.3	1,400.3	507	1,345	2,976	4,196	4,162	2,386	2,628	2,165	826
MEAN	5.26	20.5	45.2	16.4	48.0	96.0	140	134	79.5	84.8	69.8	27.5
MAX	31	102	272	59	418	1,160	1,010	1,600	321	400	265	144
MIN	0.83	3.3	8.4	10	16	26	35	33	30	32	25	16
CFSM	0.17	0.65	1.42	0.51	1.51	3.02	4.40	4.22	2.50	2.67	2.20	0.87
IN.	0.19	0.72	1.64	0.59	1.57	3.48	4.91	4.87	2.79	3.07	2.53	0.97

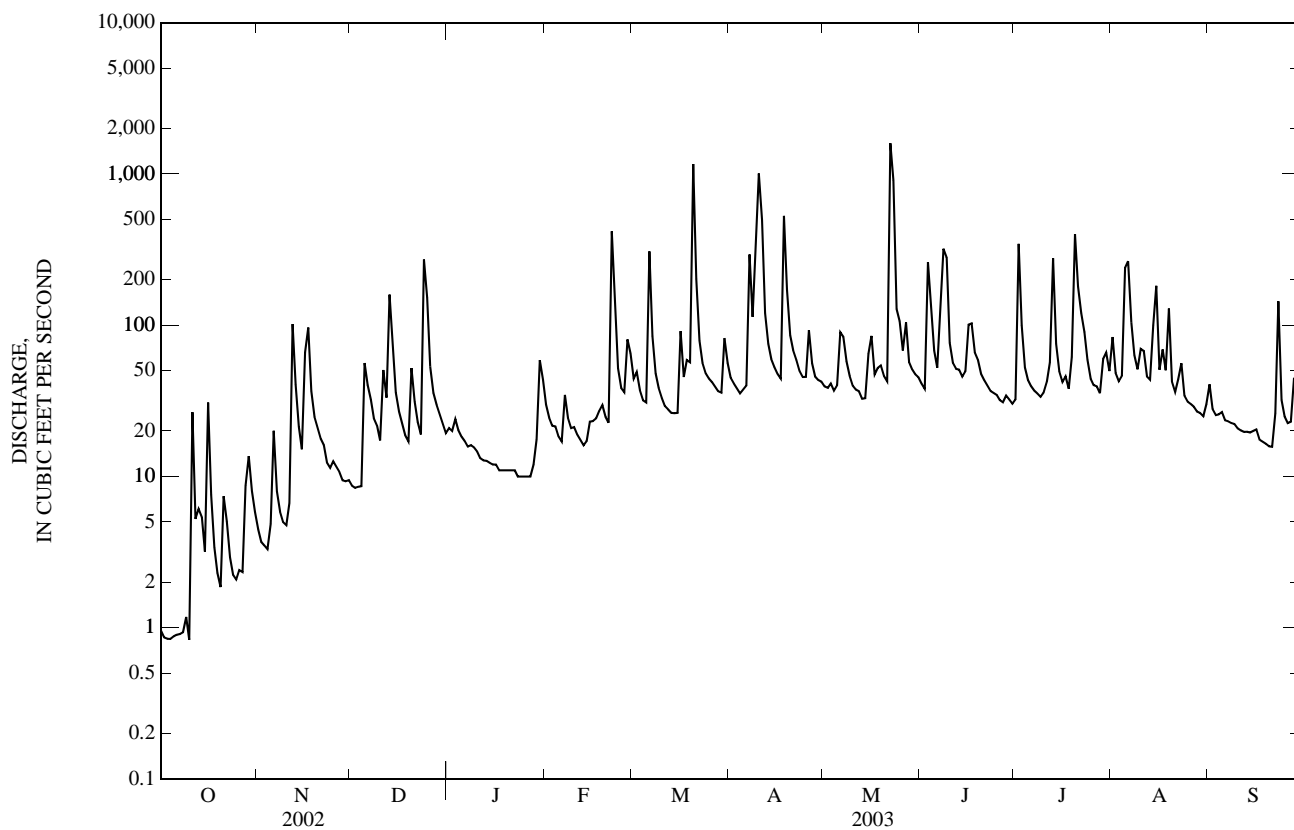
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1953 - 2003, BY WATER YEAR (WY)

MEAN	24.4	25.3	32.9	48.2	57.0	61.5	48.3	33.2	25.4	18.7	20.3	15.3
MAX	147	128	85.2	135	137	146	142	134	79.5	84.8	81.7	59.3
(WY)	(1972)	(1958)	(1977)	(1993)	(1960)	(1993)	(1958)	(2003)	(2003)	(2003)	(1985)	(1971)
MIN	1.77	2.67	4.69	8.17	12.0	20.5	12.1	6.26	1.76	0.59	0.30	1.02
(WY)	(2002)	(2002)	(2002)	(1956)	(2002)	(2002)	(2002)	(2001)	(2002)	(2002)	(2002)	(2002)

02144000 LONG CREEK NEAR BESSEMER CITY, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1953 - 2003	
ANNUAL TOTAL	4,333.29		23,370.66		34.2	
ANNUAL MEAN	11.9		64.0		64.0	
HIGHEST ANNUAL MEAN					6.67	2003
LOWEST ANNUAL MEAN					6.67	2002
HIGHEST DAILY MEAN	272	Dec 24	1,600	May 22	2,940	Oct 16, 1971
LOWEST DAILY MEAN	0.05	Aug 14	0.83	Oct 10	0.05	Aug 14, 2002
ANNUAL SEVEN-DAY MINIMUM	0.10	Aug 8	0.88	Oct 2	0.10	Aug 8, 2002
MAXIMUM PEAK FLOW			3,800	May 22	6,500	Oct 16, 1971
MAXIMUM PEAK STAGE			8.41	May 22	9.10	Oct 16, 1971
INSTANTANEOUS LOW FLOW			0.82*	Oct 1	0.03	Aug 14, 2002
ANNUAL RUNOFF (CFSM)	0.37		2.01		1.07	
ANNUAL RUNOFF (INCHES)	5.07		27.34		14.61	
10 PERCENT EXCEEDS	27		104		56	
50 PERCENT EXCEEDS	5.8		36		20	
90 PERCENT EXCEEDS	0.33		8.0		6.0	

e Estimated.
 * See REMARKS.



PRECIPITATION RECORDS

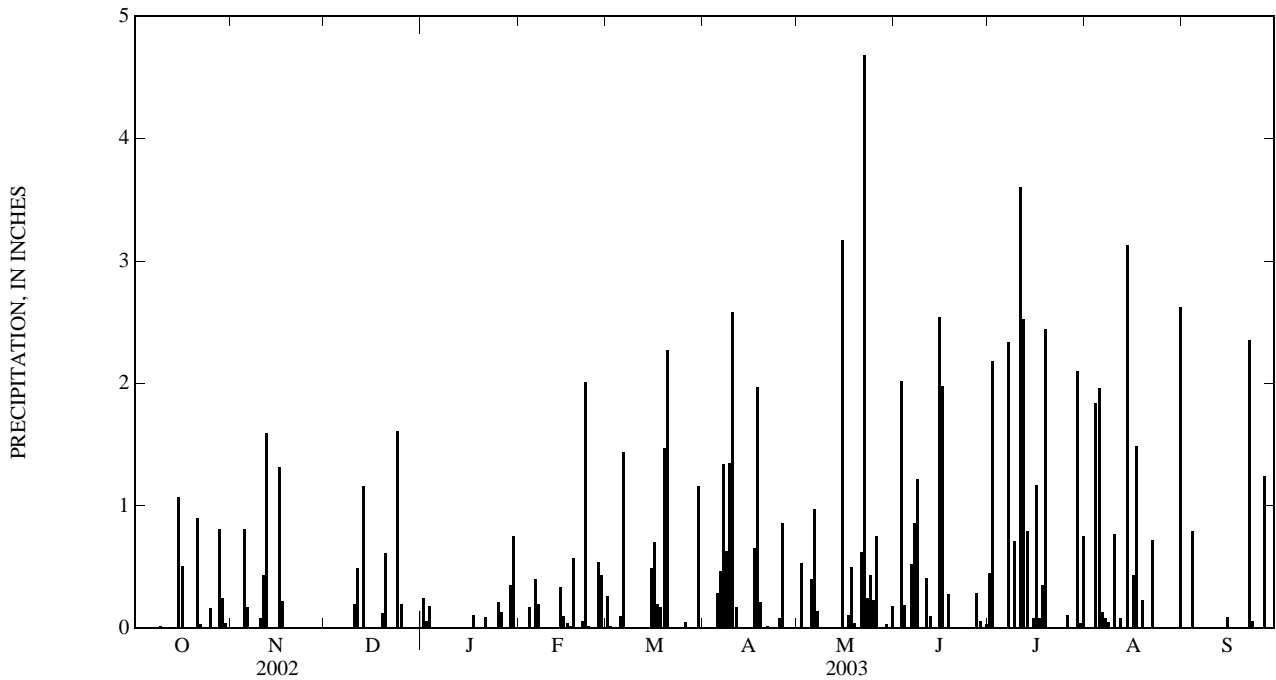
PERIOD OF RECORD.--October 2001 to current year.

GAGE.--Tipping-bucket raingage and electronic datalogger. Satellite telemetry at station.

REMARKS.--Precipitation data collected during freezing periods may not be accurately reflected in daily record; consequently, winter record in poor.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

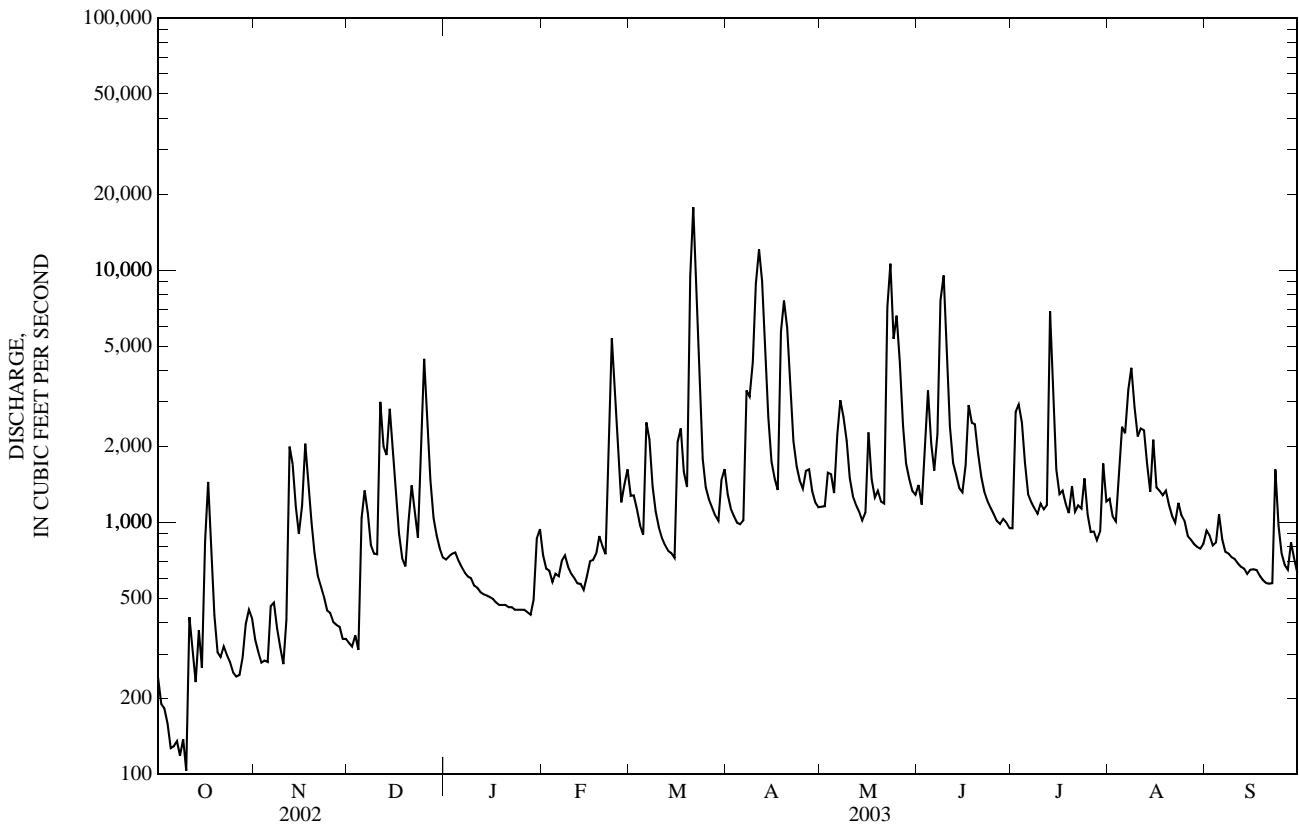
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.25	0.00	0.26	0.00	0.00	0.00	0.45	0.01	0.00
2	0.00	0.00	0.01	0.06	0.01	0.02	0.00	0.53	0.00	2.18	0.01	0.00
3	0.00	0.00	0.00	0.18	0.00	0.00	0.00	0.01	2.02	0.00	0.01	0.00
4	0.00	0.01	---	0.00	0.17	0.01	0.00	0.00	0.19	0.00	1.84	0.79
5	0.00	0.81	---	0.00	0.00	0.10	0.29	0.40	0.00	0.00	1.96	0.00
6	0.00	0.17	---	0.00	0.40	1.44	0.47	0.97	0.52	0.00	0.13	0.00
7	0.00	0.00	---	0.00	0.20	0.00	1.34	0.14	0.86	2.34	0.08	0.00
8	0.00	0.00	0.00	0.00	0.00	0.01	0.63	0.00	1.22	0.00	0.05	0.00
9	0.02	0.00	0.00	0.00	0.00	0.00	1.35	0.00	0.01	0.71	0.00	0.00
10	0.00	0.08	0.20	0.00	---	0.00	2.58	0.00	0.00	0.01	0.77	0.00
11	---	0.43	0.49	0.00	---	0.00	0.17	0.00	0.41	3.60	0.00	0.00
12	---	1.59	0.00	0.00	---	0.00	0.00	0.00	0.10	2.52	0.08	0.00
13	---	0.00	1.16	0.00	0.00	0.00	0.00	0.00	0.00	0.79	0.00	0.00
14	0.01	0.00	0.01	0.00	0.34	0.00	0.00	0.00	0.00	0.00	3.13	0.00
15	1.07	0.01	0.00	0.00	0.10	0.49	0.00	3.17	2.54	0.08	0.00	0.09
16	0.51	1.32	0.00	0.00	0.04	0.70	0.00	0.01	1.98	1.17	0.43	0.00
17	0.00	0.22	0.00	0.11	0.02	0.20	0.65	0.11	0.01	0.08	1.49	0.00
18	0.00	0.01	0.00	0.00	0.57	0.17	1.97	0.50	0.28	0.35	0.01	0.00
19	0.00	0.00	0.12	0.00	0.00	1.47	0.21	0.04	0.01	2.44	0.23	0.00
20	0.01	0.00	0.61	0.00	0.01	2.27	0.01	0.00	0.00	---	0.00	0.00
21	0.90	0.00	0.00	0.09	0.06	0.00	0.02	0.62	0.00	---	0.00	0.00
22	0.03	0.00	0.00	0.00	2.01	0.00	0.00	4.68	0.00	---	0.72	2.35
23	0.00	0.00	0.00	0.01	0.02	0.00	0.00	0.25	0.00	---	0.00	0.06
24	0.00	0.00	1.61	0.00	0.00	0.00	0.00	0.43	0.00	0.00	0.00	0.00
25	0.16	0.00	0.20	0.21	0.00	0.00	0.08	0.23	0.00	0.00	0.00	0.00
26	0.01	0.00	0.00	0.13	0.54	0.05	0.86	0.75	0.00	0.11	0.00	0.00
27	0.00	0.00	0.00	0.00	0.43	0.00	0.00	0.00	0.29	0.00	0.00	1.24
28	0.81	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.06	0.00	0.01	0.00
29	0.25	0.00	0.00	0.35	---	0.00	0.00	0.03	0.00	2.10	0.00	0.00
30	0.04	0.00	0.00	0.75	---	1.16	0.00	0.00	0.03	0.04	0.00	0.00
31	0.00	---	0.01	0.00	---	0.00	---	0.18	---	0.75	2.62	---
TOTAL	---	4.65	---	2.14	---	8.35	10.63	13.05	10.53	---	13.58	4.53



02145000 SOUTH FORK CATAWBA RIVER AT LOWELL, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1942 - 2003 [®]	
ANNUAL TOTAL	152,147		553,936			
ANNUAL MEAN	417		1,518		798	
HIGHEST ANNUAL MEAN					1,518	2003
LOWEST ANNUAL MEAN					272	2002
HIGHEST DAILY MEAN	4,450	Dec 25	17,800	Mar 21	21,700	Aug 11, 1970
LOWEST DAILY MEAN	25	Aug 15	104	Oct 10	25	Aug 15, 2002
ANNUAL SEVEN-DAY MINIMUM	54	Aug 9	130	Oct 4	54	Aug 9, 2002
MAXIMUM PEAK FLOW			20,000	Mar 21	24,800	Aug 11, 1970
MAXIMUM PEAK STAGE			15.88	Mar 21	17.38	Aug 11, 1970
INSTANTANEOUS LOW FLOW			89*	Oct 10	13*	Aug 22, 1988
ANNUAL RUNOFF (CFSM)	0.66		2.42		1.27	
ANNUAL RUNOFF (INCHES)	9.01		32.81		17.26	
10 PERCENT EXCEEDS	899		2,840		1,390	
50 PERCENT EXCEEDS	293		1,040		555	
90 PERCENT EXCEEDS	80		376		261	

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



0214620760 CRN03

LOCATION.--Lat 35°16'33", long 80°49'34", Mecklenburg County, Hydrologic Unit 03050103, Irwin Creek at Starita Road at Charlotte, NC.

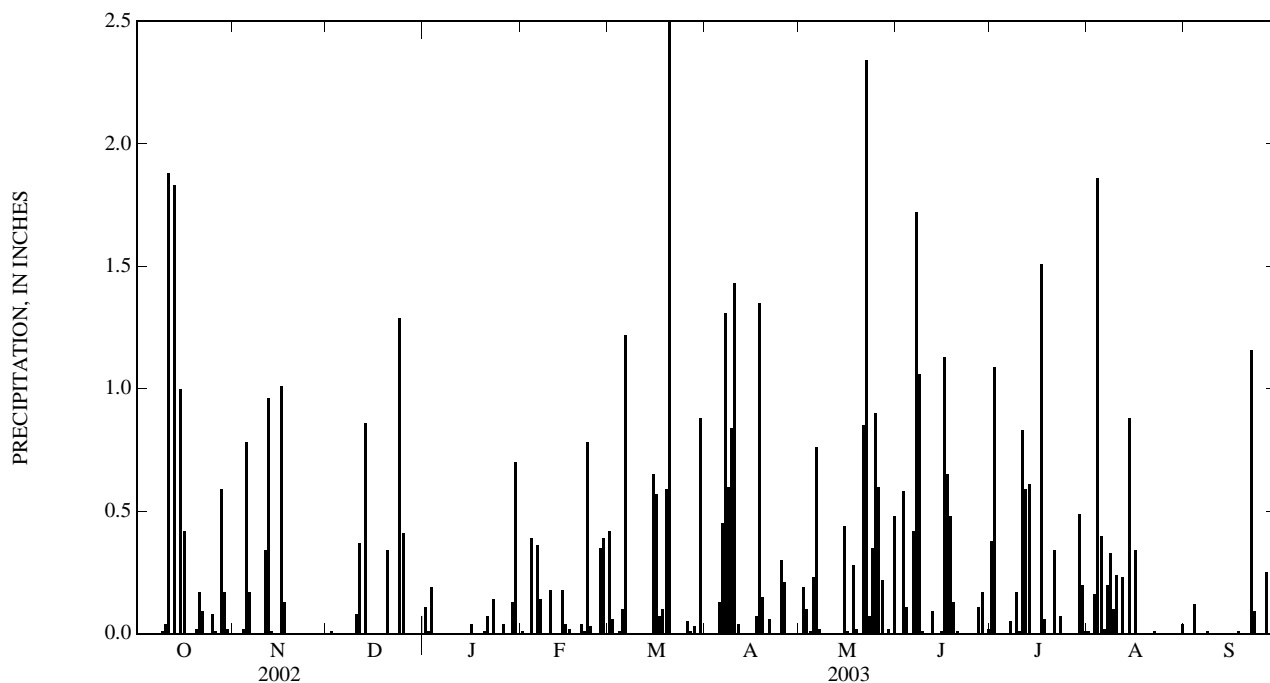
PERIOD OF RECORD.--October 1992 to current year. Records for period October 1992 to September 1998 published in USGS OFR 96-150, 98-67, and 99-273.

GAGE.--Tipping-bucket raingage and electronic datalogger. Radio telemetry at station.

REMARKS.--Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network. Collection of frozen precipitation during December 2002 and February 2003 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.11	0.01	0.42	0.00	0.00	0.00	0.38	0.01	0.00
2	0.00	0.00	0.01	0.01	0.00	0.06	0.00	0.19	0.00	1.09	0.00	0.00
3	0.00	0.00	0.00	0.19	0.00	0.00	0.00	0.10	0.58	0.00	0.16	0.00
4	0.00	0.02	0.00	0.00	0.39	0.01	0.00	0.01	0.11	0.00	1.86	0.12
5	0.00	0.78	---	0.00	0.00	0.10	0.13	0.23	0.00	0.00	0.40	0.00
6	0.00	0.17	---	0.00	0.36	1.22	0.45	0.76	0.42	0.00	0.02	0.00
7	0.00	0.00	0.00	0.00	0.14	0.00	1.31	0.02	1.72	0.05	0.20	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.00	1.06	0.00	0.33	0.01
9	0.01	0.00	0.00	0.00	0.00	0.00	0.84	0.00	0.01	0.17	0.10	0.00
10	0.04	0.00	0.08	0.00	0.18	0.00	1.43	0.00	0.00	0.01	0.24	0.00
11	1.88	0.34	0.37	0.00	0.00	0.00	0.04	0.00	0.00	0.83	0.00	0.00
12	0.00	0.96	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.59	0.23	0.00
13	1.83	0.01	0.86	0.00	0.00	0.00	0.00	0.00	0.00	0.61	0.00	0.00
14	0.00	0.00	0.00	0.00	0.18	0.00	0.00	0.00	0.00	0.00	0.88	0.00
15	1.00	0.00	0.00	0.00	0.04	0.65	0.00	0.44	0.01	0.00	0.00	0.00
16	0.42	1.01	0.00	0.04	0.02	0.57	0.00	0.01	1.13	0.00	0.34	0.00
17	0.00	0.13	0.00	0.00	---	0.07	0.07	0.00	0.65	1.51	0.00	0.00
18	0.00	0.00	0.00	0.00	---	0.10	1.35	0.28	0.48	0.06	0.00	0.01
19	0.00	0.00	0.00	0.00	0.00	0.59	0.15	0.02	0.13	0.00	0.00	0.00
20	0.02	0.00	0.34	0.01	0.04	2.50	0.00	0.00	0.01	0.00	0.00	0.00
21	0.17	0.00	0.00	0.07	0.01	0.00	0.06	0.85	0.00	0.34	0.00	0.00
22	0.09	0.00	0.00	0.00	0.78	0.00	0.00	2.34	0.00	0.00	0.01	1.16
23	0.00	0.00	0.00	0.14	0.03	0.00	0.00	0.07	0.00	0.07	0.00	0.09
24	0.00	0.00	1.29	---	0.00	0.00	0.00	0.35	0.00	0.00	0.00	0.00
25	0.08	0.00	0.41	0.00	0.00	0.00	0.30	0.90	0.00	0.00	0.00	0.00
26	0.01	0.00	0.00	0.04	0.35	0.05	0.21	0.60	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.39	0.01	0.00	0.22	0.11	0.00	0.00	0.25
28	0.59	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.17	0.00	0.00	0.00
29	0.17	0.00	0.00	0.13	---	0.00	0.00	0.02	0.00	0.49	0.00	0.00
30	0.02	0.00	0.00	0.70	---	0.88	0.00	0.00	0.02	0.20	0.00	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.48	---	0.01	0.04	---
TOTAL	6.33	3.42	---	---	---	7.26	6.94	7.89	6.70	6.41	4.82	1.64



0214627970 STEWART CREEK AT STATE STREET AT CHARLOTTE, NC

LOCATION.--Lat 35°14'25", long 80°52'06", Mecklenburg County, Hydrologic Unit 03050103, on right upstream side of culvert on State Street, 1.1 mi upstream of Irwin Creek, and 2.1 mi northwest of city hall, Charlotte.

DRAINAGE AREA.--9.27 mi².

PERIOD OF RECORD.--June 2000 to current year.

GAGE.--Water-stage recorder. Datum of gage is 630.54 ft above North American Vertical Datum of 1988. Radio telemetry at station.

REMARKS.--Records good except those for estimated daily discharges and those above 500 ft³/s, which are poor. Maximum discharge for period of record and current water year from rating curve extended above 500 ft³/s on basis of culvert computation of peak flow. Minimum discharge for period of record and current water year affected by regulation of unknown origin.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.8	6.5	6.5	11	10	34	17	8.7	15	10	14	19
2	6.6	7.2	5.8	8.7	8.5	29	10	13	12	110	10	8.2
3	6.6	6.5	6.5	18	9.2	17	7.3	10	51	11	32	7.6
4	5.5	6.9	12	7.8	31	11	6.2	10	26	10	436	10
5	6.6	37	103	7.6	13	14	9.0	11	12	9.9	124	8.5
6	4.3	38	12	11	16	216	15	77	23	8.6	24	7.4
7	6.3	7.6	10	10	36	20	234	16	517	11	18	7.0
8	5.7	6.6	8.6	8.3	10	14	46	13	209	9.7	56	9.5
9	7.2	6.5	7.5	9.3	9.3	11	117	9.3	63	40	32	10
10	5.5	6.1	7.2	8.8	14	13	538	8.5	16	11	48	11
11	205	16	39	6.9	9.5	11	57	9.8	13	43	22	8.4
12	7.9	119	9.6	7.6	9.3	9.6	19	7.8	14	18	58	9.8
13	251	15	114	6.9	9.2	9.3	14	7.1	11	93	27	6.8
14	8.9	7.7	20	8.1	11	8.4	12	7.2	11	11	206	6.9
15	46	7.3	12	7.2	11	35	11	94	11	10	23	7.5
16	138	84	10	7.9	11	139	10	22	197	10	31	6.0
17	9.0	34	8.9	8.2	17	18	9.6	11	31	120	12	7.3
18	7.4	11	7.9	9.4	20	20	133	25	78	13	11	7.3
19	7.6	8.2	7.8	8.9	11	17	48	13	45	25	11	6.8
20	7.5	6.8	23	7.5	10	726	16	9.8	17	13	9.4	5.6
21	12	6.6	8.6	8.1	9.7	21	15	88	13	28	10	6.9
22	9.6	6.3	7.0	7.9	119	13	14	923	15	12	17	58
23	5.8	5.8	7.1	12	21	11	15	60	17	12	9.4	45
24	5.6	5.6	210	8.8	13	9.4	10	28	17	10	7.9	e10
25	7.1	5.3	72	9.0	11	9.2	17	115	15	8.7	8.2	e11
26	7.1	5.9	14	8.8	25	8.4	30	40	8.5	20	8.9	e9.0
27	6.0	5.7	11	8.7	48	8.9	12	71	9.4	9.7	7.9	9.8
28	38	5.3	9.2	8.3	18	8.9	11	15	11	8.6	7.4	9.4
29	13	6.1	8.6	12	---	6.8	9.7	14	7.6	42	7.8	7.5
30	8.9	6.8	7.6	70	---	61	8.4	13	9.4	91	7.1	6.6
31	6.5	---	7.3	16	---	12	---	77	---	18	16	---
TOTAL	869.0	497.3	793.7	348.7	540.7	1,541.9	1,471.2	1,827.2	1,494.9	847.2	1,312.0	343.8
MEAN	28.0	16.6	25.6	11.2	19.3	49.7	49.0	58.9	49.8	27.3	42.3	11.5
MAX	251	119	210	70	119	726	538	923	517	120	436	58
MIN	4.3	5.3	5.8	6.9	8.5	6.8	6.2	7.1	7.6	8.6	7.1	5.6
CFSM	3.02	1.79	2.76	1.21	2.08	5.37	5.29	6.36	5.38	2.95	4.57	1.24
IN.	3.49	2.00	3.19	1.40	2.17	6.19	5.90	7.33	6.00	3.40	5.26	1.38

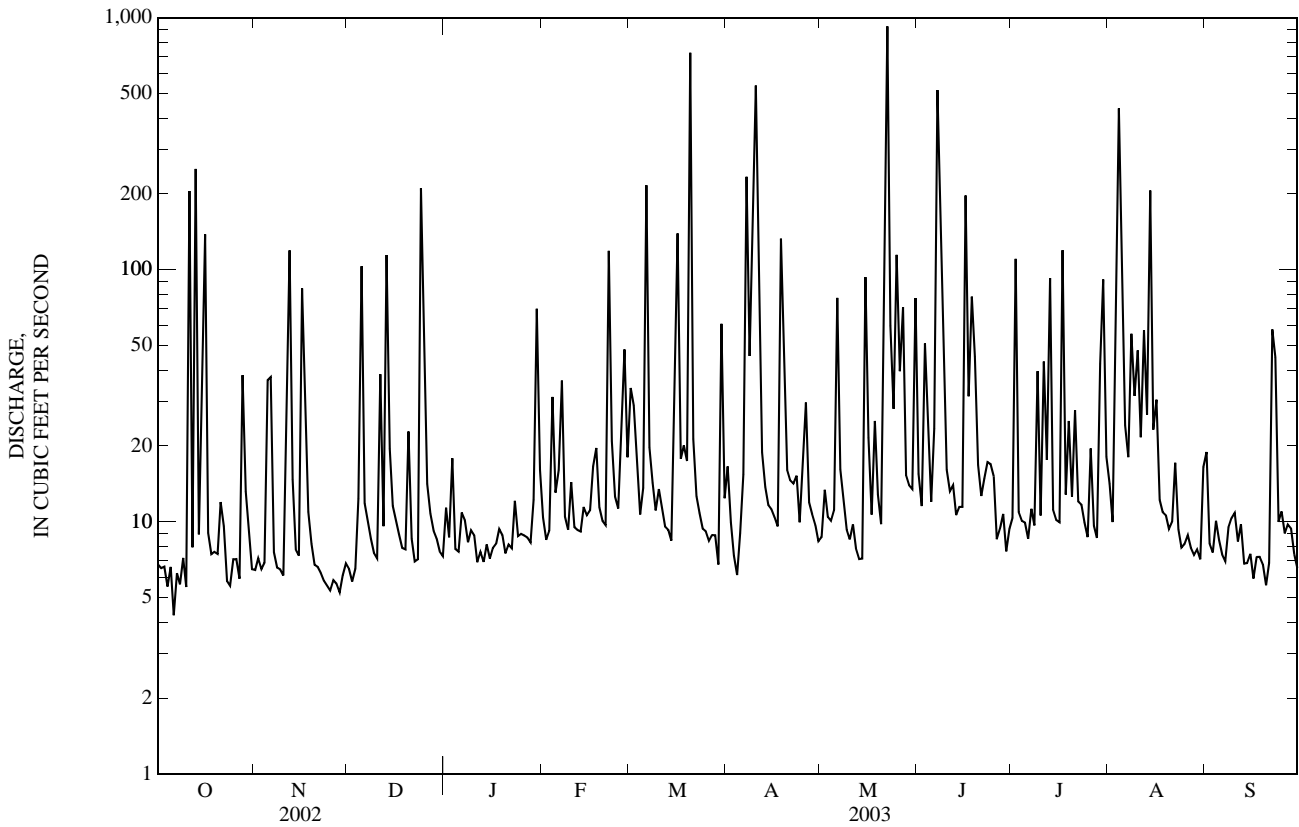
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2003, BY WATER YEAR (WY)

MEAN	14.6	12.0	15.2	13.4	14.1	29.8	22.3	26.1	18.7	15.9	17.3	12.9
MAX	28.0	16.6	25.6	16.8	19.3	49.7	49.0	58.9	49.8	27.3	42.3	16.8
(WY)	(2003)	(2003)	(2003)	(2002)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2000)
MIN	7.24	9.16	9.46	11.2	9.54	14.8	7.07	9.43	7.75	8.41	6.37	8.88
(WY)	(2001)	(2002)	(2001)	(2003)	(2002)	(2002)	(2002)	(2001)	(2000)	(2001)	(2001)	(2002)

0214627970 STEWART CREEK AT STATE STREET AT CHARLOTTE, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 2000 - 2003	
ANNUAL TOTAL	5,172.5		11,887.6		18.2	
ANNUAL MEAN	14.2		32.6		32.6	
HIGHEST ANNUAL MEAN					10.6	2003
LOWEST ANNUAL MEAN					10.6	2002
HIGHEST DAILY MEAN	251	Oct 13	923	May 22	923	May 22, 2003
LOWEST DAILY MEAN	3.5	Sep 13	4.3	Oct 6	3.5	Sep 13, 2002
ANNUAL SEVEN-DAY MINIMUM	4.4	Sep 7	5.7	Nov 23	4.4	Sep 7, 2002
MAXIMUM PEAK FLOW			3,100*	Jun 7	3,100*	Jun 7, 2003
MAXIMUM PEAK STAGE			9.47	Jun 7	9.47	Jun 7, 2003
INSTANTANEOUS LOW FLOW			3.0*	Oct 9	1.6*	Aug 6, 2002
ANNUAL RUNOFF (CFSM)	1.53		3.51		1.96	
ANNUAL RUNOFF (INCHES)	20.76		47.70		26.61	
10 PERCENT EXCEEDS	22		66		25	
50 PERCENT EXCEEDS	7.5		11		8.6	
90 PERCENT EXCEEDS	5.1		6.8		5.8	

e Estimated.
 * See REMARKS.



02146285 STEWART CREEK AT WEST MOREHEAD STREET AT CHARLOTTE, NC

LOCATION.--Lat 35°13'42", long 80°52'09", Mecklenburg County, Hydrologic Unit 03050103, on right bank at bridge on West Morehead Street (US 29), 0.5 mi upstream of Irwin Creek, and 1.8 mi northeast of city hall, Charlotte.

DRAINAGE AREA.--11.1 mi².

REVISED RECORDS.--WDR NC-03-1B: 2001. WDR NC-03-1B: 2002.

PERIOD OF RECORD.--October 2000 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 617.43 ft above North American Vertical Datum of 1988. Radio telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Missing values on the daily values tables are days when flow affected by backwater. Minimum discharge for period of record and current water year affected by regulation of unknown origin. Minimum discharge for period of record also occurred Aug. 5, 6, 2002.

REVISIONS.--Revised figures of discharge for the water years 2001, 2002, superseding those published in the reports for 2001, 2002 are given below.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e8.0	11	11	9.3	10	11	16	9.5	42	8.0	6.6	6.6
2	e8.5	8.8	10	8.8	10	9.2	14	9.5	11	8.1	7.2	6.6
3	e7.5	8.4	11	10	11	24	17	8.3	9.3	9.1	4.7	---
4	8.1	8.5	10	11	9.1	69	15	8.7	8.3	27	6.9	66
5	8.6	8.0	10	11	10	17	15	7.6	8.3	14	4.9	8.7
6	8.1	8.7	12	11	9.4	11	14	7.0	8.3	9.7	6.7	9.8
7	8.3	10	11	8.7	11	9.9	16	8.0	8.1	7.4	6.3	9.2
8	8.7	7.2	10	24	10	9.3	15	11	13	10	6.4	12
9	8.6	21	7.8	10	9.5	9.2	15	11	6.9	7.2	6.4	18
10	8.6	16	7.3	11	13	8.1	13	6.9	8.6	7.7	6.0	9.9
11	10	10	7.4	9.4	8.2	8.5	13	8.0	7.5	9.0	6.5	7.1
12	6.8	8.3	9.5	23	14	17	9.0	7.7	7.9	8.8	7.2	8.2
13	8.2	7.0	11	12	13	14	34	7.2	14	11	6.0	6.9
14	8.0	24	15	10	16	9.1	9.0	6.9	9.1	8.4	6.5	10
15	8.2	9.5	9.4	11	11	56	12	7.0	7.8	6.6	18	6.7
16	9.7	6.7	20	10	9.9	14	9.0	7.3	6.5	8.8	7.9	8.2
17	8.0	19	27	9.9	---	9.9	11	7.8	7.0	8.5	5.5	8.3
18	6.1	7.2	9.1	14	12	9.5	7.2	6.4	6.4	14	9.1	8.3
19	10	29	11	50	12	9.7	9.8	10	8.7	14	5.8	7.8
20	13	13	9.8	33	11	---	8.5	12	8.0	11	5.5	32
21	8.5	7.3	9.6	14	11	82	8.8	14	11	12	6.3	9.2
22	9.8	7.6	10	12	35	18	8.0	25	20	10	6.1	7.8
23	13	9.0	9.0	13	13	15	9.9	8.9	11	15	6.4	8.9
24	7.4	7.1	7.4	11	12	15	9.9	23	6.3	33	8.9	---
25	8.4	47	8.4	11	43	14	32	13	7.3	8.1	8.5	12
26	9.3	11	8.0	10	15	12	10	27	27	13	6.2	8.3
27	8.2	10	8.2	11	14	11	9.3	8.1	7.7	4.9	6.8	10
28	7.4	10	8.0	11	13	11	7.8	27	9.4	6.9	7.0	9.0
29	11	11	8.4	9.6	---	---	7.2	14	7.2	5.2	6.6	7.8
30	8.4	12	8.9	16	---	42	9.5	8.1	8.6	6.2	8.1	7.7
31	9.9	---	8.1	11	---	21	---	12	---	6.9	6.4	---
TOTAL	272.3	373.3	323.3	426.7	366.1	566.4	384.9	347.9	322.2	329.5	217.4	331.0
MEAN	8.78	12.4	10.4	13.8	13.6	19.5	12.8	11.2	10.7	10.6	7.01	11.8
MAX	13	47	27	50	43	82	34	27	42	33	18	66
MIN	6.1	6.7	7.3	8.7	8.2	8.1	7.2	6.4	6.3	4.9	4.7	6.6
CFSM	0.79	1.12	0.94	1.24	1.22	1.76	1.16	1.01	0.97	0.96	0.63	1.06
IN.	0.91	1.25	1.08	1.43	1.23	1.90	1.29	1.17	1.08	1.10	0.73	1.11

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2001, BY WATER YEAR (WY)

	2001	2001	2001	2001	2001	2001	2001	2001	2001	2001	2001	2001
MEAN	8.78	12.4	10.4	13.8	13.6	19.5	12.8	11.2	10.7	10.6	7.01	11.8
MAX	8.78	12.4	10.4	13.8	13.6	19.5	12.8	11.2	10.7	10.6	7.01	11.8
(WY)	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)
MIN	8.78	12.4	10.4	13.8	13.6	19.5	12.8	11.2	10.7	10.6	7.01	11.8
(WY)	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)

SUMMARY STATISTICS

FOR 2000 CALENDAR YEAR

FOR 2001 WATER YEAR

LOWEST DAILY MEAN
ANNUAL SEVEN-DAY MINIMUM
MAXIMUM PEAK STAGE
INSTANTANEOUS LOW FLOW

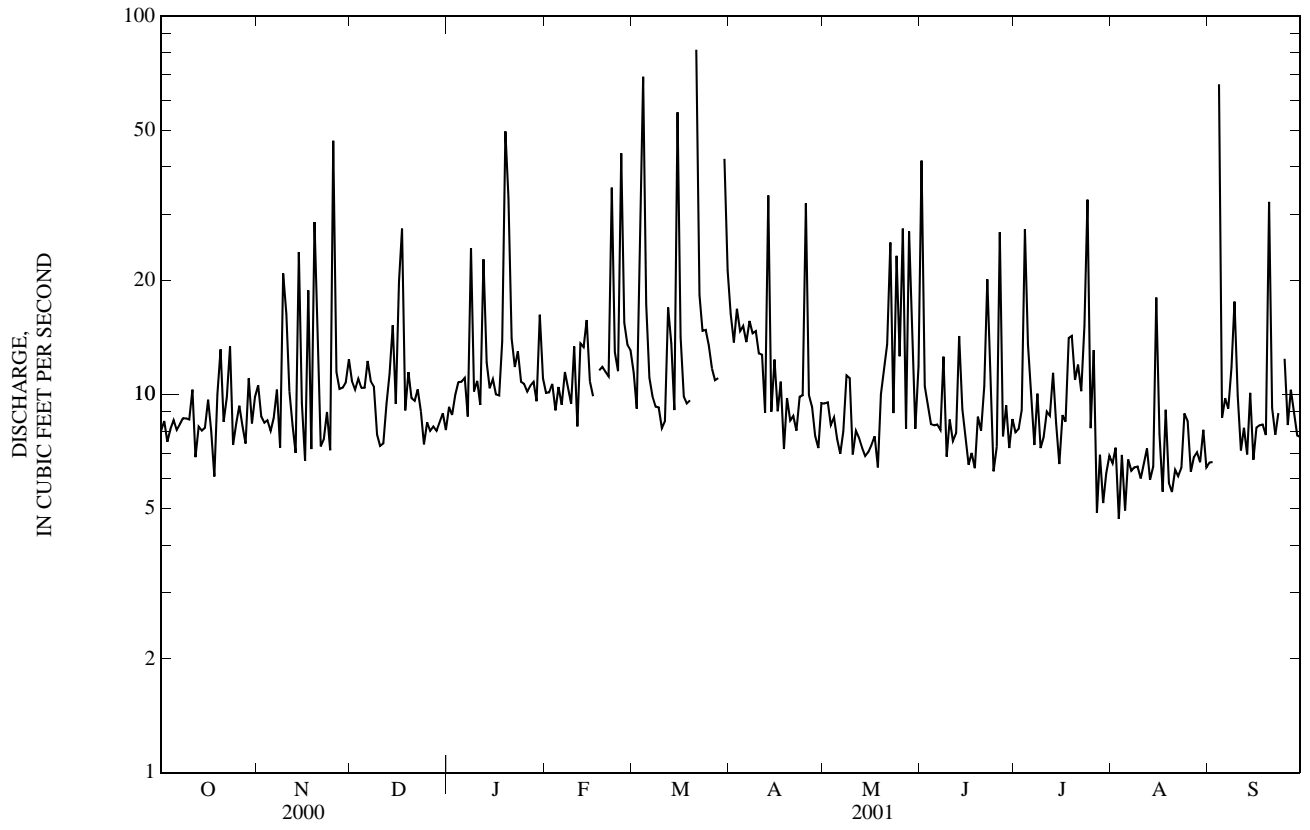
6.1 Oct 18
7.9 Oct 12

4.7 Aug 3
6.0 Aug 3
8.03 Sep 24
2.4* Sep 13

e Estimated.

* See REMARKS.

02146285 STEWART CREEK AT WEST MOREHEAD STREET AT CHARLOTTE, NC—Continued



02146285 STEWART CREEK AT WEST MOREHEAD STREET AT CHARLOTTE, NC—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.0	9.4	7.7	7.1	9.0	9.2	28	11	13	---	4.0	13
2	8.8	9.7	9.4	7.8	8.0	---	11	7.0	10	10	13	7.9
3	9.3	7.4	8.2	9.5	9.6	46	8.9	8.9	9.4	9.8	5.8	5.5
4	8.1	8.9	10	7.9	7.1	11	7.9	37	9.2	6.9	6.5	5.1
5	7.8	7.5	9.6	8.1	8.8	7.8	7.8	9.5	9.8	8.1	5.3	4.3
6	17	8.0	9.0	50	23	7.4	7.5	6.2	31	9.6	5.4	5.3
7	7.6	8.6	8.4	10	56	5.0	7.3	8.4	12	7.4	4.5	4.8
8	8.7	13	8.8	9.7	25	7.1	7.5	7.2	8.3	5.7	6.8	4.6
9	7.6	7.6	11	7.7	11	6.1	8.6	8.8	11	9.5	4.4	4.6
10	8.3	9.6	81	7.1	20	7.1	9.3	6.4	8.4	9.5	5.5	5.0
11	8.3	8.1	23	5.1	11	6.4	6.6	28	7.7	8.9	5.2	5.6
12	8.5	9.6	9.5	7.1	9.6	32	9.9	8.9	7.9	6.2	5.5	4.8
13	7.7	9.2	10	8.2	10	21	7.0	---	7.4	---	4.9	3.7
14	15	13	7.2	7.3	11	12	8.0	12	7.0	---	5.2	29
15	8.4	9.5	6.1	5.8	11	6.7	7.8	11	8.1	11	11	54
16	10	13	7.1	5.1	12	6.1	7.0	7.9	7.5	7.7	55	19
17	9.0	13	31	5.9	11	39	7.2	7.1	6.5	11	24	22
18	11	13	16	5.7	10	10	5.9	17	6.3	10	6.2	6.4
19	8.3	11	9.9	---	7.9	9.4	6.2	7.0	8.6	7.2	7.2	13
20	8.3	13	9.3	23	6.9	9.5	7.8	9.5	7.8	8.9	5.4	6.0
21	6.5	12	6.5	24	9.5	35	7.0	10	5.4	7.8	6.1	5.3
22	11	16	6.2	10	8.1	9.6	6.3	8.2	8.7	9.2	4.4	5.1
23	9.6	15	8.4	---	7.6	7.8	5.5	6.0	5.0	5.9	5.2	6.3
24	13	32	9.2	24	7.6	8.2	8.0	7.5	6.6	6.3	14	5.1
25	32	9.8	6.5	35	8.4	8.5	9.6	6.1	6.7	14	14	4.4
26	7.7	8.7	5.3	14	11	15	4.8	6.7	14	11	9.3	50
27	7.6	10	8.2	12	11	11	5.7	7.7	8.9	7.3	11	18
28	6.9	15	7.6	9.2	14	6.3	7.9	7.3	8.0	5.0	7.2	8.6
29	9.1	9.5	7.3	9.4	---	7.5	5.7	9.3	5.6	6.3	5.8	5.8
30	8.9	7.7	5.8	9.9	---	16	5.8	18	6.6	8.4	4.2	5.7
31	9.0	---	7.5	8.7	---	---	---	11	---	5.2	---	---
TOTAL	308.0	337.8	370.7	354.3	355.1	383.7	243.5	316.6	272.4	233.8	272.0	337.9
MEAN	9.94	11.3	12.0	12.2	12.7	13.2	8.12	10.6	9.08	8.35	9.07	11.3
MAX	32	32	81	50	56	46	28	37	31	14	55	54
MIN	6.5	7.4	5.3	5.1	6.9	5.0	4.8	6.0	5.0	5.0	4.0	3.7
CFSM	0.90	1.01	1.08	1.10	1.14	1.19	0.73	0.95	0.82	0.75	0.82	1.01
IN.	1.03	1.13	1.24	1.19	1.19	1.29	0.82	1.06	0.91	0.78	0.91	1.13

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2002, BY WATER YEAR (WY)

MEAN	9.36	11.9	11.2	13.0	13.1	16.4	10.5	10.9	9.91	9.55	8.02	11.5
MAX	9.94	12.4	12.0	13.8	13.6	19.5	12.8	11.2	10.7	10.6	9.07	11.8
(WY)	(2002)	(2001)	(2002)	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)	(2002)	(2001)
MIN	8.78	11.3	10.4	12.2	12.7	13.2	8.12	10.6	9.08	8.35	7.01	11.3
(WY)	(2001)	(2002)	(2001)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2001)	(2002)

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

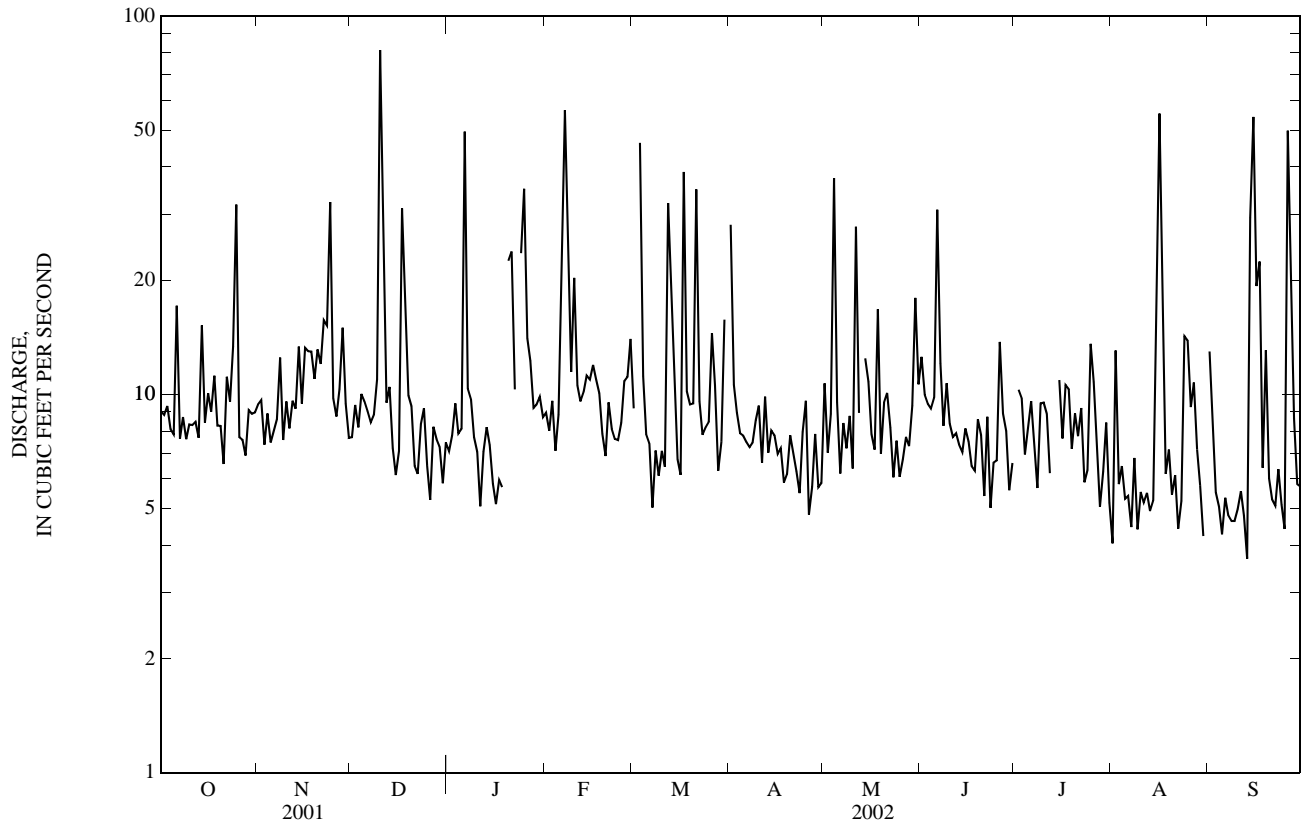
FOR 2002 WATER YEAR

WATER YEARS 2001 - 2002

LOWEST DAILY MEAN	4.7	Aug 3	3.7	Sep 13	3.7	Sep 13, 2002
ANNUAL SEVEN-DAY MINIMUM	6.0	Aug 3	4.7	Sep 7	4.7	Sep 7, 2002
MAXIMUM PEAK STAGE			6.86	Jul 14	8.03	Sep 24, 2001
INSTANTANEOUS LOW FLOW			1.8*	Aug 1	1.8*	Aug 1, 2002

* See REMARKS.

02146285 STEWART CREEK AT WEST MOREHEAD STREET AT CHARLOTTE, NC—Continued



02146285 STEWART CREEK AT WEST MOREHEAD STREET AT CHARLOTTE, NC—Continued

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.8	7.2	7.5	16	14	48	22	9.3	17	13	17	23
2	6.8	7.8	e7.1	12	11	41	14	15	13	---	12	9.1
3	6.7	6.8	e8.5	25	12	23	10	11	---	13	43	8.3
4	5.5	7.1	e14	11	39	15	8.8	11	30	12	---	12
5	6.7	51	---	10	17	20	14	12	13	12	---	9.1
6	4.2	52	17	14	22	---	23	97	27	11	27	8.2
7	6.0	9.7	14	13	50	27	---	18	---	13	21	7.6
8	5.6	8.2	12	11	14	20	63	14	---	12	---	10
9	7.0	8.1	10	12	13	16	---	10	---	---	40	11
10	5.4	7.9	9.8	11	21	18	---	9.1	20	13	52	11
11	---	24	54	9.1	13	16	63	10	16	47	24	9.0
12	12	---	13	9.9	13	14	23	8.7	18	---	---	10
13	---	21	---	9.1	12	13	16	7.7	14	---	30	7.4
14	11	11	24	11	17	12	14	7.8	15	15	---	7.6
15	---	10	14	9.4	15	e50	14	---	14	13	28	8.2
16	---	116	12	11	16	---	13	23	---	13	31	6.6
17	12	47	10	11	25	e75	12	11	38	---	13	7.6
18	9.0	15	9.0	12	28	26	143	26	---	14	12	7.7
19	8.8	12	9.0	12	16	24	51	13	49	32	12	7.3
20	8.3	9.5	31	10	14	---	18	9.6	19	15	10	6.1
21	16	9.1	10	11	13	32	17	---	16	33	11	7.1
22	14	8.8	8.0	10	---	19	15	---	17	14	---	---
23	6.7	8.4	8.1	17	29	16	17	65	20	14	11	---
24	6.5	8.1	---	12	18	14	11	32	19	12	9.0	11
25	8.3	7.5	97	12	16	13	21	---	17	10	9.2	12
26	8.8	8.2	19	12	35	12	30	---	11	20	9.7	9.6
27	6.8	8.0	14	11	67	13	13	---	11	12	9.0	11
28	52	7.3	12	11	25	13	11	16	14	10	8.6	12
29	18	7.9	12	17	---	10	10	14	9.4	---	8.9	8.4
30	11	8.1	10	93	---	86	8.9	14	11	---	7.8	7.9
31	7.7	---	9.9	21	---	17	---	---	---	22	20	---
TOTAL	277.6	512.7	475.9	466.5	585	703	675.7	464.2	448.4	395	476.2	265.8
MEAN	10.3	17.7	17.0	15.0	21.7	25.1	25.0	19.3	18.7	16.5	19.0	9.49
MAX	52	116	97	93	67	86	143	97	49	47	52	23
MIN	4.2	6.8	7.1	9.1	11	10	8.8	7.7	9.4	10	7.8	6.1
CFSM	0.93	1.59	1.53	1.36	1.95	2.26	2.25	1.74	1.68	1.48	1.72	0.86
IN.	0.93	1.72	1.59	1.56	1.96	2.36	2.26	1.56	1.50	1.32	1.60	0.89

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2003, BY WATER YEAR (WY)

MEAN	9.64	13.8	13.0	13.7	15.9	19.2	15.0	13.3	12.4	11.5	11.2	10.9
MAX	10.3	17.7	17.0	15.0	21.7	25.1	25.0	19.3	18.7	16.5	19.0	11.8
(WY)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2001)
MIN	8.78	11.3	10.4	12.2	12.7	13.2	8.12	10.6	9.08	8.35	7.01	9.49
(WY)	(2001)	(2002)	(2001)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2001)	(2003)

SUMMARY STATISTICS

FOR 2002 CALENDAR YEAR

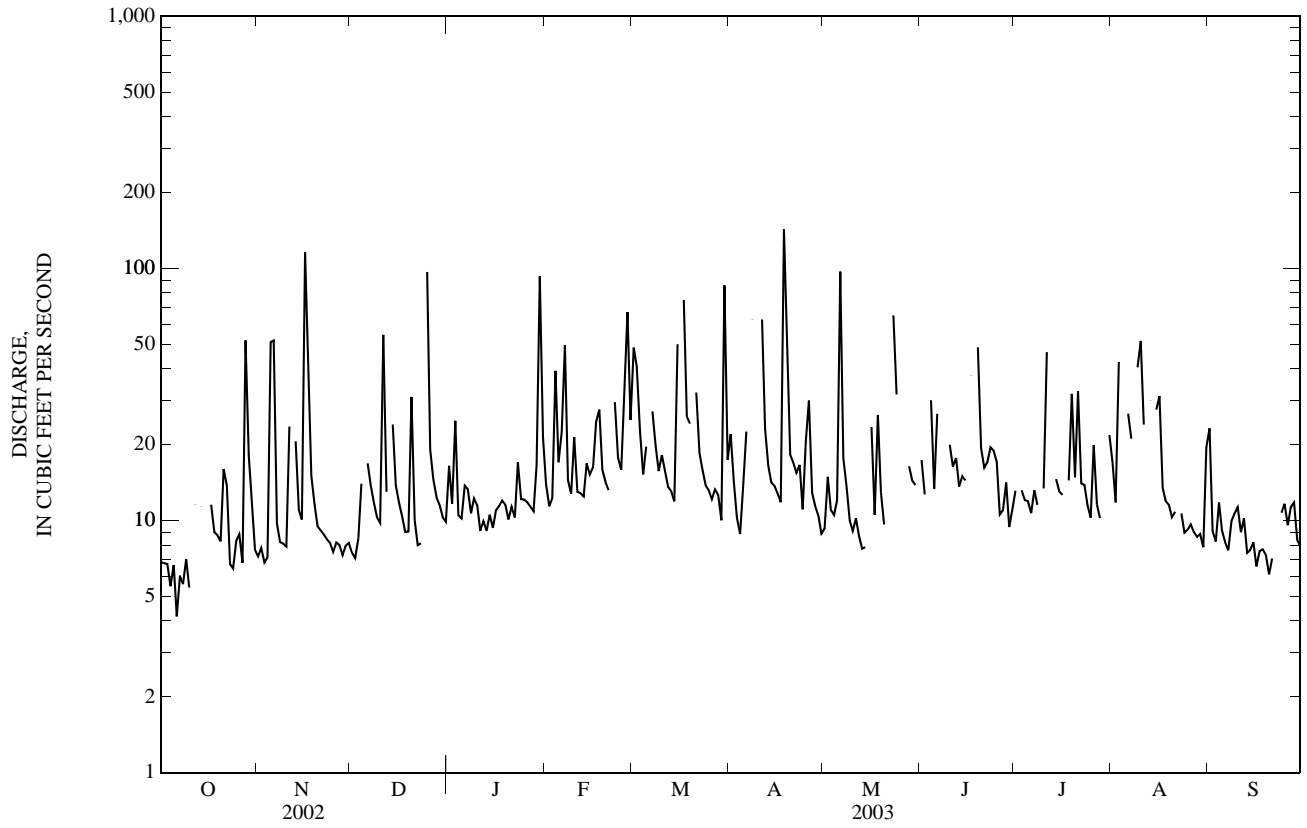
FOR 2003 WATER YEAR

WATER YEARS 2001 - 2003

LOWEST DAILY MEAN	3.7	Sep 13	4.2	Oct 6	3.7	Sep 13, 2002
ANNUAL SEVEN-DAY MINIMUM	4.7	Sep 7	5.8	Oct 4	4.7	Sep 7, 2002
MAXIMUM PEAK STAGE			13.14	Jun 7	13.14	Jun 7, 2003
INSTANTANEOUS LOW FLOW			3.5*	Oct 6	1.8*	Aug 1, 2002

e Estimated.
* See REMARKS.

02146285 STEWART CREEK AT WEST MOREHEAD STREET AT CHARLOTTE, NC—Continued



02146300 IRWIN CREEK NEAR CHARLOTTE, NC

LOCATION.--Lat 35°11'52", long 80°54'16", Mecklenburg County, Hydrologic Unit 03050103, on left bank at sewage-disposal plant of city of Charlotte, 2,200 ft upstream from Southern Railway bridge, 0.7 mi upstream from Taggart Creek, and 4.2 mi southwest of city hall, Charlotte.

DRAINAGE AREA.--30.7 mi².

PERIOD OF RECORD.--May 1962 to current year. Prior to October 1963, published as "Sugar (Irwin) Creek at Charlotte".

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

GAGE.--Water-stage recorder. Datum of gage is 590.87 ft above North American Vertical Datum of 1988. Radio telemetry at station.

REMARKS.--Records good, except those for estimated daily discharges which are poor. Maximum discharge for period of record from rating curve extended above 7,500 ft³/s on basis of step-backwater computation. Minimum discharge for period of record also occurred July 14, 1986. Minimum discharge for current water year also occurred Oct. 7, 8.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Apr. 6, 1936, reached a stage of about 17.3 ft at site 400 ft downstream, from information by plant employee. Peak may have been affected by failure of Lakewood Dam, 5 mi upstream. Flood of Jan. 6, 1962, reached a stage of 14.32 ft, from floodmarks; discharge, 4,120 ft³/s. Flood of April 11, 1962, reached a stage of 15.18 ft, from floodmarks; discharge, 4,740 ft³/s, on basis of slope-area measurement of peak flow.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.7	11	10	32	29	106	44	22	48	27	27	38
2	8.1	11	10	19	22	116	36	37	31	314	20	16
3	8.0	9.8	10	50	22	43	28	30	175	37	79	15
4	6.7	10	27	19	73	29	26	25	91	26	596	25
5	7.3	98	353	17	30	39	39	28	36	24	437	17
6	5.2	148	47	19	40	596	41	281	49	22	66	16
7	6.0	20	31	20	132	64	691	53	1,340	25	38	14
8	6.6	15	23	16	30	39	125	34	448	24	99	16
9	6.5	13	19	18	23	31	382	26	302	79	117	17
10	6.1	12	17	17	50	30	1,370	23	60	31	92	17
11	583	73	125	e17	23	26	191	23	48	113	49	15
12	20	325	28	e16	21	24	69	21	51	43	70	16
13	405	52	359	e14	19	23	48	18	39	333	72	13
14	31	23	66	15	29	21	40	18	38	47	389	13
15	138	17	31	14	30	88	36	307	37	26	72	14
16	400	244	24	17	30	396	34	68	321	23	87	12
17	26	134	21	22	54	55	31	26	139	196	29	12
18	16	36	17	16	62	68	355	48	288	27	25	12
19	14	23	16	16	34	49	147	35	132	89	26	12
20	12	18	82	15	26	1,890	54	22	48	31	21	11
21	32	15	21	20	21	107	48	304	36	51	20	11
22	39	14	15	16	313	58	40	2,100	32	35	95	74
23	10	15	15	30	72	47	38	185	34	27	23	150
24	10	13	552	21	32	41	29	84	34	21	18	18
25	11	11	244	19	26	37	58	343	31	20	17	18
26	15	12	45	20	59	34	63	123	24	43	17	16
27	10	12	30	20	171	36	34	383	24	23	17	18
28	104	10	24	17	60	32	28	52	38	17	17	30
29	45	10	21	28	---	29	26	40	22	104	16	14
30	21	11	19	221	---	215	23	35	23	147	22	13
31	13	---	18	55	---	50	---	153	---	47	46	---
TOTAL	2,023.2	1,415.8	2,320	856	1,533	4,419	4,174	4,947	4,019	2,072	2,719	683
MEAN	65.3	47.2	74.8	27.6	54.8	143	139	160	134	66.8	87.7	22.8
MAX	583	325	552	221	313	1,890	1,370	2,100	1,340	333	596	150
MIN	5.2	9.8	10	14	19	21	23	18	22	17	16	11
CFSM	2.13	1.54	2.44	0.90	1.78	4.64	4.53	5.20	4.36	2.18	2.86	0.74
IN.	2.45	1.72	2.81	1.04	1.86	5.35	5.06	5.99	4.87	2.51	3.29	0.83

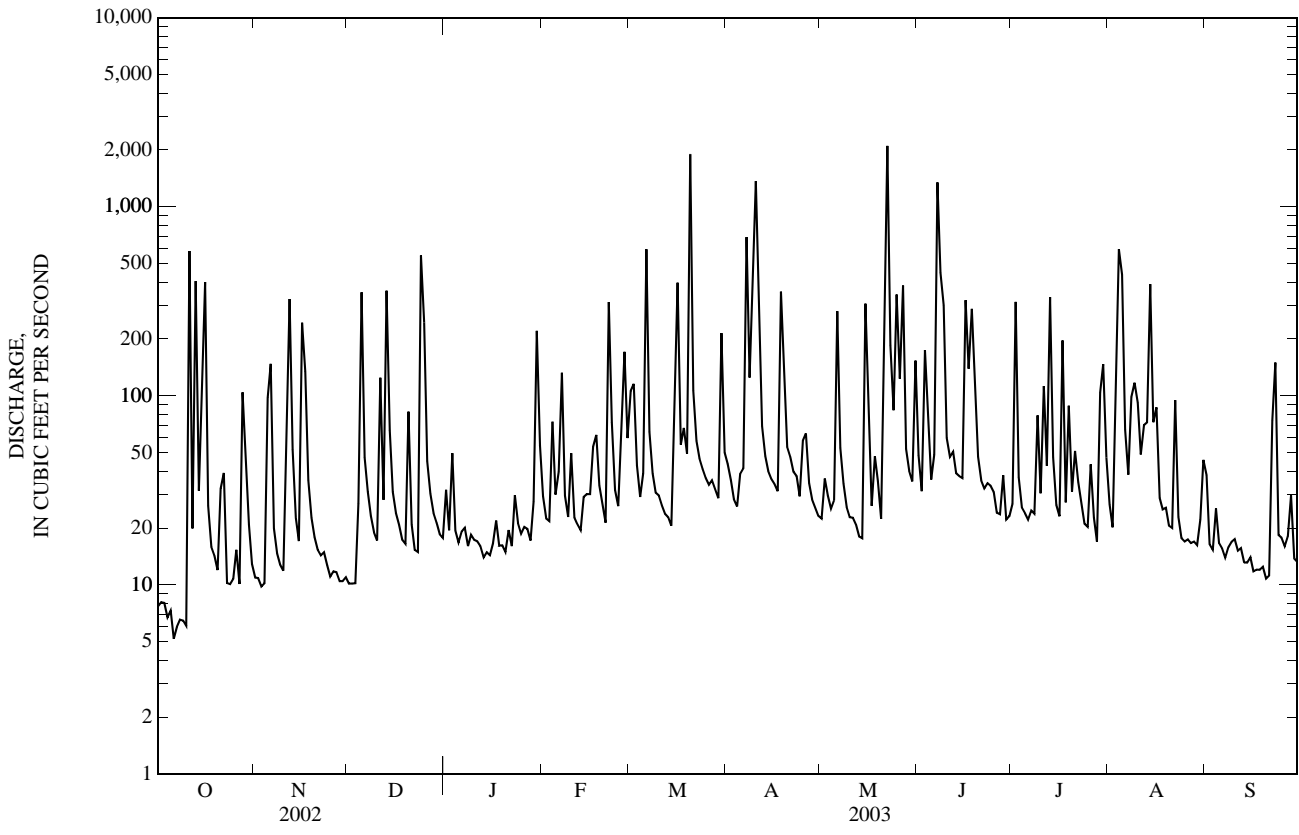
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 2003, BY WATER YEAR (WY)

MEAN	37.6	35.8	40.6	57.8	62.8	70.7	44.9	42.1	37.5	35.1	34.2	32.5
MAX	157	137	107	123	124	161	139	204	134	215	118	135
(WY)	(1991)	(1986)	(1984)	(1993)	(1979)	(1993)	(2003)	(1975)	(2003)	(1997)	(1995)	(1975)
MIN	7.35	9.32	10.2	13.4	20.1	18.5	14.9	14.0	6.95	6.67	7.97	6.00
(WY)	(2001)	(1982)	(1966)	(1981)	(2002)	(1985)	(1981)	(1986)	(1986)	(1986)	(1987)	(1983)

02146300 IRWIN CREEK NEAR CHARLOTTE, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1962 - 2003	
ANNUAL TOTAL	13,324.4		31,181.0		44.4	
ANNUAL MEAN	36.5		85.4		85.4	
HIGHEST ANNUAL MEAN					24.0	2003
LOWEST ANNUAL MEAN					1981	
HIGHEST DAILY MEAN	614	Jul 14	2,100	May 22	5,010	Jul 23, 1997
LOWEST DAILY MEAN	4.1	Sep 13	5.2	Oct 6	3.1	Sep 25, 1983
ANNUAL SEVEN-DAY MINIMUM	5.3	Sep 7	6.3	Oct 4	3.5	Oct 5, 1993
MAXIMUM PEAK FLOW			6,110	Jun 7	11,600*	Jul 23, 1997
MAXIMUM PEAK STAGE			15.69	Jun 7	20.38	Jul 23, 1997
INSTANTANEOUS LOW FLOW			4.1*	Oct 6	2.8*	Jul 13, 1986
ANNUAL RUNOFF (CFSM)	1.19		2.78		1.45	
ANNUAL RUNOFF (INCHES)	16.15		37.78		19.64	
10 PERCENT EXCEEDS	80		193		80	
50 PERCENT EXCEEDS	13		30		18	
90 PERCENT EXCEEDS	7.2		13		8.6	

e Estimated.
 * See REMARKS.



02146300 IRWIN CREEK NEAR CHARLOTTE, NC—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--June to September 2003.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: June to September 2003.

WATER TEMPERATURE: June to September 2003.

INSTRUMENTATION.--Water-quality monitor with radio telemetry.

REMARKS.--Station operated in cooperation with Mecklenburg County Land Use and Environmental Services Agency to characterize water-quality conditions in the Irwin Creek basin.

EXTREMES FOR CURRENT YEAR.--Extremes listed below may have been exceeded during periods of missing record.

CONSTITUENT	MAXIMUM RECORDED	MINIMUM RECORDED
SPECIFIC CONDUCTANCE, microsiemens	303, September 21	43, August 4
WATER TEMPERATURE, °C	29.9, July 28	14.7, September 30

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
JUNE TO SEPTEMBER 2003

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	282	224	271	263	215	233	242	98	174
2	---	---	---	224	52	112	272	260	266	276	242	263
3	---	---	---	244	141	202	271	83	184	289	270	276
4	---	---	---	273	244	261	221	43	150	286	213	265
5	---	---	---	285	271	277	186	44	123	272	217	248
6	---	---	---	291	267	281	219	94	175	280	246	264
7	---	---	---	285	232	273	255	205	238	293	275	281
8	---	---	---	271	232	255	237	66	188	293	255	273
9	---	---	---	262	103	218	209	74	143	265	240	253
10	---	---	---	233	120	181	236	89	172	253	236	245
11	---	---	---	264	79	203	239	108	183	278	235	252
12	---	---	---	214	83	157	263	98	237	265	241	256
13	---	---	---	193	50	119	221	93	162	291	241	263
14	---	---	---	223	135	178	257	61	199	291	273	280
15	---	---	---	261	223	240	239	105	188	287	268	280
16	---	---	---	282	261	272	244	104	180	291	263	279
17	---	---	---	288	64	157	---	---	---	301	279	293
18	---	---	---	267	192	237	281	271	275	287	271	276
19	---	---	---	274	71	227	277	165	261	297	284	289
20	---	---	---	254	120	191	295	273	281	295	276	287
21	---	---	---	278	125	250	298	284	293	303	286	294
22	---	---	---	230	107	167	293	78	241	289	93	249
23	---	---	---	243	224	236	278	152	230	193	65	127
24	---	---	---	265	240	253	291	277	286	227	192	210
25	---	---	---	270	248	257	297	288	293	257	227	244
26	---	---	---	266	74	222	294	280	291	257	227	238
27	302	270	286	247	124	183	297	272	280	274	219	252
28	301	212	255	279	247	270	297	270	285	219	171	190
29	280	220	253	277	80	229	299	270	285	236	201	222
30	290	270	279	218	58	138	287	135	262	253	225	237
31	---	---	---	215	84	156	251	98	195	---	---	---
MONTH	---	---	---	291	50	215	---	---	---	303	65	252

02146300 IRWIN CREEK NEAR CHARLOTTE, NC—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
JUNE TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	JUNE			JULY			AUGUST			SEPTEMBER		
				MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	24.2	21.5	23.0	25.5	23.4	24.3	28.3	24.0	25.5			
2	---	---	---	22.4	20.3	21.3	25.7	23.1	24.1	27.9	23.8	25.4			
3	---	---	---	25.3	21.0	22.9	26.9	23.4	24.8	27.7	23.9	25.5			
4	---	---	---	27.5	21.8	24.3	26.6	21.6	24.1	25.8	24.0	24.9			
5	---	---	---	28.3	23.3	25.3	24.9	21.5	22.8	26.1	22.2	23.7			
6	---	---	---	28.4	23.6	25.4	25.0	22.6	23.7	23.1	20.9	22.1			
7	---	---	---	28.1	23.8	25.2	26.7	22.6	24.2	22.6	20.0	21.2			
8	---	---	---	29.8	23.7	26.0	26.0	22.6	24.1	22.5	20.5	21.4			
9	---	---	---	29.6	24.6	26.2	26.4	22.9	24.3	24.4	20.6	22.0			
10	---	---	---	27.6	23.3	25.0	24.4	22.7	23.5	23.7	20.3	21.5			
11	---	---	---	28.7	23.5	25.0	25.6	22.0	23.8	24.0	19.2	20.9			
12	---	---	---	28.0	22.7	24.9	26.2	23.3	24.5	22.7	19.0	20.5			
13	---	---	---	24.4	21.5	22.9	27.4	23.4	24.8	25.1	19.1	21.5			
14	---	---	---	24.6	22.1	23.1	26.1	23.5	24.7	25.2	20.5	22.4			
15	---	---	---	26.7	22.2	24.1	26.2	23.6	24.7	25.5	21.0	22.8			
16	---	---	---	28.6	23.1	25.3	25.4	23.6	24.6	25.0	20.8	22.3			
17	---	---	---	26.2	23.4	24.8	---	---	---	23.7	18.6	20.5			
18	---	---	---	27.6	23.2	25.0	27.0	22.9	24.7	20.6	18.8	19.7			
19	---	---	---	26.8	23.4	24.7	26.7	23.8	24.9	24.3	18.6	20.7			
20	---	---	---	27.6	22.9	24.7	27.1	23.1	24.7	24.7	18.7	21.2			
21	---	---	---	28.4	23.7	25.5	27.9	23.4	25.2	23.9	19.3	21.3			
22	---	---	---	28.0	23.6	25.3	28.2	23.8	25.1	23.1	20.7	21.9			
23	---	---	---	24.6	22.6	23.6	28.2	23.1	25.0	23.9	21.0	22.3			
24	---	---	---	27.1	21.2	23.6	27.6	24.1	25.3	23.0	18.9	20.7			
25	---	---	---	26.3	21.9	23.8	27.7	22.8	24.8	23.7	18.8	20.7			
26	---	---	---	26.8	22.5	24.4	28.8	23.4	25.5	23.7	19.4	21.1			
27	27.2	22.8	24.6	28.5	23.2	25.3	29.6	24.2	26.3	24.2	19.7	21.5			
28	24.0	22.2	22.9	29.9	23.9	26.2	29.4	24.9	26.6	23.3	19.2	21.2			
29	27.3	21.5	23.9	28.3	24.1	25.6	29.2	25.3	26.7	20.1	16.4	17.8			
30	27.4	23.1	24.8	26.3	23.7	24.8	29.6	25.0	26.6	19.2	14.7	16.5			
31	---	---	---	26.0	23.4	24.6	26.5	24.6	25.7	---	---	---			
MONTH	---	---	---	29.9	20.3	24.6	---	---	---	28.3	14.7	21.7			

02146315 TAGGART CREEK AT WEST BOULEVARD NEAR CHARLOTTE, NC

LOCATION.--Lat 35°12'24", long 80°55'19", Mecklenburg County, Hydrologic Unit 03050103, on right bank at northeast corner of intersection of Billy Graham Parkway and NC Highway 160 (West Blvd), 1.2 mi upstream of confluence with Irwin Creek, and 5.0 mi from city hall, Charlotte.

DRAINAGE AREA.--5.38 mi².

PERIOD OF RECORD.--July 1998 to current year.

GAGE.--Water-stage recorder. Datum of gage 604.27 ft above North American Vertical Datum of 1988. Radio telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. No flow for part of Aug. 8, 2002.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.67	0.83	0.76	6.5	4.8	24	3.4	3.6	5.1	3.6	3.9	30
2	0.82	0.82	0.77	3.4	3.8	18	2.6	7.0	3.7	50	2.3	9.8
3	0.87	0.81	0.78	8.4	3.2	6.2	2.4	3.9	20	4.1	12	7.4
4	0.87	0.86	4.6	3.3	7.8	4.8	2.3	2.9	12	2.8	138	11
5	0.85	20	75	2.9	3.3	6.1	4.1	4.0	4.7	2.5	25	7.2
6	e0.82	17	15	2.8	7.3	107	9.3	55	8.8	2.3	4.5	5.5
7	e8.0	1.9	8.1	2.6	17	8.7	123	7.3	263	2.0	3.8	4.4
8	0.76	1.3	5.0	2.6	4.8	5.9	24	4.7	45	2.4	127	3.8
9	1.2	0.85	3.9	2.6	3.7	4.7	63	3.7	22	12	41	2.5
10	0.75	0.88	4.0	2.4	7.3	4.2	238	3.0	6.3	2.7	38	1.2
11	e100	7.7	35	2.3	3.7	3.9	24	2.8	4.6	9.3	8.9	1.2
12	e8.0	62	4.9	2.2	3.5	4.0	8.9	2.6	5.6	5.2	15	1.3
13	e20	4.3	64	2.2	3.1	3.5	6.4	2.4	3.7	44	8.0	1.3
14	e7.0	2.2	8.1	2.2	5.1	3.3	5.0	2.3	3.2	3.8	108	1.2
15	27	1.7	5.1	2.1	4.6	13	4.4	140	3.4	2.8	16	2.0
16	80	46	4.2	2.6	5.2	50	4.0	17	18	2.5	5.0	1.3
17	3.8	14	3.4	3.5	8.6	7.2	3.8	5.4	6.4	37	4.1	1.1
18	1.8	2.8	3.0	2.2	8.6	8.9	54	17	14	3.4	3.8	1.2
19	1.4	1.9	3.0	2.1	5.1	7.8	20	7.6	10	7.5	3.3	1.5
20	1.2	1.4	12	2.1	4.3	274	7.5	4.3	4.0	3.5	3.3	1.5
21	3.1	1.1	3.6	3.4	3.7	9.9	7.1	68	3.1	26	2.9	1.5
22	3.0	1.0	3.1	2.5	63	5.3	5.5	388	2.7	5.5	21	24
23	1.1	1.0	2.9	4.9	10	3.9	4.2	27	2.5	4.1	4.7	13
24	0.97	0.92	102	3.5	5.4	3.2	3.8	12	2.4	2.7	2.8	1.1
25	1.4	0.87	39	3.3	4.4	2.8	8.1	42	2.2	2.2	2.8	1.0
26	1.5	0.87	6.6	3.4	12	2.6	8.4	30	3.2	17	3.0	1.1
27	0.81	0.82	5.1	2.8	26	3.1	4.0	33	2.4	2.7	5.5	3.1
28	14	0.80	4.3	2.5	8.0	2.3	3.5	7.1	4.3	2.1	4.0	2.2
29	4.0	0.80	3.6	4.3	---	2.2	5.2	5.7	2.2	15	11	0.92
30	1.7	0.81	3.3	34	---	31	3.6	4.7	2.0	12	7.4	0.75
31	0.96	---	3.1	7.2	---	4.6	---	17	---	4.7	48	---
TOTAL	291.16	198.24	437.21	132.8	247.3	636.1	663.5	931.0	490.5	297.4	684.0	145.07
MEAN	9.39	6.61	14.1	4.28	8.83	20.5	22.1	30.0	16.4	9.59	22.1	4.84
MAX	100	62	102	34	63	274	238	388	263	50	138	30
MIN	0.67	0.80	0.76	2.1	3.1	2.2	2.3	2.3	2.0	2.0	2.3	0.75
CFSM	1.75	1.23	2.62	0.80	1.64	3.81	4.11	5.58	3.04	1.78	4.10	0.90
IN.	2.01	1.37	3.02	0.92	1.71	4.40	4.59	6.44	3.39	2.06	4.73	1.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2003, BY WATER YEAR (WY)

MEAN	3.72	2.66	4.65	4.98	4.90	8.68	7.36	7.42	4.89	3.48	5.26	4.17
MAX	9.39	6.61	14.1	6.97	8.83	20.5	22.1	30.0	16.4	9.59	22.1	5.74
(WY)	(2003)	(2003)	(2003)	(1999)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2000)
MIN	0.35	0.65	1.48	2.13	2.26	2.91	1.25	1.36	0.99	1.03	0.20	3.11
(WY)	(2001)	(2002)	(2001)	(2001)	(2002)	(1999)	(2002)	(2000)	(2002)	(2001)	(2001)	(2002)

SUMMARY STATISTICS

FOR 2002 CALENDAR YEAR

FOR 2003 WATER YEAR

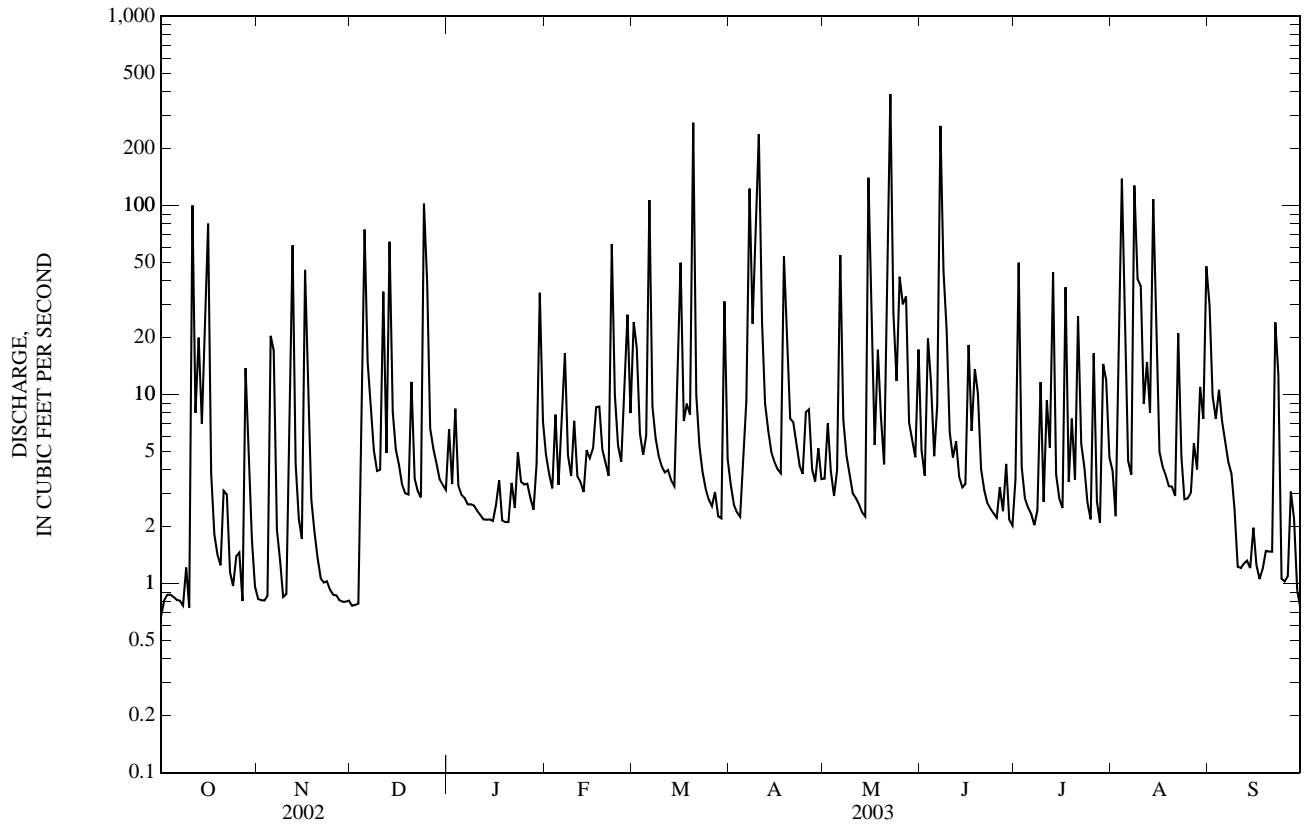
WATER YEARS 1998 - 2003

ANNUAL TOTAL	1,737.43	5,154.28	
ANNUAL MEAN	4.76	14.1	5.21
HIGHEST ANNUAL MEAN			14.1
LOWEST ANNUAL MEAN			2.35
HIGHEST DAILY MEAN	102	Dec 24	388
LOWEST DAILY MEAN	0.01	Aug 8	0.67
ANNUAL SEVEN-DAY MINIMUM	0.08	Aug 3	0.79
MAXIMUM PEAK FLOW			2,660
MAXIMUM PEAK STAGE			10.45
INSTANTANEOUS LOW FLOW			0.63
ANNUAL RUNOFF (CFSM)	0.88		2.62
ANNUAL RUNOFF (INCHES)	12.01		35.64
10 PERCENT EXCEEDS	12		30
50 PERCENT EXCEEDS	0.99		4.0
90 PERCENT EXCEEDS	0.23		1.1
			0.22

e Estimated.

* See REMARKS.

02146315 TAGGART CREEK AT WEST BOULEVARD NEAR CHARLOTTE, NC—Continued



02146348 COFFEY CREEK NEAR CHARLOTTE, NC

LOCATION.--Lat 35°08'45", long 80°55'37", Mecklenburg County, Hydrologic Unit 03050103 on left bank at culvert on State Highway 49, 1.2 mi upstream from mouth, and 7.5 mi southwest of Charlotte.

DRAINAGE AREA.--9.14 mi².

PERIOD OF RECORD.-- October 1998 to current year.

GAGE.--Water-stage recorder. Datum of gage is 565.72 ft above North American Vertical Datum of 1988. Radio telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Maximum discharge for period of record and current water year from rating curve extended above 950 ft³/s. Minimum discharge for period of record also occurred July 13, 2002. Minimum discharge for current water year also occurred Oct. 7, 10, 11.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	2.1	1.8	9.2	8.1	35	7.0	3.9	6.9	3.0	8.9	25
2	1.1	2.0	1.8	4.6	5.9	41	5.4	12	4.6	81	4.9	e5.5
3	0.98	1.6	1.7	12	4.8	10	4.4	7.8	42	8.6	20	4.8
4	0.92	1.6	5.4	4.5	8.9	6.9	3.9	4.3	34	3.8	48	7.5
5	0.86	23	109	3.5	4.3	8.8	8.1	4.5	9.0	2.9	129	5.8
6	0.81	52	18	e3.2	5.7	175	6.8	124	7.5	2.7	e30	4.3
7	0.83	6.3	9.1	e3.0	35	21	249	32	259	4.0	8.3	4.2
8	0.95	3.4	5.5	e2.7	7.1	11	47	10	277	5.1	10	4.5
9	1.7	2.6	5.1	e2.6	5.2	8.3	140	6.9	49	12	104	4.1
10	0.95	2.4	3.9	e2.5	12	6.4	425	5.9	15	5.5	77	3.8
11	138	19	40	e2.3	5.4	5.7	90	5.9	8.5	16	e110	3.7
12	9.9	118	7.9	e2.2	4.3	5.0	29	4.4	10	7.3	e12	3.7
13	27	24	116	2.2	3.6	4.5	14	3.3	7.1	68	13	3.7
14	8.7	8.4	25	2.1	6.3	4.0	9.8	2.8	5.6	7.3	98	3.5
15	35	4.6	11	2.0	7.1	5.8	8.3	43	7.6	4.1	101	9.2
16	95	78	6.4	2.2	6.6	68	7.7	89	7.2	3.6	e25	5.8
17	8.6	43	4.7	4.4	14	11	6.7	8.8	10	18	e12	3.5
18	3.6	11	4.0	2.1	14	20	124	19	18	3.3	9.4	3.7
19	2.7	7.1	3.5	2.0	7.4	13	69	13	19	3.7	8.6	4.4
20	2.3	5.2	21	2.1	5.5	466	23	6.2	7.1	4.7	7.5	3.1
21	3.2	3.8	5.1	3.0	4.6	40	16	73	4.5	28	6.8	4.0
22	5.9	3.3	3.7	2.9	89	16	11	626	3.6	19	41	14
23	2.4	2.8	3.2	6.1	20	11	8.1	123	3.2	5.1	15	49
24	2.0	2.6	172	3.8	7.6	8.1	7.0	36	2.6	2.9	7.1	3.8
25	1.7	2.4	103	3.3	5.6	6.9	14	81	2.3	3.2	6.3	2.1
26	3.8	2.2	18	3.3	12	5.7	14	42	1.9	28	6.2	2.1
27	1.9	2.2	9.9	3.1	56	5.3	7.0	161	2.9	2.6	5.5	2.8
28	15	2.0	7.2	2.5	23	4.5	6.1	20	7.4	2.3	5.5	7.9
29	11	2.1	5.4	4.7	---	4.3	5.7	9.6	2.3	24	12	1.8
30	4.5	2.0	4.4	76	---	61	5.4	7.0	2.0	12	5.3	1.7
31	2.5	---	4.0	18	---	11	---	14	---	8.5	6.2	---
TOTAL	394.90	440.7	736.7	198.1	389.0	1,100.2	1,372.4	1,599.3	836.8	400.2	953.5	203.0
MEAN	12.7	14.7	23.8	6.39	13.9	35.5	45.7	51.6	27.9	12.9	30.8	6.77
MAX	138	118	172	76	89	466	425	626	277	81	129	49
MIN	0.81	1.6	1.7	2.0	3.6	4.0	3.9	2.8	1.9	2.3	4.9	1.7
CFSM	1.39	1.61	2.60	0.70	1.52	3.88	5.01	5.64	3.05	1.41	3.37	0.74
IN.	1.61	1.79	3.00	0.81	1.58	4.48	5.59	6.51	3.41	1.63	3.88	0.83

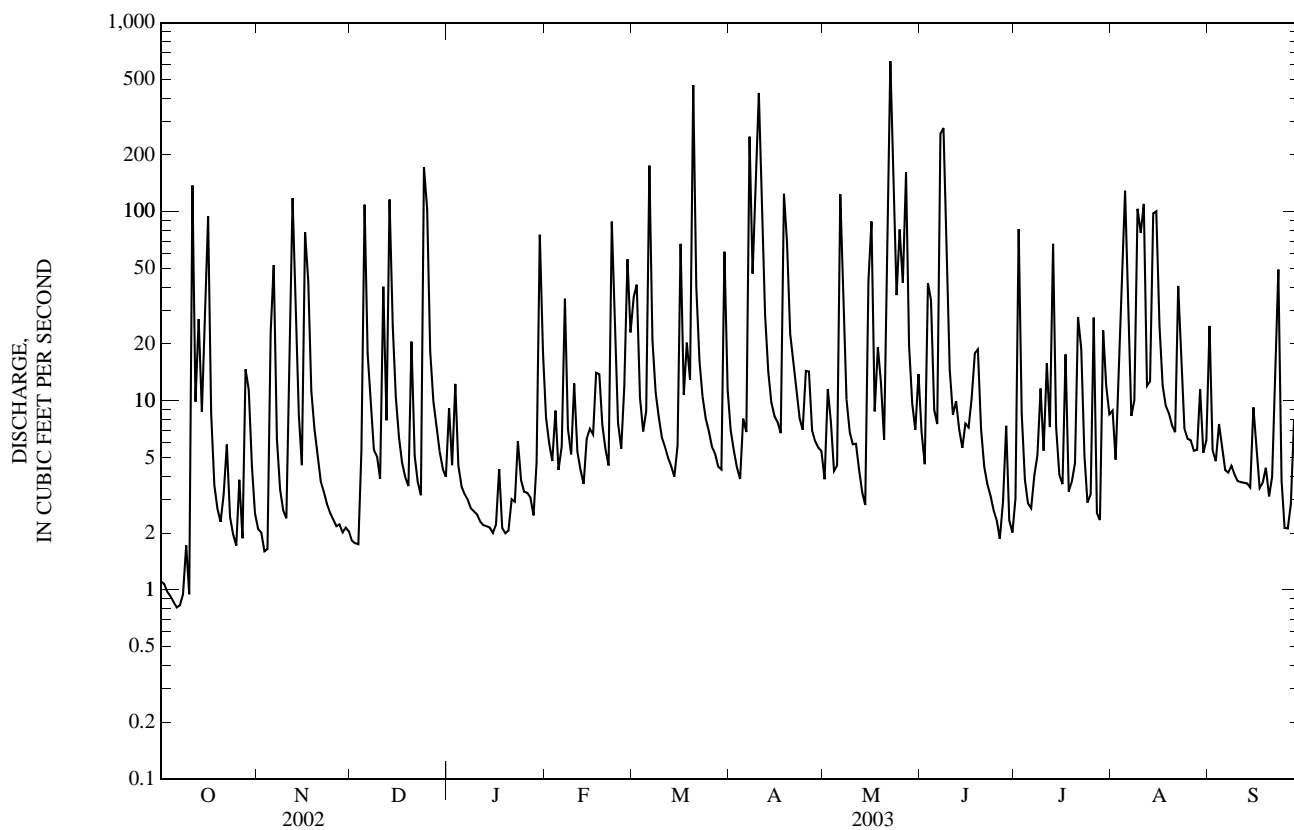
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2003, BY WATER YEAR (WY)

MEAN	6.32	5.22	7.83	9.63	9.64	16.7	15.7	13.3	8.20	5.30	8.46	7.01
MAX	15.0	14.7	23.8	12.4	14.4	35.5	45.7	51.6	27.9	12.9	30.8	11.8
(WY)	(2000)	(2003)	(2003)	(2002)	(2000)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2000)
MIN	0.88	1.81	2.74	5.48	3.93	5.17	2.85	2.97	1.63	2.51	0.44	4.01
(WY)	(2001)	(2002)	(2001)	(2001)	(2002)	(1999)	(2002)	(2000)	(2002)	(1999)	(2001)	(1999)

02146348 COFFEY CREEK NEAR CHARLOTTE, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1999 - 2003	
ANNUAL TOTAL	3,114.06		8,624.80		9.45	
ANNUAL MEAN	8.53		23.6		23.6	
HIGHEST ANNUAL MEAN					4.84	2003
LOWEST ANNUAL MEAN					0.05	2002
HIGHEST DAILY MEAN	172	Dec 24	626	May 22	626	May 22, 2003
LOWEST DAILY MEAN	0.06	Aug 14	0.81	Oct 6	0.09	Aug 28, 2001
ANNUAL SEVEN-DAY MINIMUM	0.14	Jul 6	0.92	Oct 2	0.09	Aug 23, 2001
MAXIMUM PEAK FLOW			1,440*	Jun 8	1,440*	Jun 8, 2003
MAXIMUM PEAK STAGE			11.75	Jun 8	11.75	Jun 8, 2003
INSTANTANEOUS LOW FLOW			0.76*	Oct 6	0.02*	Sep 20, 2001
ANNUAL RUNOFF (CFSM)	0.93		2.59		1.03	
ANNUAL RUNOFF (INCHES)	12.67		35.10		14.05	
10 PERCENT EXCEEDS	21		64		17	
50 PERCENT EXCEEDS	1.9		6.6		2.6	
90 PERCENT EXCEEDS	0.38		2.2		0.59	

e Estimated.
 * See REMARKS.



LOCATION.--Lat 35°06'57", long 80°54'49", Mecklenburg County, Hydrologic Unit 03050103, unnamed tributary to Sugar Creek at Crompton Street, Charlotte, NC.

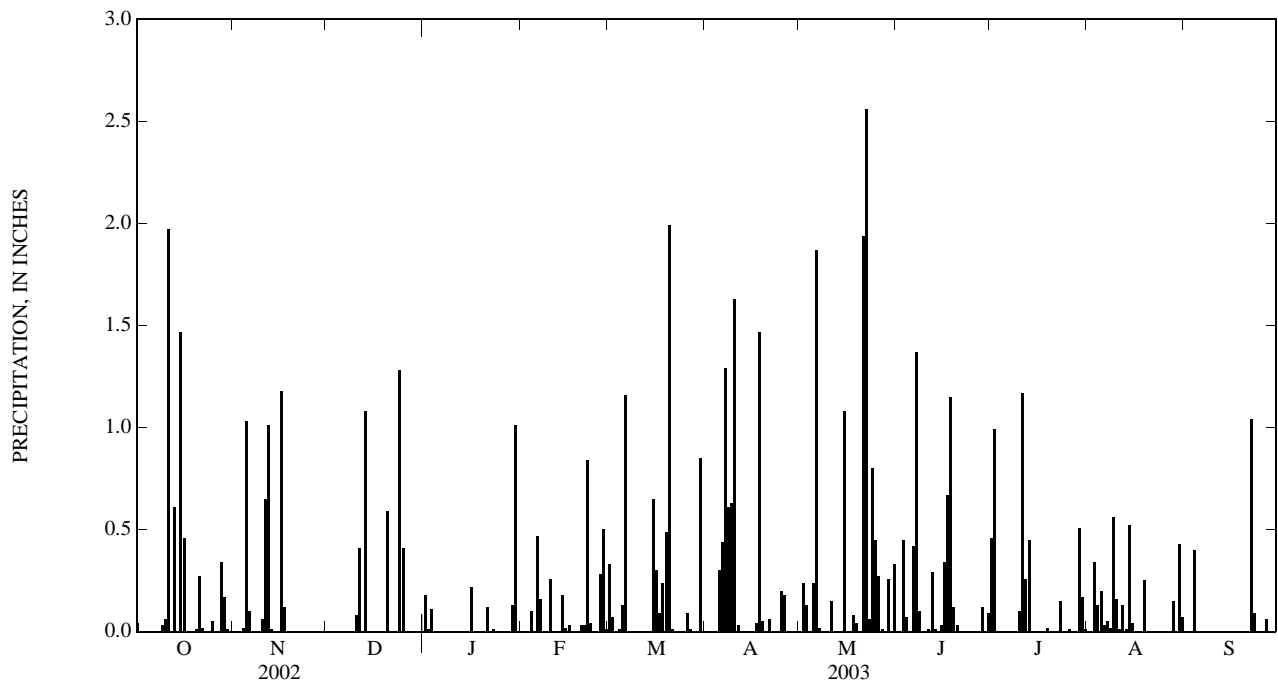
PERIOD OF RECORD.--April 1995 to current year. Records for period April 1995 to September 1998 published in USGS OFR 96-150, 98-67, and 99-273.

GAGE.--Tipping-bucket raingage and electronic datalogger. Radio telemetry at station.

REMARKS.--Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network. Collection of frozen precipitation during December 2002 and February 2003 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.04	0.00	0.00	0.18	0.00	0.33	0.00	0.00	0.00	0.46	0.00	0.00
2	0.00	0.00	0.00	0.01	0.00	0.07	0.00	0.24	0.00	0.99	0.00	0.00
3	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.13	0.45	0.00	0.34	0.00
4	0.00	0.02	---	0.00	0.10	0.01	0.00	0.00	0.07	0.00	0.13	0.40
5	0.00	1.03	---	0.00	0.00	0.13	0.30	0.24	0.00	0.00	0.20	0.00
6	0.00	0.10	---	0.00	0.47	1.16	0.44	1.87	0.42	0.00	0.03	0.00
7	0.00	0.00	0.00	0.00	0.16	0.00	1.29	0.02	1.37	0.00	0.05	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.61	0.00	0.10	0.00	0.02	0.00
9	0.03	0.00	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.56	0.00
10	0.06	0.06	0.08	0.00	0.26	0.00	1.63	0.00	0.00	0.10	0.16	0.00
11	1.97	0.65	0.41	0.00	0.00	0.00	0.03	0.15	0.01	1.17	0.01	0.00
12	0.00	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.29	0.26	0.13	0.00
13	0.61	0.01	1.08	0.00	0.00	0.00	0.00	0.00	0.01	0.45	0.01	0.00
14	0.00	0.00	0.00	0.00	0.18	0.00	0.00	0.00	0.00	0.00	0.52	0.00
15	1.47	0.00	0.00	0.00	0.02	0.65	0.00	1.08	0.03	0.00	0.04	0.00
16	0.46	1.18	0.00	0.22	0.03	0.30	0.00	0.00	0.34	0.00	0.00	0.00
17	0.00	0.12	0.00	0.00	---	0.09	0.04	0.00	0.67	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	---	0.24	1.47	0.08	1.15	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.49	0.05	0.04	0.12	0.02	0.25	0.00
20	0.01	0.00	0.59	0.00	0.03	1.99	0.00	0.00	0.03	0.00	0.00	0.00
21	0.27	0.00	0.00	0.12	0.03	0.01	0.06	1.94	0.00	0.00	0.00	0.00
22	0.02	0.00	0.00	0.00	0.84	0.00	0.00	2.56	0.00	0.00	0.00	1.04
23	0.00	0.00	0.00	0.01	0.04	0.00	0.00	0.06	0.00	0.15	0.00	0.09
24	0.00	0.00	1.28	---	0.00	0.00	0.00	0.80	0.00	0.00	0.00	0.00
25	0.05	0.00	0.41	---	0.00	0.00	0.20	0.45	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.28	0.09	0.18	0.27	0.00	0.01	0.00	0.00
27	0.00	0.00	0.00	0.00	0.50	0.01	0.00	0.01	0.00	0.00	0.00	0.06
28	0.34	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.12	0.00	0.15	0.00
29	0.17	0.00	0.00	0.13	---	0.00	0.00	0.26	0.00	0.51	0.00	0.00
30	0.01	0.00	0.00	1.01	---	0.85	0.00	0.00	0.09	0.17	0.43	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.33	---	0.01	0.07	---
TOTAL	5.51	4.18	---	---	---	6.42	6.93	10.53	5.27	4.30	3.10	1.59



02146381 SUGAR CREEK AT NC 51 NEAR PINEVILLE, NC

LOCATION.--Lat 35°05'27", long 80°53'58", Mecklenburg County, Hydrologic Unit 03050103, on right bank on upstream side of bridge at N.C. Highway 51, 0.3 mi upstream from McCullough Branch, and 0.6 mi northwest of city hall, Pineville.

DRAINAGE AREA.--65.3 mi².

PERIOD OF RECORD.-- Occasional discharge measurements, water years 1978-94. October 1994 to current year.

GAGE.--Water-stage recorder. Datum of gage is 520.95 ft above North American Vertical Datum of 1988. Radio telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. A daily average of 17.4 ft³/s of treated effluent from Irwin Creek wastewater treatment plant was discharged into the stream above the gage. Maximum discharge for period of record from rating curve extended above 9,710 ft³/s. Minimum discharge for period of record also occurred Aug. 31, 2001. Minimum discharge for current water year also occurred Oct. 7.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	33	30	67	85	126	63	34	189	60	65	123
2	24	33	30	56	65	344	51	43	90	643	51	45
3	24	31	30	92	58	107	41	73	290	135	144	41
4	23	30	32	55	104	80	36	44	256	70	147	50
5	21	74	722	44	73	88	55	34	119	61	1,240	58
6	21	436	141	42	58	1,310	42	839	85	56	194	39
7	21	65	76	49	279	202	1,790	237	1,250	54	79	38
8	23	46	55	42	85	117	223	90	2,250	57	81	39
9	22	38	47	47	63	97	968	66	590	71	530	40
10	22	35	42	44	109	85	2,630	55	173	110	161	38
11	1,060	150	230	42	67	79	1,020	53	124	117	198	39
12	104	709	72	39	55	69	204	51	135	174	71	37
13	513	171	793	35	52	64	133	43	113	551	153	36
14	99	71	212	35	56	61	107	41	91	121	291	35
15	221	50	85	35	82	84	92	181	83	70	746	35
16	966	380	63	34	63	738	83	764	126	60	136	41
17	98	446	54	50	98	134	71	80	469	249	72	32
18	56	102	46	37	137	166	791	71	507	71	60	32
19	47	62	43	36	97	107	449	117	387	64	57	34
20	38	50	179	35	68	3,090	125	57	142	134	56	32
21	44	44	62	36	60	732	88	444	89	53	48	31
22	94	40	45	43	614	182	79	3,520	73	152	86	38
23	39	36	41	46	226	115	61	1,690	72	65	138	362
24	33	35	993	55	92	95	51	278	68	55	48	51
25	31	31	815	43	75	83	84	787	65	50	45	41
26	39	34	142	43	73	72	97	319	60	72	44	e40
27	31	32	87	43	351	70	69	1,110	57	94	43	35
28	109	31	71	38	184	61	43	202	77	47	44	73
29	131	30	62	43	---	58	40	151	60	83	49	35
30	55	31	51	451	---	451	41	122	54	186	47	34
31	35	---	48	180	---	108	---	194	---	195	84	---
TOTAL	4,069	3,356	5,399	1,937	3,429	9,175	9,627	11,790	8,144	3,980	5,208	1,604
MEAN	131	112	174	62.5	122	296	321	380	271	128	168	53.5
MAX	1,060	709	993	451	614	3,090	2,630	3,520	2,250	643	1,240	362
MIN	21	30	30	34	52	58	36	34	54	47	43	31
CFSM	2.01	1.71	2.67	0.96	1.88	4.53	4.91	5.82	4.16	1.97	2.57	0.82
IN.	2.32	1.91	3.08	1.10	1.95	5.23	5.48	6.72	4.64	2.27	2.97	0.91

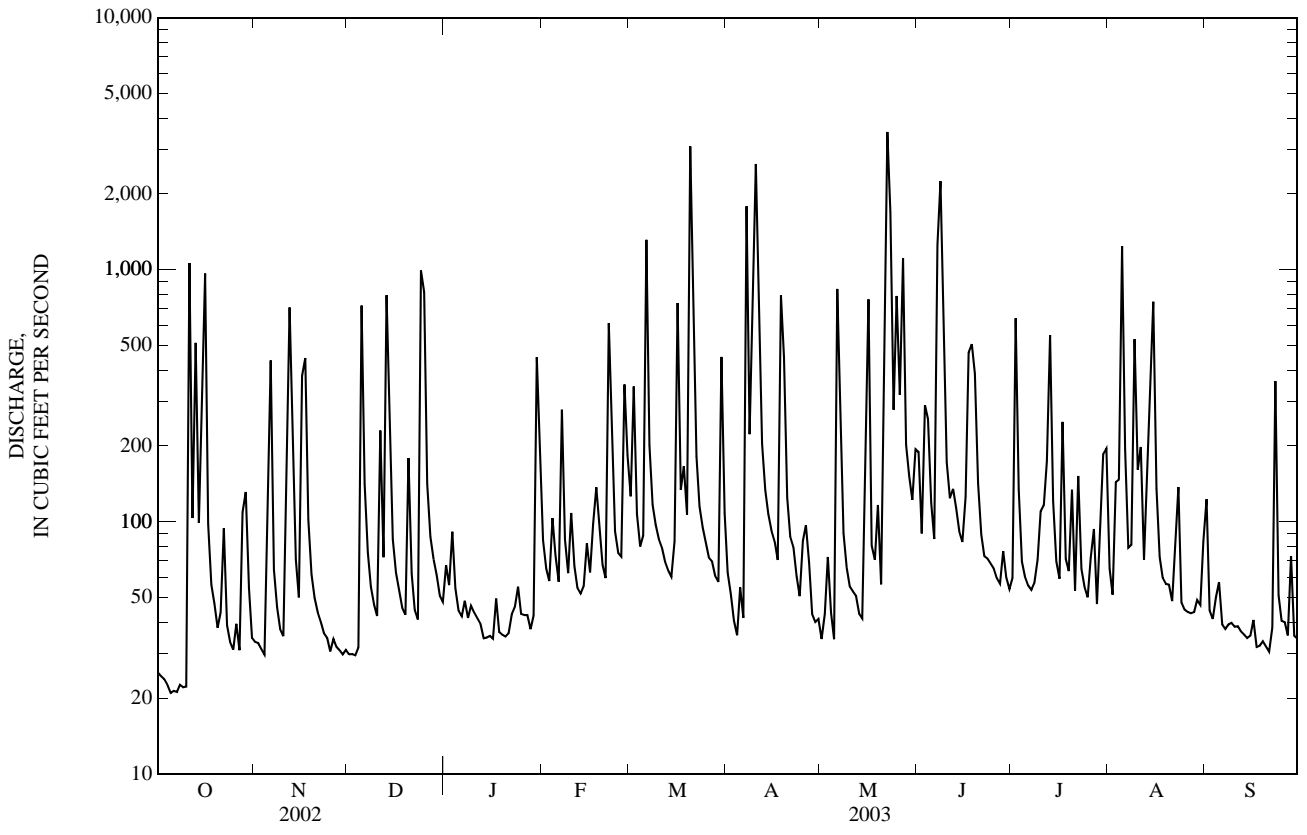
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 2003, BY WATER YEAR (WY)

MEAN	84.0	74.5	80.0	121	125	135	127	96.1	91.1	103	77.9	69.6
MAX	154	182	174	237	232	296	321	380	271	315	171	99.2
(WY)	(1996)	(1996)	(2003)	(1998)	(1995)	(2003)	(2003)	(2003)	(2003)	(1997)	(1995)	(1995)
MIN	25.7	33.5	40.6	50.4	49.7	55.7	41.0	34.2	32.7	43.0	24.8	51.5
(WY)	(2001)	(2002)	(2001)	(2001)	(2002)	(1999)	(2002)	(2000)	(2002)	(2001)	(2001)	(1997)

02146381 SUGAR CREEK AT NC 51 NEAR PINEVILLE, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1995 - 2003	
ANNUAL TOTAL	30,275		67,718		98.6	
ANNUAL MEAN	82.9		186		186	
HIGHEST ANNUAL MEAN					57.3	2001
LOWEST ANNUAL MEAN					186	2003
HIGHEST DAILY MEAN	1,360	Jul 14	3,520	May 22	4,790	Jul 23, 1997
LOWEST DAILY MEAN	20	Sep 11	21	Oct 5	18	Aug 1, 2001
ANNUAL SEVEN-DAY MINIMUM	21	Sep 7	22	Oct 4	21	Sep 7, 2002
MAXIMUM PEAK FLOW			5,050	May 22	9,890*	Jul 23, 1997
MAXIMUM PEAK STAGE			14.89	May 22	18.68	Jul 23, 1997
INSTANTANEOUS LOW FLOW			17*	Oct 6	15*	Aug 10, 1997
ANNUAL RUNOFF (CFSM)	1.27		2.84		1.51	
ANNUAL RUNOFF (INCHES)	17.25		38.58		20.51	
10 PERCENT EXCEEDS	158		450		163	
50 PERCENT EXCEEDS	35		69		44	
90 PERCENT EXCEEDS	24		35		27	

e Estimated.
 * See REMARKS.



02146409 LITTLE SUGAR CREEK AT MEDICAL CENTER DRIVE AT CHARLOTTE, NC

LOCATION.--Lat 35°12'13", long 80°50'13", Mecklenburg County, Hydrologic Unit 03050103, on left bank on upstream side of bridge at Medical Center Drive, 3.3 mi upstream from Briar Creek, and 1.3 mi south of city hall in Charlotte.

DRAINAGE AREA.--11.8 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1994 to current year. Fragmentary records 1964-1966, in files of Geological Survey as "Little Sugar Creek at Brunswick Avenue at Charlotte".

REVISED RECORDS.--WDR NC-96-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 612.82 ft above North American Vertical Datum of 1988. Radio telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Minimum discharge for period of record also occurred on Aug. 8-14, 2002. Minimum discharge for current water year also occurred on Oct. 5-10.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	4.1	4.1	18	12	73	10	5.8	11	12	7.6	12
2	2.2	4.0	4.2	11	11	45	9.7	14	7.5	168	7.7	5.9
3	2.1	3.8	4.1	26	11	15	9.0	7.5	90	10	29	5.6
4	2.1	4.2	19	11	27	13	8.8	8.7	35	7.3	271	14
5	2.1	67	188	9.8	11	19	14	7.9	9.2	6.8	129	6.8
6	1.9	55	13	9.8	29	267	23	176	27	6.5	14	5.3
7	2.0	5.9	8.6	9.5	58	16	330	13	762	6.5	9.6	5.1
8	1.9	4.9	6.9	9.6	13	11	68	7.9	150	6.8	30	5.4
9	2.0	4.6	6.3	9.5	12	9.8	185	6.6	99	35	18	5.5
10	2.3	4.6	5.9	9.4	27	9.0	580	6.1	14	11	26	5.2
11	289	51	61	9.2	12	8.5	46	5.8	10	65	7.4	5.1
12	5.3	162	7.8	9.1	11	8.2	15	5.5	21	35	21	4.9
13	178	12	185	9.1	10	8.0	11	5.3	9.1	202	13	4.9
14	6.7	6.2	15	9.2	17	7.6	9.2	5.3	7.9	15	100	4.8
15	73	5.3	8.4	9.0	15	57	8.1	94	7.4	7.9	13	4.8
16	136	125	7.3	11	17	180	7.4	13	105	6.9	67	4.7
17	6.6	e45	6.6	12	31	15	6.8	6.0	113	104	17	4.8
18	4.7	e7.2	6.5	9.4	31	22	231	11	105	8.9	9.1	4.9
19	4.0	5.9	6.5	9.0	15	34	41	7.9	38	121	7.0	5.2
20	4.1	5.3	56	9.3	13	633	12	5.5	12	10	6.6	4.9
21	14	4.9	7.5	12	12	23	12	272	9.3	15	6.3	4.6
22	17	4.7	6.4	10	148	14	8.9	755	8.5	9.5	29	66
23	4.3	4.5	6.3	16	25	11	7.4	43	8.0	9.1	6.3	62
24	3.9	4.4	253	11	13	10	6.9	47	7.8	6.3	5.9	5.4
25	4.7	4.3	118	11	12	9.2	20	284	7.5	5.9	5.7	5.0
26	5.2	4.3	16	12	33	8.9	13	62	7.4	25	5.7	5.1
27	3.7	4.3	13	11	83	11	7.1	199	9.8	7.4	5.6	8.9
28	63	4.1	11	9.9	20	8.3	6.4	14	13	6.3	5.5	9.8
29	13	4.2	11	14	---	8.7	6.2	11	7.6	81	5.4	4.9
30	6.6	4.3	11	121	---	132	6.2	8.5	7.9	128	52	5.1
31	4.6	---	11	18	---	13	---	85	---	14	36	---
TOTAL	868.2	627.0	1,084.4	465.8	729	1,700.2	1,719.1	2,193.3	1,719.9	1,153.1	966.4	296.6
MEAN	28.0	20.9	35.0	15.0	26.0	54.8	57.3	70.8	57.3	37.2	31.2	9.89
MAX	289	162	253	121	148	633	580	755	762	202	271	66
MIN	1.9	3.8	4.1	9.0	10	7.6	6.2	5.3	7.4	5.9	5.4	4.6
CFSM	2.37	1.77	2.96	1.27	2.21	4.65	4.86	6.00	4.86	3.15	2.64	0.84
IN.	2.74	1.98	3.42	1.47	2.30	5.36	5.42	6.91	5.42	3.64	3.05	0.94

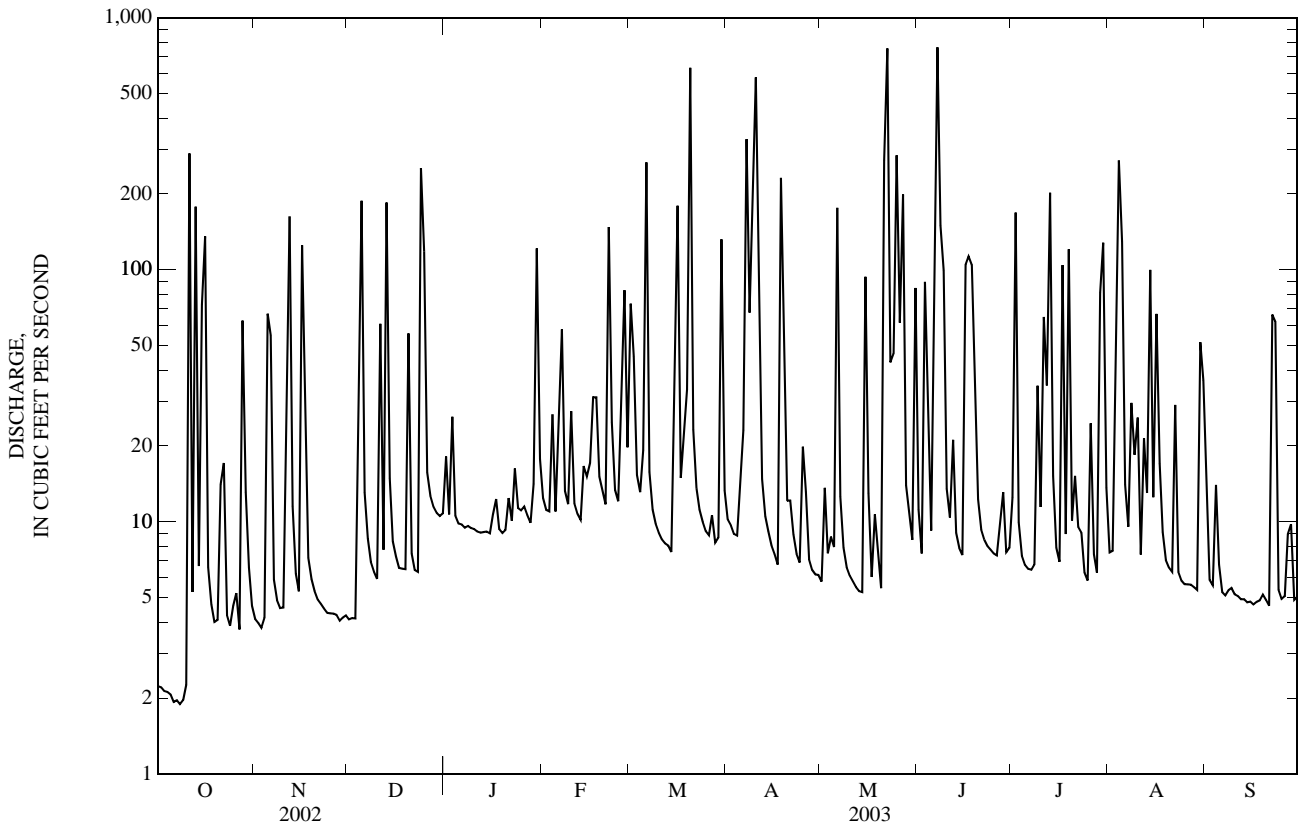
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 2003, BY WATER YEAR (WY)

MEAN	15.9	13.0	13.4	23.4	22.7	23.4	23.3	18.4	17.9	24.0	18.4	16.4
MAX	28.9	30.3	35.0	48.5	36.9	54.8	57.3	70.8	57.3	81.8	50.0	29.6
(WY)	(1996)	(1996)	(2003)	(1998)	(1995)	(2003)	(2003)	(2003)	(2003)	(1997)	(1995)	(2000)
MIN	3.88	3.85	6.02	10.3	6.73	8.45	4.67	4.37	3.38	9.61	4.65	8.52
(WY)	(2001)	(2002)	(2001)	(2001)	(2002)	(1999)	(2002)	(1999)	(2002)	(1999)	(1997)	(2002)

02146409 LITTLE SUGAR CREEK AT MEDICAL CENTER DRIVE AT CHARLOTTE, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1995 - 2003	
ANNUAL TOTAL	5,812.5		13,519.5		19.2	
ANNUAL MEAN	15.9		37.0		37.0	
HIGHEST ANNUAL MEAN					10.3	2003
LOWEST ANNUAL MEAN					10.3	2002
HIGHEST DAILY MEAN	289	Oct 11	762	Jun 7	1,970	Jul 23, 1997
LOWEST DAILY MEAN	1.0	Aug 11	1.9	Oct 6	1.0	Aug 11, 2002
ANNUAL SEVEN-DAY MINIMUM	1.1	Aug 7	2.0	Oct 3	1.1	Aug 7, 2002
MAXIMUM PEAK FLOW			4,400	Jun 7	5,310	Jul 23, 1997
MAXIMUM PEAK STAGE			13.89	Jun 7	14.83	Jul 23, 1997
INSTANTANEOUS LOW FLOW			1.9*	Oct 4	1.0*	Aug 7, 2002
ANNUAL RUNOFF (CF5M)	1.35		3.14		1.62	
ANNUAL RUNOFF (INCHES)	18.32		42.62		22.07	
10 PERCENT EXCEEDS	36		102		37	
50 PERCENT EXCEEDS	4.0		9.8		5.6	
90 PERCENT EXCEEDS	1.7		4.7		2.6	

e Estimated.
 * See REMARKS.



02146409 LITTLE SUGAR CREEK AT MEDICAL CENTER DRIVE AT CHARLOTTE, NC—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.-- Water years 1999 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: April 1999 to current year.

pH: April 1999 to September 2002.

WATER TEMPERATURE: April 1999 to current year.

DISSOLVED OXYGEN: April 1999 to September 2002.

DISSOLVED OXYGEN, PERCENT SATURATION: April 1999 to September 2002.

INSTRUMENTATION.-- Water-quality monitor with radio telemetry.

REMARKS.--Station operated in cooperation with Mecklenburg County Land Use and Environmental Services Agency to characterize water-quality conditions in Little Sugar Creek basin. Dissolved oxygen, percent saturation, computed using barometric pressure of 740 mm Hg.

EXTREMES FOR PERIOD OF DAILY RECORD.--Extremes listed below may have been exceeded during periods of missing record.

CONSTITUENT	MAXIMUM RECORDED	MINIMUM RECORDED
SPECIFIC CONDUCTANCE, microsiemens	6620, January 3, 2002	22, June 7, 2003
pH, standard units	10.6, March 16, 2000	5.9, April 23, 1999
WATER TEMPERATURE, °C	31.4, July 31, 1999	0.9, January 24, 2003
DISSOLVED OXYGEN, mg/L	≥ 20.0, September 3, 1999	2.2, August 18, 2000
DISSOLVED OXYGEN, PERCENT SATURATION,%	184, May 20, 2000	24, September 5, 1999

EXTREMES FOR CURRENT YEAR.--Extremes listed below may have been exceeded during periods of missing record.

CONSTITUENT	MAXIMUM RECORDED	MINIMUM RECORDED
SPECIFIC CONDUCTANCE, microsiemens	6040, February 17	22, June 7
WATER TEMPERATURE, °C	29.7, July 10	0.9, January 24

02146409 LITTLE SUGAR CREEK AT MEDICAL CENTER DRIVE AT CHARLOTTE, NC—Continued

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	284	271	280	282	274	277	302	283	297	319	185	254
2	298	281	290	285	279	282	297	284	293	269	220	244
3	297	290	293	286	279	283	296	284	291	269	122	172
4	302	260	291	286	276	280	2,080	286	575	260	206	236
5	282	261	275	286	58	202	321	72	167	285	259	272
6	292	281	288	190	66	122	310	199	245	295	283	290
7	304	292	297	258	190	230	282	259	268	300	290	294
8	311	294	301	278	251	261	316	281	295	300	291	295
9	302	292	297	288	278	282	306	284	293	304	291	297
10	301	189	276	288	277	285	313	258	300	300	296	298
11	287	42	110	296	66	166	298	95	142	297	291	294
12	246	172	215	162	51	102	263	196	238	294	289	292
13	255	51	151	256	151	211	271	52	147	301	291	294
14	244	162	212	296	256	279	---	---	---	301	273	289
15	256	49	157	318	296	306	---	---	---	292	285	288
16	198	44	122	314	58	175	299	283	291	477	256	298
17	270	198	240	---	---	---	341	292	305	928	337	585
18	292	270	281	---	---	---	340	300	308	337	286	296
19	299	292	294	306	270	291	317	302	309	291	280	287
20	316	237	287	314	299	307	313	74	150	296	278	283
21	306	92	243	324	313	317	257	121	223	569	263	325
22	184	81	137	326	303	318	282	257	272	554	338	370
23	245	184	218	314	303	309	305	213	275	4,100	325	1,260
24	280	245	264	313	293	305	289	26	142	1,790	559	1,010
25	287	242	276	309	303	306	205	59	132	1,470	683	949
26	269	228	258	310	298	304	301	205	243	992	649	749
27	276	264	270	308	297	303	307	277	285	649	469	507
28	281	75	182	301	295	297	315	286	303	479	403	442
29	183	112	156	301	292	295	326	301	313	1,640	429	754
30	241	183	212	303	295	299	313	295	304	854	126	295
31	275	241	258	---	---	---	306	297	300	294	176	249
MONTH	316	42	240	---	---	---	---	---	---	4,100	122	412
	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	312	285	305	300	85	232	298	266	282	322	311	317
2	312	307	309	251	98	176	311	265	296	324	153	285
3	318	306	312	306	251	284	317	310	313	279	191	231
4	315	169	232	327	303	315	318	297	313	279	204	232
5	280	210	253	330	208	263	315	194	277	296	232	275
6	302	125	266	281	54	140	282	95	248	232	64	111
7	217	94	143	288	217	259	204	53	113	259	144	220
8	260	217	241	323	288	307	258	71	203	288	259	275
9	274	259	266	324	317	321	207	42	119	307	288	301
10	273	116	190	343	318	326	119	43	79	317	305	311
11	271	225	252	337	320	327	251	111	202	321	314	318
12	286	265	276	354	325	332	301	251	281	326	317	322
13	295	280	288	361	327	334	313	298	306	329	317	324
14	295	179	261	335	325	329	315	289	306	331	315	324
15	244	199	217	330	72	244	322	312	319	327	66	275
16	4,150	240	1,210	212	41	129	326	315	320	241	125	193
17	6,040	901	2,330	278	212	244	335	318	327	273	241	258
18	1,060	339	690	265	188	220	330	63	131	293	148	246
19	407	363	379	274	61	238	232	99	167	274	206	233
20	561	359	411	217	40	106	288	232	267	302	257	281
21	409	367	378	303	217	266	303	244	286	311	59	219
22	431	89	241	322	298	313	314	272	296	149	52	84
23	268	188	231	338	318	327	322	307	316	224	147	190
24	318	268	296	359	328	335	328	320	324	265	71	237
25	355	317	325	343	330	335	328	172	239	175	68	113
26	371	144	289	337	330	333	243	199	221	235	69	203
27	180	110	141	360	289	310	288	233	262	229	73	170
28	277	154	231	320	309	317	306	287	298	266	228	249
29	---	---	---	322	308	315	318	302	310	284	250	265
30	---	---	---	318	66	141	316	308	312	298	261	288
31	---	---	---	268	171	231	---	---	---	295	105	201
MONTH	6,040	89	392	361	40	269	335	42	258	331	52	244

02146409 LITTLE SUGAR CREEK AT MEDICAL CENTER DRIVE AT CHARLOTTE, NC—Continued

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

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	257	156	220	308	113	270	309	259	283	253	101	184
2	282	257	271	189	43	113	300	187	278	297	247	275
3	286	118	217	276	172	233	310	76	220	308	290	298
4	227	140	189	299	276	290	243	28	165	307	132	228
5	294	227	263	303	297	300	224	48	138	269	196	228
6	326	84	278	306	299	302	269	116	217	321	269	290
7	132	22	73	309	302	306	288	133	274	303	293	298
8	228	49	159	342	272	299	285	74	236	305	293	299
9	262	49	185	398	74	264	234	87	170	323	283	295
10	313	262	295	249	108	197	238	68	189	294	281	288
11	340	311	327	288	68	210	294	237	272	304	288	296
12	336	123	275	245	39	177	301	114	263	306	282	298
13	322	229	287	189	34	108	241	116	182	309	296	301
14	330	321	327	247	88	189	281	42	213	314	280	300
15	332	322	327	291	247	271	257	108	204	302	296	299
16	332	51	262	303	288	295	272	62	172	322	295	304
17	221	33	153	304	53	184	282	94	223	313	300	307
18	214	49	128	362	226	287	328	120	219	319	287	308
19	232	97	170	282	34	212	321	256	289	321	287	309
20	298	204	266	265	146	232	323	294	307	306	288	301
21	320	249	311	386	148	284	314	299	305	306	293	302
22	327	316	322	265	153	217	317	46	260	310	55	254
23	327	321	325	368	204	263	309	215	279	204	50	133
24	330	316	324	409	257	288	311	279	298	261	204	239
25	329	316	323	329	284	297	312	299	305	285	260	272
26	328	308	321	306	82	250	334	301	316	288	275	280
27	328	224	313	269	135	217	323	303	310	289	131	264
28	264	180	230	310	266	283	320	290	304	223	131	198
29	297	227	269	314	69	220	308	294	301	271	223	247
30	312	232	299	263	33	158	308	54	245	287	265	275
31	---	---	---	260	104	206	233	42	162	---	---	---
MONTH	340	22	257	409	33	239	334	28	245	323	50	272

02146409 LITTLE SUGAR CREEK AT MEDICAL CENTER DRIVE AT CHARLOTTE, NC—Continued

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	23.8	21.7	22.8	14.4	13.2	13.8	9.3	7.4	8.1	13.7	10.8	12.6
2	24.4	22.1	23.3	13.4	11.6	12.5	8.6	6.1	7.3	12.5	11.3	11.6
3	24.6	22.7	23.8	13.6	11.7	12.6	9.9	7.3	8.6	11.4	10.0	11.0
4	24.6	23.0	23.9	14.4	12.7	13.5	9.0	3.6	6.6	10.0	7.7	8.5
5	24.7	23.2	24.1	14.3	12.3	13.5	5.8	2.2	4.1	9.2	7.0	8.0
6	24.4	22.1	23.0	14.2	12.4	13.2	7.7	5.8	6.6	8.6	7.1	8.0
7	23.2	21.7	22.6	13.1	11.4	12.3	7.8	5.9	6.8	7.2	5.7	6.5
8	22.5	18.3	20.0	13.6	10.9	12.1	7.6	5.8	6.8	8.7	5.9	7.1
9	18.7	17.6	18.2	14.9	11.9	13.3	7.9	6.9	7.3	10.8	8.0	9.2
10	22.4	18.1	19.4	17.3	14.4	15.7	7.7	6.2	6.8	10.8	9.3	10.4
11	21.0	19.0	20.1	19.4	17.1	17.9	7.6	5.6	6.6	9.3	7.1	7.9
12	22.5	19.9	21.1	18.0	15.5	16.7	9.3	7.6	8.5	7.1	4.9	5.8
13	21.6	20.2	21.0	15.5	13.3	14.6	8.9	6.6	7.8	6.5	5.0	5.7
14	20.4	17.3	18.6	13.4	11.7	12.6	---	---	---	7.7	5.1	6.3
15	17.3	14.2	15.8	13.8	11.3	12.5	---	---	---	7.0	5.5	6.3
16	17.4	13.9	15.8	14.7	13.3	13.9	9.4	6.7	8.0	6.7	5.0	5.7
17	17.4	15.4	16.4	---	---	---	9.0	7.9	8.5	6.7	5.0	5.9
18	16.8	14.6	15.7	---	---	---	8.7	7.9	8.3	5.0	3.4	4.4
19	17.1	14.3	15.7	11.9	9.8	10.9	10.1	8.5	9.1	5.1	2.9	4.0
20	18.5	15.5	16.8	13.0	10.7	11.7	13.5	10.1	12.1	7.5	3.9	5.5
21	19.0	15.8	17.8	13.9	12.5	13.1	10.6	8.4	9.2	9.0	7.0	7.9
22	15.8	15.0	15.3	13.3	10.4	12.1	10.4	7.7	8.9	7.9	6.3	7.1
23	17.5	15.4	16.2	10.7	8.9	9.9	10.1	8.3	9.4	6.9	2.0	4.2
24	16.9	16.2	16.5	11.8	8.8	10.2	9.6	6.5	8.1	4.0	0.9	2.4
25	16.4	15.6	15.9	12.2	9.8	11.0	8.6	7.2	7.9	5.7	2.1	3.5
26	17.3	15.8	16.5	12.1	9.9	11.0	7.5	5.9	6.8	6.8	4.2	5.3
27	18.6	16.9	17.6	11.3	9.0	10.5	7.6	5.6	6.6	6.0	3.0	4.8
28	18.5	16.9	17.7	9.0	7.4	8.2	7.6	5.6	6.6	6.5	3.7	4.9
29	16.9	14.7	15.7	8.6	6.2	7.5	9.2	6.5	7.7	8.8	6.0	7.2
30	14.7	14.2	14.5	10.3	8.2	9.2	9.2	7.5	8.4	8.5	5.4	6.7
31	15.0	13.1	14.0	---	---	---	10.8	8.4	9.4	6.9	5.5	6.1
MONTH	24.7	13.1	18.6	---	---	---	---	---	---	13.7	0.9	6.8
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	8.8	6.7	7.6	9.8	8.4	8.8	14.4	9.6	12.0	22.1	19.4	20.7
2	9.8	6.8	8.3	10.6	8.5	9.4	17.4	13.1	15.1	22.7	19.4	20.7
3	11.6	8.8	10.1	11.0	8.1	9.7	18.7	14.7	16.6	20.7	18.2	19.5
4	13.2	11.0	12.1	11.9	8.9	10.5	18.6	15.8	17.2	19.7	17.9	18.6
5	11.2	8.5	9.5	12.9	11.2	12.1	17.9	16.5	17.2	17.9	16.2	16.7
6	8.7	6.2	8.0	13.2	11.9	12.5	18.1	15.2	16.7	19.4	16.7	17.8
7	7.7	5.3	6.4	12.4	10.0	10.9	16.7	11.7	12.5	20.3	17.6	18.8
8	7.7	5.8	6.8	12.4	8.3	10.4	12.1	10.0	11.5	23.1	18.7	20.8
9	8.7	6.4	7.5	14.9	11.1	12.9	10.8	9.0	9.9	23.9	20.9	22.4
10	8.1	7.0	7.5	13.9	11.2	12.7	9.9	7.6	8.8	24.5	21.3	22.8
11	8.8	5.9	7.3	12.8	10.2	11.5	12.7	9.3	10.8	23.1	20.3	22.0
12	9.4	7.0	8.1	14.9	10.5	12.6	16.4	10.9	13.4	21.3	18.3	19.7
13	8.9	6.1	7.5	16.2	12.7	14.3	17.4	13.0	15.2	21.1	17.5	19.2
14	9.2	7.0	7.9	15.5	13.5	14.6	18.3	14.2	16.3	20.2	17.6	18.9
15	11.7	8.4	9.8	13.5	10.6	12.1	19.4	15.8	17.7	19.6	18.3	18.9
16	10.4	3.4	6.9	12.6	10.1	11.4	19.6	16.3	18.0	20.6	18.5	19.5
17	4.7	3.2	3.8	14.2	12.6	13.3	19.4	16.8	18.2	20.2	18.0	19.1
18	7.8	4.1	6.0	14.8	13.6	14.2	18.4	12.4	14.3	18.0	16.6	17.3
19	8.8	6.3	7.4	14.6	10.9	14.1	13.6	12.2	12.8	16.6	15.9	16.2
20	10.4	8.6	9.3	11.1	8.7	10.0	15.5	13.5	14.3	20.0	15.8	17.7
21	9.8	8.8	9.3	15.8	10.8	13.0	16.5	15.1	15.7	20.8	18.5	19.0
22	11.0	9.0	9.8	16.4	12.5	14.5	18.1	15.6	16.7	18.7	17.5	18.0
23	11.7	10.0	10.9	15.7	12.8	14.5	17.6	14.0	15.8	18.2	17.1	17.6
24	11.8	8.3	10.1	16.5	13.1	14.9	17.2	14.4	15.9	19.7	17.2	18.0
25	11.5	9.8	10.6	17.0	13.4	15.3	16.4	15.6	15.9	20.8	18.7	19.6
26	10.2	6.5	8.7	18.0	14.7	16.3	18.9	15.9	17.2	20.8	18.6	19.7
27	6.5	4.9	5.8	17.2	14.7	16.1	19.8	16.0	17.9	19.6	17.9	18.7
28	8.7	5.8	7.1	17.3	14.9	16.2	20.4	16.8	18.6	20.7	17.1	18.8
29	---	---	---	19.3	16.8	17.8	21.1	17.5	19.3	20.4	17.8	19.2
30	---	---	---	18.1	10.6	12.3	22.0	18.7	20.3	21.2	17.5	19.4
31	---	---	---	12.0	8.9	10.6	---	---	---	23.1	17.9	20.0
MONTH	13.2	3.2	8.2	19.3	8.1	12.9	22.0	7.6	15.4	24.5	15.8	19.2

02146409 LITTLE SUGAR CREEK AT MEDICAL CENTER DRIVE AT CHARLOTTE, NC—Continued

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	21.3	18.1	19.8	24.3	21.6	23.0	24.9	23.6	24.3	26.6	23.8	25.1
2	20.9	17.3	19.3	22.6	20.3	21.4	25.6	23.4	24.3	26.5	24.0	25.1
3	20.6	18.9	19.7	24.3	21.2	22.7	28.2	23.6	25.2	26.6	24.1	25.2
4	23.4	19.4	21.0	26.0	22.3	24.1	25.6	21.5	24.1	26.6	24.4	25.4
5	22.5	19.5	21.1	26.4	23.4	24.8	25.8	21.6	23.2	25.8	22.7	24.1
6	22.7	19.4	21.0	26.2	23.5	24.7	25.3	22.9	24.1	23.7	21.3	22.2
7	22.4	20.9	21.6	25.8	23.6	24.6	24.8	22.9	23.9	22.1	20.4	21.2
8	24.4	20.2	21.7	27.0	23.2	25.1	26.5	23.1	24.3	22.3	20.8	21.5
9	23.7	20.1	21.8	27.9	24.6	25.8	25.8	22.9	24.4	23.3	21.0	22.1
10	23.9	20.0	22.0	29.7	23.7	25.6	25.0	23.0	23.8	22.7	20.5	21.5
11	23.9	20.8	22.4	26.8	23.6	24.8	25.2	22.3	23.8	22.2	19.7	20.9
12	26.3	21.8	23.4	26.3	21.9	24.5	26.2	23.6	24.7	21.8	19.4	20.6
13	24.5	21.8	23.1	24.6	21.5	23.0	26.0	24.0	25.0	23.7	19.9	21.6
14	25.1	22.0	23.5	24.1	22.4	23.2	26.9	24.2	25.2	24.0	21.3	22.6
15	25.6	22.6	24.0	25.1	22.5	23.8	26.6	24.1	25.2	24.1	21.8	22.9
16	24.5	22.9	23.6	27.0	23.4	24.9	25.6	24.2	25.1	23.0	21.1	22.1
17	24.0	21.9	22.7	26.3	23.6	25.0	26.2	23.5	24.8	21.9	19.6	20.8
18	24.3	21.7	22.5	26.2	23.5	24.9	26.1	23.7	24.9	20.6	19.2	19.9
19	25.9	21.6	23.4	28.0	23.2	24.4	25.8	24.0	24.9	22.9	19.2	20.9
20	24.4	22.1	23.2	26.0	22.8	24.2	26.4	23.7	24.9	23.4	20.0	21.6
21	22.8	19.7	21.4	26.5	23.8	25.1	26.5	23.9	25.1	23.3	20.5	21.8
22	23.4	19.8	21.6	26.6	23.7	25.0	26.7	24.1	24.9	23.7	21.4	22.2
23	24.2	20.6	22.3	24.7	22.8	23.6	26.9	23.5	25.0	23.5	21.8	22.6
24	24.2	21.2	22.7	25.1	21.8	23.3	26.2	24.3	25.2	22.8	20.0	21.4
25	25.3	21.6	23.3	25.6	22.5	23.9	26.3	23.4	24.7	23.1	19.8	21.3
26	25.8	22.4	24.0	27.8	23.3	24.8	27.3	24.0	25.5	22.9	20.2	21.5
27	25.6	23.0	24.3	26.5	23.9	25.2	27.8	24.6	26.1	23.6	20.6	22.0
28	24.7	22.4	23.2	27.3	24.2	25.6	27.8	25.2	26.3	22.8	20.0	21.6
29	25.2	21.9	23.4	28.5	24.4	25.6	27.2	25.2	26.1	20.0	17.5	18.7
30	25.8	23.0	24.2	26.6	23.8	24.7	27.4	24.8	25.9	19.0	16.2	17.6
31	---	---	---	25.2	23.4	24.3	26.7	24.5	25.5	---	---	---
MONTH	26.3	17.3	22.4	29.7	20.3	24.4	28.2	21.5	24.9	26.6	16.2	21.9

LOCATION.--Lat 35°14'10", long 80°46'16", Mecklenburg County, Hydrologic Unit 03050103, 400 ft upstream from bridge on Shamrock Drive, and 4 mi northwest of city hall in Charlotte.

DRAINAGE AREA.--5.2 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1998 to current year.

REVISED RECORDS.--WDR NC-2003-1B: 1998-2002.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 672.00 ft, North American Vertical Datum of 1988. Radio telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Maximum discharge for period of record and current water year from rating curve extended above 800 ft³/s by culvert computation of peak flow. No flow occurred most years.

REVISIONS.--Revised figures of discharge for the water years 1998-2002, superseding those published in the reports for 1998-2002 are given below.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	e4.5	13	1.4	1.5	0.48	2.1
2	---	---	---	---	---	---	e3.0	4.9	1.3	0.61	0.32	2.4
3	---	---	---	---	---	---	e35	3.7	0.87	0.69	0.37	39
4	---	---	---	---	---	---	e42	3.2	2.6	0.91	0.33	39
5	---	---	---	---	---	---	e5.5	2.7	6.8	1.6	0.33	1.8
6	---	---	---	---	---	---	e4.0	2.5	1.6	1.4	0.31	0.89
7	---	---	---	---	---	---	e3.5	10	0.87	1.6	8.7	0.79
8	---	---	---	---	---	---	e3.5	2.9	0.89	1.2	6.5	0.79
9	---	---	---	---	---	---	181	2.2	1.3	1.2	1.7	0.66
10	---	---	---	---	---	---	7.2	2.8	8.6	0.84	12	0.61
11	---	---	---	---	---	---	5.1	5.9	1.7	0.75	0.30	0.52
12	---	---	---	---	---	---	3.8	1.8	1.00	0.74	0.26	0.45
13	---	---	---	---	---	---	3.4	1.6	0.83	0.91	58	0.41
14	---	---	---	---	---	---	5.1	1.5	0.83	0.80	4.1	0.56
15	---	---	---	---	---	---	2.3	1.4	0.83	0.66	19	0.72
16	---	---	---	---	---	---	2.0	1.3	0.70	2.7	5.6	0.82
17	---	---	---	---	---	---	39	0.98	0.75	4.6	6.9	0.85
18	---	---	---	---	---	---	7.9	0.82	0.72	0.48	1.7	0.59
19	---	---	---	---	---	---	36	0.81	1.8	0.50	1.3	0.49
20	---	---	---	---	---	---	6.3	0.98	0.76	19	1.4	0.49
21	---	---	---	---	---	---	1.2	1.5	1.1	4.5	1.4	4.6
22	---	---	---	---	---	---	53	1.5	1.5	0.58	1.4	2.2
23	---	---	---	---	---	---	47	1.2	13	0.58	5.2	0.67
24	---	---	---	---	---	---	10	1.0	0.61	0.51	1.3	0.77
25	---	---	---	---	---	---	6.1	1.1	0.92	0.93	0.85	0.67
26	---	---	---	---	---	---	4.4	0.87	0.99	1.1	1.9	0.58
27	---	---	---	---	---	---	7.2	1.7	0.55	25	2.5	0.50
28	---	---	---	---	---	---	4.1	0.76	0.81	1.0	3.0	0.42
29	---	---	---	---	---	---	3.2	0.76	26	0.46	4.2	0.46
30	---	---	---	---	---	---	19	7.7	5.4	0.44	2.5	4.0
31	---	---	---	---	---	---	---	1.9	---	2.7	2.2	---
TOTAL	---	---	---	---	---	---	555.3	84.98	87.03	80.49	156.05	108.81
MEAN	---	---	---	---	---	---	18.5	2.74	2.90	2.60	5.03	3.63
MAX	---	---	---	---	---	---	181	13	26	25	58	39
MIN	---	---	---	---	---	---	1.2	0.76	0.55	0.44	0.26	0.41
CFSM	---	---	---	---	---	---	3.56	0.53	0.56	0.50	0.97	0.70
IN.	---	---	---	---	---	---	3.97	0.61	0.62	0.58	1.12	0.78

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 1998, BY WATER YEAR (WY)

MEAN	---	---	---	---	---	---	18.5	2.74	2.90	2.60	5.03	3.63
MAX	---	---	---	---	---	---	18.5	2.74	2.90	2.60	5.03	3.63
(WY)	---	---	---	---	---	---	(1998)	(1998)	(1998)	(1998)	(1998)	(1998)
MIN	---	---	---	---	---	---	18.5	2.74	2.90	2.60	5.03	3.63
(WY)	---	---	---	---	---	---	(1998)	(1998)	(1998)	(1998)	(1998)	(1998)

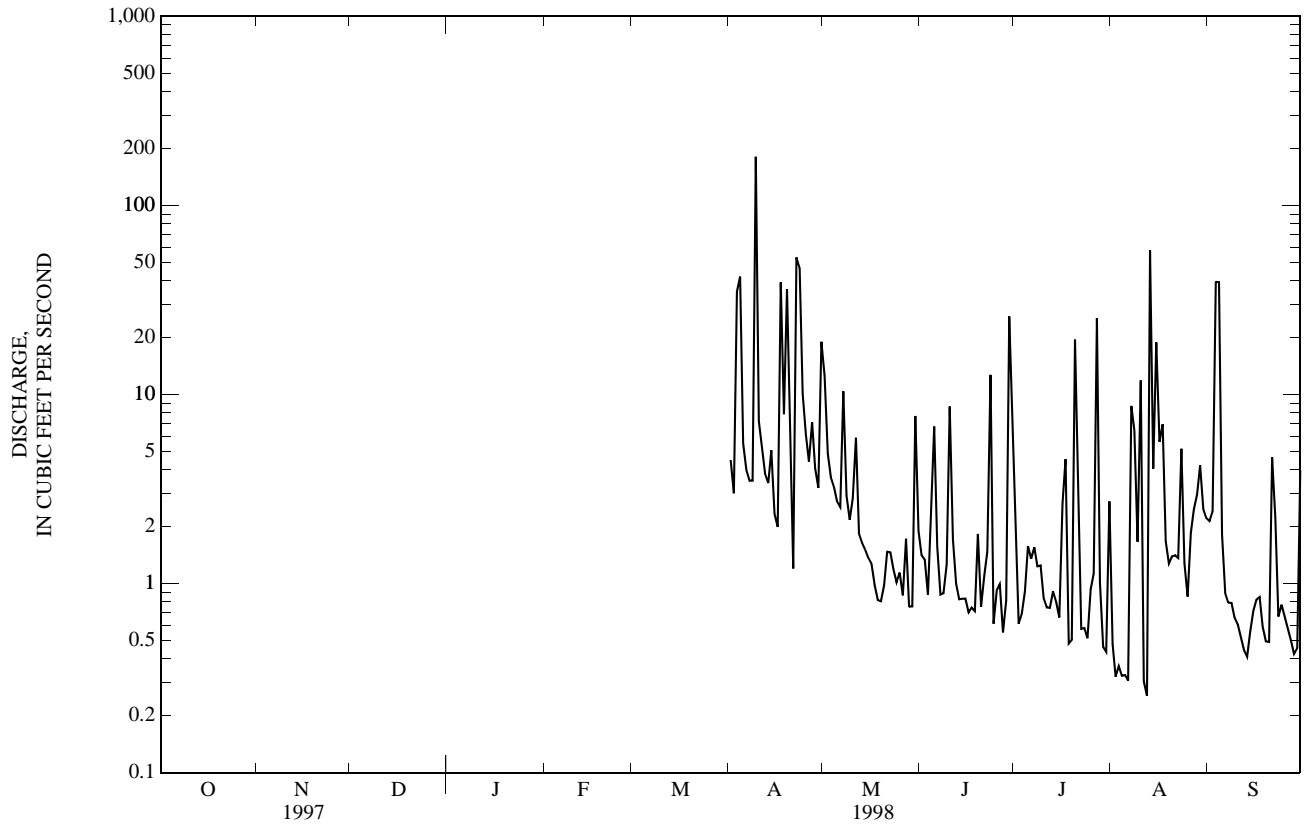
SUMMARY STATISTICS

FOR PERIOD
APRIL TO SEPTEMBER 1998

HIGHEST DAILY MEAN	81	Apr 9
LOWEST DAILY MEAN	0.26	Aug 12
MAXIMUM PEAK FLOW	1,530*	Apr 9
MAXIMUM PEAK STAGE	6.18	Apr 9
INSTANTANEOUS LOW FLOW	0.13	Aug 8

e Estimated.

0214642825 BRIAR CREEK NEAR CHARLOTTE, NC—Continued



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	0.31	1.2	1.8	25	2.6	17	4.0	0.64	0.77	0.27	0.01
2	1.8	3.3	1.2	5.2	13	2.3	3.4	2.1	0.69	0.62	0.24	0.05
3	2.3	15	0.95	49	4.3	5.3	2.4	1.7	0.69	0.80	0.24	0.09
4	7.2	0.70	0.64	3.1	3.6	2.6	2.3	1.7	0.60	0.90	0.23	0.00
5	8.2	0.56	0.59	1.8	2.6	2.5	2.1	2.3	0.59	0.96	0.20	11
6	1.9	0.49	0.75	1.5	2.4	2.7	2.1	2.3	0.50	23	0.24	0.70
7	2.8	0.52	0.64	1.4	2.2	2.4	2.1	2.0	0.44	3.2	0.64	0.23
8	9.6	0.60	0.62	1.7	2.1	2.4	2.4	1.9	0.42	0.67	0.17	0.19
9	0.40	0.56	0.79	1.3	2.4	6.8	2.3	1.9	0.41	0.58	0.54	2.9
10	0.39	0.56	0.70	0.96	2.5	2.7	2.0	2.1	2.9	1.2	0.24	0.52
11	0.38	0.75	0.94	1.0	2.8	2.2	2.3	2.0	1.7	1.7	0.21	0.09
12	0.39	0.53	0.88	1.4	2.6	2.1	2.3	2.0	0.53	7.2	0.15	0.12
13	0.39	0.43	10	0.72	2.5	2.1	2.3	2.7	0.53	5.5	0.10	0.04
14	0.37	4.6	1.6	0.62	2.5	9.5	2.1	2.1	0.49	1.1	0.03	0.00
15	0.24	7.1	7.6	6.2	2.5	4.1	2.9	1.8	4.5	0.68	0.03	9.3
16	0.25	5.1	17	0.94	2.4	2.2	1.3	2.0	14	0.63	0.02	6.0
17	0.25	2.8	2.9	28	2.5	2.1	1.1	2.1	3.3	0.96	0.00	0.16
18	0.23	1.5	3.8	13	21	2.0	1.4	3.1	0.59	0.85	0.00	0.13
19	0.28	1.7	2.6	3.1	23	1.8	1.4	9.7	0.58	0.68	0.00	0.09
20	0.25	1.8	1.9	2.2	13	1.8	1.2	0.62	1.8	0.58	6.6	0.08
21	0.30	1.9	2.1	1.8	5.6	9.6	0.97	0.58	1.3	0.47	2.0	0.71
22	0.38	1.8	3.2	1.7	3.8	2.0	1.2	0.61	0.88	0.43	0.10	2.1
23	0.43	1.8	13	156	3.2	1.7	0.93	0.67	0.89	0.35	0.04	0.12
24	0.38	2.3	46	62	2.8	1.6	0.95	0.74	1.2	8.4	2.8	0.01
25	0.34	2.4	12	8.9	2.7	2.9	0.98	0.92	6.4	0.79	2.6	0.00
26	0.33	3.2	3.5	4.2	2.6	1.9	1.4	3.3	16	0.28	0.42	0.00
27	0.35	2.0	2.2	3.2	2.6	1.2	27	0.29	4.3	0.25	0.40	3.7
28	0.38	1.8	2.0	2.7	3.2	0.87	10	0.32	1.8	0.21	0.27	19
29	0.37	1.8	4.6	2.4	---	0.77	8.5	0.40	12	9.9	0.40	23
30	0.31	1.7	2.1	2.2	---	0.66	60	0.52	2.0	0.68	0.46	4.1
31	0.30	---	1.8	1.7	---	0.71	---	0.55	---	1.9	0.17	---
TOTAL	43.09	69.61	149.80	371.74	161.4	86.11	168.33	59.02	82.67	76.24	19.81	84.44
MEAN	1.39	2.32	4.83	12.0	5.76	2.78	5.61	1.90	2.76	2.46	0.64	2.81
MAX	9.6	15	46	156	25	9.6	60	9.7	16	23	6.6	23
MIN	0.23	0.31	0.59	0.62	2.1	0.66	0.93	0.29	0.41	0.21	0.00	0.00
CFSM	0.27	0.45	0.93	2.31	1.11	0.53	1.08	0.37	0.53	0.47	0.12	0.54
IN.	0.31	0.50	1.07	2.66	1.15	0.62	1.20	0.42	0.59	0.55	0.14	0.60

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 1999, BY WATER YEAR (WY)

MEAN	1.39	2.32	4.83	12.0	5.76	2.78	12.1	2.32	2.83	2.53	2.84	3.22
MAX	1.39	2.32	4.83	12.0	5.76	2.78	18.5	2.74	2.90	2.60	5.03	3.63
(WY)	(1999)	(1999)	(1999)	(1999)	(1999)	(1999)	(1998)	(1998)	(1998)	(1998)	(1998)	(1998)
MIN	1.39	2.32	4.83	12.0	5.76	2.78	5.61	1.90	2.76	2.46	0.64	2.81
(WY)	(1999)	(1999)	(1999)	(1999)	(1999)	(1999)	(1999)	(1999)	(1999)	(1999)	(1999)	(1999)

SUMMARY STATISTICS

FOR 1998 CALENDAR YEAR

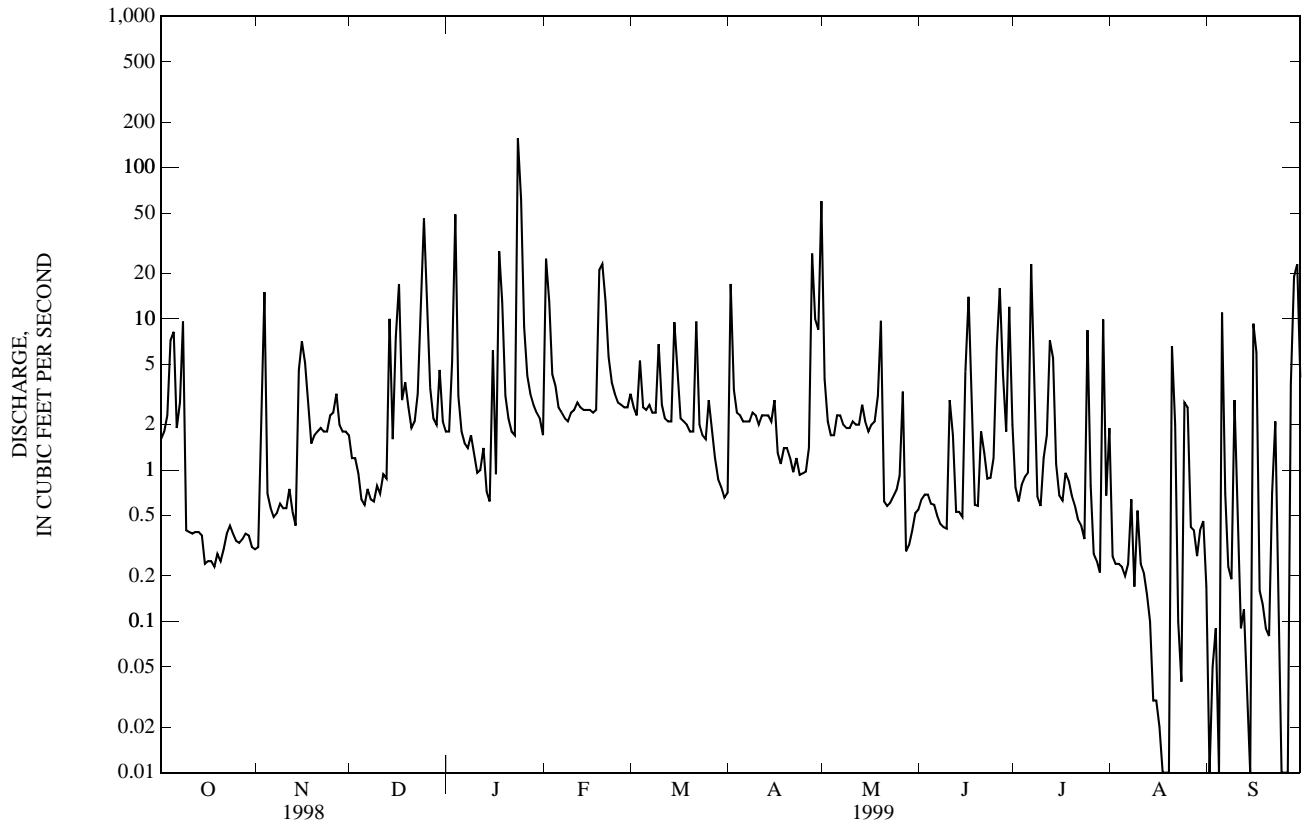
FOR 1999 WATER YEAR

WATER YEARS 1998 - 1999

ANNUAL TOTAL							1,372.26					
ANNUAL MEAN							3.76				3.76	
HIGHEST ANNUAL MEAN											3.76	1999
LOWEST ANNUAL MEAN											3.76	1999
HIGHEST DAILY MEAN				181	Apr 9		156	Jan 23		181	Apr 9, 1998	
LOWEST DAILY MEAN				0.23	Oct 18		0.00	Aug 17		0.00	Aug 17, 1999	
ANNUAL SEVEN-DAY MINIMUM				0.26	Oct 15		0.03	Aug 13		0.03	Aug 13, 1999	
MAXIMUM PEAK FLOW							1,160*	Jan 23		1,530*	Apr 9, 1998	
MAXIMUM PEAK STAGE							5.52	Jan 23		6.18	Apr 9, 1998	
INSTANTANEOUS LOW FLOW							0.00*	Aug 17		0.00*	Aug 18, 1999	
ANNUAL RUNOFF (CFSM)							0.72			0.72		
ANNUAL RUNOFF (INCHES)							9.82			9.82		
10 PERCENT EXCEEDS							8.3			8.3		
50 PERCENT EXCEEDS							1.7			1.7		
90 PERCENT EXCEEDS							0.24			0.24		

* See REMARKS.

0214642825 BRIAR CREEK NEAR CHARLOTTE, NC—Continued



DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.47	1.0	0.52	0.91	6.9	3.2	2.4	1.6	2.2	0.37	26	2.7
2	0.34	12	0.60	0.94	4.4	3.4	5.3	66	2.0	0.39	19	65
3	0.36	0.64	0.60	0.78	3.9	3.5	6.6	12	1.9	0.26	3.0	8.8
4	1.4	0.36	1.4	5.2	3.3	6.4	3.7	1.8	3.0	0.20	55	49
5	0.53	0.89	1.4	1.6	3.0	2.8	3.6	1.6	5.8	0.70	1.5	5.6
6	0.19	1.0	1.5	1.2	2.6	2.4	4.6	1.6	1.4	2.1	1.1	1.5
7	0.29	0.79	1.2	1.6	3.3	3.0	4.9	1.8	1.1	4.7	1.1	1.2
8	0.54	0.86	1.4	1.9	3.5	3.2	27	2.1	1.5	0.91	1.7	1.1
9	0.71	0.73	3.5	5.8	3.5	3.2	4.7	2.4	2.0	0.53	2.4	1.1
10	50	0.64	7.1	29	3.4	3.4	3.9	2.7	1.9	0.60	12	1.00
11	110	9.8	1.2	3.3	3.0	4.5	4.1	2.9	1.7	1.4	0.50	1.3
12	2.7	1.3	1.6	1.7	29	2.6	4.4	3.0	1.7	28	0.35	0.95
13	18	0.46	3.3	1.4	5.4	1.8	28	4.6	1.5	2.1	0.38	0.49
14	2.6	1.1	16	1.4	56	2.0	13	2.9	5.3	14	0.74	0.66
15	1.1	1.2	1.1	1.5	5.7	1.6	34	2.0	1.2	4.3	0.45	0.70
16	0.82	0.94	0.69	1.9	3.8	21	5.8	2.4	0.41	0.39	0.39	0.81
17	0.67	0.93	1.1	2.0	3.0	6.5	4.8	2.6	0.31	0.32	0.56	0.79
18	0.88	1.2	2.4	3.9	11	2.7	2.3	2.9	0.95	0.31	14	19
19	1.0	1.4	3.2	2.1	3.6	2.7	0.85	2.9	1.3	1.2	1.6	11
20	14	2.2	4.9	6.9	2.7	62	1.2	3.0	0.39	2.2	0.31	1.1
21	4.5	2.3	10	1.6	2.6	10	1.6	3.3	0.53	0.32	0.24	1.3
22	1.5	1.3	2.9	1.6	2.4	4.7	1.9	3.7	1.4	0.32	0.32	24
23	0.85	0.69	2.2	16	2.5	3.4	1.8	3.2	1.0	1.1	0.35	230
24	1.0	1.3	2.2	7.1	2.6	3.1	5.7	4.3	0.81	6.1	3.4	11
25	1.1	2.1	2.2	18	2.8	2.7	8.8	2.6	0.59	2.0	2.8	24
26	1.1	20	1.8	5.3	2.7	2.7	1.4	2.6	0.24	0.99	0.24	6.0
27	1.00	1.8	2.2	2.9	12	10	1.3	2.3	0.27	0.82	0.28	2.7
28	0.95	0.85	1.8	2.3	3.8	4.2	10	3.0	6.3	1.1	0.38	1.9
29	0.72	0.56	1.5	3.5	2.8	2.7	2.1	3.1	5.0	1.0	0.47	1.3
30	0.68	0.50	1.7	42	---	2.5	1.5	2.0	0.77	1.2	0.91	1.1
31	0.84	---	1.3	11	---	2.4	---	2.1	---	2.0	3.7	---
TOTAL	220.84	70.84	84.51	186.33	195.2	190.3	201.25	155.0	54.47	81.93	155.17	477.10
MEAN	7.12	2.36	2.73	6.01	6.73	6.14	6.71	5.00	1.82	2.64	5.01	15.9
MAX	110	20	16	42	56	62	34	66	63	28	55	230
MIN	0.19	0.36	0.52	0.78	2.4	1.6	0.85	1.6	0.24	0.20	0.24	0.49
CFSM	1.37	0.45	0.52	1.16	1.29	1.18	1.29	0.96	0.35	0.51	0.96	3.06
IN.	1.58	0.51	0.60	1.33	1.40	1.36	1.44	1.11	0.39	0.59	1.11	3.41

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2000, BY WATER YEAR (WY)

MEAN	4.26	2.34	3.78	9.00	6.26	4.46	10.3	3.22	2.49	2.57	3.56	7.45
MAX	7.12	2.36	4.83	12.0	6.73	6.14	18.5	5.00	2.90	2.64	5.03	15.9
(WY)	(2000)	(2000)	(1999)	(1999)	(2000)	(2000)	(1998)	(2000)	(1998)	(2000)	(1998)	(2000)
MIN	1.39	2.32	2.73	6.01	5.76	2.78	5.61	1.90	1.82	2.46	0.64	2.81
(WY)	(1999)	(1999)	(2000)	(2000)	(1999)	(1999)	(1999)	(1999)	(2000)	(1999)	(1999)	(1999)

SUMMARY STATISTICS

FOR 1999 CALENDAR YEAR

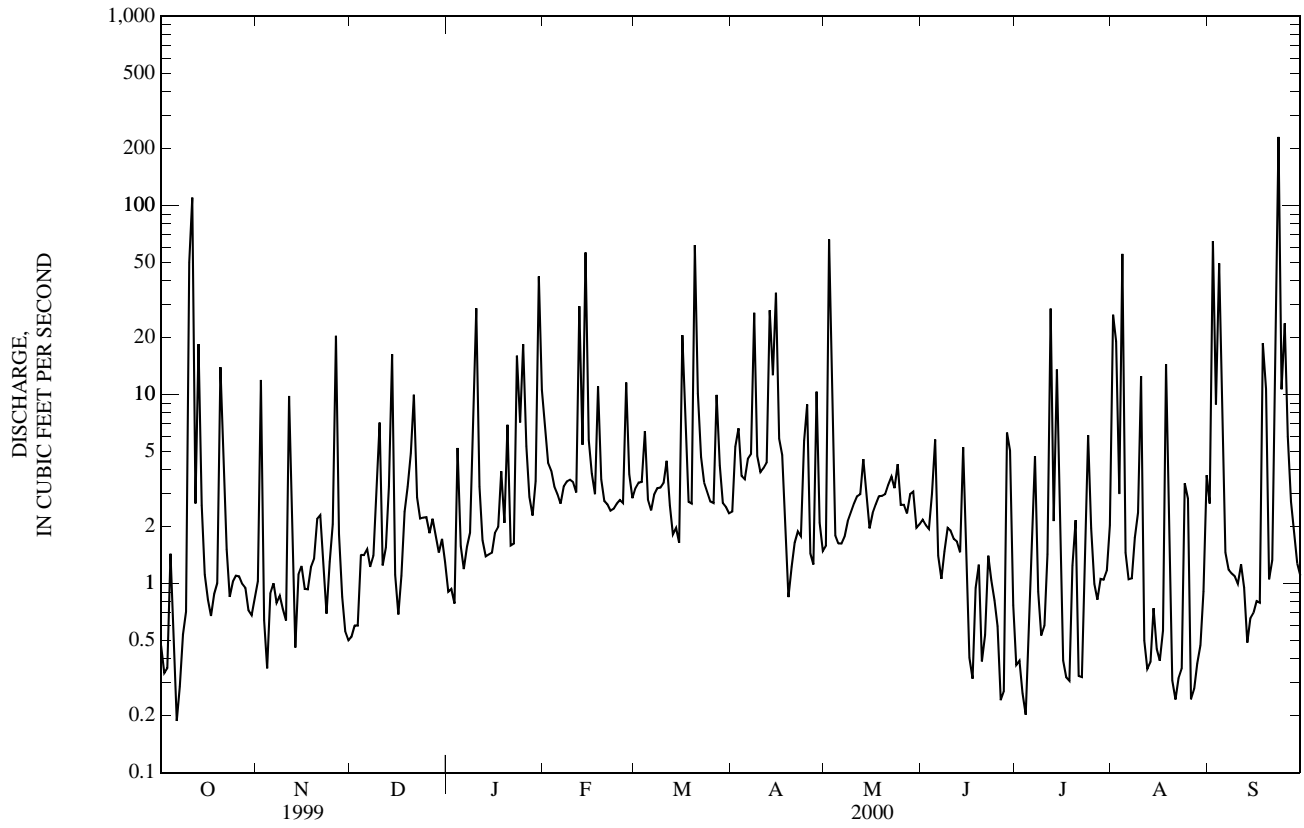
FOR 2000 WATER YEAR

WATER YEARS 1998 - 2000

ANNUAL TOTAL	1,485.95	2,072.94	
ANNUAL MEAN	4.07	5.66	4.71
HIGHEST ANNUAL MEAN			5.66
LOWEST ANNUAL MEAN			3.76
HIGHEST DAILY MEAN	156	Jan 23	230
LOWEST DAILY MEAN	0.00	Aug 17	0.19
ANNUAL SEVEN-DAY MINIMUM	0.03	Aug 13	0.48
MAXIMUM PEAK FLOW			1,700*
MAXIMUM PEAK STAGE			6.46
INSTANTANEOUS LOW FLOW			0.13
ANNUAL RUNOFF (CFSM)	0.78		1.09
ANNUAL RUNOFF (INCHES)	10.63		14.83
10 PERCENT EXCEEDS	8.7		11
50 PERCENT EXCEEDS	1.5		2.0
90 PERCENT EXCEEDS	0.24		0.51

* See REMARKS.

0214642825 BRIAR CREEK NEAR CHARLOTTE, NC—Continued



0214642825 BRIAR CREEK NEAR CHARLOTTE, NC—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.92	0.20	0.30	2.8	0.37	1.5	4.4	1.0	16	0.16	0.13	0.17
2	0.74	0.25	0.20	2.3	0.37	1.5	2.7	0.92	1.8	0.18	0.07	0.00
3	0.64	0.43	0.10	1.9	0.45	7.4	4.3	0.78	0.54	2.9	0.02	18
4	0.43	0.46	0.15	1.1	0.57	31	2.7	0.78	0.73	102	0.03	28
5	0.42	0.40	0.18	1.5	0.77	4.4	2.2	0.75	0.64	7.0	0.04	1.2
6	0.50	0.07	0.16	1.7	0.73	2.1	2.1	0.80	0.71	0.71	0.01	0.68
7	0.41	0.05	0.33	2.5	1.0	1.7	3.5	0.74	0.81	0.41	0.01	0.28
8	0.41	0.07	0.36	12	1.1	1.5	1.9	0.78	2.5	1.1	0.01	0.01
9	0.42	3.2	0.34	3.6	1.6	1.3	1.9	0.77	0.74	0.65	0.00	0.95
10	0.49	2.4	0.31	3.5	2.9	1.2	1.9	0.78	0.58	0.49	0.00	0.05
11	0.37	0.05	0.29	4.7	1.5	1.5	1.9	0.78	0.56	0.49	0.00	0.01
12	0.28	0.11	0.21	14	5.5	7.3	1.9	0.84	0.55	0.47	0.04	0.02
13	0.23	0.11	0.64	5.1	3.1	4.2	9.5	0.89	49	1.0	0.03	0.02
14	0.26	6.3	3.7	3.3	6.4	2.1	1.8	0.78	4.5	0.55	0.15	0.15
15	0.13	0.13	0.36	3.1	1.9	25	2.4	0.95	0.62	0.33	0.08	0.00
16	0.09	0.23	5.6	3.5	1.9	4.7	1.5	1.1	0.35	0.27	0.07	0.00
17	0.26	4.7	16	3.8	39	2.6	2.2	1.3	0.29	0.39	0.05	0.00
18	0.55	0.10	2.5	6.9	3.6	2.1	1.5	1.3	0.24	0.12	5.8	0.00
19	0.84	11	3.3	21	2.2	1.9	1.4	0.96	0.32	0.22	1.4	0.00
20	0.77	2.2	2.6	16	1.8	39	1.4	1.3	0.35	0.15	0.04	3.3
21	0.40	0.33	1.1	4.8	1.6	45	1.4	7.6	0.25	0.14	0.02	0.00
22	e0.50	0.23	1.5	1.9	11	4.7	1.1	7.0	8.1	0.25	0.01	0.00
23	e0.52	0.29	1.6	1.3	2.3	2.5	0.89	1.6	1.4	2.3	0.02	0.00
24	0.44	0.36	1.8	1.1	1.3	2.3	1.5	4.5	0.15	6.5	0.12	85
25	0.48	21	1.9	1.1	9.2	1.9	14	2.2	0.03	2.5	0.03	1.2
26	0.57	1.4	2.2	1.4	2.5	1.8	1.2	14	0.09	6.4	0.07	0.38
27	0.25	0.41	1.8	1.3	1.5	2.0	0.70	0.47	0.20	0.33	0.13	0.34
28	0.09	0.25	1.3	1.1	1.5	2.0	0.69	8.5	15	0.29	0.16	0.30
29	0.12	0.20	1.6	1.1	---	86	0.89	4.9	1.9	0.70	0.12	0.30
30	0.19	0.21	2.5	3.9	---	14	1.1	0.48	0.24	0.63	0.02	0.41
31	0.08	---	2.7	0.58	---	5.6	---	0.36	---	0.21	0.38	---
TOTAL	12.80	57.14	57.63	133.88	107.66	311.8	76.57	69.91	109.19	139.84	9.06	140.77
MEAN	0.41	1.90	1.86	4.32	3.85	10.1	2.55	2.26	3.64	4.51	0.29	4.69
MAX	0.92	21	16	21	39	86	14	14	49	102	5.8	85
MIN	0.08	0.05	0.10	0.58	0.37	1.2	0.69	0.36	0.03	0.12	0.00	0.00
CFSM	0.08	0.37	0.36	0.83	0.74	1.93	0.49	0.43	0.70	0.87	0.06	0.90
IN.	0.09	0.41	0.41	0.96	0.77	2.23	0.55	0.50	0.78	1.00	0.06	1.01

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2001, BY WATER YEAR (WY)

MEAN	2.98	2.20	3.14	7.44	5.46	6.32	8.35	2.98	2.78	3.05	2.74	6.76
MAX	7.12	2.36	4.83	12.0	6.73	10.1	18.5	5.00	3.64	4.51	5.03	15.9
(WY)	(2000)	(2000)	(1999)	(1999)	(2000)	(2001)	(1998)	(2000)	(2001)	(2001)	(1998)	(2000)
MIN	0.41	1.90	1.86	4.32	3.84	2.78	2.55	1.90	1.82	2.46	0.29	2.81
(WY)	(2001)	(2001)	(2001)	(2001)	(2001)	(1999)	(2001)	(1999)	(2000)	(1999)	(2001)	(1999)

SUMMARY STATISTICS

FOR 2000 CALENDAR YEAR

FOR 2001 WATER YEAR

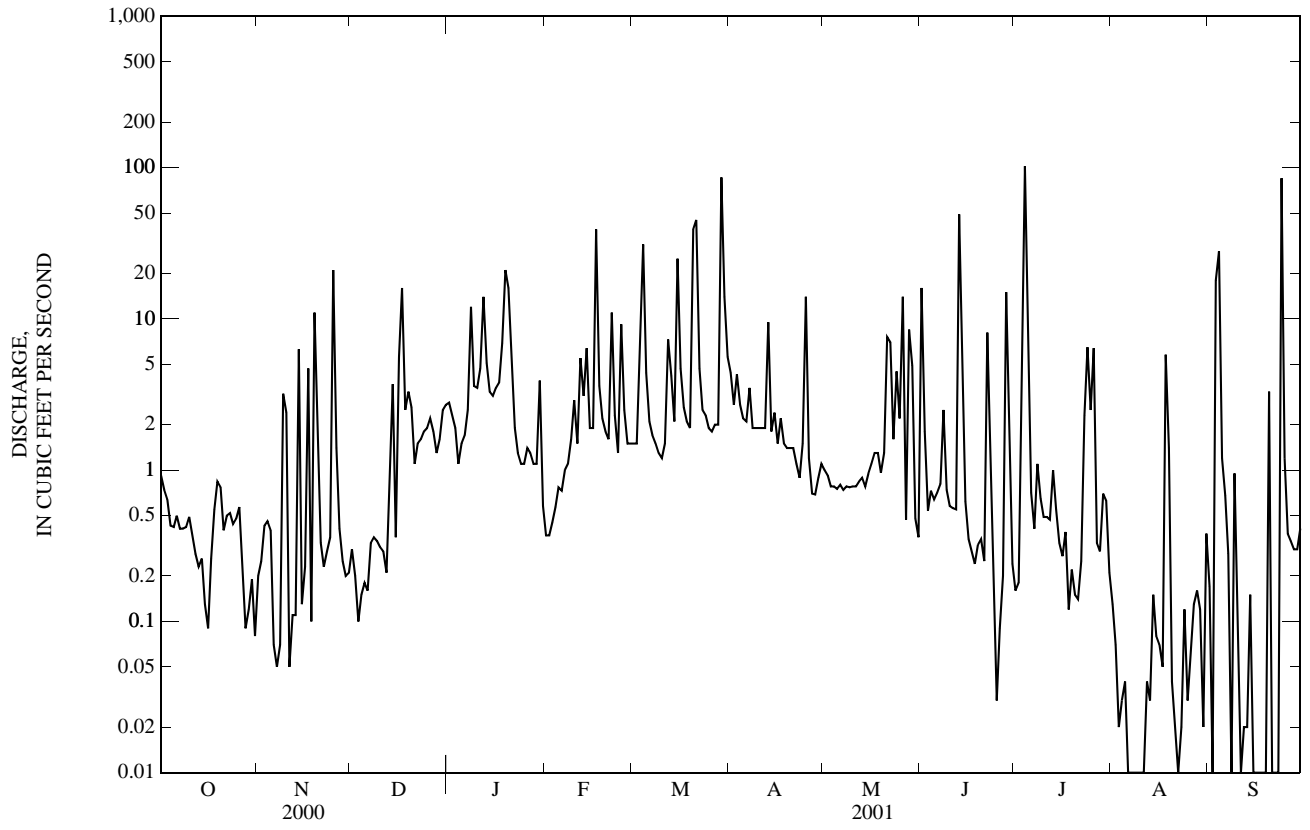
WATER YEARS 1998 - 2001

ANNUAL TOTAL	1,824.32		1,226.25			
ANNUAL MEAN	4.98		3.36		4.26	
HIGHEST ANNUAL MEAN					5.66	
LOWEST ANNUAL MEAN					3.36	
HIGHEST DAILY MEAN	230	Sep 23	102	Jul 4	230	Sep 23, 2000
LOWEST DAILY MEAN	0.05	Nov 7	0.00	Aug 9	0.00	Aug 17, 1999
ANNUAL SEVEN-DAY MINIMUM	0.17	Oct 27	0.01	Aug 5	0.01	Aug 5, 2001
MAXIMUM PEAK FLOW			1,060*	Jul 4	1,700*	Sep 23, 2000
MAXIMUM PEAK STAGE			5.32	Jul 4	6.46	Sep 23, 2000
INSTANTANEOUS LOW FLOW			0.00*	Aug 9	0.00*	Aug 18, 1999
ANNUAL RUNOFF (CFSM)	0.96		0.65		0.82	
ANNUAL RUNOFF (INCHES)	13.05		8.77		11.14	
10 PERCENT EXCEEDS	10		6.4		8.3	
50 PERCENT EXCEEDS	1.9		0.84		1.5	
90 PERCENT EXCEEDS	0.27		0.07		0.21	

e Estimated.

* See REMARKS.

0214642825 BRIAR CREEK NEAR CHARLOTTE, NC—Continued



0214642825 BRIAR CREEK NEAR CHARLOTTE, NC—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.50	0.70	0.15	0.13	0.98	0.80	7.5	0.85	0.67	0.00	0.00	e4.0
2	0.31	6.2	0.13	0.23	0.52	24	2.2	0.53	0.62	0.33	3.9	e0.40
3	0.14	1.0	0.13	1.3	0.56	15	1.7	1.3	0.40	3.8	0.46	0.10
4	0.04	0.52	0.14	1.1	0.54	2.3	1.5	11	0.23	0.69	0.00	0.07
5	0.01	0.51	0.14	0.43	0.58	0.85	1.5	1.2	0.20	0.01	0.00	0.09
6	7.0	0.28	0.05	19	3.9	0.58	1.4	0.71	1.7	0.00	0.00	0.09
7	0.28	0.00	0.05	3.6	16	0.51	1.4	0.56	1.7	0.00	0.00	0.03
8	0.12	0.00	0.10	1.6	5.1	0.37	1.4	0.56	0.13	0.00	0.00	0.02
9	0.07	0.00	0.13	0.97	1.4	0.47	1.4	0.51	0.14	0.00	0.00	0.00
10	0.21	0.01	19	0.80	3.6	0.47	2.2	1.3	0.21	0.87	0.00	0.00
11	0.29	0.02	4.5	0.85	1.3	0.33	1.1	2.1	0.19	0.19	0.00	0.00
12	0.22	0.02	0.28	0.77	1.0	7.1	1.5	0.51	0.14	0.00	0.00	0.00
13	0.21	0.05	0.29	1.6	0.85	7.6	1.4	5.4	0.10	1.2	0.00	0.00
14	1.8	0.06	0.17	0.35	0.80	1.3	1.1	1.4	0.08	17	0.00	0.75
15	0.25	0.05	0.08	0.25	0.81	0.75	1.4	0.49	0.05	0.50	0.48	16
16	0.01	0.02	0.06	0.23	0.88	0.57	1.1	0.47	0.04	0.14	15	5.3
17	0.02	0.02	3.8	0.25	0.91	15	0.99	0.49	0.13	0.06	27	0.30
18	0.01	0.02	2.9	0.29	0.86	4.0	0.90	5.1	0.41	0.04	0.65	0.05
19	0.02	0.02	0.10	38	0.82	2.6	0.87	0.62	0.34	0.03	0.01	0.05
20	0.06	0.06	0.06	8.4	1.2	3.4	0.82	0.56	0.04	0.01	0.00	0.04
21	0.06	0.08	0.06	8.3	1.1	14	0.80	0.56	0.00	0.10	0.00	0.01
22	0.06	0.07	0.06	2.0	0.96	3.4	0.72	0.57	0.00	0.01	0.00	0.00
23	0.06	0.17	0.07	52	0.94	2.5	0.65	0.59	0.00	0.00	0.00	0.00
24	0.33	2.7	0.26	5.6	0.81	2.1	0.74	0.58	0.00	6.2	7.6	0.00
25	7.5	0.02	0.06	12	0.81	1.9	1.6	0.47	0.00	10	2.8	0.00
26	0.24	0.03	0.17	1.9	0.98	2.6	0.56	0.38	2.0	0.81	0.36	6.8
27	0.22	0.05	0.06	1.1	0.88	2.0	0.61	0.41	0.23	0.02	1.9	2.5
28	0.23	0.10	0.07	0.85	0.80	1.5	0.68	0.44	0.03	0.00	4.7	0.26
29	0.42	0.11	0.07	0.73	---	1.7	0.55	0.54	0.00	0.00	0.07	0.01
30	0.57	0.21	0.08	0.60	---	4.3	0.57	11	0.00	0.00	0.00	0.00
31	0.48	---	0.12	0.64	---	10	---	2.3	---	0.00	48	---
TOTAL	21.74	13.10	33.34	165.87	49.89	134.00	40.86	53.50	9.78	42.01	112.93	36.87
MEAN	0.70	0.44	1.08	5.35	1.78	4.32	1.36	1.73	0.33	1.36	3.64	1.23
MAX	7.5	6.2	19	52	16	24	7.5	11	2.0	17	48	16
MIN	0.01	0.00	0.05	0.13	0.52	0.33	0.55	0.38	0.00	0.00	0.00	0.00
CFSM	0.13	0.08	0.21	1.03	0.34	0.83	0.26	0.33	0.06	0.26	0.70	0.24
IN.	0.16	0.09	0.24	1.19	0.36	0.96	0.29	0.38	0.07	0.30	0.81	0.26

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2002, BY WATER YEAR (WY)

MEAN	2.41	1.76	2.62	6.92	4.55	5.82	6.95	2.73	2.29	2.71	2.92	5.65
MAX	7.12	2.36	4.83	12.0	6.73	10.1	18.5	5.00	3.64	4.51	5.03	15.9
(WY)	(2000)	(2000)	(1999)	(1999)	(2000)	(2001)	(1998)	(2000)	(2001)	(2001)	(1998)	(2000)
MIN	0.41	0.44	1.08	4.32	1.78	2.78	1.36	1.73	0.33	1.36	0.29	1.23
(WY)	(2001)	(2002)	(2002)	(2001)	(2002)	(1999)	(2002)	(2002)	(2002)	(2002)	(2001)	(2002)

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

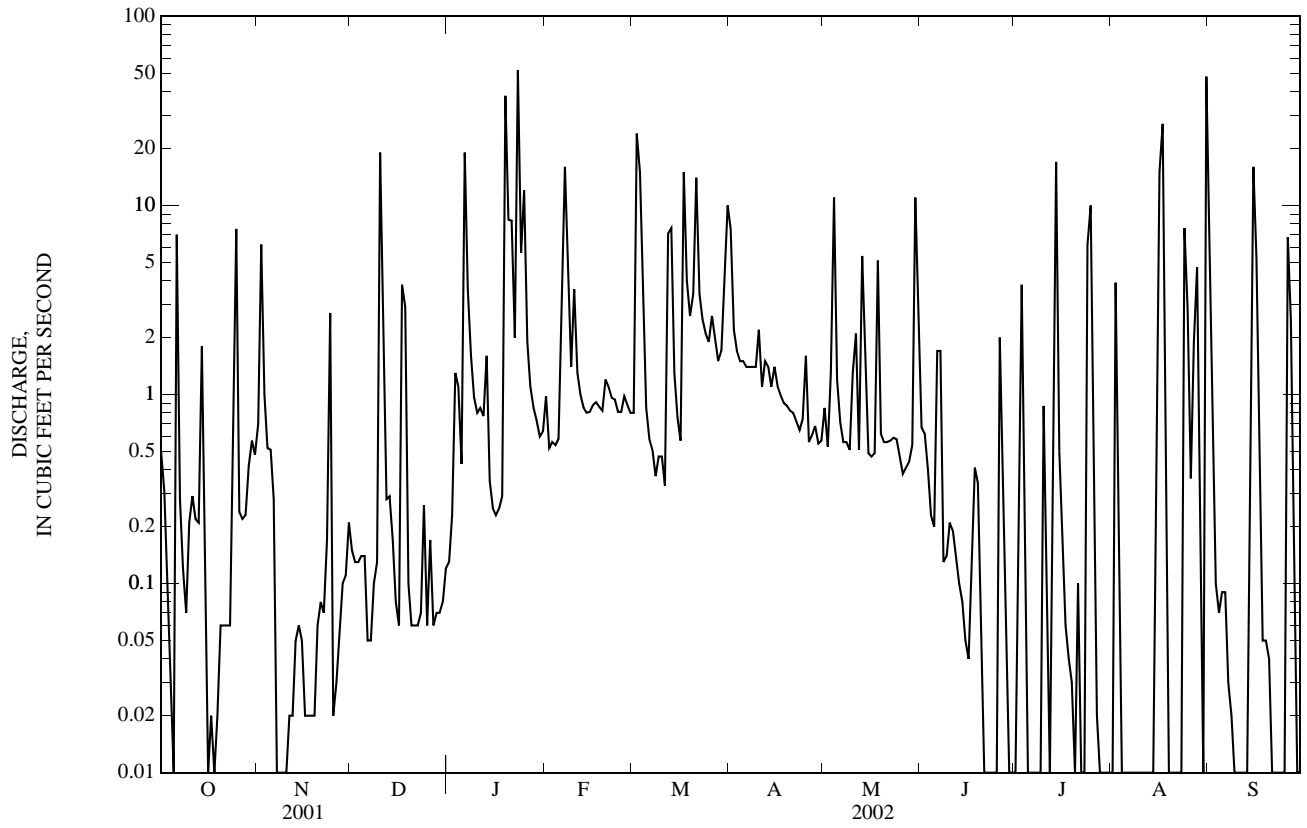
WATER YEARS 1998 - 2002

ANNUAL TOTAL	1,166.86	713.89	
ANNUAL MEAN	3.20	1.96	3.69
HIGHEST ANNUAL MEAN			5.66
LOWEST ANNUAL MEAN			1.96
HIGHEST DAILY MEAN	102	Jul 4	230
LOWEST DAILY MEAN	0.00	Aug 9	0.00
ANNUAL SEVEN-DAY MINIMUM	0.01	Aug 5	0.00
MAXIMUM PEAK FLOW			492
MAXIMUM PEAK STAGE			3.81
INSTANTANEOUS LOW FLOW			0.00*
ANNUAL RUNOFF (CFSM)	0.61		0.38
ANNUAL RUNOFF (INCHES)	8.35		5.11
10 PERCENT EXCEEDS	6.4		4.6
50 PERCENT EXCEEDS	0.71		0.47
90 PERCENT EXCEEDS	0.02		0.00

e Estimated.

* See REMARKS.

0214642825 BRIAR CREEK NEAR CHARLOTTE, NC—Continued



0214642825 BRIAR CREEK NEAR CHARLOTTE, NC—Continued

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.04	0.51	1.8	3.5	3.3	15	3.9	2.0	6.6	4.5	4.1	1.9
2	0.03	0.59	2.3	1.8	2.6	14	3.3	4.3	4.3	47	e2.3	1.2
3	0.03	0.53	2.7	5.0	2.4	4.9	3.2	5.3	24	5.0	e2.3	1.2
4	0.03	0.87	4.5	1.7	5.1	3.8	3.2	3.4	14	2.8	e75	5.1
5	0.04	14	42	1.4	2.1	5.4	4.6	2.9	5.2	2.4	36	1.8
6	0.05	15	6.8	1.3	5.0	93	5.2	41	8.3	2.6	5.2	1.2
7	3.2	1.1	3.9	1.7	14	7.2	131	7.6	333	2.5	2.6	1.1
8	0.02	0.47	2.5	1.4	3.1	4.3	21	4.3	97	2.3	6.9	1.3
9	0.11	0.44	2.0	1.4	2.4	3.4	61	2.9	36	2.9	3.1	1.4
10	0.06	0.72	1.9	1.3	7.1	2.9	245	2.6	12	2.7	1.9	1.3
11	65	12	19	1.3	2.8	2.6	21	2.4	9.5	9.5	1.5	1.4
12	1.1	48	3.3	1.3	2.4	2.4	7.3	2.2	22	5.0	1.3	1.4
13	54	4.9	56	1.4	2.3	2.4	4.4	2.0	8.5	52	2.1	1.6
14	1.7	1.9	6.9	1.4	3.4	2.4	3.2	1.7	6.9	6.0	5.4	1.6
15	8.7	1.3	3.1	1.4	3.6	14	2.7	6.7	6.3	3.3	2.5	1.6
16	27	25	2.3	1.6	4.2	66	2.5	3.7	39	2.6	8.5	1.3
17	1.0	13	1.8	2.4	8.2	7.2	2.4	2.2	15	84	5.0	1.3
18	0.45	3.2	1.5	2.5	12	8.5	80	6.9	42	6.8	1.8	1.7
19	0.40	1.9	1.6	1.1	6.1	7.1	15	3.6	16	7.0	1.2	2.0
20	0.31	1.7	15	1.4	4.7	299	6.2	2.5	7.3	4.5	1.1	1.8
21	2.6	1.7	2.8	2.0	3.6	14	5.5	95	5.2	7.4	1.1	1.8
22	5.2	1.7	2.0	1.6	37	8.1	4.0	386	4.2	4.6	1.3	8.4
23	0.50	1.9	1.7	3.1	8.0	5.9	3.0	26	3.8	4.6	1.1	12
24	0.50	1.8	85	2.0	4.1	4.8	2.7	15	3.4	3.3	1.1	1.9
25	0.98	1.7	39	2.6	3.2	4.3	6.0	140	2.9	3.5	1.3	1.8
26	1.5	1.9	5.1	2.7	7.7	4.2	7.3	14	2.6	5.0	1.7	2.3
27	1.1	1.8	3.3	2.7	27	4.9	3.5	104	13	3.9	1.5	3.7
28	15	1.2	2.5	2.2	7.9	4.3	2.7	10	4.6	3.4	1.8	3.2
29	3.3	1.4	2.1	2.7	---	4.2	3.1	6.5	3.3	46	2.7	1.3
30	1.2	1.4	1.8	27	---	43	2.2	5.1	3.4	8.5	3.3	1.6
31	0.53	---	1.7	6.1	---	6.1	---	28	---	4.7	1.8	---
TOTAL	195.68	163.63	327.9	91.0	195.3	669.3	666.1	939.8	759.3	350.3	188.5	71.2
MEAN	6.31	5.45	10.6	2.94	6.97	21.6	22.2	30.3	25.3	11.3	6.08	2.37
MAX	65	48	85	27	37	299	245	386	333	84	75	12
MIN	0.02	0.44	1.5	1.1	2.1	2.4	2.2	1.7	2.6	2.3	1.1	1.1
CFSM	1.21	1.05	2.03	0.56	1.34	4.15	4.27	5.83	4.87	2.17	1.17	0.46
IN.	1.40	1.17	2.35	0.65	1.40	4.79	4.77	6.72	5.43	2.51	1.35	0.51

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2003, BY WATER YEAR (WY)

MEAN	3.19	2.50	4.21	6.12	5.03	8.98	9.49	7.32	6.12	4.14	3.45	5.11
MAX	7.12	5.45	10.6	12.0	6.97	21.6	22.2	30.3	25.3	11.3	6.08	15.9
(WY)	(2000)	(2003)	(2003)	(1999)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2000)
MIN	0.41	0.44	1.08	2.94	1.78	2.78	1.36	1.73	0.33	1.36	0.29	1.23
(WY)	(2001)	(2002)	(2002)	(2003)	(2002)	(1999)	(2002)	(2002)	(2002)	(2002)	(2001)	(2002)

SUMMARY STATISTICS

FOR 2002 CALENDAR YEAR

FOR 2003 WATER YEAR

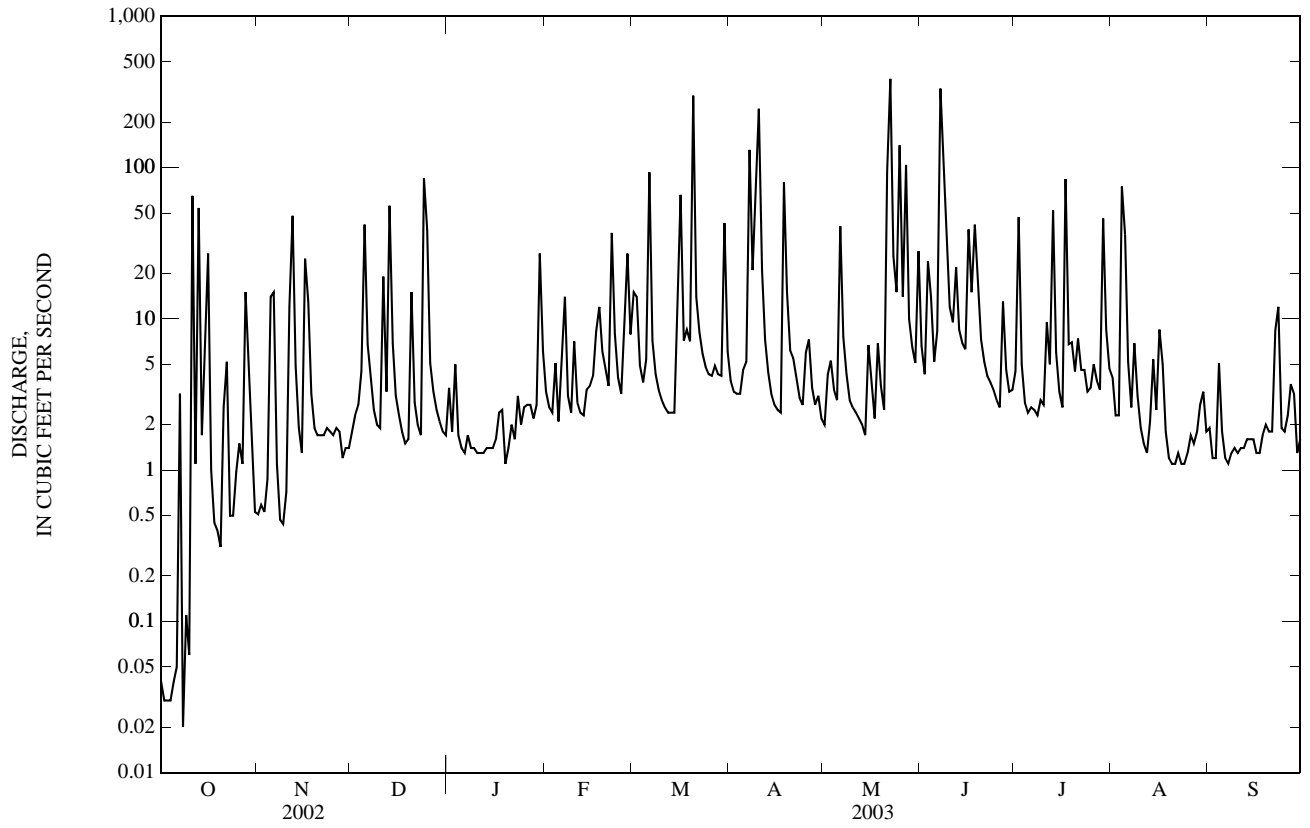
WATER YEARS 1998 - 2003

ANNUAL TOTAL	1,332.92	4,618.01	
ANNUAL MEAN	3.65	12.7	5.48
HIGHEST ANNUAL MEAN			12.7
LOWEST ANNUAL MEAN			1.96
HIGHEST DAILY MEAN	85	Dec 24	386
LOWEST DAILY MEAN	0.00	Jun 21	0.02
ANNUAL SEVEN-DAY MINIMUM	0.00	Aug 4	0.49
MAXIMUM PEAK FLOW			2,500*
MAXIMUM PEAK STAGE			7.44
INSTANTANEOUS LOW FLOW			0.01
ANNUAL RUNOFF (CFSM)	0.70		2.43
ANNUAL RUNOFF (INCHES)	9.54		33.04
10 PERCENT EXCEEDS	8.3		26
50 PERCENT EXCEEDS	0.82		3.2
90 PERCENT EXCEEDS	0.00		1.2
			7.44
			0.00*
			1.05
			14.31
			9.6
			1.5
			0.09

e Estimated.

* See REMARKS.

0214642825 BRIAR CREEK NEAR CHARLOTTE, NC—Continued



WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1999 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: April 1999 to current year.

pH: April 1999 to September 2002.

WATER TEMPERATURE: April 1999 to current year.

DISSOLVED OXYGEN: April 1999 to September 2002.

DISSOLVED OXYGEN, PERCENT SATURATION: April 1999 to September 2002.

INSTRUMENTATION.-- Water-quality monitor with radio telemetry.

REMARKS.--Station operated in cooperation with Mecklenburg County Land Use and Environmental Services Agency to characterize water-quality conditions in Briar Creek basin. Dissolved oxygen, percent saturation, computed using barometric pressure of 740 mm Hg.

EXTREMES FOR PERIOD OF DAILY RECORD.--Extremes listed below may have been exceeded during periods of missing record.

CONSTITUENT	MAXIMUM RECORDED	MINIMUM RECORDED
SPECIFIC CONDUCTANCE, microsiemens	1640, January 23, 2003	15, August 2, 2002
pH, standard units	9.3, August 8, 1999	5.7, April 27, 1999, August 2, 2002
WATER TEMPERATURE, °C	35.2, July 21, 2002	0.0, January 25, 2003
DISSOLVED OXYGEN, mg/L	17.3, February 23, 2002	0.1, November 15, 2001
DISSOLVED OXYGEN, PERCENT SATURATION,%	200, April 25, 1999	0, November 15, 2001

EXTREMES FOR CURRENT YEAR.--Extremes listed below may have been exceeded during periods of missing record.

CONSTITUENT	MAXIMUM RECORDED	MINIMUM RECORDED
SPECIFIC CONDUCTANCE, microsiemens	1640, January 23	25, April 10
WATER TEMPERATURE, °C	29.3, August 29	0.0, January 25

0214642825 BRIAR CREEK NEAR CHARLOTTE, NC—Continued

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

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	116	108	112	163	152	159	185	176	180	172	140	160
2	121	115	118	171	162	166	177	175	176	166	158	161
3	126	119	122	179	163	170	178	175	176	174	117	139
4	128	124	126	167	164	166	556	152	183	175	162	165
5	131	126	128	168	56	137	654	55	130	174	168	172
6	135	129	132	112	55	84	147	120	136	179	174	176
7	142	114	122	138	112	127	159	140	149	189	149	174
8	123	119	121	145	138	142	161	146	154	189	156	175
9	134	119	127	150	144	148	168	161	165	191	179	184
10	144	133	138	153	147	150	176	168	172	182	176	179
11	144	32	66	155	52	97	274	65	106	182	178	180
12	87	70	79	90	40	66	154	122	140	181	176	179
13	89	33	74	130	88	113	157	42	103	179	174	177
14	111	88	101	137	130	134	146	103	131	178	175	176
15	111	55	87	153	135	138	159	146	153	178	172	175
16	100	41	73	154	33	97	167	159	162	175	170	173
17	113	100	107	89	43	72	169	166	167	244	162	201
18	122	113	117	116	89	106	174	169	172	316	146	188
19	125	122	123	128	116	123	174	170	172	201	177	195
20	134	125	129	134	127	131	173	61	106	207	192	199
21	148	98	133	167	134	156	191	124	148	265	207	243
22	98	63	76	179	167	176	190	161	165	312	240	281
23	113	90	102	188	179	184	172	164	168	1,640	223	426
24	132	113	123	191	184	186	174	32	110	1,050	470	674
25	155	132	144	199	191	193	118	47	88	858	413	577
26	160	150	156	199	195	198	142	118	131	788	439	566
27	163	160	162	209	193	197	165	141	153	461	300	383
28	164	56	125	208	174	186	168	157	160	324	254	274
29	118	82	103	182	175	176	165	160	162	765	293	374
30	138	118	129	186	177	181	165	164	164	780	101	304
31	152	138	144	---	---	---	172	165	168	189	125	165
MONTH	164	32	116	209	33	145	654	32	150	1,640	101	251
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	232	189	202	166	73	141	160	137	150	246	239	244
2	208	203	206	141	78	113	170	160	163	242	149	211
3	226	200	211	154	141	149	175	167	169	215	101	177
4	209	159	190	168	152	161	185	174	180	226	104	178
5	190	177	183	176	140	162	187	162	178	234	207	223
6	187	105	177	170	44	96	189	107	176	212	56	99
7	191	77	106	150	118	136	107	34	71	167	108	141
8	294	191	239	167	150	158	126	46	111	214	120	178
9	201	185	190	169	163	165	108	43	73	218	195	204
10	224	130	155	174	167	169	65	25	46	222	200	214
11	176	151	163	180	174	176	113	61	94	223	199	214
12	182	175	178	182	176	179	132	113	123	229	198	212
13	184	177	180	182	175	180	143	132	137	225	200	212
14	183	161	177	184	177	181	165	142	151	233	194	213
15	235	169	186	184	62	154	183	154	163	229	94	196
16	217	155	175	119	36	85	180	163	175	194	102	143
17	927	217	446	149	119	135	198	179	187	217	183	204
18	828	232	508	152	125	137	195	47	75	215	82	170
19	232	223	228	153	107	143	129	77	108	194	115	156
20	230	219	224	110	33	65	162	129	144	223	183	200
21	246	225	235	133	105	121	179	162	172	232	51	168
22	230	64	151	142	132	136	770	177	570	101	41	64
23	173	122	154	155	142	147	492	371	422	134	95	114
24	181	168	173	168	155	159	371	295	317	163	70	146
25	183	174	179	177	168	171	300	188	251	108	40	76
26	224	127	178	179	174	177	230	125	187	152	98	130
27	127	74	99	196	174	183	205	147	175	129	40	96
28	151	103	132	195	179	186	245	205	226	159	104	138
29	---	---	---	185	178	182	256	213	244	173	154	162
30	---	---	---	184	49	94	240	215	231	189	168	176
31	---	---	---	137	100	121	---	---	---	191	71	126
MONTH	927	64	201	196	33	147	770	25	182	246	40	167

0214642825 BRIAR CREEK NEAR CHARLOTTE, NC—Continued

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

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	175	97	143	174	125	159	---	---	---	159	134	148
2	189	168	177	125	38	82	---	---	---	172	159	164
3	194	60	142	150	106	132	---	---	---	176	169	173
4	136	102	117	171	150	164	---	---	---	177	100	151
5	185	136	160	177	171	175	124	43	80	149	110	129
6	202	141	184	181	176	178	133	77	112	168	149	158
7	141	26	72	181	178	179	157	133	146	172	167	168
8	118	48	93	183	179	181	150	68	112	173	168	170
9	143	55	112	185	160	178	148	124	135	174	163	168
10	169	143	154	188	160	176	164	148	157	175	169	172
11	177	160	170	176	74	145	164	134	153	174	169	172
12	181	75	147	154	82	124	172	164	169	175	168	172
13	187	131	167	111	39	75	167	150	157	174	167	171
14	209	183	194	144	79	115	170	94	151	174	167	171
15	215	190	205	180	144	162	143	100	118	175	166	171
16	215	77	177	186	177	182	153	68	112	176	166	171
17	164	98	137	177	36	98	150	83	125	175	169	172
18	169	101	131	153	116	135	149	96	127	175	171	172
19	162	120	145	158	101	138	167	148	159	175	168	172
20	188	161	173	210	102	141	174	165	168	173	167	171
21	195	174	185	210	92	163	177	172	174	174	168	171
22	208	180	196	155	96	129	179	172	175	175	66	158
23	211	192	202	168	155	159	179	168	173	97	52	76
24	231	186	203	174	159	168	179	174	176	139	97	117
25	195	184	189	176	172	174	178	167	172	163	139	151
26	188	180	183	176	134	169	175	164	169	168	161	163
27	186	70	162	168	144	156	176	166	171	171	96	164
28	152	79	125	176	168	172	177	151	172	137	98	117
29	166	146	156	178	38	131	157	118	133	159	136	146
30	178	148	167	124	64	98	171	101	152	163	158	160
31	---	---	---	148	101	133	156	110	135	---	---	---
MONTH	231	26	159	210	36	147	---	---	---	177	52	158

0214642825 BRIAR CREEK NEAR CHARLOTTE, NC—Continued

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

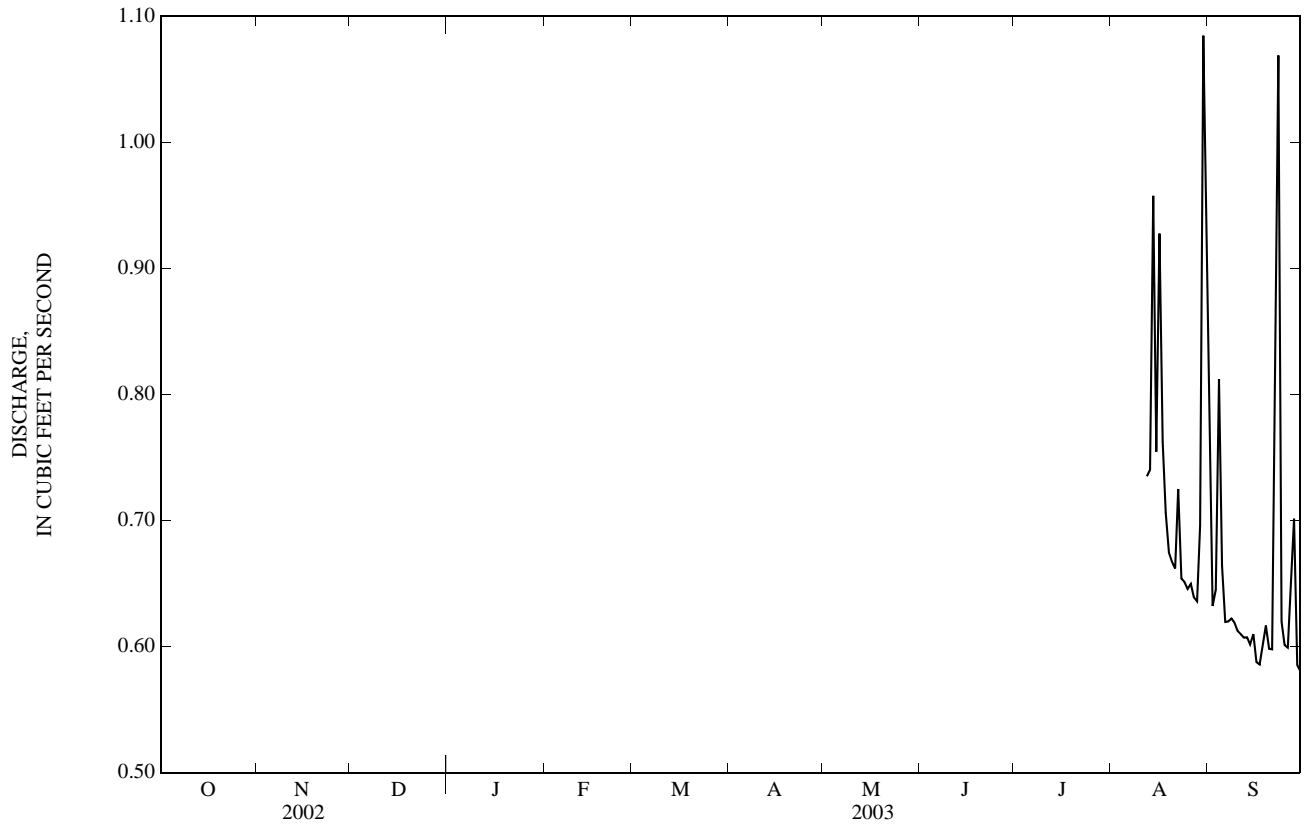
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	26.1	21.6	23.6	13.6	11.1	12.2	8.8	4.9	6.7	13.6	10.7	12.0
2	28.1	21.7	24.8	14.0	9.2	11.3	7.6	2.9	5.5	11.2	10.2	10.6
3	27.9	22.9	25.3	13.6	9.7	11.4	9.8	5.0	7.1	11.7	8.8	10.5
4	27.8	23.2	25.4	13.8	11.0	12.2	6.8	3.1	4.6	9.1	5.9	7.5
5	28.9	23.5	25.9	12.6	11.8	12.2	5.1	2.5	4.0	9.5	5.0	6.8
6	27.1	22.2	24.6	14.8	11.2	12.8	7.0	4.8	5.6	8.0	5.5	6.7
7	25.9	20.6	24.0	13.9	9.1	11.0	7.7	4.0	5.5	7.3	3.4	5.3
8	22.6	18.2	20.0	14.1	8.3	10.8	7.1	3.6	5.4	8.8	4.2	6.4
9	20.0	17.4	18.4	15.3	9.8	12.3	7.4	5.1	6.1	11.3	6.3	8.7
10	21.4	17.5	19.2	17.3	13.0	15.0	6.7	5.0	5.9	12.0	7.7	9.8
11	20.6	18.9	19.7	18.2	16.6	17.2	7.0	5.4	6.3	8.5	4.7	6.4
12	23.3	18.6	20.3	16.9	14.9	16.1	9.2	6.9	7.8	6.6	2.5	4.5
13	20.9	19.5	20.2	15.3	11.5	13.8	7.7	6.4	7.2	5.4	2.8	4.1
14	19.5	16.5	18.0	13.3	9.3	11.2	9.5	6.9	8.0	7.5	2.6	5.0
15	16.5	14.7	15.2	13.4	9.1	11.3	8.6	4.9	6.7	7.3	2.7	5.0
16	17.2	14.5	15.7	13.6	12.5	13.0	9.6	5.0	7.2	5.6	2.2	3.8
17	17.3	14.2	15.5	13.2	10.9	12.7	8.9	6.2	7.6	6.8	3.0	4.6
18	17.3	12.4	14.5	12.0	8.3	10.0	8.4	6.8	7.7	5.3	0.5	2.9
19	17.4	12.2	14.4	11.4	7.2	9.3	9.8	7.7	8.7	4.6	0.8	2.5
20	16.8	13.9	15.3	12.8	8.3	10.5	12.9	8.9	11.3	7.7	1.6	4.3
21	17.3	15.1	16.4	13.8	10.8	12.1	9.8	6.6	8.1	7.1	5.3	6.2
22	15.1	14.4	14.6	12.4	8.5	10.9	10.9	6.1	8.3	8.0	4.0	5.8
23	18.4	14.1	15.6	11.0	6.5	8.4	10.2	6.3	8.4	5.4	0.2	2.2
24	15.8	14.6	15.2	12.0	6.4	8.8	8.3	6.5	7.7	2.6	0.1	0.8
25	15.2	14.2	14.6	12.7	7.5	9.7	8.9	6.2	7.6	4.2	0.0	1.9
26	16.6	13.9	15.2	11.8	7.4	9.4	7.6	4.8	6.2	6.7	1.8	3.8
27	18.3	15.4	16.7	10.3	7.2	9.0	7.8	3.6	5.7	5.5	1.6	3.4
28	17.3	16.0	16.7	8.9	4.6	6.6	7.8	3.5	5.6	6.6	1.4	3.7
29	16.0	13.4	14.5	8.2	3.3	5.6	9.7	4.8	7.0	7.3	4.2	5.7
30	13.5	12.4	13.0	11.7	6.3	8.2	9.1	5.5	7.4	7.1	4.8	6.0
31	15.1	10.8	12.7	---	---	---	10.7	6.9	8.8	6.2	4.7	5.4
MONTH	28.9	10.8	18.2	18.2	3.3	11.2	12.9	2.5	7.0	13.6	0.0	5.6
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	9.9	5.5	7.2	9.2	7.5	8.2	16.9	8.0	12.1	23.7	18.6	20.7
2	10.7	4.7	7.5	10.9	8.0	9.1	20.2	12.0	15.6	25.1	18.1	20.7
3	12.4	6.9	9.5	12.7	6.5	9.3	21.5	13.7	17.1	22.2	17.1	19.4
4	14.1	9.2	11.6	13.6	7.0	10.2	20.1	14.9	17.4	18.9	16.5	17.8
5	10.8	5.8	8.2	13.6	10.4	11.9	18.4	15.8	16.8	16.5	15.0	15.6
6	7.6	5.7	6.6	12.5	11.4	12.0	20.2	13.9	16.6	18.5	16.0	17.3
7	7.9	5.0	6.3	11.7	8.6	10.3	16.1	11.4	12.3	20.7	16.9	18.6
8	8.8	4.1	6.2	14.2	6.6	10.1	11.4	10.1	11.1	24.9	18.0	21.1
9	9.8	4.7	6.7	17.3	10.0	13.0	10.7	9.2	10.0	24.8	19.5	22.0
10	7.9	5.6	6.5	15.9	9.8	12.6	9.9	8.0	9.0	25.9	20.1	22.7
11	9.6	3.6	6.4	14.0	8.9	11.1	12.7	9.3	10.7	22.8	19.4	21.4
12	11.1	5.4	7.7	17.1	8.7	12.6	17.4	9.9	13.3	23.4	17.6	19.8
13	10.1	3.4	6.7	17.9	11.4	14.3	18.9	11.6	14.9	23.2	16.3	19.2
14	7.6	5.0	6.4	17.0	13.2	14.7	20.5	12.8	16.3	21.0	15.8	18.2
15	13.0	7.4	9.7	13.2	10.4	11.5	21.6	14.7	17.8	19.6	17.2	18.2
16	9.6	1.4	4.9	12.5	10.0	11.3	22.1	15.1	18.2	21.2	18.0	19.3
17	4.4	1.6	2.9	14.3	12.0	13.0	20.4	15.6	18.0	19.4	17.2	18.4
18	7.7	3.8	5.5	15.2	12.8	13.8	17.6	12.5	14.1	17.2	15.7	16.5
19	9.5	4.9	7.0	14.3	11.8	13.5	13.6	12.2	12.8	16.2	14.9	15.6
20	11.0	7.7	8.9	11.8	9.1	10.1	15.8	13.0	14.1	21.8	14.9	17.9
21	9.6	7.2	8.4	16.9	10.4	13.1	15.9	14.4	15.2	19.5	17.4	18.3
22	10.7	8.7	9.3	17.5	11.0	14.1	19.7	14.8	16.7	18.1	17.2	17.7
23	12.9	8.6	10.6	17.2	11.1	14.1	19.8	12.4	15.6	18.1	16.8	17.4
24	13.3	6.4	9.6	19.1	11.8	15.0	18.3	12.3	15.2	19.0	16.7	17.6
25	11.6	8.0	9.8	19.5	11.8	15.4	15.6	14.6	15.1	20.2	18.2	19.1
26	9.4	6.3	7.9	20.5	13.8	16.8	19.6	15.1	16.9	20.5	18.1	19.2
27	6.3	5.2	5.6	18.9	13.8	16.4	21.7	14.8	17.8	19.1	17.6	18.3
28	8.6	5.6	6.9	18.3	14.0	16.4	22.7	15.0	18.4	20.9	16.4	18.5
29	---	---	---	21.2	16.4	18.4	22.9	16.2	19.2	20.6	16.8	18.5
30	---	---	---	18.4	10.0	12.5	24.4	17.5	20.6	21.6	16.3	18.8
31	---	---	---	14.0	8.0	10.7	---	---	---	22.0	17.0	19.2
MONTH	14.1	1.4	7.5	21.2	6.5	12.8	24.4	8.0	15.3	25.9	14.9	18.8

SANTEE RIVER BASIN

0214642825 BRIAR CREEK NEAR CHARLOTTE, NC—Continued

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	21.8	17.3	19.2	22.9	20.8	21.9	---	---	---	27.2	23.0	24.8
2	21.3	15.8	18.4	22.3	20.5	21.4	---	---	---	27.8	22.9	25.0
3	20.2	17.5	18.7	24.6	20.6	22.3	---	---	---	27.3	23.1	24.9
4	22.3	18.7	20.4	26.6	20.9	23.3	---	---	---	25.7	23.6	24.4
5	23.1	18.6	20.5	27.0	22.2	24.2	25.4	21.6	23.1	25.6	21.7	23.4
6	22.9	17.8	20.1	26.4	22.5	24.1	25.2	22.4	23.6	22.7	20.2	21.3
7	22.0	20.5	21.2	25.9	22.6	23.9	24.7	22.0	23.3	21.7	19.2	20.4
8	23.1	20.0	21.2	27.4	22.4	24.7	25.4	22.3	23.6	22.0	19.6	20.7
9	23.6	19.8	21.6	27.8	23.3	24.8	25.8	22.1	23.8	23.6	19.7	21.4
10	24.4	19.3	21.5	27.1	22.4	24.3	24.0	22.2	23.0	22.5	19.4	20.7
11	24.3	19.6	21.7	27.2	22.5	24.5	25.3	21.3	23.2	22.6	17.8	19.9
12	25.1	20.8	22.6	27.3	22.4	24.4	25.5	22.4	23.8	21.9	17.8	19.6
13	24.5	21.0	22.5	24.3	22.1	23.0	26.6	22.6	24.1	24.5	18.2	21.0
14	25.8	21.0	23.0	23.7	21.8	22.7	26.4	22.8	24.5	24.5	19.8	21.8
15	26.0	21.5	23.4	25.0	21.5	23.1	27.5	23.5	25.2	24.8	20.1	22.3
16	25.1	21.6	23.0	27.2	22.1	24.3	26.0	24.0	24.9	24.0	20.5	21.9
17	22.8	21.4	21.9	25.7	23.2	24.2	26.3	23.0	24.6	22.8	18.2	20.3
18	24.0	21.2	22.2	26.0	22.5	24.0	27.1	22.8	24.7	19.7	18.2	19.1
19	25.1	21.1	22.8	25.2	22.3	23.5	26.4	23.1	24.4	24.3	18.1	20.7
20	24.7	21.2	22.6	25.7	21.8	23.6	26.7	22.6	24.2	24.3	18.4	21.0
21	23.6	18.6	20.8	26.2	22.7	24.3	26.8	22.6	24.4	23.6	18.9	21.0
22	24.0	17.9	20.6	26.5	22.8	24.4	27.1	22.9	24.4	22.6	20.0	21.1
23	25.1	18.7	21.4	23.8	21.8	22.7	27.2	22.5	24.5	24.0	20.4	22.2
24	25.4	19.4	22.1	25.6	20.6	22.7	26.8	23.2	24.6	23.4	18.2	20.5
25	26.1	20.0	22.7	26.4	21.0	23.3	26.5	21.8	24.0	24.0	17.9	20.5
26	26.6	20.7	23.4	26.5	21.8	23.6	27.8	22.8	25.0	23.7	18.3	20.7
27	26.1	21.7	23.6	26.8	22.5	24.2	28.4	23.5	25.7	24.6	18.9	21.3
28	22.9	21.3	22.0	28.0	23.0	25.1	28.5	24.1	26.0	23.6	18.9	21.1
29	25.4	20.7	22.7	27.2	23.2	24.7	29.3	24.4	26.4	20.3	15.9	17.9
30	26.4	21.7	23.4	25.3	23.2	24.0	29.0	24.1	26.1	19.4	13.8	16.2
31	---	---	---	25.0	22.6	23.6	25.5	23.8	24.7	---	---	---
MONTH	26.6	15.8	21.7	28.0	20.5	23.7	---	---	---	27.8	13.8	21.2



0214645022 BRIAR CREEK ABOVE COLONY ROAD AT CHARLOTTE, NC

LOCATION.--Lat 35°10'31", long 80°49'51", Mecklenburg County, Hydrologic Unit 03050103, on left bank on upstream side of third footbridge 900 feet upstream of Colony Road at Charlotte. Located within Myers Park Country Club.

DRAINAGE AREA.--19.0 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1995 to current year.

GAGE.--Water-stage recorder. Datum of gage is 598.02 ft, North American Vertical Datum of 1988. Radio telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Maximum gage height for period of record 15.41 ft, from floodmarks. Maximum discharge for period of record from slope-area measurement of peak flow. Minimum discharge for current water year also occurred Oct. 5, 6, 7.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 27, 1995 reached a stage of 15.6 ft, present site and datum, from floodmarks; discharge not determined.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

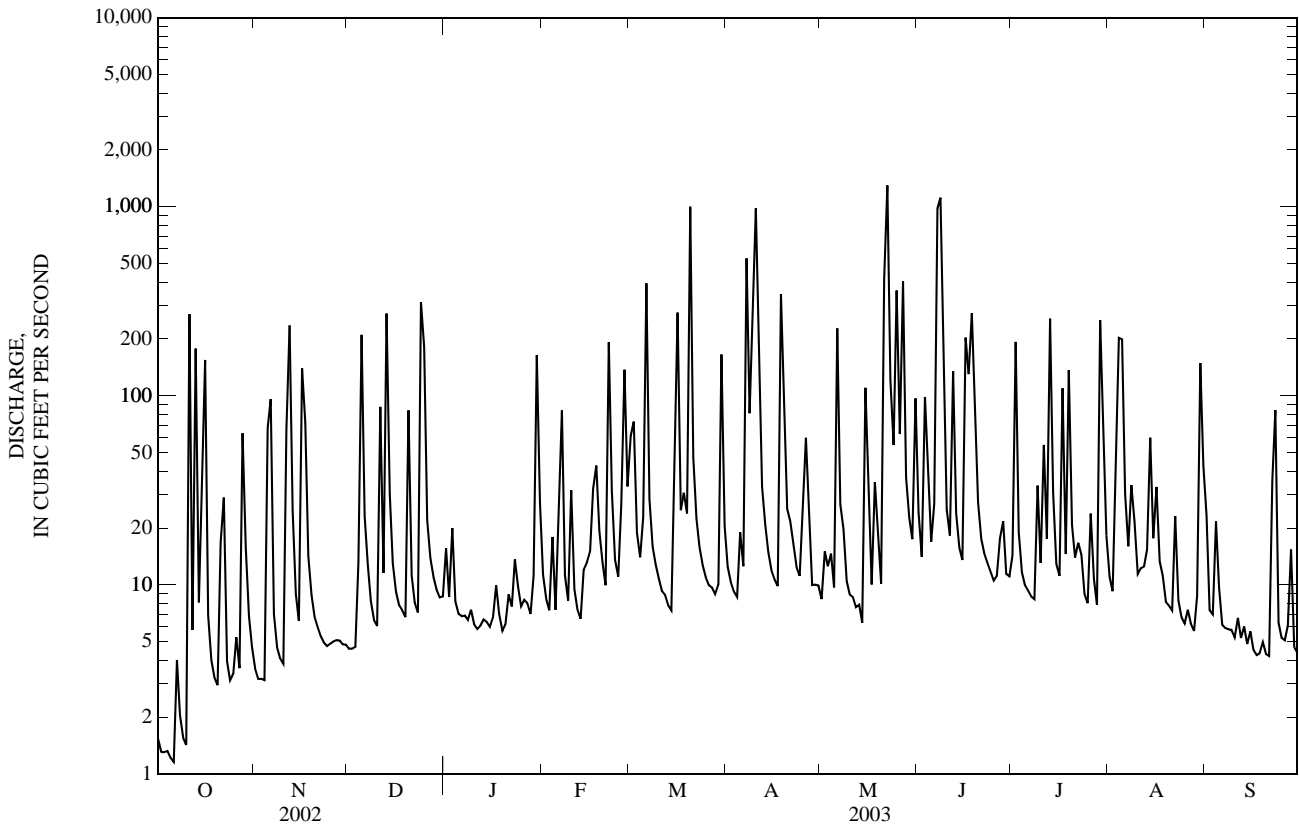
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.5	e3.6	4.6	16	11	62	12	8.4	24	14	11	23
2	1.3	3.2	e4.6	8.6	8.4	73	10	15	14	193	9.3	7.4
3	1.3	3.2	e4.7	20	7.3	19	9.2	13	99	19	69	7.0
4	1.3	3.1	13	8.2	18	14	8.6	15	43	12	202	22
5	1.2	68	210	7.0	7.4	23	19	9.7	17	10	199	9.7
6	1.2	96	23	6.8	19	394	13	227	27	9.3	30	6.1
7	4.0	7.0	13	6.9	84	29	533	27	980	8.7	16	5.9
8	2.0	4.7	e8.2	6.5	11	16	81	20	1,120	8.4	34	5.8
9	1.6	4.1	e6.5	7.4	8.3	13	291	10	113	34	22	5.8
10	1.4	3.8	6.1	6.2	32	11	979	8.9	25	13	11	5.3
11	271	66	88	5.8	9.5	9.3	118	8.6	18	55	12	6.7
12	5.8	235	12	6.1	7.4	8.9	33	7.6	135	18	13	5.2
13	178	25	272	6.6	6.6	7.8	21	7.9	24	256	15	6.0
14	8.1	8.9	30	6.4	12	7.3	15	6.3	16	31	60	4.9
15	44	6.4	e13	6.0	13	48	12	110	14	13	18	5.7
16	155	140	e9.2	6.7	15	276	11	29	203	11	33	4.5
17	6.9	72	7.8	9.9	32	25	9.9	10	130	110	13	4.3
18	4.0	14	7.4	7.0	43	31	344	35	274	15	11	4.3
19	3.2	8.9	6.8	5.7	19	24	78	18	80	137	8.1	5.0
20	2.9	6.8	84	6.2	13	1,000	25	10	27	21	7.8	4.3
21	17	6.0	11	8.9	10	47	22	414	18	14	7.3	4.2
22	29	5.4	8.1	7.7	192	22	16	1,300	15	17	23	36
23	3.9	5.0	7.1	14	31	16	12	122	13	14	8.3	84
24	3.1	4.8	313	e9.8	14	13	11	55	12	9.0	6.8	6.3
25	3.4	4.9	182	7.7	11	11	28	360	11	8.0	6.3	5.3
26	5.3	5.0	22	8.3	27	10	e60	63	11	24	7.4	5.1
27	3.6	5.1	14	8.0	137	9.7	e25	402	18	11	6.2	6.1
28	63	5.1	11	7.0	33	8.9	e10	37	22	7.9	5.7	15
29	16	4.9	9.4	11	---	10	10	23	11	251	8.8	4.7
30	6.8	4.8	8.6	164	---	165	9.9	17	11	65	149	4.4
31	e4.7	---	8.7	27	---	20	---	97	---	18	43	---
TOTAL	851.5	830.7	1,418.8	433.4	831.9	2,423.9	2,826.6	3,486.4	3,525	1,427.3	1,066.0	320.0
MEAN	27.5	27.7	45.8	14.0	29.7	78.2	94.2	112	118	46.0	34.4	10.7
MAX	271	235	313	164	192	1,000	979	1,300	1,120	256	202	84
MIN	1.2	3.1	4.6	5.7	6.6	7.3	8.6	6.3	11	7.9	5.7	4.2
CFSM	1.45	1.46	2.41	0.74	1.56	4.12	4.96	5.92	6.18	2.42	1.81	0.56
IN.	1.67	1.63	2.78	0.85	1.63	4.75	5.53	6.83	6.90	2.79	2.09	0.63

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 2003, BY WATER YEAR (WY)

MEAN	16.0	13.1	18.0	29.9	27.2	33.6	37.9	24.7	25.9	30.2	15.1	16.9
MAX	31.0	27.7	45.8	65.2	46.9	78.2	94.2	112	118	114	34.4	41.1
(WY)	(2000)	(2003)	(2003)	(1998)	(1998)	(2003)	(2003)	(2003)	(2003)	(1997)	(2003)	(2000)
MIN	2.29	3.49	5.83	9.18	8.05	11.5	5.93	8.11	2.99	8.57	1.80	7.49
(WY)	(2001)	(2002)	(2001)	(2001)	(2002)	(1999)	(2002)	(1999)	(2002)	(1996)	(2001)	(2002)

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1996 - 2003	
ANNUAL TOTAL	6,555.51		19,441.5		24.4	
ANNUAL MEAN	18.0		53.3		53.3	
HIGHEST ANNUAL MEAN					10.8	2003
LOWEST ANNUAL MEAN					10.8	2002
HIGHEST DAILY MEAN	325	Aug 31	1,300	May 22	2,610	Jul 23, 1997
LOWEST DAILY MEAN	0.18	Aug 14	1.2	Oct 5	0.18	Aug 14, 2002
ANNUAL SEVEN-DAY MINIMUM	0.29	Aug 8	1.7	Oct 1	0.29	Aug 8, 2002
MAXIMUM PEAK FLOW			5,420	Jun 8	5,680*	Jul 23, 1997
MAXIMUM PEAK STAGE			15.11	Jun 8	15.41*	Jul 23, 1997
INSTANTANEOUS LOW FLOW			1.1*	Oct 4	0.12	Aug 13, 2002
ANNUAL RUNOFF (CFSM)	0.95		2.80		1.29	
ANNUAL RUNOFF (INCHES)	12.83		38.06		17.48	
10 PERCENT EXCEEDS	40		136		44	
50 PERCENT EXCEEDS	4.5		12		6.3	
90 PERCENT EXCEEDS	0.92		4.8		2.1	

e Estimated.
 * See REMARKS.



0214645022 BRIAR CREEK ABOVE COLONY ROAD AT CHARLOTTE, NC—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1999 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: April 1999 to current year.

pH: April 1999 to current September 2002.

WATER TEMPERATURE: April 1999 to current year.

DISSOLVED OXYGEN: April 1999 to September 2002.

DISSOLVED OXYGEN, PERCENT SATURATION: April 1999 to September 2002.

INSTRUMENTATION.-- Water-quality monitor with radio telemetry.

REMARKS.--Station operated in cooperation with Mecklenburg County Land Use and Environmental Services Agency to characterize water-quality conditions in Briar Creek basin. Dissolved oxygen, percent saturation, computed using barometric pressure of 740 mm Hg.

EXTREMES FOR PERIOD OF DAILY RECORD.--Extremes listed below may have been exceeded during periods of missing record.

CONSTITUENT	MAXIMUM RECORDED	MINIMUM RECORDED
SPECIFIC CONDUCTANCE, microsiemens	1520, January 5, 2002	27, September 23, 2000
pH, standard units	9.6, October 8, 1999	6.0, June 27, 1999
WATER TEMPERATURE, °C	35.0, July 31, 1999	-0.2, December 26, 31, 2000, January 3, 4, 2001, January 4, 2002, January 24, 2003
DISSOLVED OXYGEN, mg/L	15.4, February 3, 2001, January 5, 2002	2.7, April 13, 14, 2001
DISSOLVED OXYGEN, PERCENT SATURATION,%	191, May 30, 2002	24, September 5, 1999

EXTREMES FOR CURRENT YEAR.--Extremes listed below may have been exceeded during periods of missing record.

CONSTITUENT	MAXIMUM RECORDED	MINIMUM RECORDED
SPECIFIC CONDUCTANCE, microsiemens	1430, February 17	30, June 7
WATER TEMPERATURE, °C	32.0, August 27	-0.2, January 24

0214645022 BRIAR CREEK ABOVE COLONY ROAD AT CHARLOTTE, NC—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	156	145	151	---	---	---	205	203	204	196	160	182
2	167	156	164	170	164	166	205	199	202	186	172	176
3	171	167	169	175	170	171	200	197	198	186	148	160
4	178	169	173	179	174	176	399	187	211	178	159	169
5	183	175	178	175	62	143	313	70	121	193	178	188
6	189	180	184	112	58	84	158	129	144	198	193	195
7	189	158	180	145	112	131	181	157	168	204	196	200
8	158	140	149	160	145	155	182	169	176	211	199	202
9	162	140	155	170	160	164	191	181	186	231	200	210
10	171	162	167	182	170	177	199	190	193	232	223	228
11	170	32	71	183	72	115	195	80	108	230	211	215
12	114	84	103	109	55	81	160	115	141	215	210	212
13	121	38	83	155	102	132	166	51	106	210	198	202
14	119	84	104	181	155	172	158	100	134	208	198	204
15	128	54	101	190	181	187	178	158	169	210	203	206
16	103	42	71	190	69	137	188	178	184	226	200	206
17	137	103	122	136	74	111	193	183	190	282	205	226
18	155	137	147	172	136	156	195	189	192	221	208	214
19	168	155	162	181	172	178	195	190	192	246	219	230
20	175	168	172	195	181	190	194	74	106	230	201	209
21	177	80	145	201	195	198	160	112	139	227	200	206
22	90	71	81	205	201	203	186	160	171	233	205	215
23	110	88	100	207	204	205	190	186	188	878	210	327
24	129	110	120	205	203	204	189	37	114	795	422	543
25	144	129	137	207	205	206	129	54	89	867	551	676
26	149	144	147	208	206	207	164	129	150	654	509	556
27	158	149	153	214	207	209	182	164	176	530	378	461
28	158	77	129	209	206	207	195	182	192	378	306	346
29	120	82	102	209	203	206	198	194	196	634	266	326
30	142	120	130	208	204	206	198	197	197	634	105	244
31	---	---	---	---	---	---	201	193	197	183	118	155
MONTH	---	---	---	---	---	---	399	37	166	878	105	261
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	204	183	196	184	94	160	194	168	181	217	168	213
2	214	204	209	154	86	118	201	189	194	217	167	209
3	218	211	212	185	154	173	206	197	201	190	178	184
4	218	170	193	197	185	190	212	202	205	190	151	165
5	198	175	191	197	161	174	212	159	192	203	175	192
6	205	120	191	174	46	96	195	143	187	198	60	86
7	133	87	107	172	130	155	156	51	84	167	88	135
8	195	133	159	191	172	183	160	79	142	175	146	158
9	212	195	203	199	191	196	131	61	91	235	175	197
10	196	125	152	202	197	199	88	43	63	208	201	206
11	183	158	168	210	201	205	155	82	125	211	205	208
12	197	183	190	209	206	208	177	155	167	210	204	207
13	201	197	198	229	205	211	186	176	182	214	187	205
14	219	170	195	212	207	210	198	186	191	213	192	206
15	197	167	175	214	90	181	213	198	208	218	52	188
16	287	171	202	134	46	91	216	209	213	165	92	133
17	1,430	287	661	174	134	157	219	213	215	200	165	185
18	759	297	534	172	155	163	217	55	109	205	103	180
19	301	231	240	189	104	172	148	79	121	175	112	143
20	253	234	240	130	45	77	181	148	166	212	175	197
21	250	235	240	174	130	157	194	181	187	220	65	167
22	262	75	165	188	174	184	433	185	263	125	64	83
23	182	118	158	199	188	195	386	261	293	178	125	154
24	204	182	196	206	197	203	265	231	238	202	91	186
25	204	200	202	210	202	205	231	166	196	142	69	100
26	209	141	194	222	206	211	---	---	---	192	68	171
27	152	82	113	222	206	212	---	---	---	152	72	117
28	167	100	140	226	208	214	---	---	---	173	151	160
29	---	---	---	225	207	215	214	206	211	187	173	183
30	---	---	---	225	68	116	224	206	213	---	---	---
31	---	---	---	168	109	144	---	---	---	204	74	149
MONTH	1,430	75	215	229	45	173	---	---	---	---	---	---

0214645022 BRIAR CREEK ABOVE COLONY ROAD AT CHARLOTTE, NC—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	167	89	134	194	159	185	185	163	175	---	---	---
2	196	167	184	159	47	88	192	185	189	---	---	---
3	196	72	148	166	122	145	195	71	155	195	185	191
4	141	89	122	188	166	178	153	45	114	195	132	175
5	181	141	164	197	187	192	128	47	86	165	133	148
6	197	108	184	201	195	198	153	74	124	183	165	176
7	108	30	67	205	198	203	187	139	169	192	183	187
8	139	32	100	218	201	206	156	105	129	195	190	192
9	153	71	119	225	92	182	166	128	149	197	192	194
10	185	153	173	179	120	163	185	166	177	200	192	197
11	200	185	193	228	83	163	187	182	185	200	168	189
12	---	---	---	155	73	122	189	158	184	199	170	186
13	---	---	---	111	47	76	180	146	167	200	172	188
14	---	---	---	152	78	119	188	76	161	205	189	199
15	---	---	---	182	152	170	162	104	136	204	178	196
16	---	---	---	199	180	188	172	86	132	208	193	199
17	144	52	104	195	42	113	168	125	152	206	200	202
18	141	42	94	167	124	151	172	139	154	203	201	202
19	151	88	123	168	44	133	225	172	190	204	200	202
20	186	130	163	166	86	139	197	186	192	209	200	203
21	199	186	195	195	165	180	201	193	197	207	199	202
22	207	199	204	174	141	154	203	77	179	205	88	186
23	210	205	208	178	166	170	197	144	173	117	63	88
24	212	205	208	192	167	182	201	196	199	156	117	139
25	209	204	207	198	192	195	205	193	199	174	156	166
26	212	186	200	201	98	180	208	177	200	185	174	180
27	206	124	198	183	128	156	203	173	186	190	155	185
28	171	103	145	192	182	186	209	193	202	190	126	142
29	193	171	183	195	44	144	---	---	---	189	146	162
30	198	191	195	134	65	98	---	---	---	194	175	179
31	---	---	---	163	88	133	---	---	---	---	---	---
MONTH	---	---	---	228	42	158	---	---	---	---	---	---

0214645022 BRIAR CREEK ABOVE COLONY ROAD AT CHARLOTTE, NC—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	25.6	21.5	23.5	---	---	---	7.6	4.8	6.2	13.4	10.3	11.8
2	26.8	21.5	24.2	12.4	9.2	11.1	7.6	3.4	5.6	11.4	10.4	10.8
3	26.9	22.0	24.5	13.3	10.1	11.8	8.3	4.8	6.8	11.6	9.0	10.6
4	26.6	22.4	24.5	14.0	11.5	12.7	7.3	3.8	4.8	9.0	6.3	7.6
5	27.2	22.5	24.8	13.2	12.0	12.5	4.9	2.8	3.9	8.8	5.3	6.9
6	25.7	21.4	23.4	14.5	11.6	12.8	7.2	4.9	5.7	7.7	5.1	6.5
7	25.3	20.8	22.7	13.1	9.6	11.2	7.6	4.6	5.7	6.4	3.6	5.0
8	21.5	17.8	19.3	13.1	8.7	10.8	7.0	3.8	5.4	8.0	4.0	5.8
9	19.8	17.0	18.2	14.5	9.8	12.2	7.1	5.1	6.0	10.4	6.0	8.0
10	21.4	17.5	19.3	17.3	12.9	15.2	6.7	5.0	5.9	10.6	8.1	9.5
11	21.1	19.2	20.0	18.6	17.0	17.6	6.8	5.7	6.3	8.1	5.3	6.6
12	23.6	18.9	21.2	17.3	15.1	16.4	9.0	6.8	7.7	5.8	3.0	4.5
13	21.9	19.8	20.7	15.2	12.0	14.0	7.7	6.7	7.3	5.6	3.3	4.3
14	19.8	16.9	18.6	13.2	9.9	11.4	8.9	7.0	7.7	6.7	2.8	4.6
15	16.9	14.7	15.5	13.4	9.2	11.3	8.3	5.2	6.6	6.0	3.2	4.6
16	17.7	14.5	15.8	13.7	12.5	13.1	9.3	5.0	6.8	5.7	2.8	4.1
17	18.0	14.6	16.0	13.3	11.3	12.9	8.6	6.2	7.4	6.0	2.9	4.5
18	16.8	12.8	14.9	12.0	9.0	10.2	8.4	6.7	7.6	3.7	0.9	2.2
19	16.8	12.5	14.9	11.2	7.8	9.4	9.7	7.7	8.6	3.9	0.3	1.9
20	17.4	14.1	15.9	12.7	8.5	10.5	12.8	9.6	11.5	6.4	1.4	3.7
21	18.2	16.1	17.1	13.6	10.8	12.0	9.6	7.0	8.2	7.1	4.6	6.0
22	16.1	14.8	15.2	11.7	8.6	10.7	10.2	6.1	7.9	7.4	4.8	6.0
23	17.5	14.4	15.9	9.9	6.7	8.3	9.7	6.5	8.1	5.6	0.6	2.5
24	16.5	15.0	15.9	10.9	6.5	8.6	8.2	6.8	7.6	2.7	-0.2	0.7
25	15.7	14.7	15.0	11.2	7.4	9.4	8.6	6.6	7.7	4.2	-0.1	1.8
26	17.2	14.3	15.7	10.9	7.4	9.3	7.3	5.0	6.1	5.6	1.8	3.5
27	18.8	15.6	17.2	9.9	7.1	8.9	7.3	4.0	5.4	4.3	1.7	3.1
28	17.9	16.6	17.2	7.6	5.1	6.4	7.4	3.8	5.3	5.4	1.3	3.3
29	16.6	14.0	15.2	7.4	3.5	5.6	9.1	4.7	6.5	7.0	3.8	5.5
30	14.1	13.0	13.7	9.6	6.4	7.8	9.0	5.6	7.1	7.1	5.0	6.3
31	---	---	---	---	---	---	10.3	6.9	8.5	6.1	4.8	5.5
MONTH	---	---	---	---	---	---	12.8	2.8	6.8	13.4	-0.2	5.4
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	9.2	5.5	6.9	9.3	7.8	8.5	17.5	8.6	12.4	25.1	19.1	21.5
2	10.7	5.2	7.5	10.8	8.4	9.2	21.0	12.1	15.8	27.1	18.9	21.8
3	12.1	7.1	9.3	12.8	7.3	9.6	22.7	13.9	17.5	23.9	18.0	20.5
4	13.6	9.9	11.5	13.7	7.9	10.5	20.8	15.2	17.8	19.9	17.2	18.8
5	10.9	6.8	8.7	13.3	11.0	12.0	18.5	16.2	17.1	17.2	15.8	16.3
6	8.0	6.2	7.1	12.5	11.7	12.2	21.5	14.2	17.3	18.6	16.2	17.6
7	7.4	5.4	6.3	12.1	9.1	10.7	17.2	11.6	12.7	21.7	17.4	19.2
8	8.6	4.6	6.2	14.4	7.6	10.4	11.6	10.5	11.3	26.7	18.3	21.9
9	9.5	5.2	6.8	17.1	10.3	13.1	10.7	9.4	10.1	26.6	20.4	23.2
10	8.0	5.9	6.8	16.8	10.5	13.1	9.9	8.2	9.0	28.1	21.0	24.0
11	9.5	4.0	6.3	14.8	9.9	11.7	12.6	9.5	10.7	24.0	20.0	22.4
12	10.3	5.6	7.4	17.8	9.3	12.8	17.6	10.3	13.6	25.8	17.9	20.8
13	10.0	4.4	6.8	18.2	11.9	14.6	19.7	12.4	15.5	25.0	16.8	20.1
14	7.9	5.5	6.7	16.9	13.5	15.0	21.3	13.4	16.8	22.9	16.6	19.3
15	12.6	7.6	9.7	13.5	11.0	12.0	23.1	15.2	18.5	20.8	17.8	18.9
16	9.8	2.6	5.8	12.5	10.3	11.4	23.2	15.6	18.9	21.8	18.4	19.9
17	4.2	2.3	3.2	14.6	12.3	13.4	21.8	16.3	18.9	20.0	17.7	19.0
18	7.7	4.0	5.6	15.0	13.4	14.1	18.5	12.8	14.7	17.7	16.1	16.9
19	9.0	5.3	7.0	14.8	11.9	14.0	13.6	12.3	13.0	16.5	15.4	15.9
20	11.3	7.8	9.0	11.9	9.4	10.3	16.1	13.3	14.3	22.8	15.1	18.5
21	9.7	7.9	8.8	16.6	10.6	13.1	16.2	14.9	15.6	20.0	17.9	18.8
22	10.7	9.1	9.4	18.7	12.1	14.8	20.2	15.3	17.1	18.4	17.3	17.8
23	13.2	9.5	10.8	17.8	12.3	14.8	21.0	13.0	16.4	18.1	16.9	17.5
24	13.8	7.3	10.1	19.7	12.6	15.5	19.6	13.2	16.1	19.8	17.0	18.0
25	12.0	8.8	10.3	20.2	12.5	15.8	16.0	15.2	15.6	20.0	18.4	19.2
26	9.8	6.9	8.4	21.1	14.4	17.1	---	---	---	22.2	18.4	19.7
27	6.9	5.5	5.9	20.4	14.7	17.1	---	---	---	19.7	17.9	18.6
28	9.3	5.7	7.1	18.9	14.6	16.9	---	---	---	21.9	16.8	19.1
29	---	---	---	22.5	16.9	18.9	25.2	16.7	20.4	22.1	17.5	19.4
30	---	---	---	18.4	10.5	13.0	25.6	18.2	21.4	---	---	---
31	---	---	---	14.2	8.4	10.9	---	---	---	22.1	17.7	19.6
MONTH	13.8	2.3	7.7	22.5	7.3	13.1	---	---	---	---	---	---

0214645022 BRIAR CREEK ABOVE COLONY ROAD AT CHARLOTTE, NC—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	24.3	18.0	20.5	24.0	21.5	23.0	27.4	23.4	25.0	---	---	---
2	24.4	16.5	19.9	22.6	20.7	21.7	27.0	23.2	24.7	---	---	---
3	20.3	18.1	19.3	26.7	20.9	23.4	28.4	23.5	25.2	29.9	23.7	26.1
4	23.2	19.2	20.9	30.0	21.5	25.1	28.0	22.6	24.7	27.0	23.9	25.2
5	26.0	19.2	21.9	30.2	23.2	25.9	26.5	22.0	23.7	27.9	22.1	24.5
6	25.4	18.7	21.5	29.5	23.4	25.8	27.2	23.0	24.7	23.5	20.6	22.1
7	22.0	21.0	21.5	29.2	23.5	25.6	28.7	22.8	24.8	23.3	19.8	21.3
8	22.6	20.4	21.3	31.7	23.3	26.8	28.2	22.8	24.9	23.9	20.3	21.9
9	24.8	20.4	22.3	30.8	24.5	26.8	29.0	23.0	25.4	26.1	20.3	22.6
10	26.4	20.0	22.7	29.4	23.5	25.8	25.8	22.9	24.2	25.7	19.8	22.0
11	26.7	20.4	23.1	30.1	23.3	25.6	28.4	22.0	24.7	25.5	18.6	21.2
12	---	---	---	30.9	22.6	26.2	28.9	23.1	25.3	24.7	18.7	21.0
13	---	---	---	26.1	22.1	23.5	29.4	23.4	25.7	27.5	18.6	22.2
14	---	---	---	25.9	22.4	23.8	28.8	23.6	25.9	27.3	20.3	23.2
15	---	---	---	28.3	22.0	24.6	30.2	24.4	26.4	27.3	20.7	23.5
16	---	---	---	30.8	22.8	26.1	26.5	24.2	25.3	26.7	20.7	23.0
17	23.7	22.0	22.7	27.7	23.4	25.4	28.7	23.3	25.3	25.4	18.4	21.3
18	24.1	21.8	22.6	29.9	23.3	25.9	29.8	23.2	25.9	21.0	18.4	19.6
19	24.6	21.6	23.0	28.8	23.4	25.3	29.2	23.8	25.7	26.4	18.0	21.4
20	26.4	21.7	23.5	28.9	22.9	25.3	29.9	23.2	25.8	26.9	18.6	22.1
21	26.2	19.3	22.1	29.3	23.6	26.0	30.5	23.3	26.3	25.9	19.3	22.2
22	27.0	18.6	22.2	29.3	23.4	25.9	30.6	23.8	25.9	23.9	20.6	22.1
23	28.0	19.5	23.1	24.4	22.6	23.6	31.1	23.1	26.3	26.1	21.0	23.0
24	28.3	20.2	23.8	29.0	21.3	24.5	29.8	24.2	26.2	25.4	18.7	21.4
25	29.4	20.9	24.5	29.3	21.6	24.9	29.4	22.7	25.6	25.8	18.4	21.5
26	29.3	21.7	25.0	29.1	22.5	25.2	31.3	23.4	26.5	25.2	18.8	21.5
27	28.8	22.4	25.1	30.8	23.3	26.1	32.0	24.0	27.3	26.2	19.2	22.2
28	24.2	22.2	23.1	31.9	23.8	27.1	31.9	24.9	27.7	25.2	19.0	21.8
29	28.9	21.2	24.4	29.7	24.1	25.7	---	---	---	21.8	16.0	18.5
30	28.7	22.8	25.2	27.0	23.7	25.1	---	---	---	21.1	14.3	17.2
31	---	---	---	27.6	23.4	25.1	---	---	---	---	---	---
MONTH	---	---	---	31.9	20.7	25.2	---	---	---	---	---	---

02146470 LITTLE HOPE CREEK AT SENECA PLACE AT CHARLOTTE, NC

LOCATION.--Lat 35°09'52", long 80°51'11", Mecklenburg County, Hydrologic Unit 03050103, on right bank at downstream side of bridge on Seneca Place, 0.8 mi upstream from mouth, and 4 mi south of city hall in Charlotte.

DRAINAGE AREA.--2.63 mi².

PERIOD OF RECORD.--Water years 1967 to 1970 (annual maximum), December 1982 to September 1990, October 1994 to current year.

REVISED RECORDS.--WDR NC-85-1: 1984 (P). WDR NC-88-1: Drainage area.

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 597.32 ft above North American Vertical Datum of 1988. Radio telemetry at station.

REMARKS.--No estimated daily discharges. Records fair. No flow occurred periodically in 1986, 1987, 1988, 2001, 2002. Maximum discharge for period of record and current water year, from rating curve extended above 1,700 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.14	0.44	0.44	1.9	1.9	14	1.5	1.4	1.4	2.5	1.2	0.72
2	0.12	0.40	0.44	0.90	1.8	8.5	1.4	2.6	1.3	24	1.2	0.54
3	0.14	0.40	0.44	2.7	1.1	2.1	1.4	1.4	14	1.6	7.9	0.55
4	0.16	0.48	3.3	0.93	2.2	1.7	1.3	1.3	5.6	1.4	14	2.6
5	0.18	15	26	0.86	0.97	2.9	3.4	1.5	1.4	1.4	4.3	0.74
6	0.16	8.3	1.8	0.85	5.1	48	3.9	32	5.0	1.3	1.5	0.53
7	0.15	0.63	0.97	0.79	9.4	2.9	61	2.5	229	1.3	2.2	0.62
8	0.14	0.46	0.80	0.81	1.4	1.9	14	1.7	15	1.2	1.5	0.67
9	0.18	0.42	0.70	0.82	1.2	1.5	31	1.4	3.0	2.0	2.8	0.65
10	0.15	0.49	0.72	0.85	4.9	1.3	108	1.4	1.9	1.3	2.5	0.51
11	39	10	9.0	0.72	1.3	1.2	12	1.7	1.7	9.4	1.1	0.46
12	0.35	31	0.94	0.72	1.1	1.1	3.5	1.2	6.3	2.7	1.5	0.46
13	4.7	2.0	34	0.72	1.0	1.1	2.3	1.2	1.6	21	1.5	0.46
14	0.33	0.86	3.0	0.72	2.4	1.1	1.9	1.1	1.4	1.8	20	0.43
15	21	0.81	1.6	0.69	1.6	12	1.7	37	1.7	1.4	1.4	0.43
16	23	26	1.3	1.1	2.7	23	1.6	4.4	19	1.3	0.89	0.46
17	0.62	7.8	1.1	1.4	5.0	2.6	1.5	1.4	15	1.3	0.83	0.39
18	0.34	1.3	1.1	0.80	4.1	5.4	42	3.4	29	1.1	0.77	0.37
19	0.29	0.93	0.95	0.73	1.7	5.3	9.7	2.4	5.6	14	0.73	0.38
20	0.35	0.81	10	0.72	1.4	124	2.6	1.2	2.4	1.8	0.73	0.39
21	3.7	0.71	1.2	1.2	1.3	4.0	2.5	77	1.8	1.2	0.66	0.38
22	2.3	0.60	1.0	0.76	25	2.2	1.9	153	1.7	1.2	15	11
23	0.36	0.53	0.96	2.3	2.8	1.7	1.6	15	1.5	1.6	1.1	8.2
24	0.32	0.49	40	1.1	1.6	1.5	1.6	15	1.5	1.1	0.70	0.48
25	0.31	0.53	21	1.2	1.4	1.4	3.8	20	1.4	1.0	0.65	0.44
26	0.51	0.48	1.8	0.96	4.5	1.4	3.1	29	1.4	7.7	0.60	0.46
27	0.28	0.50	1.3	0.83	18	1.4	1.5	60	1.3	1.4	0.53	2.1
28	6.6	0.49	1.2	0.72	3.0	1.3	1.5	2.4	2.6	1.1	0.56	1.1
29	1.2	0.44	1.0	2.0	---	1.3	1.5	1.8	1.4	7.4	0.53	0.44
30	0.58	0.44	0.95	28	---	20	1.4	1.5	1.4	2.3	8.7	0.48
31	0.40	---	0.95	3.2	---	1.9	---	4.9	---	1.7	1.5	---
TOTAL	108.06	113.74	169.96	62.00	109.87	299.7	326.1	481.8	377.3	121.5	99.08	37.44
MEAN	3.49	3.79	5.48	2.00	3.92	9.67	10.9	15.5	12.6	3.92	3.20	1.25
MAX	39	31	40	28	25	124	108	153	229	24	20	11
MIN	0.12	0.40	0.44	0.69	0.97	1.1	1.3	1.1	1.3	1.0	0.53	0.37
CFSM	1.33	1.44	2.08	0.76	1.49	3.68	4.13	5.91	4.78	1.49	1.22	0.47
IN.	1.53	1.61	2.40	0.88	1.55	4.24	4.61	6.81	5.34	1.72	1.40	0.53

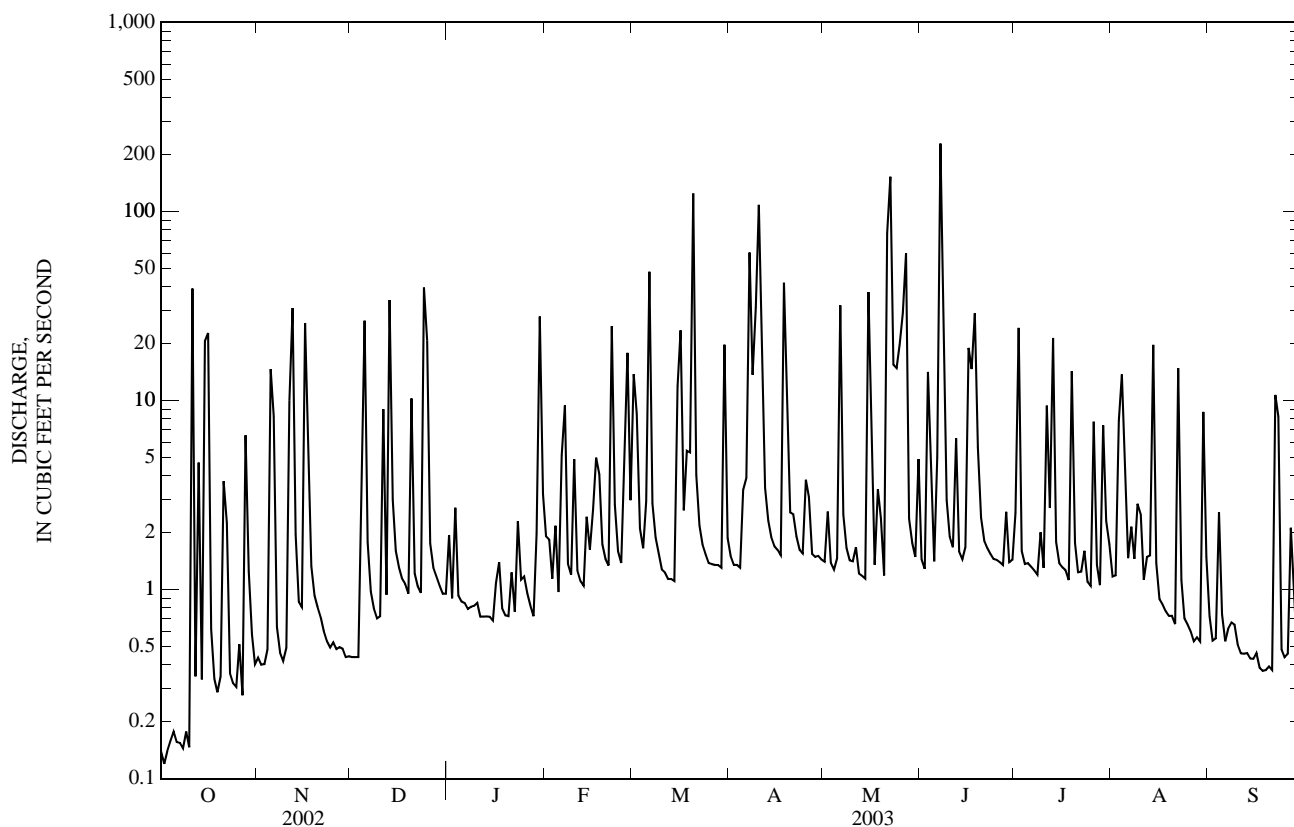
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 2003, BY WATER YEAR (WY)

MEAN	2.30	2.84	2.99	4.18	5.09	4.67	3.61	3.36	2.95	2.98	2.62	2.27
MAX	5.05	10.5	10.5	9.46	8.96	9.67	10.9	15.5	12.6	13.8	9.12	8.17
(WY)	(1990)	(1986)	(1984)	(1998)	(1990)	(2003)	(2003)	(2003)	(2003)	(1997)	(1995)	(1989)
MIN	0.26	0.95	1.09	1.24	0.91	1.03	0.66	0.88	0.22	0.31	0.19	0.34
(WY)	(2001)	(1985)	(2001)	(2001)	(2002)	(1985)	(2002)	(1987)	(1986)	(1986)	(1987)	(1983)

02146470 LITTLE HOPE CREEK AT SENECA PLACE AT CHARLOTTE, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1983 - 2003	
ANNUAL TOTAL	934.58		2,306.55		3.32	
ANNUAL MEAN	2.56		6.32		6.32 2003	
HIGHEST ANNUAL MEAN					1.66 2001	
LOWEST ANNUAL MEAN					282 Jul 23, 1997	
HIGHEST DAILY MEAN	58	Jul 14	229	Jun 7	0.00	Jul 14, 1986
LOWEST DAILY MEAN	0.00	Jun 22	0.12	Oct 2	0.00	Jul 14, 1986
ANNUAL SEVEN-DAY MINIMUM	0.00	Aug 5	0.15	Oct 1	0.00	Jul 14, 1986
MAXIMUM PEAK FLOW			2,590*	Jun 7	2,590*	Jun 7, 2003
MAXIMUM PEAK STAGE			9.89	Jun 7	9.89	Jun 7, 2003
INSTANTANEOUS LOW FLOW			0.10	Oct 2	0.00*	Jul 14, 1986
ANNUAL RUNOFF (CFSM)	0.97		2.40		1.26	
ANNUAL RUNOFF (INCHES)	13.22		32.62		17.16	
10 PERCENT EXCEEDS	6.7		15		6.1	
50 PERCENT EXCEEDS	0.49		1.4		0.91	
90 PERCENT EXCEEDS	0.08		0.44		0.24	

* See REMARKS.



02146507 LITTLE SUGAR CREEK AT ARCHDALE DRIVE AT CHARLOTTE, NC

LOCATION.--Lat 35°08'53", long 80°51'28", Mecklenburg County, Hydrologic Unit 03050103, on left bank at downstream side of bridge on Archdale Drive (Secondary Road 3657) in Charlotte, 0.7 mi downstream of Little Hope Creek, and 5.0 mi south of city hall, Charlotte.

DRAINAGE AREA.--42.6 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1978 to current year.

GAGE.--Water-stage recorder. Datum of gage is 563.69, North American Vertical Datum of 1988. Radio telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges which are poor. A daily average of 22.6 ft³/s of treated sewage effluent from Little Sugar Creek wastewater treatment plant was discharged into the stream 0.4 mi upstream from gage. Minimum discharge for period of record and current water year affected by regulation.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 22, 1975, reached a stage of about 12.7 ft, from floodmarks, discharge, 7,360 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	27	28	53	44	207	53	43	92	56	50	71
2	24	26	29	37	38	223	48	59	56	575	47	43
3	24	26	29	69	36	70	45	59	303	69	215	42
4	23	26	47	35	69	59	44	54	150	50	528	74
5	23	209	636	32	36	81	73	46	70	47	519	51
6	22	298	69	32	62	1,060	59	720	81	46	89	40
7	24	37	46	31	252	103	1,400	90	2,640	45	58	39
8	24	31	39	32	45	67	240	62	e900	44	91	39
9	23	28	35	32	39	60	785	49	e300	103	92	40
10	23	28	34	31	99	55	2,430	45	e98	59	75	37
11	886	210	239	29	41	52	330	45	e70	204	51	39
12	35	669	45	29	36	51	116	43	e250	68	58	38
13	477	74	728	30	34	49	73	42	71	680	75	38
14	41	40	89	30	48	48	62	39	56	101	279	37
15	197	34	46	29	52	158	55	489	53	54	77	37
16	556	466	40	30	54	720	51	112	496	49	138	36
17	38	222	38	42	101	84	49	47	456	261	60	36
18	30	50	35	32	118	111	865	80	705	52	56	35
19	27	40	34	30	59	83	214	64	206	376	45	37
20	26	36	241	30	46	2,620	79	44	82	76	44	35
21	48	33	43	36	41	156	72	1,110	62	53	42	35
22	93	32	37	35	539	77	62	3,310	56	67	149	134
23	29	31	35	45	106	61	52	335	53	56	48	291
24	27	30	880	39	60	54	50	200	51	45	41	42
25	27	30	486	36	54	49	94	976	48	43	40	38
26	31	30	59	37	90	47	111	190	48	84	41	38
27	26	29	44	35	372	49	56	1,120	47	53	40	42
28	193	29	39	32	100	46	47	116	80	43	39	63
29	61	28	36	41	---	46	46	72	50	398	41	36
30	36	29	34	493	---	475	46	62	47	267	302	36
31	29	---	35	83	---	72	---	251	---	82	133	---
TOTAL	3,146	2,878	4,255	1,607	2,671	7,093	7,707	9,974	7,677	4,206	3,563	1,599
MEAN	101	95.9	137	51.8	95.4	229	257	322	256	136	115	53.3
MAX	886	669	880	493	539	2,620	2,430	3,310	2,640	680	528	291
MIN	22	26	28	29	34	46	44	39	47	43	39	35
CFSM	2.38	2.25	3.22	1.22	2.24	5.37	6.03	7.55	6.01	3.18	2.70	1.25
IN.	2.75	2.51	3.72	1.40	2.33	6.19	6.73	8.71	6.70	3.67	3.11	1.40

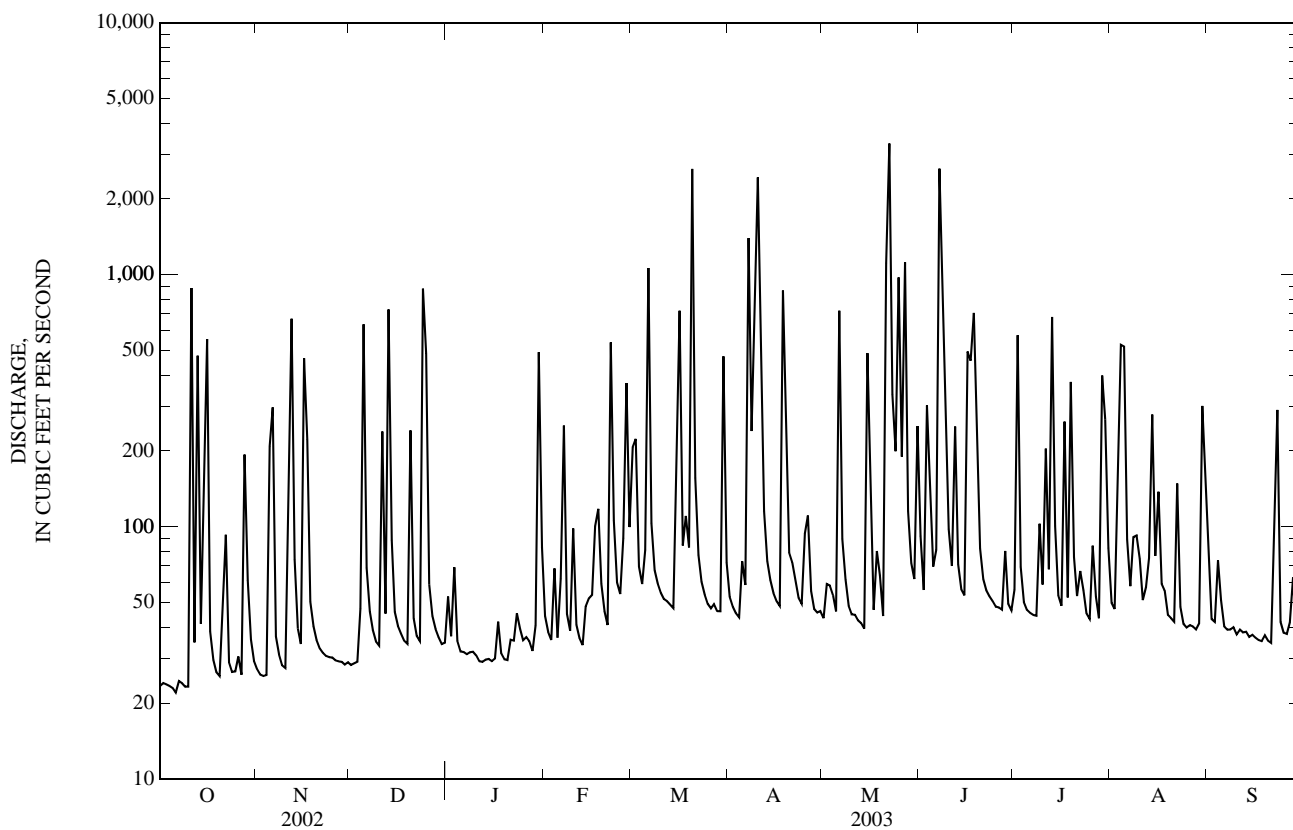
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 2003, BY WATER YEAR (WY)

MEAN	70.9	70.5	70.1	107	110	122	90.4	78.3	76.7	72.6	74.8	64.2
MAX	258	197	164	207	194	245	257	322	256	310	227	147
(WY)	(1991)	(1986)	(1984)	(1978)	(1979)	(1993)	(2003)	(2003)	(2003)	(1997)	(1995)	(1979)
MIN	25.1	22.6	32.8	31.6	44.4	40.0	30.8	33.8	20.5	27.2	29.5	21.7
(WY)	(2001)	(1982)	(1981)	(1981)	(2002)	(1985)	(1981)	(1986)	(1986)	(1986)	(1987)	(1986)

02146507 LITTLE SUGAR CREEK AT ARCHDALE DRIVE AT CHARLOTTE, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1978 - 2003	
ANNUAL TOTAL	27,836		56,376		83.9	
ANNUAL MEAN	76.3		154		154	
HIGHEST ANNUAL MEAN					51.7	
LOWEST ANNUAL MEAN					1981	
HIGHEST DAILY MEAN	969	Aug 31	3,310	May 22	6,160	Jul 23, 1997
LOWEST DAILY MEAN	20	Jul 7	22	Oct 6	15	Sep 20, 1981
ANNUAL SEVEN-DAY MINIMUM	21	Aug 8	23	Oct 4	15	May 28, 1994
MAXIMUM PEAK FLOW			13,400	Jun 7	13,600	Jul 23, 1997
MAXIMUM PEAK STAGE			14.79	Jun 7	15.06	Jul 23, 1997
INSTANTANEOUS LOW FLOW			9.6	Oct 1	2.1*	Aug 15, 2002
ANNUAL RUNOFF (CFSM)	1.79		3.63		1.97	
ANNUAL RUNOFF (INCHES)	24.31		49.23		26.75	
10 PERCENT EXCEEDS	182		374		151	
50 PERCENT EXCEEDS	35		50		38	
90 PERCENT EXCEEDS	23		30		25	

e Estimated.
 * See REMARKS.



02146507 LITTLE SUGAR CREEK AT ARCHDALE DRIVE AT CHARLOTTE, NC—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1999 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: April 1999 to current year.

pH: April 1999 to September 2002.

WATER TEMPERATURE: April 1999 to current year.

DISSOLVED OXYGEN: April 1999 to September 2002.

DISSOLVED OXYGEN, PERCENT SATURATION: April 1999 to September 2002.

INSTRUMENTATION.-- Water-quality monitor with radio telemetry.

REMARKS.--Station operated in cooperation with Mecklenburg County Land Use and Environmental Services Agency to characterize water-quality conditions in Little Sugar Creek basin. Dissolved oxygen, percent saturation, computed using barometric pressure of 740 mm Hg.

EXTREMES FOR PERIOD OF DAILY RECORD.--Extremes listed below may have been exceeded during periods of missing record.

CONSTITUENT	MAXIMUM RECORDED	MINIMUM RECORDED
SPECIFIC CONDUCTANCE, microsiemens	2560, April 24, 2000	16, March 20, 2003
pH, standard units	11.8, April 24, 2000	5.9, April 27, 1999
WATER TEMPERATURE, °C	32.0, July 30, 2002	2.5, January 30, 2000
DISSOLVED OXYGEN, mg/L	13.0, June 23, 1999	1.5, May 30, 2002
DISSOLVED OXYGEN, PERCENT SATURATION,%	159, June 26, 2000, July 16, 2001	18, May 30, 2002

EXTREMES FOR CURRENT YEAR.--Extremes listed below may have been exceeded during periods of missing record.

CONSTITUENT	MAXIMUM RECORDED	MINIMUM RECORDED
SPECIFIC CONDUCTANCE, microsiemens	2010, February 17	16, March 20
WATER TEMPERATURE, °C	29.7, August 27	3.2, December 5

02146507 LITTLE SUGAR CREEK AT ARCHDALE DRIVE AT CHARLOTTE, NC—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	583	404	539	513	398	482	459	389	432	379	262	322
2	613	440	573	492	410	471	454	360	421	371	312	342
3	637	476	607	501	412	475	504	392	457	376	227	288
4	614	483	568	523	397	482	494	367	456	401	316	365
5	565	465	533	---	---	---	553	104	189	411	335	389
6	541	466	511	---	---	---	294	195	255	415	308	392
7	540	424	509	---	---	---	355	293	321	451	322	416
8	671	488	604	463	381	433	395	349	370	429	320	409
9	656	562	617	508	424	478	434	395	413	433	388	418
10	658	558	615	494	416	470	461	434	451	456	396	433
11	624	23	168	470	102	270	461	126	231	444	394	426
12	416	186	331	269	82	143	404	275	342	439	385	421
13	---	---	---	314	180	246	425	32	183	435	354	415
14	---	---	---	393	270	356	286	61	207	470	379	442
15	---	---	---	437	322	413	349	247	319	477	410	454
16	---	---	---	445	93	264	373	313	353	474	369	446
17	---	---	---	216	110	166	393	336	380	504	337	418
18	---	---	---	327	216	272	---	---	---	484	375	451
19	515	424	491	417	313	366	423	382	410	424	344	405
20	522	421	488	440	344	414	421	113	220	420	362	397
21	520	225	421	458	391	434	343	245	311	430	318	396
22	425	144	283	480	395	450	379	314	355	454	360	423
23	552	368	474	509	434	483	384	305	368	1,270	352	498
24	572	465	538	489	416	457	383	29	206	1,400	603	832
25	624	492	549	502	362	459	199	81	133	790	589	683
26	492	405	451	559	401	520	278	191	236	666	552	605
27	468	402	445	527	398	502	320	278	300	566	500	531
28	451	128	330	506	420	467	363	302	342	509	470	500
29	349	180	269	452	400	427	370	316	354	663	465	518
30	537	265	395	461	382	431	358	317	348	753	175	330
31	518	391	472	---	---	---	377	324	364	337	204	282
MONTH	---	---	---	---	---	---	---	---	---	1,400	175	440
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	378	337	363	333	123	279	347	262	315	415	334	396
2	396	360	379	259	133	207	366	306	344	427	273	381
3	411	352	398	342	256	296	392	324	374	352	249	317
4	423	259	348	386	282	358	396	321	379	336	260	310
5	416	281	386	385	255	320	397	206	313	343	297	330
6	444	179	388	353	70	166	348	202	318	324	68	114
7	266	121	195	304	226	270	---	---	---	242	117	188
8	345	255	312	324	287	313	---	---	---	274	218	249
9	385	315	360	358	302	333	---	---	---	299	271	289
10	373	196	258	373	329	356	---	---	---	306	278	293
11	369	274	333	393	333	371	---	---	---	286	258	273
12	430	327	405	390	332	377	---	---	---	317	247	279
13	436	378	419	392	342	377	---	---	---	331	296	323
14	443	281	387	388	343	375	---	---	---	347	293	338
15	343	256	313	397	106	299	364	304	346	359	39	291
16	590	264	328	221	49	138	379	336	367	157	78	127
17	2,010	590	1,160	265	203	241	403	356	390	186	152	172
18	830	382	584	262	204	236	404	65	172	189	107	163
19	398	331	385	299	156	272	199	104	155	---	---	---
20	442	337	402	167	16	70	261	199	236	406	305	380
21	447	361	421	272	167	217	275	250	266	407	28	279
22	423	110	249	292	252	276	362	249	288	---	---	---
23	307	183	249	311	277	299	383	340	364	---	---	---
24	368	286	334	332	291	315	383	344	369	---	---	---
25	417	339	388	355	313	342	386	220	295	---	---	---
26	427	223	374	368	336	356	280	149	241	---	---	---
27	246	146	189	383	339	364	314	235	291	---	---	---
28	302	186	251	411	364	386	357	276	328	---	---	---
29	---	---	---	411	336	388	385	321	366	---	---	---
30	---	---	---	408	94	185	394	328	376	---	---	---
31	---	---	---	294	170	239	---	---	---	---	---	---
MONTH	2,010	110	377	411	16	291	---	---	---	---	---	---

02146507 LITTLE SUGAR CREEK AT ARCHDALE DRIVE AT CHARLOTTE, NC—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	353	239	337	373	305	342	266	161	219
2	---	---	---	239	75	149	379	349	364	323	234	290
3	---	---	---	342	204	270	355	79	255	364	282	330
4	---	---	---	364	311	341	297	49	213	365	193	294
5	---	---	---	370	340	362	211	57	140	403	236	333
6	---	---	---	370	335	354	306	121	230	420	341	404
7	---	---	---	386	318	355	362	274	325	435	354	412
8	---	---	---	428	364	395	339	190	282	452	380	420
9	---	---	---	436	180	371	319	158	248	453	399	432
10	---	---	---	382	278	340	330	164	284	449	334	429
11	---	---	---	390	115	293	372	297	332	461	408	436
12	---	---	---	317	144	258	403	222	375	462	408	446
13	332	202	277	203	56	127	378	208	304	476	417	454
14	359	316	341	305	110	212	390	80	316	451	389	429
15	361	327	345	369	278	330	333	158	260	468	356	426
16	353	75	277	398	358	376	343	120	265	480	369	458
17	246	61	167	398	68	241	354	276	316	481	416	458
18	208	72	135	371	305	338	366	234	308	487	402	467
19	247	130	190	375	66	290	426	343	403	489	379	467
20	322	215	265	298	156	242	421	349	408	485	432	461
21	368	311	342	378	275	328	422	366	411	452	391	433
22	369	326	354	379	253	326	437	90	356	429	102	355
23	379	319	351	392	301	353	359	261	325	354	89	224
24	389	354	378	396	300	382	381	331	365	460	302	400
25	414	351	400	407	323	394	406	358	383	481	412	461
26	428	369	414	410	185	339	425	383	406	471	404	441
27	440	369	410	321	208	285	452	379	429	497	317	457
28	382	261	305	372	290	330	444	380	413	394	202	336
29	352	301	335	393	84	289	402	351	376	439	292	386
30	358	319	346	297	57	200	393	60	308	461	331	436
31	---	---	---	324	152	252	247	90	182	---	---	---
MONTH	---	---	---	436	56	305	452	49	320	497	89	400

02146507 LITTLE SUGAR CREEK AT ARCHDALE DRIVE AT CHARLOTTE, NC—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	28.1	24.1	26.6	20.9	16.7	19.6	15.7	12.2	14.4	14.4	12.7	14.0
2	28.5	24.5	26.9	20.4	16.0	18.9	15.3	10.2	14.0	14.6	13.3	14.0
3	28.5	24.9	27.2	20.4	16.4	19.0	17.0	11.2	14.9	14.3	11.9	13.1
4	28.4	25.3	27.3	20.1	16.7	19.3	15.2	5.8	12.8	13.5	10.8	12.4
5	28.7	25.8	27.4	20.1	13.1	17.2	7.3	3.2	5.4	13.4	9.9	12.2
6	28.0	25.4	26.8	16.2	12.9	14.7	10.5	7.3	9.1	13.2	9.1	12.3
7	27.9	24.6	26.4	17.7	14.1	16.3	11.9	8.9	10.5	12.9	7.3	11.6
8	25.8	24.2	25.2	18.6	15.0	17.3	12.4	9.0	11.3	13.3	7.5	12.0
9	25.9	23.5	25.0	19.7	15.9	18.3	13.2	9.7	12.3	14.7	11.2	13.3
10	26.6	23.9	25.4	21.0	18.1	19.8	13.3	10.2	12.7	15.5	13.2	14.4
11	25.6	19.4	21.3	20.9	17.7	19.3	12.9	6.2	8.9	14.0	11.0	12.8
12	25.0	20.2	23.4	19.3	16.7	17.4	13.3	10.7	12.1	12.6	9.3	11.5
13	24.5	20.6	22.5	17.1	15.5	16.5	13.2	7.1	9.7	12.1	8.1	11.2
14	22.8	20.6	21.8	17.3	12.7	16.2	11.2	9.2	10.2	13.1	8.4	11.6
15	22.1	15.5	18.7	18.1	12.8	16.9	12.0	8.8	10.7	13.0	9.7	11.7
16	19.2	15.0	17.2	18.3	13.9	15.8	13.0	8.9	11.6	12.8	9.4	11.3
17	21.6	17.9	19.9	15.2	14.0	14.5	13.5	10.3	12.6	11.5	8.3	9.9
18	22.2	17.9	20.8	15.0	12.8	14.1	---	---	---	11.3	8.0	9.7
19	22.7	18.3	21.2	16.6	11.9	14.8	14.6	12.6	13.8	11.4	6.1	9.9
20	22.8	19.3	21.7	17.5	12.1	16.1	14.7	10.8	13.1	12.1	7.2	10.6
21	23.2	18.0	21.2	18.3	16.0	17.3	13.3	9.9	12.3	13.1	8.9	11.6
22	20.3	16.3	18.4	17.9	14.9	16.8	13.9	10.3	12.4	13.0	8.8	11.4
23	22.7	19.0	21.3	17.1	13.8	15.8	13.8	9.8	12.8	11.9	4.5	8.2
24	22.6	20.3	21.7	17.2	13.7	15.7	13.4	7.1	10	8.9	5.2	7.0
25	22.7	20.4	21.5	17.7	12.3	16.3	9.8	7.5	8.8	10.1	5.5	8.3
26	21.8	18.7	20.6	17.8	12.3	16.5	10.1	8.0	9.0	10.7	6.6	9.0
27	23.3	20.8	22.2	17.5	13.3	16.3	10.6	8.1	9.5	10.0	6.4	8.9
28	22.5	18.0	20.5	16.4	13.0	14.9	11.4	7.6	10.1	11.2	6.8	9.6
29	18.8	17.8	18.2	15.4	11.9	14.1	12.6	8.0	11.1	11.6	8.7	10.4
30	21.0	16.3	18.5	16.6	12.5	14.9	12.8	9.3	11.7	10.2	6.2	7.6
31	20.5	16.8	19.2	---	---	---	13.9	10.1	12.6	9.2	6.4	8.0
MONTH	28.7	15.0	22.5	21.0	11.9	16.7	---	---	---	15.5	4.5	11.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	11.8	8.6	10.2	11.8	9.2	10.7	17.2	10.8	14.4	23.2	20.2	21.7
2	12.8	9.0	10.9	11.9	9.2	10.6	19.5	13.8	17.0	24.0	20.2	21.8
3	13.9	9.2	12.4	13.4	9.8	11.6	20.6	15.6	18.3	22.3	19.4	20.8
4	14.0	12.5	13.4	14.5	9.2	12.7	20.0	16.5	18.6	20.5	19.2	19.9
5	13.4	9.3	12.2	14.5	11.9	13.6	18.7	17.3	18.1	19.2	17.9	18.4
6	12.5	7.4	11.3	14.3	12.1	12.9	20.0	16.1	18.0	18.8	17.2	18.1
7	9.7	6.1	8.1	13.2	11.0	12.4	17.3	12.7	13.5	20.9	18.2	19.6
8	11.2	7.6	9.7	14.6	9.9	12.3	13.3	11.0	12.6	24.0	19.5	21.7
9	12.3	8.4	10.7	16.4	12.0	14.3	12.3	10.0	11.0	24.5	21.4	23.0
10	11.4	7.8	9.4	16.3	12.9	14.6	10.2	8.2	9.3	25.1	21.9	23.3
11	12.1	7.4	10.3	15.6	12.0	14.0	13.4	9.9	11.7	23.0	21.0	22.3
12	13.3	8.4	11.7	17.1	11.6	14.8	17.2	11.8	14.6	23.0	19.4	21.2
13	13.0	9.4	11.5	17.7	14.1	16.0	18.7	13.7	16.3	23.1	18.9	21.2
14	12.1	9.4	11.0	17.4	15.5	16.5	19.9	14.8	17.4	22.2	18.7	20.8
15	14.1	9.6	12.0	15.9	11.7	14.0	20.8	16.5	18.7	21.8	17.1	20.3
16	13.0	5.5	9.4	13.7	10.5	12.2	21.1	17.2	19.2	21.7	18.4	20.1
17	8.4	5.2	6.4	15.4	13.4	14.4	20.7	17.8	19.4	21.1	19.6	20.5
18	8.5	6.1	7.6	15.7	14.1	15.0	19.5	13.2	15.4	19.8	17.2	18.7
19	11.3	6.7	9.7	15.9	13.2	15.2	14.5	13.0	13.7	18.4	16.9	17.8
20	13.1	9.0	11.7	13.3	9.3	10.6	16.3	14.2	15.2	21.6	17.3	19.8
21	13.0	9.8	12.2	16.0	11.5	13.7	16.8	15.8	16.4	20.9	18.8	20.2
22	12.6	9.3	10.8	17.5	13.3	15.5	19.5	16.5	17.7	18.8	17.8	18.1
23	13.4	10.8	11.9	17.5	13.8	15.7	19.6	15.3	17.5	18.9	17.6	18.2
24	14.2	9.6	12.3	18.5	14.2	16.3	19.1	15.6	17.6	19.7	18.2	18.9
25	13.9	11.6	13.0	19.0	14.2	16.8	18.0	16.4	17.0	20.5	18.8	19.6
26	13.3	8.3	11.6	19.8	16.0	17.8	19.8	16.8	17.9	21.6	19.1	20.3
27	8.4	6.6	7.6	19.3	16.2	17.8	21.0	17.0	18.9	20.0	18.6	19.3
28	11.4	7.3	9.4	18.8	16.4	17.9	21.6	17.1	19.6	21.5	18.0	19.8
29	---	---	---	20.8	17.8	19.2	22.5	18.2	20.6	21.6	18.7	20.2
30	---	---	---	19.2	12.0	14.2	23.2	19.6	21.5	22.7	18.3	20.6
31	---	---	---	15.0	10.2	12.8	---	---	---	22.2	19.1	20.6
MONTH	14.2	5.2	10.7	20.8	9.2	14.4	23.2	8.2	16.6	25.1	16.9	20.2

02146507 LITTLE SUGAR CREEK AT ARCHDALE DRIVE AT CHARLOTTE, NC—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	22.7	19.4	21.0	24.9	23.0	24.1	27.2	25.4	26.2	28.0	24.9	26.4
2	22.7	18.7	20.8	23.3	20.9	22.4	26.9	25.4	26.1	28.3	25.2	26.8
3	21.4	20.0	20.6	25.5	22.2	23.8	27.1	25.3	26.1	28.9	25.7	27.4
4	23.2	20.0	21.6	27.2	23.2	25.1	27.0	22.2	25.3	27.7	25.7	26.7
5	24.2	20.8	22.4	27.4	24.3	25.7	25.8	22.2	24.0	27.7	23.9	26.1
6	23.8	20.8	22.3	27.3	24.4	25.6	26.9	24.3	25.5	26.0	24.4	25.3
7	22.5	21.3	21.8	27.1	24.5	25.5	27.3	24.3	25.9	25.5	23.2	24.6
8	23.0	20.8	21.6	28.4	24.5	26.4	27.9	23.8	25.8	25.8	23.6	24.8
9	24.0	20.9	22.3	28.4	25.7	26.8	27.8	24.4	25.9	27.1	23.7	25.4
10	24.7	21.1	22.9	27.7	24.7	26.1	26.3	24.1	25.4	26.6	23.7	25.2
11	25.1	21.6	23.4	27.9	24.7	26.1	27.1	24.0	25.6	26.6	23.2	24.8
12	25.6	22.8	24.0	28.1	24.2	26.0	27.5	25.3	26.4	26.1	23.0	24.6
13	25.8	22.8	24.2	25.9	22.2	23.7	28.3	25.1	26.5	27.1	23.1	25.1
14	26.0	23.0	24.5	25.3	23.1	24.2	27.9	25.8	26.7	26.8	23.9	25.4
15	26.6	23.4	24.7	26.9	23.6	25.3	28.5	25.5	26.8	27.0	23.5	25.5
16	26.3	23.4	24.4	28.3	24.5	26.4	27.0	24.6	26.2	27.1	23.8	25.6
17	24.6	22.8	23.4	27.4	23.7	25.9	28.0	25.1	26.3	26.6	23.2	24.9
18	23.7	22.2	22.9	27.9	24.8	26.3	28.1	24.6	26.4	24.9	22.2	24.1
19	24.6	22.1	23.3	27.6	24.7	25.9	28.1	25.6	26.8	26.6	21.7	24.7
20	25.5	22.7	23.9	27.2	23.9	25.5	28.3	25.5	26.8	27.1	23.1	25.2
21	24.7	21.2	22.9	27.5	24.8	26.2	28.5	25.5	27.1	26.6	23.2	25.1
22	25.1	20.9	22.9	27.8	24.6	26.3	28.8	24.1	26.6	25.8	23.3	24.6
23	25.6	21.3	23.5	26.0	24.6	25.2	28.6	24.9	26.6	25.7	22.8	24.1
24	26.0	22.2	24.2	27.4	23.8	25.5	28.3	26.1	26.9	25.7	22.4	24.3
25	26.8	22.7	24.8	27.3	24.4	25.9	28.2	25.3	26.7	26.5	22.9	24.7
26	27.0	23.5	25.4	28.2	25.0	26.4	29.2	25.9	27.4	26.3	23.1	24.8
27	27.0	24.0	25.5	27.7	25.0	26.3	29.7	26.4	27.9	26.7	22.6	24.9
28	25.2	23.5	24.0	29.0	25.4	27.0	29.5	26.9	28.0	25.7	21.9	23.9
29	26.7	22.8	24.7	28.2	25.1	26.6	29.5	26.8	27.9	24.6	20.1	22.9
30	26.4	24.1	25.2	27.1	24.9	25.8	29.0	26.4	27.4	24.3	18.7	22.5
31	---	---	---	27.0	24.7	25.9	27.0	25.9	26.3	---	---	---
MONTH	27.0	18.7	23.3	29.0	20.9	25.6	29.7	22.2	26.4	28.9	18.7	25.0

02146530 LITTLE SUGAR CREEK AT HIGHWAY 51 AT PINEVILLE, NC

LOCATION.--Lat 35°05'07", long 80°52'56", Mecklenburg County, Hydrologic Unit 03050103, on left bank on upstream side of bridge on State Highway 51, 0.5 mi east of intersection of State Highway 51 and U.S. Highway 521 at Pineville.,

DRAINAGE AREA.--49.2 mi².

PERIOD OF RECORD.--Occasional discharge measurements, water years 1966-97. June 1997 to current year.

GAGE.--Water-stage recorder. Datum of gage is 531.94 ft above North American Vertical Datum of 1988. Radio telemetry at station.

REMARKS.--No estimated daily discharges. Records good. A daily average of 22.6 ft³/s of treated effluent from Little Sugar Creek wastewater treatment plant was discharged into the stream 5.2 mi upstream from the gage. Maximum gage height for period of record from floodmarks. Maximum discharge for period of record from rating curve extended above 10,100 ft³/s. Minimum discharge for current water year also occurred Oct. 2, 3, 4, 7.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	31	33	65	57	148	59	49	123	57	56	84
2	26	30	35	49	48	301	53	61	60	601	49	46
3	26	29	35	80	44	75	50	76	274	93	294	44
4	25	29	41	46	78	58	48	63	170	56	289	72
5	25	130	654	41	47	83	83	51	75	51	671	64
6	24	389	104	40	49	1,060	54	828	63	48	151	42
7	25	46	59	39	301	142	1,430	146	1,380	47	67	41
8	26	36	46	40	58	76	211	76	2,430	46	92	41
9	25	33	42	40	47	62	776	57	410	93	134	41
10	25	32	39	39	116	54	2,440	53	106	72	84	39
11	847	221	262	38	51	50	447	53	74	198	56	40
12	53	649	56	37	44	48	149	50	245	112	50	40
13	451	122	734	38	41	47	92	48	95	607	96	40
14	63	50	147	38	50	46	76	46	63	163	283	38
15	178	41	61	38	66	113	66	387	58	60	139	39
16	643	400	50	39	60	727	61	248	361	53	149	38
17	56	338	45	52	110	99	58	58	446	252	60	37
18	38	72	42	39	143	132	770	78	1,040	60	68	37
19	33	50	40	38	83	81	310	88	316	283	48	39
20	30	44	275	38	55	2,640	102	51	113	133	46	38
21	47	40	59	42	49	227	85	859	74	53	44	37
22	114	38	46	46	535	104	75	3,430	64	75	136	69
23	34	37	43	53	146	73	60	476	59	59	68	351
24	30	37	871	52	62	62	57	183	55	48	45	41
25	30	36	534	44	52	56	106	1,000	52	44	42	35
26	33	35	96	45	69	53	122	215	51	75	42	34
27	29	35	64	44	403	55	69	1,030	50	69	43	33
28	167	35	54	40	142	50	54	134	85	44	41	62
29	99	34	49	48	---	51	52	90	53	290	42	33
30	43	34	46	482	---	468	52	72	49	268	242	32
31	34	---	45	138	---	94	---	222	---	155	182	---
TOTAL	3,304	3,133	4,707	1,908	3,006	7,335	8,067	10,278	8,494	4,265	3,809	1,627
MEAN	107	104	152	61.5	107	237	269	332	283	138	123	54.2
MAX	847	649	871	482	535	2,640	2,440	3,430	2,430	607	671	351
MIN	24	29	33	37	41	46	48	46	49	44	41	32
CFSM	2.17	2.12	3.09	1.25	2.18	4.81	5.47	6.74	5.75	2.80	2.50	1.10
IN.	2.50	2.37	3.56	1.44	2.27	5.55	6.10	7.77	6.42	3.22	2.88	1.23

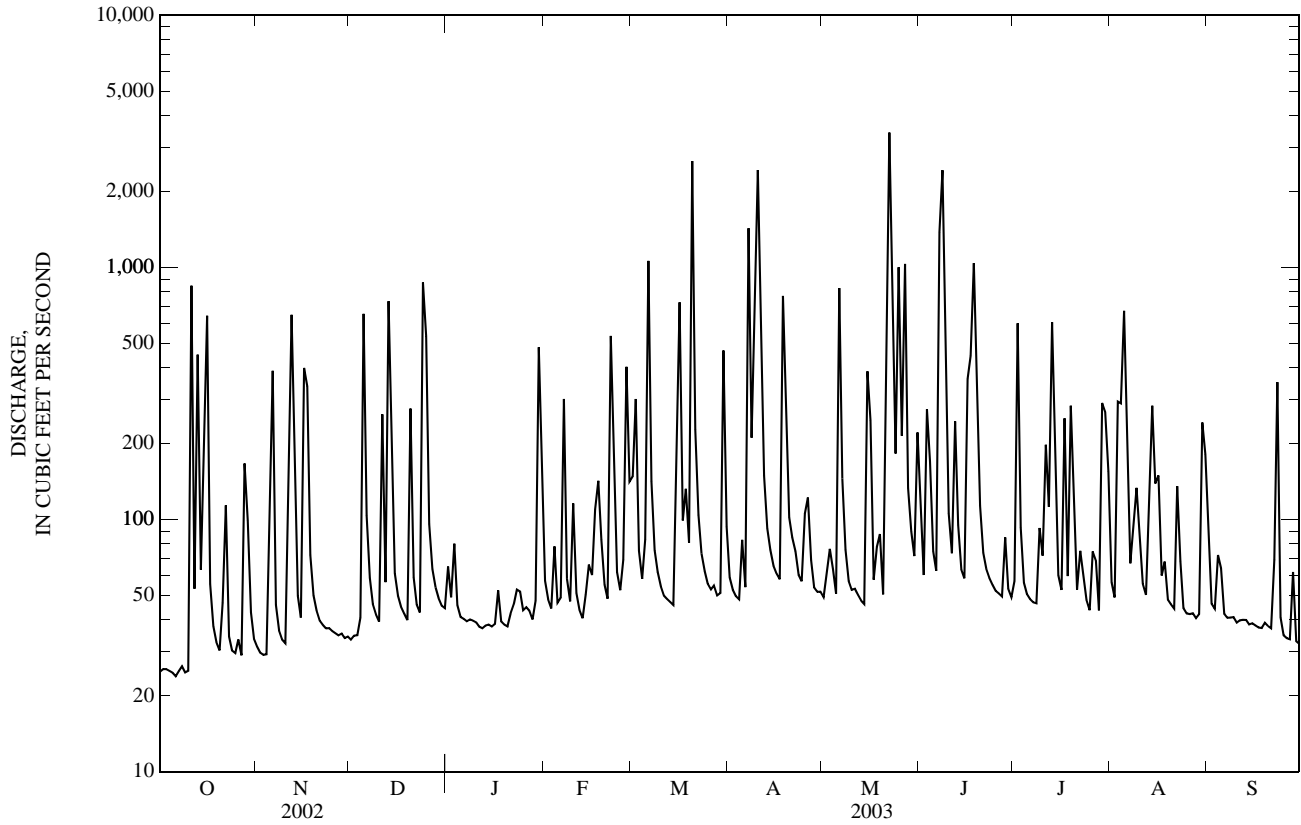
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2003, BY WATER YEAR (WY)

MEAN	69.5	64.0	82.8	119	95.0	122	127	101	97.4	124	69.5	75.9
MAX	115	104	152	236	167	237	269	332	283	336	123	127
(WY)	(2000)	(2003)	(2003)	(1998)	(1998)	(2003)	(2003)	(2003)	(2003)	(1997)	(2003)	(2000)
MIN	33.0	29.9	46.9	53.0	44.2	55.5	35.4	40.1	35.1	57.1	36.3	54.2
(WY)	(2002)	(2002)	(2000)	(2001)	(2002)	(1999)	(2002)	(1999)	(2002)	(2001)	(2001)	(2003)

02146530 LITTLE SUGAR CREEK AT HIGHWAY 51 AT PINEVILLE, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1997 - 2003	
ANNUAL TOTAL	28,514		59,933		93.5	
ANNUAL MEAN	78.1		164		164	
HIGHEST ANNUAL MEAN					2003	
LOWEST ANNUAL MEAN					56.9	
HIGHEST DAILY MEAN	927	Aug 31	3,430	May 22	6,780	Jul 23, 1997
LOWEST DAILY MEAN	22	Jul 7	24	Oct 6	21	Dec 9, 2001
ANNUAL SEVEN-DAY MINIMUM	22	Aug 8	25	Oct 4	22	Oct 16, 2001
MAXIMUM PEAK FLOW			6,890	Jun 8	11,200*	Jul 23, 1997
MAXIMUM PEAK STAGE			18.74	Jun 8	23.04*	Jul 23, 1997
INSTANTANEOUS LOW FLOW			19*	Oct 1	10	Aug 15, 2002
ANNUAL RUNOFF (CFSM)	1.59		3.34		1.90	
ANNUAL RUNOFF (INCHES)	21.56		45.32		25.81	
10 PERCENT EXCEEDS	165		388		185	
50 PERCENT EXCEEDS	33		57		40	
90 PERCENT EXCEEDS	25		35		28	

* See REMARKS.



0214655255 MCALPINE CREEK AT STATE ROAD 3150 NEAR IDLEWILD, NC

LOCATION.--Lat 35°10'33", long 80°43'09", Mecklenburg County, Hydrologic Unit 03050103, on left bank at upstream side of culvert on State Road 3120 (Idlewild Road), 1.5 mi above Irvins Creek, and 1.6 mi southeast of Idlewild.

DRAINAGE AREA.--7.52 mi².

PERIOD OF RECORD.--June 1999 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 613.19 ft above North American Vertical Datum of 1988. Radio telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Minimum discharge for current water year also occurred Oct. 9. No flow also occurred July 11, Aug. 13-14, 2002. Maximum discharge for current water year and period of record from rating curve extended above 800 ft³/s on basis of culvert computation of peak flow.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

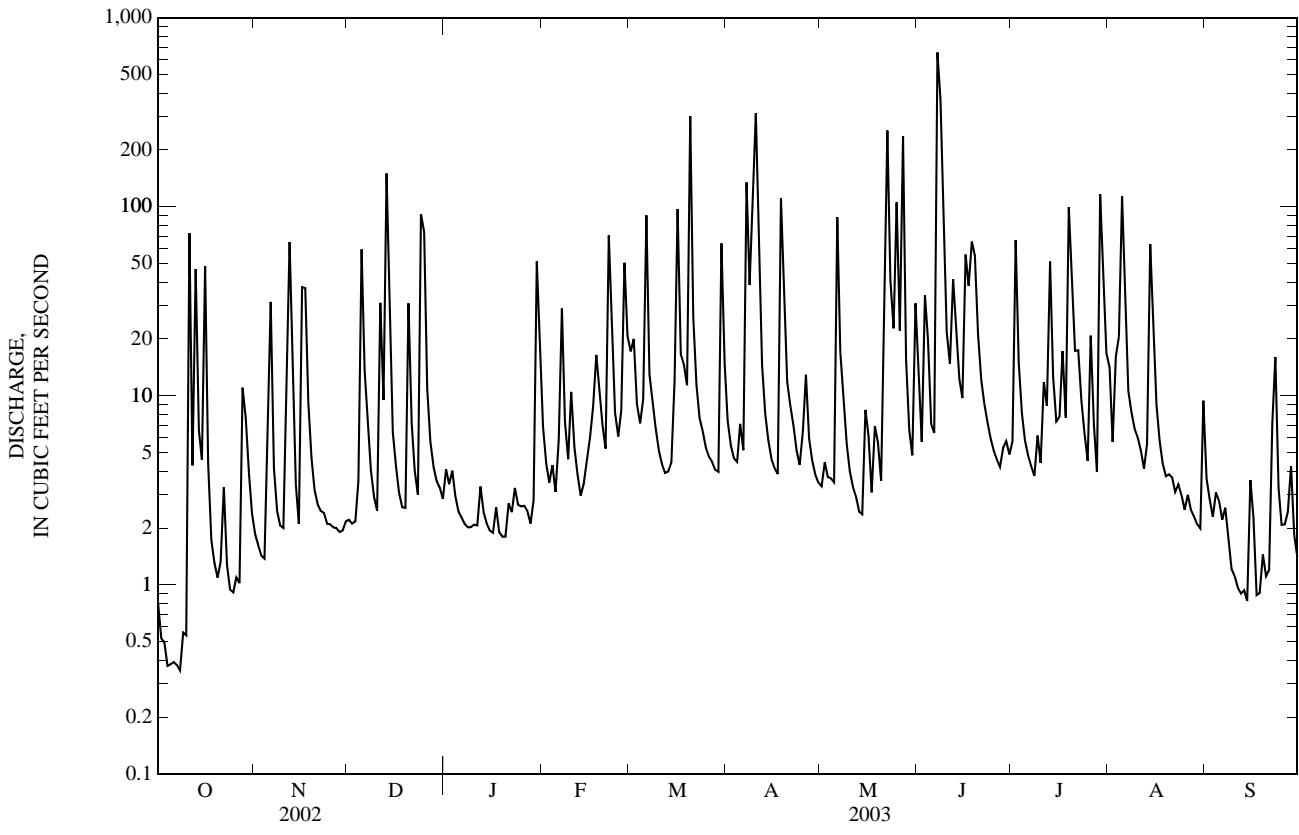
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.80	1.8	2.2	4.1	6.8	17	7.3	3.3	15	5.7	14	3.6
2	0.52	1.6	2.1	3.4	4.4	e20	5.5	4.5	5.7	67	5.7	2.9
3	0.50	1.4	2.2	4.0	3.5	e9.0	4.7	3.7	34	15	16	2.3
4	0.37	1.4	3.6	2.9	4.3	7.1	4.5	3.7	20	8.1	21	3.1
5	0.38	11	59	2.4	3.1	9.6	7.1	3.5	7.1	5.8	114	2.8
6	0.39	31	14	2.3	5.8	e90	5.2	88	6.4	4.8	34	2.2
7	0.38	4.2	6.9	2.1	29	e13	134	17	654	4.2	11	2.6
8	0.35	2.5	4.0	2.0	7.3	9.3	39	9.4	369	3.8	8.2	1.8
9	0.56	2.1	2.9	2.0	4.6	6.7	106	5.6	69	6.2	6.7	1.2
10	0.54	2.0	2.5	2.1	11	5.1	312	4.0	22	4.4	6.0	1.1
11	72	10	31	2.1	5.4	4.4	51	3.3	15	12	5.2	0.97
12	4.3	65	e9.5	3.3	3.9	3.9	15	2.9	42	8.8	4.1	0.90
13	47	15	e150	2.4	3.0	4.0	8.0	2.4	24	51	5.5	0.94
14	6.6	e3.4	19	2.1	3.4	4.4	5.8	2.4	12	13	63	0.82
15	4.6	e2.1	6.4	1.9	4.6	12	4.6	8.4	9.7	7.3	20	3.6
16	49	38	4.2	1.9	6.1	97	4.1	6.2	56	7.8	9.0	2.3
17	4.4	37	3.1	2.6	8.8	17	3.9	3.1	38	17	5.8	0.88
18	1.7	9.2	2.6	e1.9	16	15	111	6.9	65	7.7	4.4	0.91
19	1.3	4.7	2.6	e1.8	11	11	33	5.7	55	100	3.8	1.4
20	1.1	3.2	31	e1.8	7.0	302	12	3.5	21	43	3.9	1.1
21	1.3	2.7	7.2	e2.7	5.3	26	8.9	38	12	17	e3.7	1.2
22	3.3	2.5	4.0	2.4	70	11	7.0	253	9.1	17	e3.1	7.2
23	1.3	2.4	3.0	3.3	21	7.7	5.1	41	7.2	9.4	e3.4	16
24	0.94	2.1	91	2.7	8.1	6.5	4.3	23	6.0	6.4	e3.0	3.3
25	0.91	2.1	74	2.6	6.1	5.4	6.5	106	5.1	4.5	e2.5	2.1
26	1.1	2.0	11	2.6	8.4	4.8	13	22	4.6	21	e3.0	2.1
27	1.0	2.0	5.7	2.5	51	4.5	5.9	236	4.2	7.0	e2.5	2.4
28	11	1.9	4.2	2.1	21	4.1	4.6	16	5.3	4.0	e2.3	4.2
29	7.6	1.9	3.5	2.8	---	4.0	3.8	6.6	5.8	117	e2.1	1.8
30	3.9	2.2	3.3	51	---	64	3.5	4.8	4.9	38	2.0	1.4
31	2.4	---	2.9	18	---	15	---	31	---	17	9.4	---
TOTAL	231.54	268.4	568.6	141.8	339.9	810.5	936.3	964.9	1,604.1	650.9	398.3	79.12
MEAN	7.47	8.95	18.3	4.57	12.1	26.1	31.2	31.1	53.5	21.0	12.8	2.64
MAX	72	65	150	51	70	302	312	253	654	117	114	16
MIN	0.35	1.4	2.1	1.8	3.0	3.9	3.5	2.4	4.2	3.8	2.0	0.82
CFSM	0.99	1.19	2.44	0.61	1.61	3.48	4.15	4.14	7.11	2.79	1.71	0.35
IN.	1.15	1.33	2.81	0.70	1.68	4.01	4.63	4.77	7.94	3.22	1.97	0.39

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2003, BY WATER YEAR (WY)

MEAN	4.41	3.90	6.17	6.02	7.85	14.2	11.4	9.24	12.3	6.33	4.72	4.13
MAX	8.81	8.95	18.3	9.20	12.1	26.1	31.2	31.1	53.5	21.0	12.8	7.59
(WY)	(2000)	(2003)	(2003)	(2000)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2000)
MIN	0.45	0.82	1.70	2.96	3.02	5.35	2.24	1.36	0.64	0.79	0.63	2.44
(WY)	(2001)	(2002)	(2001)	(2001)	(2002)	(2000)	(2002)	(2000)	(2002)	(2002)	(2001)	(2002)

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1999 - 2003	
ANNUAL TOTAL	2,024.32		6,994.36		7.86	
ANNUAL MEAN	5.55		19.2		2.94	
HIGHEST ANNUAL MEAN					19.2	2003
LOWEST ANNUAL MEAN					2.94	2002
HIGHEST DAILY MEAN	150	Dec 13	654	Jun 7	654	Jun 7, 2003
LOWEST DAILY MEAN	0.00	Jul 10	0.35	Oct 8	0.00	Jul 10, 2002
ANNUAL SEVEN-DAY MINIMUM	0.01	Aug 9	0.41	Oct 2	0.01	Aug 9, 2002
MAXIMUM PEAK FLOW			5,600*	Jun 7	5,600*	Jun 7, 2003
MAXIMUM PEAK STAGE			13.32	Jun 7	13.32	Jun 7, 2003
INSTANTANEOUS LOW FLOW			0.30*	Oct 8	0.00*	Jul 10, 2002
ANNUAL RUNOFF (CFSM)	0.74		2.55		1.04	
ANNUAL RUNOFF (INCHES)	10.01		34.60		14.19	
10 PERCENT EXCEEDS	11		45		15	
50 PERCENT EXCEEDS	1.7		4.9		2.0	
90 PERCENT EXCEEDS	0.25		1.8		0.29	

e Estimated.
 * See REMARKS.



02146562 CAMPBELL CREEK NEAR CHARLOTTE, NC

LOCATION.--Lat 35°11'12", long 80°44'12", Mecklenburg County, Hydrologic Unit 03050103, on right bank upstream side culvert on Secondary Road 3150, 2.3 mi upstream from mouth, and 6.0 mi east of Charlotte.

DRAINAGE AREA.--5.6 mi².

PERIOD OF RECORD.--June 1999 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 663.92 ft above North American Vertical Datum of 1988. Radio telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. No flow also occurred Aug. 10-14, 2002. Maximum discharge for period of record and current water year from rating curve extended above 540 ft³/s based on culvert computation of peak flow.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	1.1	1.3	4.8	5.0	14	4.0	1.5	4.3	2.7	2.5	1.2
2	0.34	0.90	1.4	2.5	3.6	18	3.3	2.8	1.9	43	2.1	1.1
3	0.30	0.80	1.3	4.5	3.0	6.3	2.9	2.0	18	3.4	11	0.92
4	0.26	0.82	4.6	2.1	5.4	4.6	2.7	1.6	7.1	1.8	22	2.5
5	0.24	14	38	1.7	2.8	7.3	6.0	1.9	2.6	1.6	74	1.2
6	0.21	17	8.7	1.5	6.9	131	3.6	43	3.3	1.5	11	0.84
7	0.21	3.4	5.3	1.5	23	9.2	117	6.8	439	1.5	3.9	0.85
8	0.21	1.6	2.7	2.4	5.3	5.5	22	5.8	195	1.4	5.0	0.83
9	0.88	1.3	1.9	1.5	3.8	4.5	63	2.3	14	6.6	3.2	0.81
10	0.61	1.3	1.4	1.3	10	3.8	233	1.8	3.2	2.0	3.1	0.78
11	45	10	27	1.2	4.4	3.3	22	1.7	2.4	11	2.5	0.78
12	3.5	43	7.2	1.1	3.5	3.1	7.2	1.5	39	3.5	2.2	0.78
13	52	8.1	85	1.2	3.1	3.1	4.7	1.2	5.8	32	2.5	0.79
14	5.2	3.5	11	1.2	4.7	3.0	3.6	1.1	2.3	4.0	8.8	0.77
15	7.3	2.7	6.2	1.1	5.0	17	3.0	9.3	1.9	1.8	3.4	0.76
16	41	24	4.6	1.6	6.7	84	2.6	4.0	61	1.9	3.4	0.69
17	3.7	17	3.6	2.6	9.9	8.5	2.2	1.6	12	3.1	1.8	0.67
18	1.5	5.5	3.1	1.3	14	8.1	55	3.7	24	3.0	1.7	0.93
19	1.4	3.1	2.9	1.2	7.6	8.7	12	2.7	17	66	1.4	0.84
20	0.68	2.5	29	1.2	5.7	228	5.3	1.5	4.4	8.6	1.4	0.65
21	4.0	2.1	5.3	2.8	4.7	11	4.3	57	2.4	9.2	1.3	0.65
22	5.9	1.9	3.2	2.0	65	6.0	3.3	190	1.9	4.7	1.3	6.6
23	1.4	2.0	2.3	4.4	10	4.3	2.3	14	1.7	3.3	1.3	11
24	0.83	1.6	80	3.0	4.9	3.5	2.0	13	1.6	2.1	1.1	0.92
25	0.94	1.6	42	2.5	3.7	3.1	4.8	29	1.6	1.6	1.1	0.66
26	1.3	1.5	6.9	2.5	7.3	2.8	12	11	1.5	e1.6	1.1	0.60
27	0.67	1.4	4.1	2.1	38	2.6	3.6	111	2.1	e2.8	1.0	1.6
28	13	1.3	2.8	1.6	10	2.5	2.2	5.7	2.9	e3.8	1.0	2.2
29	6.2	1.3	2.2	3.5	---	2.5	1.8	3.1	1.5	166	1.3	0.61
30	3.2	1.4	1.8	44	---	37	1.7	2.3	1.5	13	6.0	0.59
31	1.5	---	1.6	9.8	---	6.8	---	11	---	3.4	2.4	---
TOTAL	204.88	177.72	398.4	115.7	277.0	653.1	613.1	544.9	876.9	411.9	185.8	44.12
MEAN	6.61	5.92	12.9	3.73	9.89	21.1	20.4	17.6	29.2	13.3	5.99	1.47
MAX	52	43	85	44	65	228	233	190	439	166	74	11
MIN	0.21	0.80	1.3	1.1	2.8	2.5	1.7	1.1	1.5	1.4	1.0	0.59
CFSM	1.18	1.06	2.29	0.67	1.77	3.76	3.65	3.14	5.22	2.37	1.07	0.26
IN.	1.36	1.18	2.65	0.77	1.84	4.34	4.07	3.62	5.83	2.74	1.23	0.29

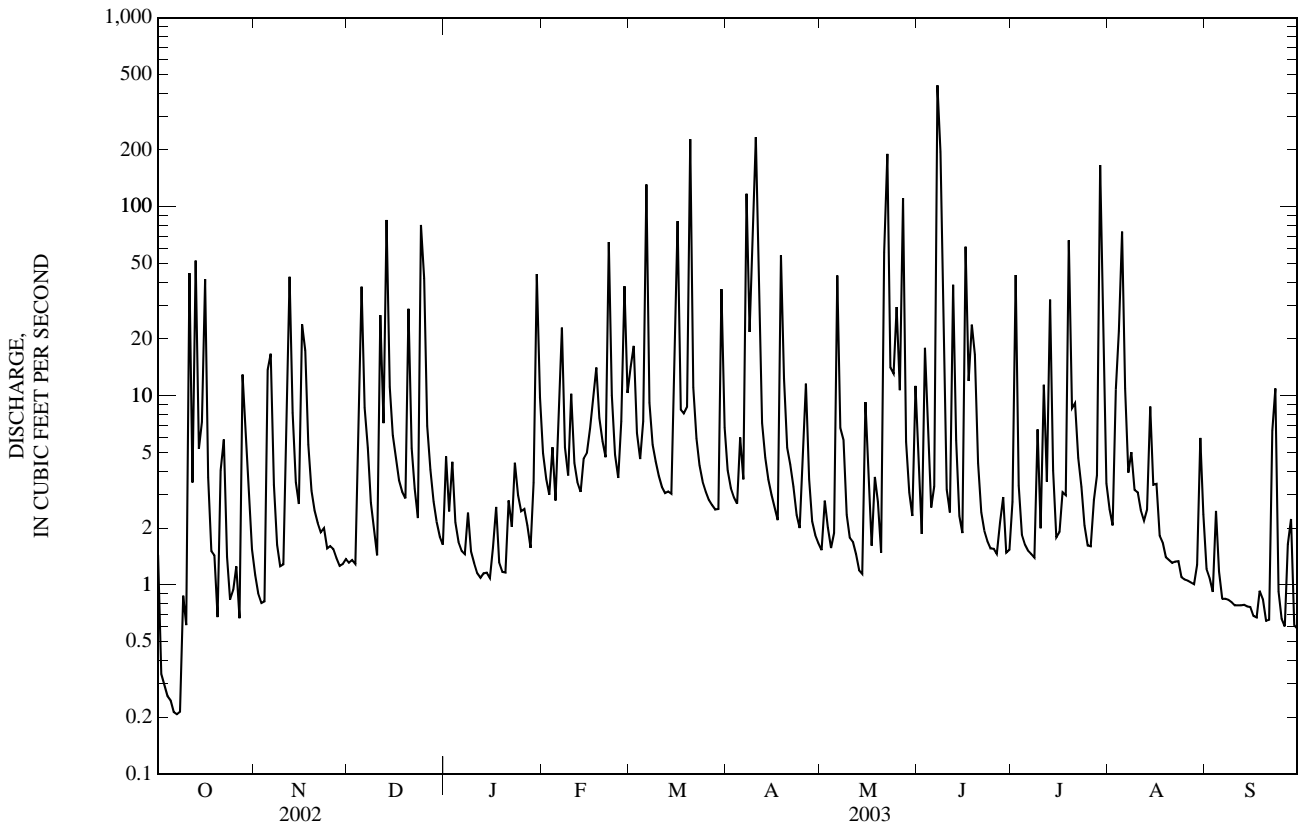
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2003, BY WATER YEAR (WY)

MEAN	4.68	3.32	4.93	6.07	6.34	11.1	8.28	6.76	8.95	5.51	4.30	5.80
MAX	10.5	5.92	12.9	9.34	9.89	21.1	20.4	17.6	29.2	13.3	7.37	14.1
(WY)	(2000)	(2003)	(2003)	(2002)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2002)	(2000)
MIN	0.54	0.83	1.90	2.88	2.69	5.35	1.88	2.94	1.05	1.09	0.98	1.47
(WY)	(2001)	(2002)	(2001)	(2001)	(2002)	(2000)	(2002)	(2001)	(2002)	(2002)	(2001)	(2003)

02146562 CAMPBELL CREEK NEAR CHARLOTTE, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1999 - 2003	
ANNUAL TOTAL	1,879.89		4,503.52		6.43	
ANNUAL MEAN	5.15		12.3		3.39	
HIGHEST ANNUAL MEAN					12.3	2003
LOWEST ANNUAL MEAN					3.39	2002
HIGHEST DAILY MEAN	159	Aug 31	439	Jun 7	439	Jun 7, 2003
LOWEST DAILY MEAN	0.00	Aug 8	0.21	Oct 6	0.00	Aug 8, 2002
ANNUAL SEVEN-DAY MINIMUM	0.00	Aug 8	0.25	Oct 2	0.00	Aug 8, 2002
MAXIMUM PEAK FLOW			3,870*	Jun 7	3,870*	Jun 7, 2003
MAXIMUM PEAK STAGE			9.66	Jun 7	9.66	Jun 7, 2003
INSTANTANEOUS LOW FLOW			0.05	Oct 10	0.00*	Aug 8, 2002
ANNUAL RUNOFF (CFSM)	0.92		2.20		1.15	
ANNUAL RUNOFF (INCHES)	12.49		29.92		15.60	
10 PERCENT EXCEEDS	11		24		11	
50 PERCENT EXCEEDS	1.3		3.0		1.4	
90 PERCENT EXCEEDS	0.15		0.93		0.22	

e Estimated.
 * See REMARKS.



0214657975 IRVINS CREEK AT SR3168 NEAR CHARLOTTE, NC

LOCATION.--Lat 35°09'31", long 80°42'48", Mecklenburg County, Hydrologic Unit 03050103, on right bank at downstream side of bridge on Secondary Road 3168, 4.0 mi southwest of Mint Hill.

DRAINAGE AREA.--8.37 mi².

PERIOD OF RECORD.--June 1999 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 612.56 ft above North American Vertical Datum of 1988. Radio telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges and those above 500 ft³/s, which are poor. Maximum discharge for current water year and period of record from rating curve extended above 500 ft³/s by step-backwater and culvert analysis. No flow also occurred Aug. 14-15, 2002.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.56	1.4	1.8	3.2	6.1	12	5.9	4.5	10	4.2	7.2	e8.7
2	0.52	1.2	2.2	2.8	4.5	25	5.0	4.9	5.4	80	4.3	e6.8
3	e0.52	1.1	1.2	2.9	3.7	7.7	4.5	4.8	18	10	4.3	e5.0
4	e0.50	1.1	1.4	2.5	4.9	5.6	4.2	4.4	16	5.9	4.9	e10
5	e0.45	6.4	45	2.3	3.4	6.6	5.0	4.5	7.8	4.8	29	2.8
6	e0.40	28	9.6	2.2	4.5	169	4.8	176	6.2	4.2	9.7	2.5
7	e0.45	3.9	5.4	2.1	31	14	126	22	531	3.9	5.1	2.4
8	e0.54	2.4	3.5	2.1	6.3	7.0	39	8.4	321	3.8	4.0	2.3
9	0.58	1.9	2.7	2.1	4.3	5.6	139	5.9	53	3.8	3.5	2.0
10	0.69	1.7	2.3	2.0	8.7	4.5	515	5.1	11	4.1	3.4	1.8
11	72	7.7	25	1.8	4.8	4.1	72	4.6	7.3	9.1	3.6	1.6
12	2.8	56	5.4	1.8	3.7	4.0	17	4.1	8.3	6.6	3.2	1.6
13	27	10	116	1.8	3.9	4.4	10	3.7	6.6	e73	3.3	1.6
14	4.3	4.0	16	1.8	3.4	5.1	7.6	3.5	5.6	e20	144	1.6
15	2.2	3.0	5.5	1.8	4.1	8.3	6.5	22	5.9	e10	18	1.8
16	39	36	3.8	1.8	5.8	116	5.9	12	71	e13	6.1	2.1
17	3.1	32	2.9	2.2	6.7	13	5.4	5.2	30	21	4.4	1.3
18	1.5	7.2	2.4	1.8	12	12	139	8.0	422	4.4	3.7	1.4
19	1.1	4.3	2.2	1.8	8.5	8.3	43	7.7	80	108	3.2	1.5
20	0.95	3.4	13	2.6	5.8	434	15	4.9	20	24	3.1	1.3
21	1.0	2.9	4.3	2.1	4.8	23	10	9.2	8.7	11	3.0	1.2
22	2.6	2.5	2.9	2.0	130	9.9	8.3	289	6.5	7.0	2.8	2.6
23	1.1	2.0	2.4	2.8	19	6.9	6.4	46	5.5	6.1	2.7	5.9
24	0.95	1.8	97	e2.1	6.7	5.7	5.6	17	4.8	4.7	2.4	1.6
25	0.97	1.8	e70	e1.8	4.9	5.1	7.0	179	4.3	3.9	2.3	1.5
26	1.1	e1.6	e10	e2.0	5.5	4.7	47	23	3.9	3.6	2.2	1.4
27	e1.0	e1.5	e5.6	e1.8	57	4.6	11	92	3.7	3.4	2.1	1.4
28	e5.0	1.5	e4.0	e1.5	18	4.1	6.2	11	3.8	3.2	2.4	1.6
29	2.8	1.5	e3.2	e2.3	---	4.2	5.4	7.1	4.0	54	2.6	1.2
30	1.9	1.6	e3.0	63	---	50	4.9	5.8	3.8	13	7.6	1.3
31	1.5	---	2.8	14	---	10	---	28	---	25	e20	---
TOTAL	179.08	231.4	472.5	138.8	382.0	994.4	1,281.6	1,023.3	1,685.1	548.7	318.1	79.8
MEAN	5.78	7.71	15.2	4.48	13.6	32.1	42.7	33.0	56.2	17.7	10.3	2.66
MAX	72	56	116	63	130	434	515	289	531	108	144	10
MIN	0.40	1.1	1.2	1.5	3.4	4.0	4.2	3.5	3.7	3.2	2.1	1.2
CFSM	0.69	0.92	1.82	0.53	1.63	3.83	5.10	3.94	6.71	2.11	1.23	0.32
IN.	0.80	1.03	2.10	0.62	1.70	4.42	5.70	4.55	7.49	2.44	1.41	0.35

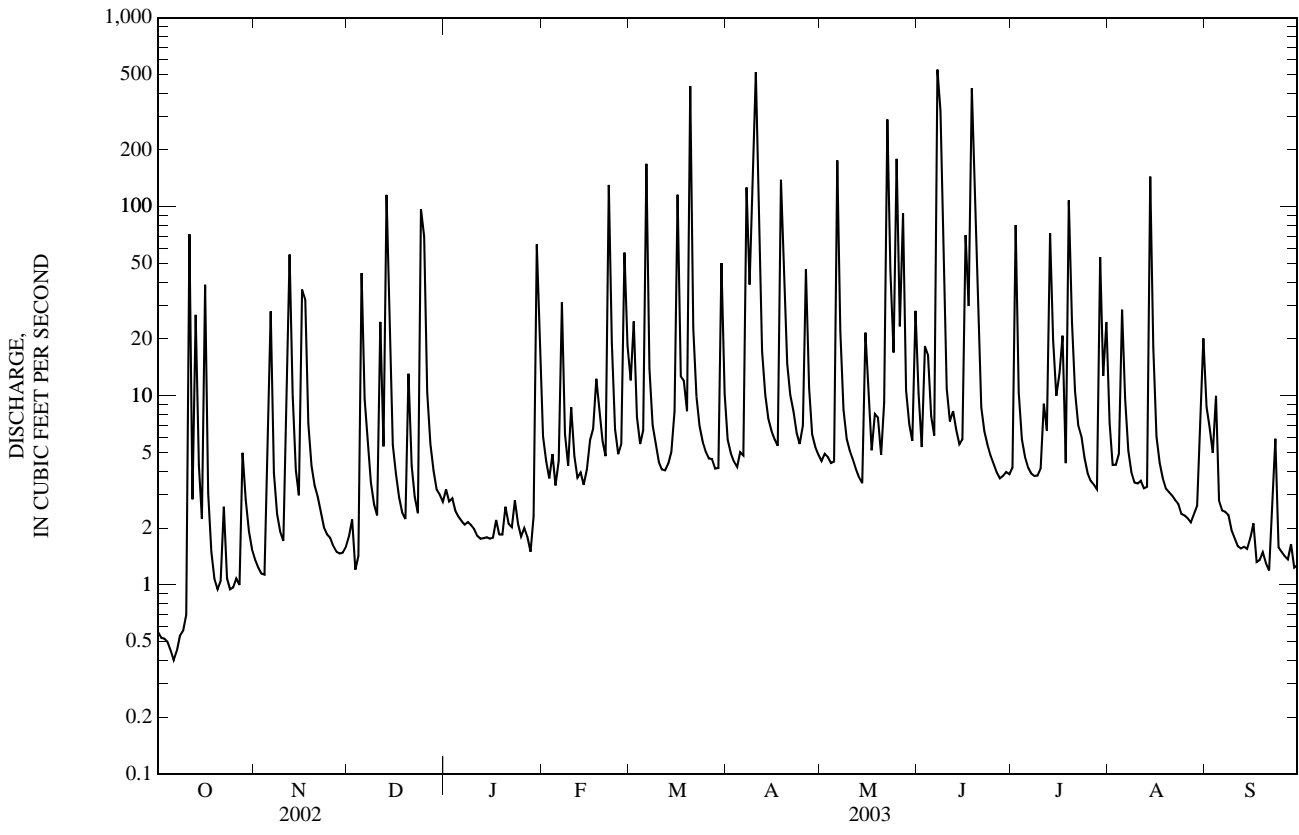
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2003, BY WATER YEAR (WY)

MEAN	4.19	2.79	4.82	5.19	7.98	13.5	13.4	9.72	12.4	4.57	3.39	2.82
MAX	10.1	7.71	15.2	7.87	13.6	32.1	42.7	33.0	56.2	17.7	10.3	6.58
(WY)	(2000)	(2003)	(2003)	(2000)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2000)
MIN	0.37	0.12	0.79	2.13	2.32	5.24	2.35	1.68	0.44	0.082	0.21	1.22
(WY)	(2002)	(2002)	(2002)	(2001)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2001)	(2002)

0214657975 IRVINS CREEK AT SR3168 NEAR CHARLOTTE, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1999 - 2003	
ANNUAL TOTAL	1,630.88		7,334.78		7.37	
ANNUAL MEAN	4.47		20.1		20.1 2003	
HIGHEST ANNUAL MEAN					2.16 2002	
LOWEST ANNUAL MEAN					531 Jun 7, 2003	
HIGHEST DAILY MEAN	139	Aug 31	531	Jun 7		
LOWEST DAILY MEAN	0.00	Aug 13	0.40	Oct 6	0.00 Aug 13, 2002	
ANNUAL SEVEN-DAY MINIMUM	0.01	Aug 9	0.48	Oct 2	0.01 Aug 9, 2002	
MAXIMUM PEAK FLOW			2,670*	Jun 18	2,670* Jun 18, 2003	
MAXIMUM PEAK STAGE			10.27	Jun 18	10.27 Jun 18, 2003	
INSTANTANEOUS LOW FLOW			NOT DETERMINED		0.00* Aug 13, 2002	
ANNUAL RUNOFF (CFSM)	0.53		2.40		0.88	
ANNUAL RUNOFF (INCHES)	7.25		32.60		11.97	
10 PERCENT EXCEEDS	7.7		41		10	
50 PERCENT EXCEEDS	1.1		4.6		1.5	
90 PERCENT EXCEEDS	0.05		1.5		0.13	

e Estimated.
 * See REMARKS.



02146600 MCALPINE CREEK AT SARDIS ROAD NEAR CHARLOTTE, NC

LOCATION.--Lat 35°08'16", long 80°46'03", Mecklenburg County, Hydrologic Unit 03050103, near left bank on downstream end of bridge pier at Sardis Road (Secondary Road 3356), 1.7 mi downstream of Irvins Creek, and 7 mi southeast of city hall, Charlotte.

DRAINAGE AREA.--39.6 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1962 to current year.

REVISED RECORDS.--WDR NC-81-1: Drainage area. WDR NC-99-00-1B: Instantaneous low flow period of record.

GAGE.--Water-stage recorder. Datum of gage is 552.36 ft above North American Vertical Datum of 1988. Radio telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. No flow for part of Nov. 15, 1972, result of upstream construction, and Aug. 14, 15, 2002. Minimum discharge for current water year also occurred Oct. 7.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 6, 1962, reached a stage of about 14.0 ft, from floodmarks; discharge, 4,150 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

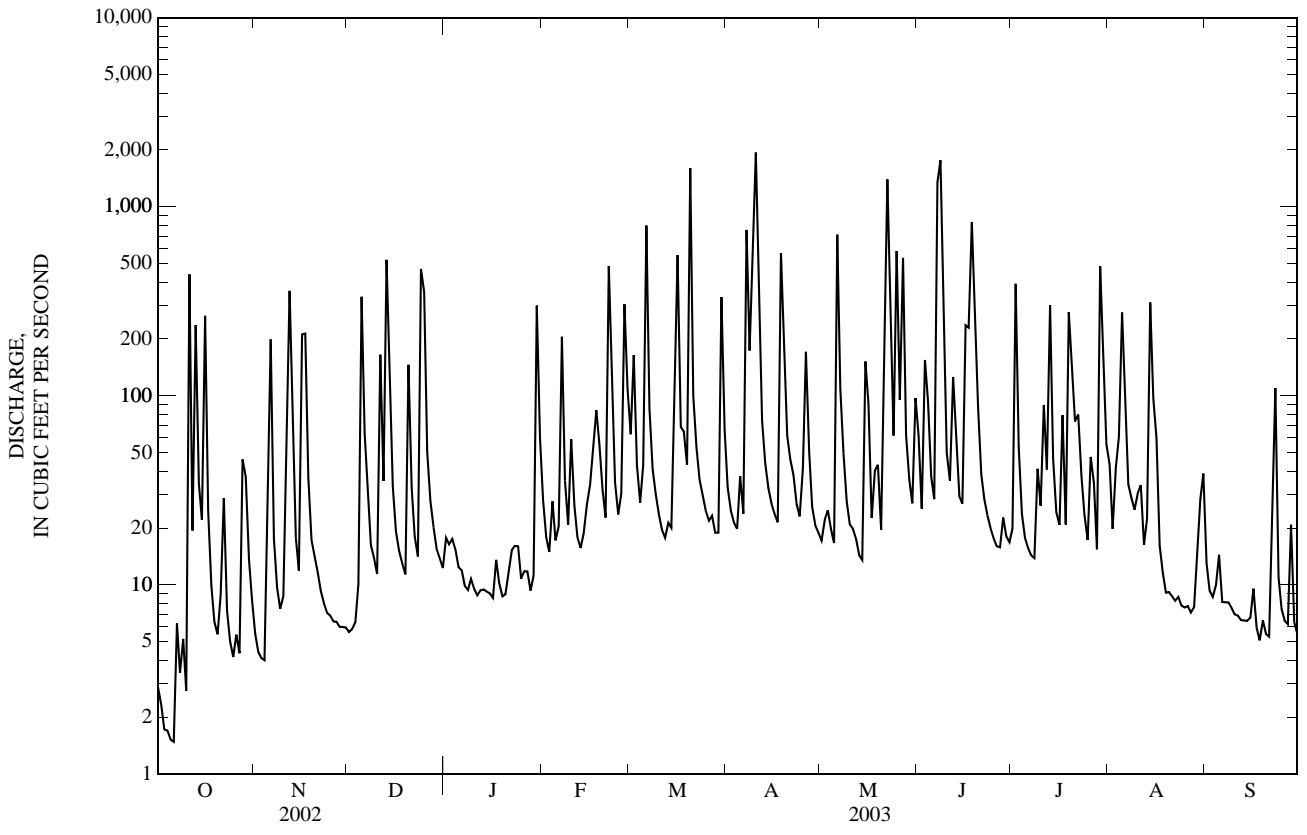
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.9	5.5	5.6	18	28	63	33	17	62	20	43	13
2	2.3	4.4	5.8	16	18	164	25	22	25	391	20	9.3
3	1.7	4.1	6.3	18	15	43	21	25	155	54	42	8.7
4	1.7	4.0	10	15	28	27	20	20	94	24	61	10
5	1.5	56	334	12	17	43	38	17	37	18	276	14
6	1.5	198	64	12	20	796	24	712	28	16	111	8.1
7	6.2	18	29	9.9	205	86	754	109	1,340	14	34	8.1
8	3.4	9.6	16	9.4	36	41	174	49	1,760	14	29	8.1
9	5.2	7.5	14	11	21	30	614	28	239	41	25	7.6
10	2.8	8.7	11	9.5	59	24	1,930	21	50	26	30	7.0
11	439	77	165	8.8	26	20	303	20	36	89	34	6.9
12	19	359	35	9.4	18	18	74	18	126	41	16	6.5
13	237	63	524	9.5	16	21	44	14	56	302	22	6.5
14	34	18	94	9.2	19	20	33	14	30	47	311	6.5
15	22	12	33	9.0	27	80	27	152	27	24	97	6.7
16	265	211	19	8.5	34	556	24	91	236	21	60	9.6
17	25	213	15	14	53	69	21	23	230	79	16	5.9
18	9.9	37	13	10	84	65	568	40	826	21	12	5.1
19	6.4	17	11	8.7	56	43	196	43	336	277	9.1	6.5
20	5.5	14	146	8.9	32	e1,600	62	20	87	153	9.2	5.5
21	8.8	12	33	12	23	e100	46	144	38	73	8.7	5.3
22	29	9.3	18	15	486	53	38	1,390	28	80	8.2	28
23	7.3	8.0	14	16	115	36	27	200	23	38	8.6	110
24	5.0	7.1	468	16	35	30	23	62	20	23	7.8	11
25	4.2	6.9	354	11	24	25	41	583	18	17	7.6	7.5
26	5.4	6.4	51	12	30	22	171	95	16	47	7.7	6.4
27	4.3	6.4	28	12	305	23	51	536	16	35	7.2	6.2
28	46	6.0	20	9.3	110	19	26	62	23	15	7.6	21
29	37	6.0	16	11	---	19	21	36	18	484	14	6.3
30	14	6.0	14	e300	---	333	19	27	17	152	28	5.5
31	8.4	---	12	e60	---	66	---	97	---	55	39	---
TOTAL	1,261.4	1,410.9	2,578.7	701.1	1,940	4,535	5,448	4,687	5,997	2,691	1,401.7	366.8
MEAN	40.7	47.0	83.2	22.6	69.3	146	182	151	200	86.8	45.2	12.2
MAX	439	359	524	300	486	1,600	1,930	1,390	1,760	484	311	110
MIN	1.5	4.0	5.6	8.5	15	18	19	14	16	14	7.2	5.1
CFSM	1.03	1.19	2.10	0.57	1.75	3.69	4.59	3.82	5.05	2.19	1.14	0.31
IN.	1.18	1.33	2.42	0.66	1.82	4.26	5.12	4.40	5.63	2.53	1.32	0.34

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 2003, BY WATER YEAR (WY)

MEAN	33.5	29.2	39.3	66.1	72.9	82.8	51.0	34.4	33.0	29.5	33.0	23.8
MAX	212	109	128	157	169	200	182	173	200	140	178	162
(WY)	(1991)	(1986)	(1984)	(1978)	(1979)	(1977)	(2003)	(1975)	(2003)	(1997)	(1994)	(1987)
MIN	3.16	3.11	7.55	7.46	16.9	13.6	7.45	8.04	3.60	4.04	3.42	1.46
(WY)	(1963)	(2002)	(1966)	(1981)	(1968)	(1985)	(1967)	(1968)	(1986)	(1977)	(1968)	(1968)

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1962 - 2003	
ANNUAL TOTAL	11,834.28		33,018.6		44.0	
ANNUAL MEAN	32.4		90.5		18.9	
HIGHEST ANNUAL MEAN					90.5	2003
LOWEST ANNUAL MEAN					18.9	2001
HIGHEST DAILY MEAN	949	Aug 31	1,930	Apr 10	4,490	Aug 27, 1995
LOWEST DAILY MEAN	0.01	Aug 14	1.5	Oct 5	0.01	Aug 14, 2002
ANNUAL SEVEN-DAY MINIMUM	0.08	Aug 8	2.5	Oct 1	0.08	Aug 8, 2002
MAXIMUM PEAK FLOW			5,330	Jun 8	9,040	Aug 27, 1995
MAXIMUM PEAK STAGE			15.12	Jun 8	17.79	Aug 27, 1995
INSTANTANEOUS LOW FLOW			1.4*	Oct 6	0.00*	Nov 15, 1972
ANNUAL RUNOFF (CF5M)	0.82		2.28		1.11	
ANNUAL RUNOFF (INCHES)	11.12		31.02		15.09	
10 PERCENT EXCEEDS	76		232		75	
50 PERCENT EXCEEDS	7.6		23		13	
90 PERCENT EXCEEDS	1.4		6.5		3.7	

e Estimated.
 * See REMARKS.



02146600 MCALPINE CREEK AT SARDIS ROAD NEAR CHARLOTTE, NC—Continued

PRECIPITATION RECORDS

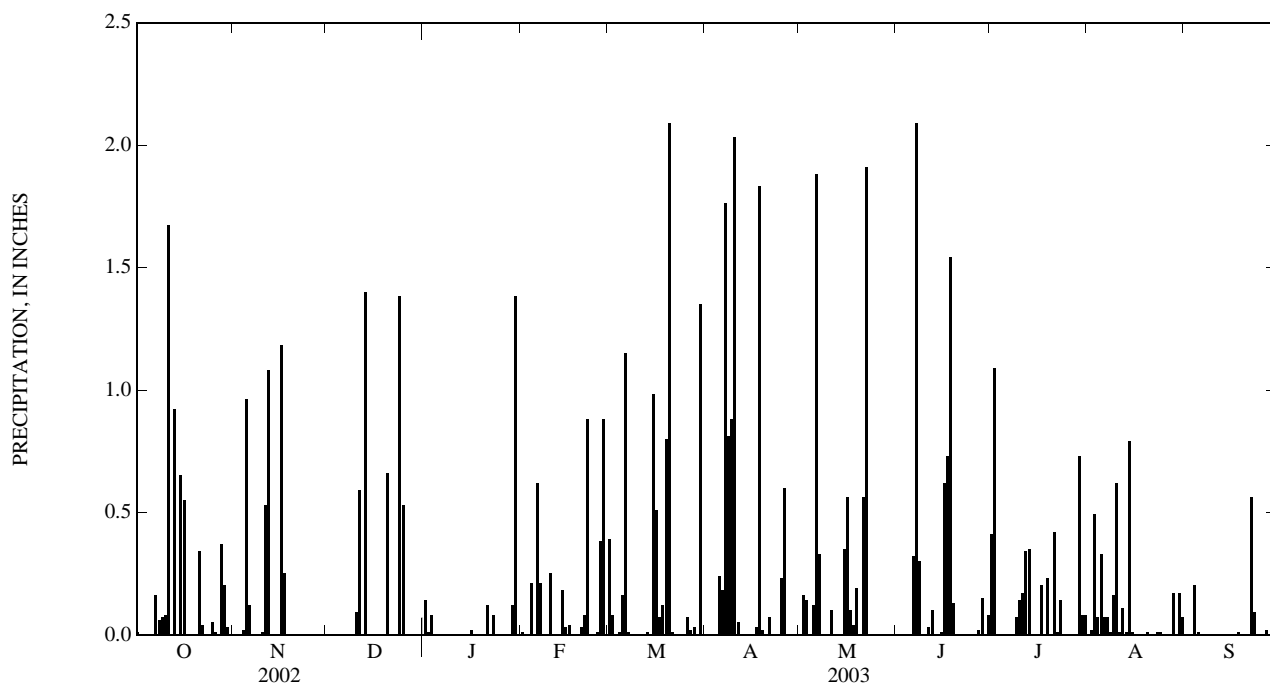
PERIOD OF RECORD.--November 1992 to current year. Records for period November 1992 to September 1998 published in USGS OFR 96-150, 98-67, and 99-273.

GAGE.--Tipping-bucket raingage and electronic datalogger. Radio telemetry at station.

REMARKS.--Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network. Collection of frozen precipitation during December 2002 and February 2003 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.01	0.00	0.00	0.14	0.01	0.39	0.00	0.00	---	0.41	0.00	0.00
2	0.00	0.00	0.00	0.01	0.00	0.08	0.00	0.16	---	1.09	0.02	0.00
3	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.14	---	0.00	0.49	0.00
4	0.00	0.02	---	0.00	0.21	0.01	0.00	0.00	---	0.00	0.07	0.20
5	0.00	0.96	---	0.00	0.00	0.16	0.24	0.12	0.00	0.00	0.33	0.01
6	0.00	0.12	---	0.00	0.62	1.15	0.18	1.88	0.32	0.00	0.07	0.00
7	0.16	0.00	0.00	0.00	0.21	0.01	1.76	0.33	2.09	0.00	0.07	0.00
8	0.06	0.00	0.00	0.00	0.00	0.00	0.81	0.00	0.30	0.00	0.01	0.00
9	0.07	0.00	0.00	0.00	0.00	0.00	0.88	0.00	0.00	0.07	0.16	0.00
10	0.08	0.01	0.09	0.00	0.25	0.00	2.03	0.00	0.00	0.14	0.62	0.00
11	1.67	0.53	0.59	0.00	0.00	0.00	0.05	0.10	0.03	0.17	0.01	0.00
12	0.00	1.08	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.34	0.11	0.00
13	0.92	0.00	1.40	0.00	0.00	0.01	0.00	0.00	0.00	0.35	0.01	0.00
14	0.00	0.00	0.00	0.00	0.18	0.00	0.00	0.00	0.00	0.00	0.79	0.00
15	0.65	0.00	0.00	0.00	0.03	0.98	0.00	0.35	0.01	0.00	0.01	0.00
16	0.55	1.18	0.00	0.02	0.04	0.51	0.00	0.56	0.62	0.00	0.00	0.00
17	0.00	0.25	0.00	0.00	---	0.07	0.03	0.10	0.73	0.20	0.00	0.00
18	0.00	0.00	0.00	0.00	---	0.12	1.83	0.04	1.54	0.00	0.00	0.01
19	0.00	0.00	0.00	0.00	0.00	0.80	0.02	0.19	0.13	0.23	0.00	0.00
20	0.00	0.00	0.66	0.00	0.03	2.09	0.00	0.00	0.00	0.00	0.01	0.00
21	0.34	0.00	0.00	0.12	0.08	0.01	0.07	0.56	0.00	0.42	0.00	0.00
22	0.04	0.00	0.00	0.00	0.88	0.00	0.00	1.91	0.00	0.01	0.00	0.56
23	0.00	0.00	0.00	0.08	0.00	0.00	0.00	---	0.00	0.14	0.01	0.09
24	0.00	0.00	1.38	---	0.00	0.00	0.00	---	0.00	0.00	0.01	0.00
25	0.05	0.00	0.53	0.00	0.01	0.00	0.23	---	0.00	0.00	0.00	0.00
26	0.01	0.00	0.00	0.00	0.38	0.07	0.60	---	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.88	0.02	0.00	---	0.02	0.00	0.00	0.02
28	0.37	0.00	0.00	0.00	0.00	0.03	0.00	---	0.15	0.00	0.17	0.00
29	0.20	0.00	0.00	0.12	---	0.00	0.00	---	0.00	0.73	0.00	0.00
30	0.03	0.00	0.00	1.38	---	1.35	0.00	---	0.08	0.08	0.17	0.00
31	0.00	---	0.00	0.00	---	0.00	---	---	---	0.08	0.07	---
TOTAL	5.21	4.15	---	---	---	7.86	8.73	---	---	4.46	3.21	0.89



02146670 FOUR MILE CREEK NEAR PINEVILLE, NC

LOCATION.--Lat 35°04'37", long 80°49'21", Mecklenburg County, Hydrologic Unit 03050103, on left bank on downstream side of bridge at Elm Lane W. (Secondary Road 3649), 0.5 mi south of State Highway 51, 1.25 mi upstream of McAlpine Creek, and 4.5 mi east of U.S. Highway 521 at Pineville.

DRAINAGE AREA.--17.8 mi².

PERIOD OF RECORD.-- July 1997 to September 2003 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 528.69 ft above NGVD of 1929, North American Vertical Datum of 1988 (City of Charlotte bench mark). Radio telemetry at station.

REMARKS.--Records poor. Maximum discharge for period of record and current water year from rating curve extended above 885 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e2.0	13	20	14	21	36	25	8.7	35	34	26	16
2	e1.4	13	20	13	14	79	21	13	21	294	19	11
3	e1.3	14	e22	11	11	27	19	19	59	41	21	9.3
4	e1.1	14	22	7.0	17	19	18	21	50	20	26	13
5	1.1	35	165	5.5	11	26	24	12	27	14	43	17
6	1.0	115	52	5.4	12	278	22	612	23	10	38	9.6
7	0.96	24	32	2.9	111	54	325	98	500	8.2	21	9.2
8	1.1	19	26	2.2	23	31	93	40	131	7.1	17	9.5
9	1.5	18	24	2.4	13	25	288	26	56	5.7	21	9.1
10	1.6	18	23	2.5	32	28	663	18	30	6.0	55	8.1
11	195	57	98	1.8	17	22	174	15	23	43	75	7.4
12	8.4	163	36	1.8	11	18	60	15	20	33	22	7.3
13	98	48	274	2.3	7.9	27	33	9.4	19	202	23	e7.0
14	17	26	70	2.4	10	23	25	7.1	15	32	129	e6.8
15	17	22	31	2.4	16	43	20	67	14	18	140	e7.0
16	116	106	22	2.2	29	207	17	135	95	13	113	e8.0
17	15	127	17	6.4	34	47	15	29	154	18	40	e7.0
18	8.1	40	14	3.8	42	51	183	26	374	10	24	e6.8
19	5.4	28	13	2.8	29	34	96	31	160	74	19	e8.0
20	5.3	24	59	3.2	20	778	38	22	46	55	17	e7.0
21	6.2	23	24	5.5	16	102	31	20	24	30	15	e6.6
22	12	23	16	10	269	50	28	332	17	85	14	e14
23	7.1	21	12	11	69	30	18	112	13	53	13	39
24	5.3	21	203	12	22	24	15	45	10	30	12	3.4
25	6.5	21	180	8.0	15	20	24	147	8.7	24	11	1.9
26	9.2	21	41	8.8	16	18	33	79	7.6	15	10	1.7
27	10	21	26	8.8	166	19	22	38	7.8	14	9.8	1.6
28	25	21	19	6.2	69	19	13	35	13	12	9.0	7.3
29	32	16	15	7.6	---	17	11	38	11	176	16	2.0
30	19	21	11	166	---	150	9.3	33	29	78	18	1.5
31	14	---	9.9	55	---	47	---	41	---	39	27	---
TOTAL	644.56	1,133	1,596.9	393.9	1,122.9	2,349	2,363.3	2,144.2	1,993.1	1,494.0	1,043.8	263.1
MEAN	20.8	37.8	51.5	12.7	40.1	75.8	78.8	69.2	66.4	48.2	33.7	8.77
MAX	195	163	274	166	269	778	663	612	500	294	140	39
MIN	0.96	13	9.9	1.8	7.9	17	9.3	7.1	7.6	5.7	9.0	1.5
CFSM	1.17	2.12	2.89	0.71	2.25	4.26	4.43	3.89	3.73	2.71	1.89	0.49
IN.	1.35	2.37	3.34	0.82	2.35	4.91	4.94	4.48	4.17	3.12	2.18	0.55

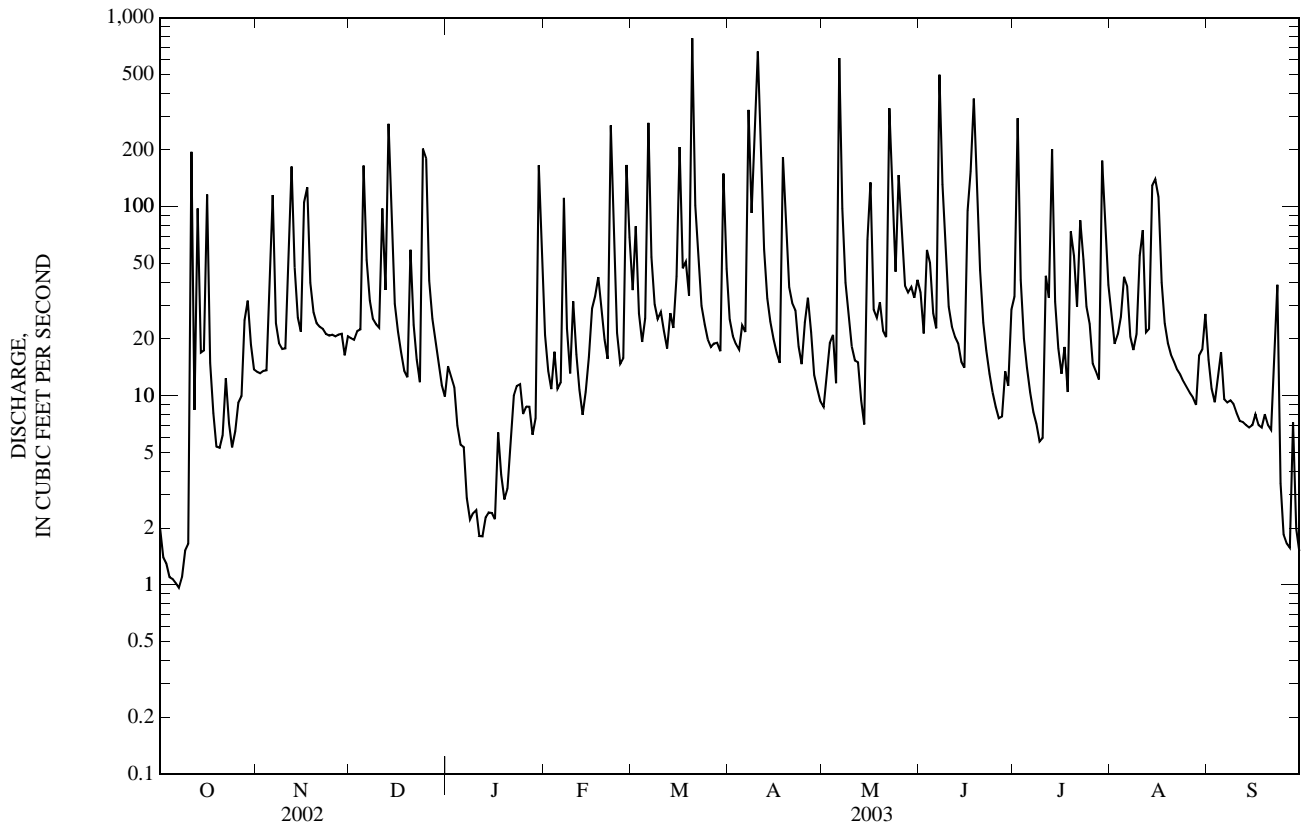
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2003, BY WATER YEAR (WY)

MEAN	12.4	14.7	20.0	30.4	28.2	35.1	31.3	18.8	18.4	20.1	11.8	14.1
MAX	23.6	37.8	51.5	56.2	46.1	75.8	78.8	69.2	66.4	48.2	33.7	34.8
(WY)	(1998)	(2003)	(2003)	(1998)	(1998)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2000)
MIN	0.98	2.56	5.94	12.7	12.9	10.8	6.18	3.03	2.40	5.61	0.33	4.21
(WY)	(2001)	(2002)	(2000)	(2003)	(2001)	(1999)	(2001)	(1999)	(2002)	(2002)	(2001)	(1999)

02146670 FOUR MILE CREEK NEAR PINEVILLE, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1997 - 2003	
ANNUAL TOTAL	6,761.04		16,541.76		21.3	
ANNUAL MEAN	18.5		45.3		45.3	
HIGHEST ANNUAL MEAN					10.5	
LOWEST ANNUAL MEAN					2001	
HIGHEST DAILY MEAN	357	Aug 31	778	Mar 20	778	Mar 20, 2003
LOWEST DAILY MEAN	0.01	Aug 14	0.96	Oct 7	0.01	Aug 14, 2002
ANNUAL SEVEN-DAY MINIMUM	0.06	Aug 8	1.1	Oct 2	0.06	Aug 8, 2002
MAXIMUM PEAK FLOW			1420*	Mar 20	1630*	Jul 27, 1998
MAXIMUM PEAK STAGE			11.23	Mar 20	11.58	Jul 27, 1998
INSTANTANEOUS LOW FLOW			NOT DETERMINED		NOT DETERMINED	
ANNUAL RUNOFF (CFSM)	1.04		2.55		1.20	
ANNUAL RUNOFF (INCHES)	14.13		34.57		16.27	
10 PERCENT EXCEEDS	42		112		47	
50 PERCENT EXCEEDS	5.7		20		6.2	
90 PERCENT EXCEEDS	0.46		5.9		0.88	

e Estimated.
 * See REMARKS.



02146700 MCMULLEN CREEK AT SHARON VIEW ROAD NEAR CHARLOTTE, NC

LOCATION.--Lat 35°08'27", long 80°49'12", Mecklenburg County, Hydrologic Unit 03050103, on left bank downstream of culvert wingwall at Sharon View Road (Secondary Road 3673), 3.3 mi south of Queens College, Charlotte, and 6.9 mi upstream from mouth.

DRAINAGE AREA.--6.95 mi².

PERIOD OF RECORD.--April 1962 to current year.

REVISED RECORDS.--WDR NC-80-1: Drainage area.

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 592.31 ft above North American Vertical of 1988. Prior to Oct. 13, 1970, at site 73 ft upstream at same datum. Oct. 13, 1970, to Dec. 30, 1971, at site 154 ft downstream at 590.91 ft above NGVD of 1929. Radio telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Minimum discharge for the current water year also occurred Oct. 7, 8. Maximum discharge for period of record from rating curve extended above 2,650 ft³/s on basis of computation of peak flow through culvert. No flow occurred periodically from 1962 to 1973.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 6, 1962, reached a stage of 7.5 ft, former site and datum, from floodmarks; discharge, 1,040 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	2.8	0.94	4.8	3.8	18	3.7	3.5	5.3	e3.0	2.5	4.1
2	0.76	2.1	0.85	2.5	2.8	23	3.1	7.5	4.0	61	1.6	1.2
3	0.51	1.2	0.92	4.5	2.4	5.2	2.9	4.7	36	3.9	45	1.1
4	0.44	0.71	7.2	2.1	4.9	3.6	2.7	3.5	9.7	2.2	27	4.4
5	0.45	29	75	2.0	2.3	8.0	9.7	3.5	4.5	2.1	40	1.7
6	0.42	27	7.4	1.8	11	180	3.9	145	11	1.8	5.6	0.86
7	0.35	2.1	3.4	1.8	30	8.3	176	10	377	1.8	2.8	0.81
8	0.42	1.6	2.3	1.8	3.6	4.6	42	5.7	193	1.8	3.8	0.81
9	0.84	1.9	1.9	1.8	2.6	3.7	105	4.2	27	11	4.9	0.80
10	0.95	1.3	1.6	1.8	12	3.0	349	4.1	5.8	2.7	3.5	0.70
11	91	22	38	1.8	3.0	2.7	29	4.5	6.9	38	2.8	0.62
12	2.0	85	3.5	1.7	2.3	2.5	8.6	3.1	40	6.2	2.5	0.88
13	47	6.2	119	1.7	2.0	2.5	5.7	2.5	6.4	64	3.1	0.73
14	2.5	2.4	8.5	1.8	4.7	2.3	4.6	2.3	4.2	5.3	29	0.79
15	24	1.7	3.5	1.7	4.3	22	4.2	105	3.7	2.6	3.7	0.65
16	66	66	2.7	2.2	7.6	84	3.9	9.6	139	3.8	1.7	0.72
17	2.4	26	2.2	3.0	11	7.6	3.7	3.7	85	5.8	1.5	0.70
18	1.3	4.2	2.0	1.7	19	9.5	105	7.6	94	2.0	1.3	0.76
19	1.6	2.4	1.8	1.6	6.4	11	19	5.3	32	39	1.3	0.85
20	1.7	2.0	46	1.6	4.7	335	7.0	3.8	8.3	5.5	1.2	0.55
21	5.7	1.8	3.7	2.7	3.5	12	6.8	108	4.4	6.1	1.1	0.52
22	6.8	1.5	2.6	2.2	77	5.7	5.2	362	3.6	3.6	1.6	12
23	1.3	1.4	2.2	4.6	10	4.1	4.1	32	3.1	3.4	1.7	19
24	0.99	1.6	124	3.4	3.9	3.3	3.8	41	2.7	1.8	1.1	0.85
25	1.1	1.2	58	2.4	3.0	3.4	10	130	2.5	1.5	1.2	0.69
26	1.7	1.0	5.4	2.5	8.5	3.1	23	14	e2.1	1.5	1.1	0.59
27	1.6	0.99	3.5	2.2	62	3.5	5.4	129	e2.3	1.6	1.0	0.75
28	19	0.94	2.9	1.8	9.9	2.7	4.1	7.1	e5.4	1.3	0.93	1.8
29	4.5	0.93	2.6	4.0	---	3.0	3.8	4.5	e2.5	50	1.4	0.52
30	2.1	1.0	2.3	69	---	63	3.5	3.5	e2.2	6.5	25	0.48
31	2.0	---	2.4	8.2	---	6.1	---	15	---	4.0	5.6	---
TOTAL	292.53	299.97	538.31	146.7	318.2	846.4	958.4	1,185.2	1,123.6	344.8	226.53	60.93
MEAN	9.44	10.0	17.4	4.73	11.4	27.3	31.9	38.2	37.5	11.1	7.31	2.03
MAX	91	85	124	69	77	335	349	362	377	64	45	19
MIN	0.35	0.71	0.85	1.6	2.0	2.3	2.7	2.3	2.1	1.3	0.93	0.48
CFSM	1.36	1.44	2.50	0.68	1.64	3.93	4.60	5.50	5.39	1.60	1.05	0.29
IN.	1.57	1.61	2.88	0.79	1.70	4.53	5.13	6.34	6.01	1.85	1.21	0.33

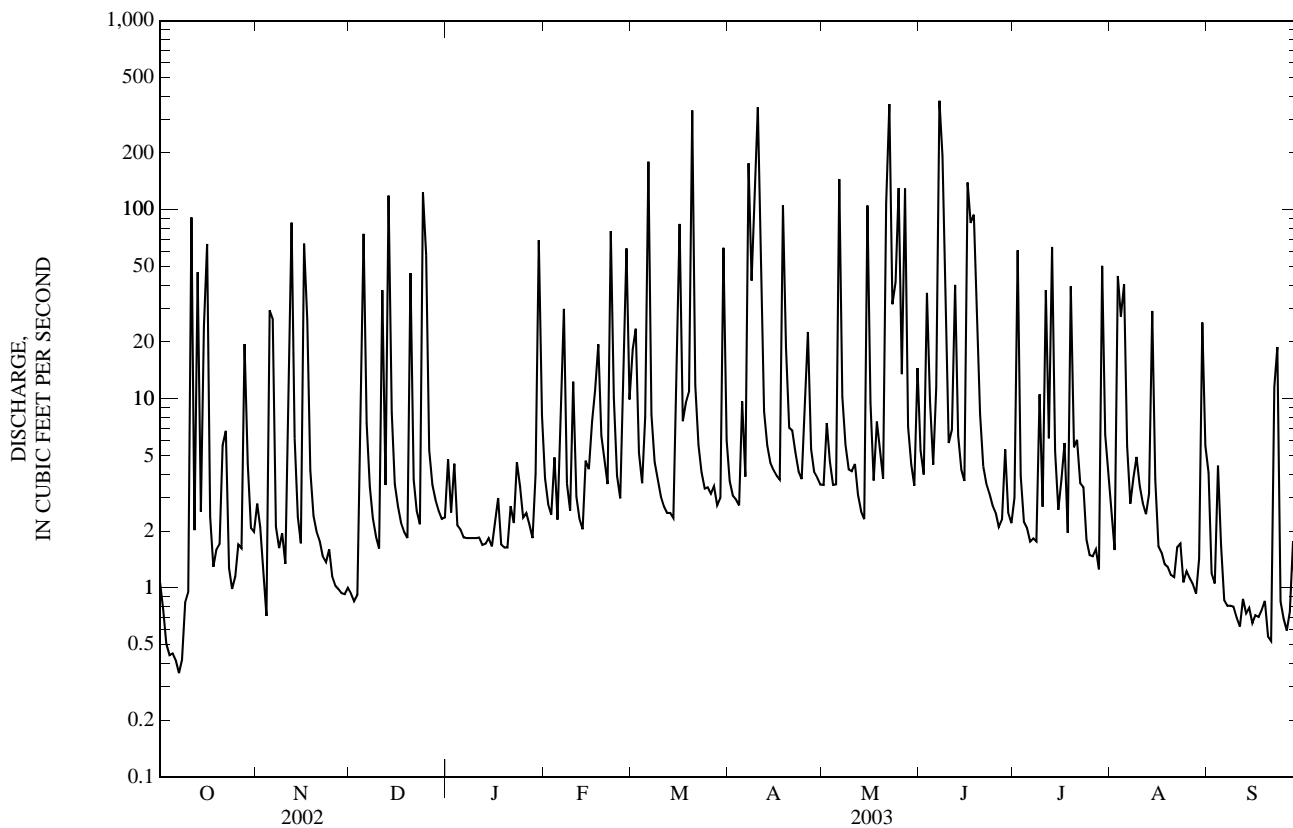
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 2003, BY WATER YEAR (WY)

MEAN	6.18	5.74	7.69	12.4	13.1	15.1	8.25	7.03	7.19	6.46	5.95	5.54
MAX	30.4	21.3	24.3	33.5	28.1	38.8	31.9	38.2	37.5	27.7	32.1	23.8
(WY)	(1991)	(1986)	(1977)	(1978)	(1979)	(1977)	(2003)	(2003)	(2003)	(1997)	(1995)	(1987)
MIN	0.21	0.54	0.86	1.02	1.77	1.74	1.13	1.08	0.75	0.61	0.24	0.084
(WY)	(1964)	(1970)	(1966)	(1981)	(1968)	(1985)	(1981)	(1962)	(1966)	(1963)	(1968)	(1970)

02146700 MCMULLEN CREEK AT SHARON VIEW ROAD NEAR CHARLOTTE, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1962 - 2003	
ANNUAL TOTAL	2,768.02		6,341.57		8.38	
ANNUAL MEAN	7.58		17.4		17.4	
HIGHEST ANNUAL MEAN					2003	
LOWEST ANNUAL MEAN					1970	
HIGHEST DAILY MEAN	269	Aug 31	377	Jun 7	868	Aug 27, 1995
LOWEST DAILY MEAN	0.31	Jul 8	0.35	Oct 7	0.00	Aug 31, 1962
ANNUAL SEVEN-DAY MINIMUM	0.32	Aug 8	0.48	Oct 2	0.01	Sep 19, 1968
MAXIMUM PEAK FLOW			3,000	Jun 7	3,470*	Aug 27, 1995
MAXIMUM PEAK STAGE			10.36	Jun 7	11.03	Aug 27, 1995
INSTANTANEOUS LOW FLOW			0.30*	Oct 6	0.00*	Aug 31, 1962
ANNUAL RUNOFF (CFSM)	1.09		2.50		1.21	
ANNUAL RUNOFF (INCHES)	14.82		33.94		16.38	
10 PERCENT EXCEEDS	20		43		15	
50 PERCENT EXCEEDS	1.6		3.5		1.6	
90 PERCENT EXCEEDS	0.51		0.94		0.32	

e Estimated.
 * See REMARKS.



02146750 MCALPINE CREEK BELOW MCMULLEN CREEK NEAR PINEVILLE, NC

LOCATION.--Lat 35°04'00", long 80°52'12", Mecklenburg County, Hydrologic Unit, 03050103, on right bank at McAlpine Creek Wastewater Treatment Plant of Charlotte, 150 ft downstream of McMullen Creek, 735 ft upstream from effluent outfall, and 2.1 mi south of Pineville.

DRAINAGE AREA.--92.4 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1974 to current year.

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 515.51 above North American Vertical Datum of 1988. Prior to Oct. 1, 1977, present site at 516.51 ft above North American Vertical Datum of 1988. Radio telemetry at station.

REMARKS.--No estimated daily discharges. Records fair. Records for periods of heavy overbank flow may be affected by variable backwater not adequately defined. Maximum stage for period of record from high-water mark in gage house. Maximum discharge for period of record from rating curve extended above 11,600 ft³/s. Minimum discharge for current water year also occurred Oct. 8.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since at least 1964, about 12.9 ft. (former datum), Apr. 1, 1973, from information by wastewater treatment plant operator.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.3	18	14	49	102	133	80	36	218	124	93	43
2	5.7	13	13	54	60	424	59	51	65	1,150	48	24
3	4.8	12	14	47	47	116	51	69	235	338	145	21
4	3.8	11	17	40	65	67	45	61	414	70	135	22
5	3.4	60	803	32	55	89	64	39	107	46	229	34
6	2.9	711	379	28	41	1,430	63	2,050	63	36	432	21
7	2.7	71	80	27	560	546	1,650	1,070	2,120	32	70	17
8	7.3	31	42	26	109	107	658	139	3,030	30	50	17
9	4.5	22	31	26	54	75	1,540	77	950	30	65	15
10	6.0	18	26	26	122	60	3,500	58	149	63	46	14
11	990	199	445	24	72	50	1,900	50	93	81	176	14
12	240	837	116	22	44	45	280	48	175	181	39	13
13	495	487	918	23	36	53	116	36	197	832	47	12
14	352	66	878	22	37	54	81	32	68	177	244	12
15	136	37	115	22	59	76	66	154	59	65	937	15
16	960	340	70	22	69	1,260	54	918	149	48	220	20
17	115	990	49	32	134	298	51	90	1,060	100	95	18
18	36	162	37	27	179	173	728	62	1,700	50	45	15
19	23	68	32	22	158	109	1,080	109	2,030	97	36	14
20	18	45	410	21	75	3,900	168	55	466	732	31	16
21	16	31	109	26	56	1,160	105	136	118	100	28	14
22	56	27	50	37	698	156	98	2,410	77	218	28	26
23	25	22	36	36	872	92	66	1,720	63	138	28	258
24	16	20	760	49	99	71	54	247	56	66	25	39
25	13	19	1,450	32	63	60	88	1,270	48	46	22	23
26	13	18	305	32	57	53	185	758	45	32	21	19
27	13	16	98	32	613	52	190	948	42	67	21	18
28	43	15	73	26	687	43	54	220	52	31	20	37
29	148	14	53	28	---	44	43	118	55	194	28	24
30	47	15	44	618	---	641	40	103	70	1,010	39	14
31	26	---	41	668	---	387	---	136	---	151	103	---
TOTAL	3,827.4	4,395	7,508	2,176	5,223	11,824	13,157	13,270	13,974	6,335	3,546	849
MEAN	123	146	242	70.2	187	381	439	428	466	204	114	28.3
MAX	990	990	1,450	668	872	3,900	3,500	2,410	3,030	1,150	937	258
MIN	2.7	11	13	21	36	43	40	32	42	30	20	12
CFSM	1.34	1.59	2.62	0.76	2.02	4.13	4.75	4.63	5.04	2.21	1.24	0.31
IN.	1.54	1.77	3.02	0.88	2.10	4.76	5.30	5.34	5.63	2.55	1.43	0.34

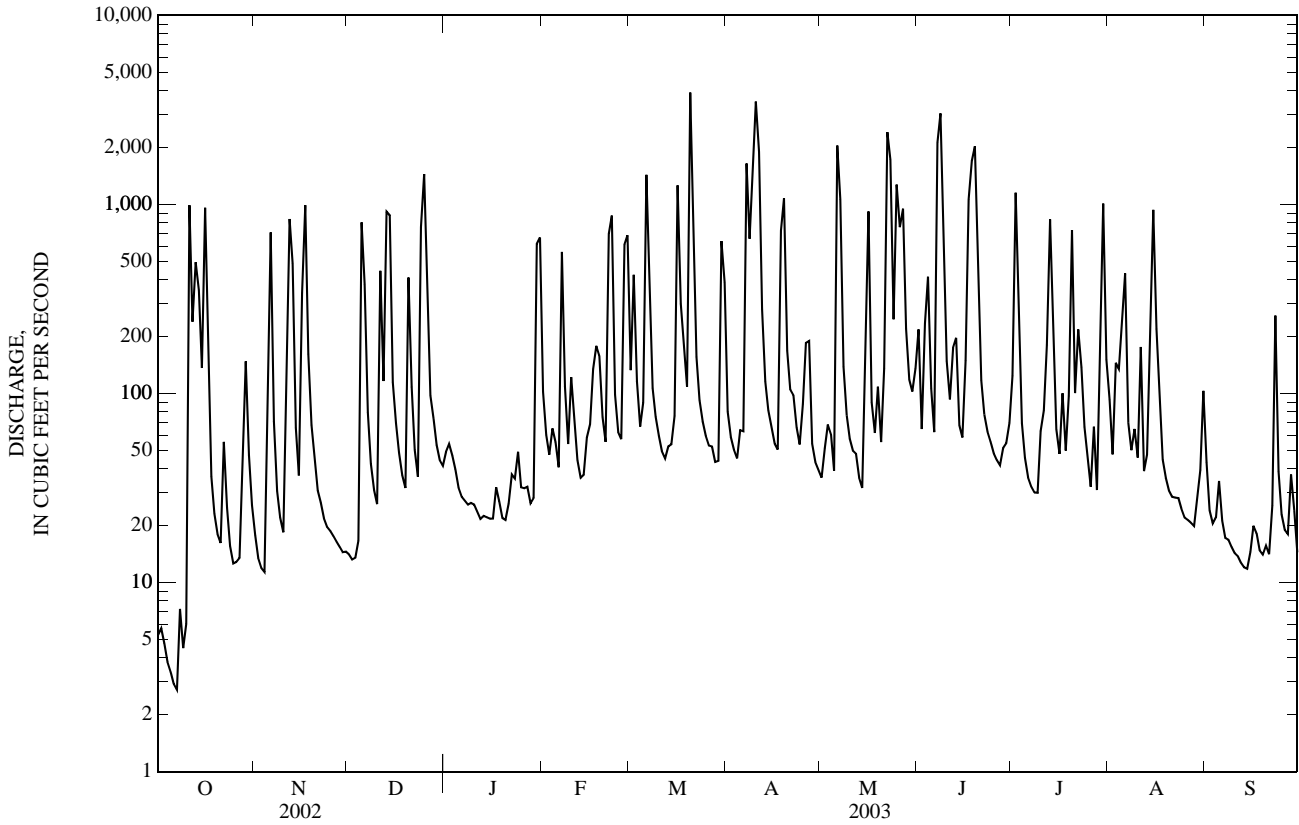
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 2003, BY WATER YEAR (WY)

MEAN	99.2	103	126	222	211	248	134	101	85.4	92.0	103	83.4
MAX	540	414	497	550	506	544	439	428	466	400	597	510
(WY)	(1991)	(1986)	(1984)	(1978)	(1984)	(1980)	(2003)	(2003)	(2003)	(1997)	(1994)	(1987)
MIN	6.82	8.44	24.0	18.6	39.0	35.8	21.9	18.2	7.43	7.07	7.95	5.03
(WY)	(1979)	(2002)	(1981)	(1981)	(1978)	(1981)	(1981)	(1981)	(1986)	(1977)	(2001)	(1983)

02146750 MCALPINE CREEK BELOW MCMULLEN CREEK NEAR PINEVILLE, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1974 - 2003	
ANNUAL TOTAL	33,843.0		86,084.4		134	
ANNUAL MEAN	92.7		236		236	
HIGHEST ANNUAL MEAN					51.4	2003
LOWEST ANNUAL MEAN					2001	
HIGHEST DAILY MEAN	1,450	Dec 25	3,900	Mar 20	7,740	Aug 27, 1995
LOWEST DAILY MEAN	2.7	Oct 7	2.7	Oct 7	0.46	Sep 30, 1983
ANNUAL SEVEN-DAY MINIMUM	3.2	Aug 8	4.1	Oct 1	0.76	Sep 28, 1983
MAXIMUM PEAK FLOW			5,720	Mar 20	12,500*	Aug 27, 1995
MAXIMUM PEAK STAGE			13.32	Mar 20	19.40*	Aug 27, 1995
INSTANTANEOUS LOW FLOW			2.0*	Oct 7	0.45	Sep 30, 1983
ANNUAL RUNOFF (CFSM)	1.00		2.55		1.45	
ANNUAL RUNOFF (INCHES)	13.63		34.66		19.75	
10 PERCENT EXCEEDS	268		759		270	
50 PERCENT EXCEEDS	22		58		33	
90 PERCENT EXCEEDS	4.5		16		8.5	

* See REMARKS.



PRECIPITATION RECORDS

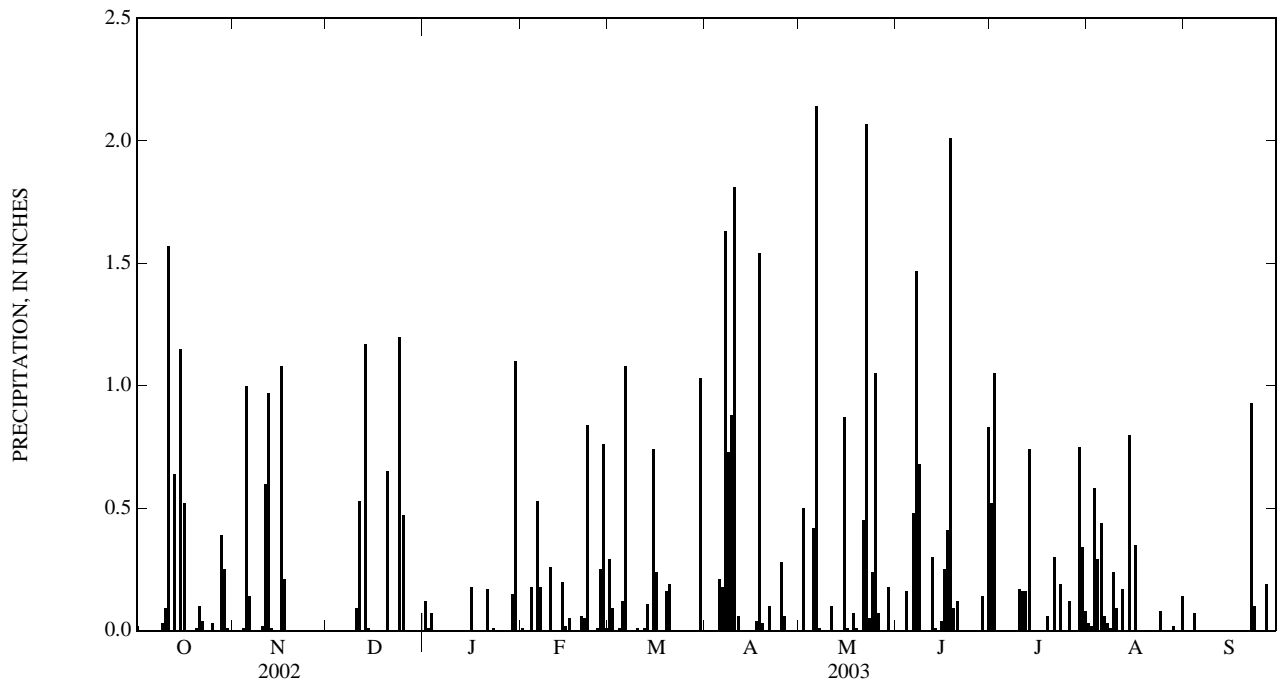
PERIOD OF RECORD.--May 1993 to current year. Records for period May 1993 to September 1998 published in USGS OFR 96-150, 98-67, and 99-273.

GAGE.--Tipping-bucket raingage and electronic datalogger. Radio telemetry at station.

REMARKS.--Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network. Collection of frozen precipitation during December 2002 and February 2003 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.02	0.00	0.00	0.12	0.01	0.29	0.00	0.00	---	0.52	0.03	0.00
2	0.00	0.00	0.00	0.01	0.00	0.09	0.00	0.50	---	1.05	0.02	0.00
3	0.00	0.00	0.00	0.07	0.00	0.00	0.00	0.00	---	0.00	0.58	0.00
4	0.00	0.01	---	0.00	0.18	0.01	0.00	0.00	0.16	0.00	0.29	0.07
5	0.00	1.00	---	0.00	0.00	0.12	0.21	0.42	0.00	0.00	0.44	0.00
6	0.00	0.14	---	0.00	0.53	1.08	0.18	2.14	0.48	0.00	0.06	0.00
7	0.00	0.00	0.00	0.00	0.18	0.00	1.63	0.01	1.47	0.00	0.03	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.68	0.00	0.01	0.00
9	0.03	0.00	0.00	0.00	0.00	0.00	0.88	0.00	0.00	0.00	0.24	0.00
10	0.09	0.02	0.09	0.00	0.26	0.01	1.81	0.00	0.00	0.17	0.09	0.00
11	1.57	0.60	0.53	0.00	0.00	0.00	0.06	0.10	0.00	0.16	0.00	0.00
12	0.00	0.97	0.00	0.00	0.00	0.01	0.00	0.00	0.30	0.16	0.17	0.00
13	0.64	0.01	1.17	0.00	0.00	0.11	0.00	0.00	0.01	0.74	0.00	0.00
14	0.00	0.00	0.01	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.80	0.00
15	1.15	0.00	0.00	0.00	0.02	0.74	0.00	0.87	0.04	0.00	0.00	0.00
16	0.52	1.08	0.00	0.18	0.05	0.24	0.00	0.01	0.25	0.00	0.35	0.00
17	0.00	0.21	0.00	0.00	---	0.00	0.04	0.00	0.41	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	---	0.00	1.54	0.07	2.01	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.16	0.03	0.01	0.09	0.06	0.00	0.00
20	0.01	0.00	0.65	0.00	0.06	0.19	0.00	0.00	0.12	0.00	0.00	0.00
21	0.10	0.00	0.00	0.17	0.05	0.00	0.10	0.45	0.00	0.30	0.00	0.00
22	0.04	0.00	0.00	0.00	0.84	0.00	0.00	2.07	0.00	0.00	0.00	0.93
23	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.05	0.00	0.19	0.00	0.10
24	0.00	0.00	1.20	0.00	0.00	0.00	0.00	0.24	0.00	0.00	0.08	0.00
25	0.03	0.00	0.47	---	0.01	0.00	0.28	1.05	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.25	0.00	0.06	0.07	0.00	0.12	0.00	0.00
27	0.00	0.00	0.00	0.00	0.76	0.00	0.00	0.00	0.00	0.00	0.00	0.19
28	0.39	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.14	0.00	0.02	0.00
29	0.25	0.00	0.00	0.15	---	0.00	0.00	0.18	0.00	0.75	0.00	0.00
30	0.01	0.00	0.00	1.10	---	1.03	0.00	0.00	0.83	0.34	0.00	0.00
31	0.00	---	0.00	0.00	---	0.00	---	---	---	0.08	0.14	---
TOTAL	4.85	4.04	---	---	---	4.08	7.55	---	---	4.64	3.35	1.29



0214678175 STEELE CREEK AT SECONDARY ROAD 1441 NEAR PINEVILLE, NC

LOCATION.--Lat 35°06'18", long 80°57'13", Mecklenburg County, Hydrologic Unit 03050103, on right bank on upstream side of culvert on Secondary Road 1441 (Carowinds Blvd.), and 4.5 mi west of Pineville.

DRAINAGE AREA.--6.73 mi².

PERIOD OF RECORD.-- May 1998 to current year.

GAGE.--Water-stage recorder. Datum of gage is 562.23 ft above NGVD of 1929, from levels. Radio telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Minimum discharge for period of record also occurred Aug. 17, 19, 20, 22, 23, 27, 28, 30, 2001. Minimum discharge for current water year also occurred Oct. 3.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

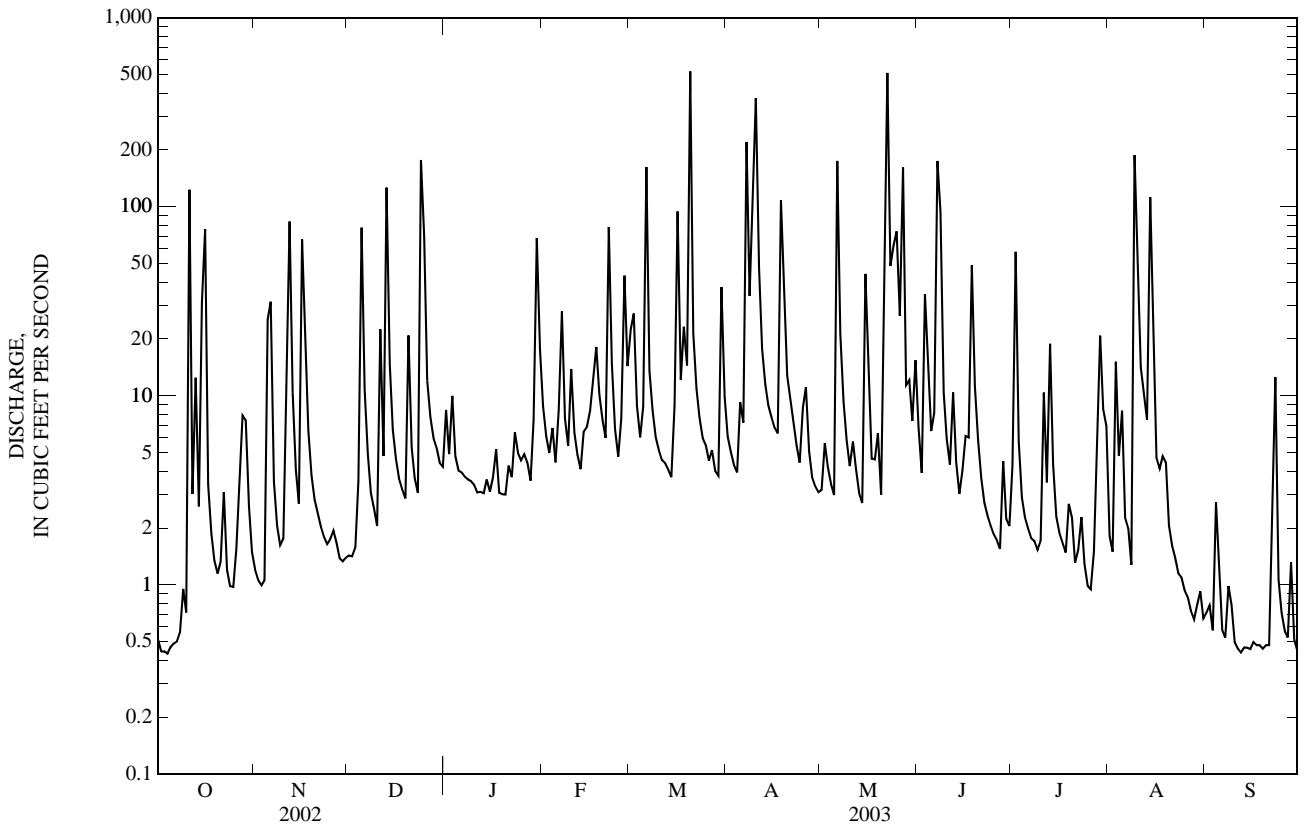
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.51	1.2	1.4	8.4	8.9	22	6.1	3.2	6.8	4.3	1.8	0.71
2	0.44	1.1	1.4	4.9	6.1	27	5.0	5.6	3.9	58	1.5	0.78
3	0.45	1.00	1.6	10	5.0	8.9	4.3	4.2	34	5.8	15	0.57
4	0.43	1.1	3.5	4.8	6.8	6.0	3.9	3.4	17	2.9	4.8	2.7
5	0.47	25	77	4.0	4.4	8.8	9.3	3.0	6.5	2.3	8.3	1.2
6	0.49	31	11	3.9	8.4	162	7.2	175	8.1	2.0	2.3	0.58
7	0.50	3.5	4.9	3.7	28	14	220	21	175	1.8	2.0	0.53
8	0.56	2.1	3.1	3.6	7.6	8.3	34	9.4	94	1.7	1.3	0.99
9	0.95	1.6	2.5	3.5	5.4	6.1	105	5.8	10	1.5	187	0.79
10	0.71	1.8	2.0	3.4	14	5.2	376	4.3	5.9	1.7	42	0.50
11	123	21	22	3.1	6.4	4.6	48	5.7	4.3	10	14	0.46
12	3.0	84	4.8	3.1	4.9	4.4	18	4.1	10	3.5	10	0.44
13	12	10	126	3.1	4.1	4.1	11	3.1	4.5	19	7.5	0.47
14	2.6	4.1	15	3.6	6.5	3.7	8.9	2.7	3.0	4.3	112	0.47
15	31	2.7	6.6	3.1	6.9	8.9	7.7	44	4.0	2.3	17	0.46
16	76	67	4.6	3.7	8.3	94	6.8	13	6.1	1.9	4.7	0.50
17	3.4	27	3.6	5.2	13	12	6.3	4.7	6.0	1.7	4.1	e0.48
18	1.9	6.6	3.2	3.1	18	23	108	4.6	49	1.5	4.8	e0.48
19	1.3	3.8	2.9	3.0	10	14	35	6.4	11	2.7	4.4	e0.46
20	1.2	2.8	21	3.0	7.4	519	13	e3.0	5.8	2.3	2.1	e0.48
21	1.3	2.4	5.3	4.3	6.0	21	9.9	e50	3.7	1.3	1.6	e0.48
22	3.1	2.0	3.7	3.7	78	11	7.4	510	2.7	1.5	1.4	e3.0
23	1.2	1.8	3.1	6.4	15	7.7	5.4	49	2.3	2.3	1.2	13
24	0.99	1.6	177	5.0	6.7	6.0	4.4	63	2.1	1.3	1.1	1.1
25	0.97	1.7	70	4.6	4.8	5.5	8.7	74	1.9	0.99	0.94	0.71
26	1.5	1.9	12	4.9	7.6	4.5	11	26	1.7	0.95	0.86	0.57
27	3.7	1.7	7.7	4.4	43	5.2	5.1	161	1.5	e1.5	0.73	0.53
28	7.9	1.4	6.0	3.6	14	4.0	3.7	11	4.5	e5.0	0.66	1.3
29	7.4	1.3	5.3	7.5	---	3.8	3.3	12	2.2	21	0.78	0.51
30	2.6	1.4	4.4	68	---	38	3.1	7.4	2.1	8.5	0.92	0.45
31	1.5	---	4.2	18	---	9.9	---	15	---	6.9	0.66	---
TOTAL	293.07	315.60	616.8	214.6	355.2	1,072.6	1,095.5	1,304.6	489.6	182.44	457.45	35.70
MEAN	9.45	10.5	19.9	6.92	12.7	34.6	36.5	42.1	16.3	5.89	14.8	1.19
MAX	123	84	177	68	78	519	376	510	175	58	187	13
MIN	0.43	1.0	1.4	3.0	4.1	3.7	3.1	2.7	1.5	0.95	0.66	0.44
CFSM	1.40	1.56	2.96	1.03	1.88	5.14	5.43	6.25	2.42	0.87	2.19	0.18
IN.	1.62	1.74	3.41	1.19	1.96	5.93	6.06	7.21	2.71	1.01	2.53	0.20

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2003, BY WATER YEAR (WY)

MEAN	5.65	3.65	5.97	8.44	7.95	14.8	10.9	8.89	4.76	7.64	4.48	4.12
MAX	15.4	10.5	19.9	14.2	12.8	34.6	36.5	42.1	16.3	28.6	14.8	6.29
(WY)	(2000)	(2003)	(2003)	(1999)	(2000)	(2003)	(2003)	(2003)	(2003)	(1998)	(2003)	(2000)
MIN	0.81	1.24	1.61	2.83	3.28	3.06	2.26	0.93	0.76	1.63	0.28	1.19
(WY)	(2001)	(2002)	(2002)	(2001)	(2002)	(1999)	(2001)	(2000)	(2002)	(1999)	(2001)	(2003)

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1998 - 2003	
ANNUAL TOTAL	2,348.64		6,433.16		7.08	
ANNUAL MEAN	6.43		17.6		17.6 2003	
HIGHEST ANNUAL MEAN					3.40 2002	
LOWEST ANNUAL MEAN					0.05 Aug 20, 2001	
HIGHEST DAILY MEAN	177	Dec 24	519	Mar 20	519	Mar 20, 2003
LOWEST DAILY MEAN	0.16	Aug 9	0.43	Oct 4	0.06	Aug 25, 2001
ANNUAL SEVEN-DAY MINIMUM	0.17	Aug 6	0.47	Sep 11	0.06	Aug 25, 2001
MAXIMUM PEAK FLOW			1,250	Mar 20	2,450	Jul 27, 1998
MAXIMUM PEAK STAGE			8.94	Mar 20	11.44	Jul 27, 1998
INSTANTANEOUS LOW FLOW			0.39*	Oct 2	0.04*	Aug 16, 2001
ANNUAL RUNOFF (CFSM)	0.96		2.62		1.05	
ANNUAL RUNOFF (INCHES)	12.98		35.56		14.30	
10 PERCENT EXCEEDS	14		34		12	
50 PERCENT EXCEEDS	1.5		4.4		1.4	
90 PERCENT EXCEEDS	0.29		0.83		0.38	

e Estimated.
 * See REMARKS.



02146900 TWELVE MILE CREEK NEAR WAXHAW, NC

LOCATION.--Lat 34°57'07", long 80°45'21", Union County, Hydrologic Unit 03050103, on left bank at downstream side of bridge on State Highway 16, 680 ft downstream of West Fork Twelve Mile Creek, and 2.5 mi north of Waxhaw.

DRAINAGE AREA.--76.5 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1949-60. October 1960 to current year.

REVISED RECORDS.--WDR NC-80-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 489.04 ft above NGVD of 1929. Prior to Mar. 13, 1962, water-stage recorder at site 20 ft upstream, Mar. 13, 1962 to June 4, 1997, water-stage recorder at site 100 ft upstream at same datum. Satellite telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Maximum gage height for current water year from floodmark. No flow also occurred Oct. 6, 1968, Oct. 7-15, 1970, Oct. 1-22, 1983 and Aug. 26, 2001. Minimum discharge for current water year also occurred Oct. 6.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since at least 1900 is 23.6 ft, Sept. 7, 1949, from floodmarks. No flow observed on Oct. 6, 1954.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	15	12	40	95	130	83	28	73	35	33	41
2	1.1	11	12	46	62	253	60	28	37	1,520	29	29
3	0.76	9.0	11	40	48	e110	49	30	32	203	103	27
4	0.64	7.9	11	39	86	e80	43	41	69	65	e150	27
5	0.53	9.5	167	34	78	69	39	32	47	40	383	31
6	0.43	189	129	32	49	1,890	40	1,210	33	32	64	28
7	0.54	42	47	30	437	e650	881	777	769	27	35	25
8	2.5	19	28	29	123	e120	283	125	408	24	27	25
9	2.4	15	22	29	70	83	e900	69	105	23	24	24
10	1.2	13	18	28	96	62	e3,000	48	52	25	26	23
11	189	111	108	27	88	e50	e1,600	39	37	29	51	22
12	44	504	65	26	56	e44	236	35	43	116	25	21
13	36	177	868	25	45	42	119	32	53	306	22	22
14	44	46	522	26	41	45	77	29	32	211	429	21
15	16	e27	99	25	45	40	58	29	28	60	1,450	21
16	81	65	60	25	120	289	48	378	26	36	196	27
17	30	492	45	26	191	135	41	60	308	30	362	24
18	15	130	37	26	133	151	302	41	1,410	43	64	20
19	11	48	32	26	110	121	478	40	474	28	42	19
20	8.3	30	84	25	70	e800	152	37	116	32	e34	19
21	6.9	24	68	26	59	e500	96	32	56	28	31	18
22	6.0	20	40	29	832	e170	91	680	39	26	29	19
23	6.3	18	33	30	828	e110	59	767	34	29	27	141
24	6.4	16	495	29	108	e76	43	149	31	30	26	23
25	6.2	15	770	28	70	e60	46	540	29	27	e24	16
26	6.3	15	147	28	55	50	79	487	28	23	e24	14
27	6.3	14	79	32	101	45	56	106	26	21	e28	13
28	14	13	58	29	167	41	39	80	25	20	27	12
29	67	12	48	28	---	39	34	56	27	19	27	13
30	58	12	42	315	---	e350	31	63	27	24	27	11
31	22	---	38	258	---	166	---	42	---	169	32	---
TOTAL	691.20	2,119.4	4,195	1,436	4,263	6,771	9,063	6,110	4,474	3,301	3,851	776
MEAN	22.3	70.6	135	46.3	152	218	302	197	149	106	124	25.9
MAX	189	504	868	315	832	1,890	3,000	1,210	1,410	1,520	1,450	141
MIN	0.43	7.9	11	25	41	39	31	28	25	19	22	11
CFSM	0.29	0.92	1.77	0.61	1.99	2.86	3.95	2.58	1.95	1.39	1.62	0.34
IN.	0.34	1.03	2.04	0.70	2.07	3.29	4.41	2.97	2.18	1.61	1.87	0.38

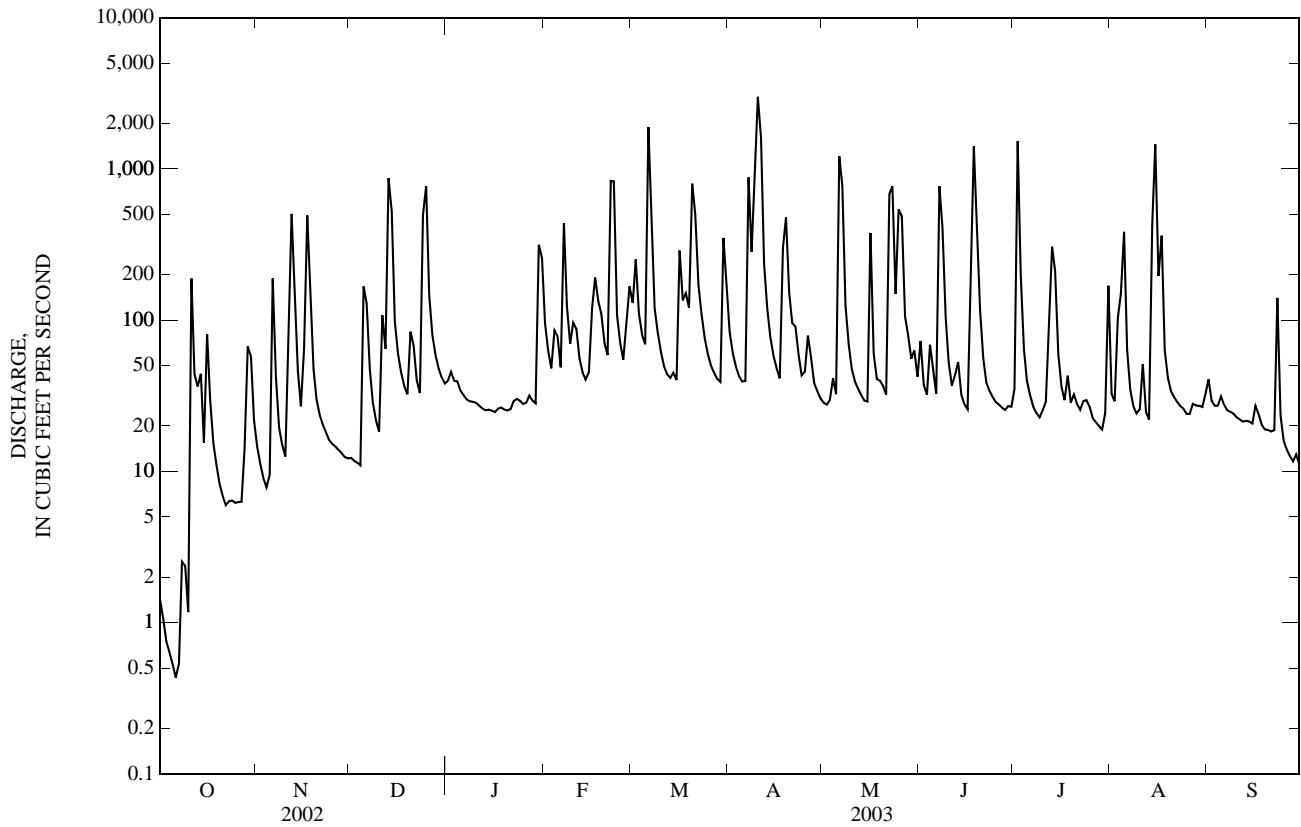
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 2003, BY WATER YEAR (WY)

MEAN	48.9	35.9	63.7	129	156	160	94.7	46.0	34.1	36.2	43.1	29.6
MAX	372	161	261	331	351	425	302	197	149	238	318	161
(WY)	(1991)	(1986)	(1984)	(1978)	(1990)	(1980)	(2003)	(2003)	(2003)	(1978)	(1995)	(1987)
MIN	0.39	0.36	4.27	11.5	22.4	25.8	12.9	4.45	1.26	1.51	0.34	0.15
(WY)	(1984)	(2002)	(2002)	(1981)	(2002)	(1985)	(2001)	(2001)	(1986)	(2002)	(2001)	(1968)

02146900 TWELVE MILE CREEK NEAR WAXHAW, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1961 - 2003	
ANNUAL TOTAL	12,177.47		47,050.60		72.7	
ANNUAL MEAN	33.4		129		150	
HIGHEST ANNUAL MEAN					1991	
LOWEST ANNUAL MEAN					2002	
HIGHEST DAILY MEAN	868	Dec 13	3,000	Apr 10	6,700	Aug 27, 1995
LOWEST DAILY MEAN	0.06	Jul 6	0.43	Oct 6	0.00	Oct 6, 1968
ANNUAL SEVEN-DAY MINIMUM	0.07	Jul 18	0.77	Oct 1	0.00	Oct 7, 1970
MAXIMUM PEAK FLOW			6,120	Apr 10	9,970	Aug 27, 1995
MAXIMUM PEAK STAGE			18.58*	Apr 10	21.94	Aug 27, 1995
INSTANTANEOUS LOW FLOW			0.42*	Oct 5	0.00*	Oct 5, 1968
ANNUAL RUNOFF (CFSM)	0.44		1.69		0.95	
ANNUAL RUNOFF (INCHES)	5.92		22.88		12.91	
10 PERCENT EXCEEDS	65		311		131	
50 PERCENT EXCEEDS	9.0		39		18	
90 PERCENT EXCEEDS	0.25		14		2.3	

e Estimated.
 * See REMARKS.



02146900 TWELVE MILE CREEK NEAR WAXHAW, NC—Continued

PRECIPITATION RECORDS

PERIOD OF RECORD.--October 2001 to current year.

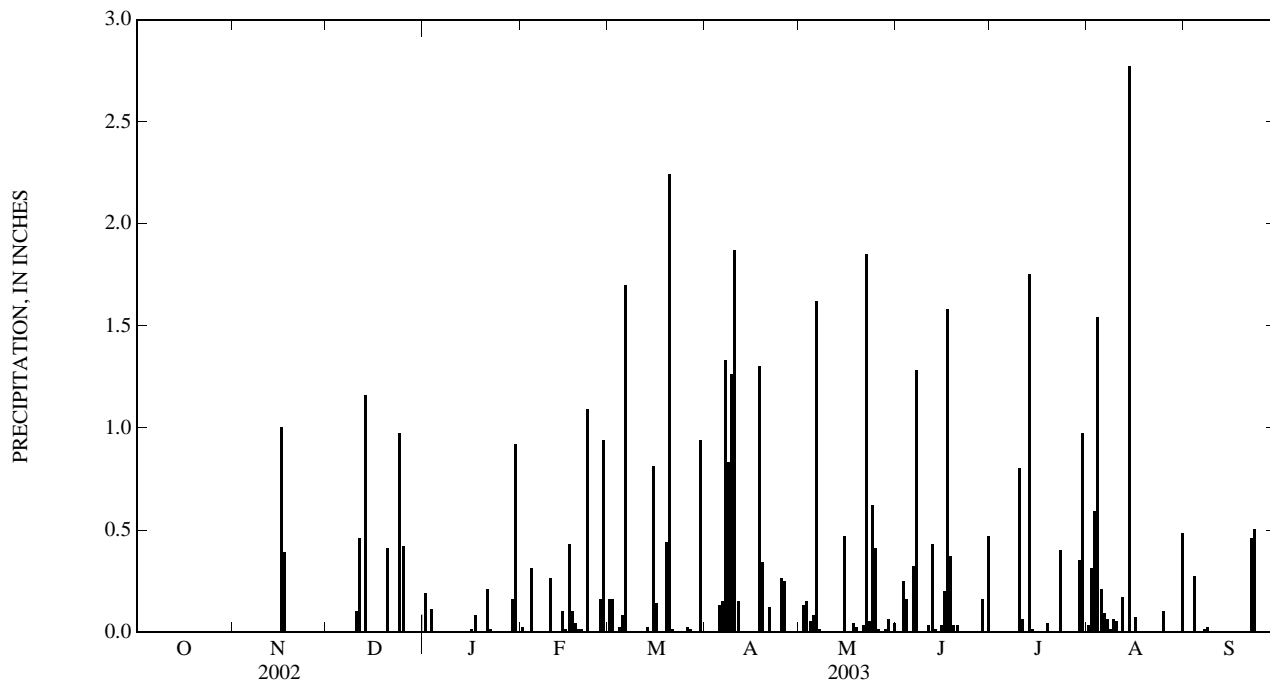
GAGE.--Tipping-bucket raingage and electronic datalogger. Satellite telemetry at station.

REMARKS.--Precipitation data collected during freezing periods may not be accurately reflected in daily record; consequently, winter record is poor. Monthly totals are presented for months with missing daily values when the total accumulated precipitation over the missing period was recorded.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	0.00	0.19	0.02	0.16	0.00	0.00	0.00	---	0.03	0.00
2	---	---	0.00	0.00	0.00	0.16	0.00	0.13	0.00	---	0.31	0.00
3	---	---	0.00	0.11	0.00	0.00	0.00	0.15	0.25	0.00	0.59	0.00
4	---	---	0.00	0.00	0.31	0.02	0.00	0.05	0.16	0.00	1.54	0.27
5	---	---	---	0.00	0.00	0.08	0.13	0.08	0.00	0.00	0.21	0.00
6	---	---	---	0.00	---	1.70	0.15	1.62	0.32	0.00	0.09	0.00
7	---	---	0.00	0.00	---	0.00	1.33	0.01	1.28	0.00	0.06	0.01
8	---	---	0.00	0.00	0.00	0.00	0.83	0.00	0.00	0.00	0.01	0.02
9	---	---	0.00	0.00	0.00	0.00	1.26	0.00	0.00	0.00	0.06	0.00
10	---	---	0.10	0.00	0.26	0.00	1.87	0.00	0.00	0.80	0.05	0.00
11	---	---	0.46	0.00	0.00	0.00	0.15	0.00	0.03	0.06	0.00	0.00
12	---	---	0.00	0.00	0.00	0.00	0.00	0.00	0.43	0.00	0.17	0.00
13	---	---	1.16	0.00	0.00	0.02	0.00	0.00	0.01	1.75	0.00	0.00
14	---	---	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.01	2.77	0.00
15	---	0.00	0.00	0.00	0.01	0.81	0.00	0.47	0.03	0.00	0.00	0.00
16	---	1.00	0.00	0.01	0.43	0.14	0.00	0.00	0.20	0.00	0.07	0.00
17	---	0.39	0.00	0.08	0.10	---	0.00	0.00	1.58	0.00	0.00	0.00
18	---	0.00	0.00	0.00	0.04	---	1.30	0.04	0.37	0.00	0.00	0.00
19	---	0.00	0.00	0.00	0.01	0.44	0.34	0.02	0.03	0.04	0.00	0.00
20	---	0.00	0.41	0.00	0.01	2.24	0.00	0.00	0.03	0.00	0.00	0.00
21	---	0.00	0.00	0.21	0.00	0.01	0.12	0.03	0.00	0.00	0.00	0.00
22	---	0.00	0.00	0.01	1.09	0.00	0.00	1.85	0.00	0.00	0.00	0.46
23	---	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.40	0.00	0.50
24	---	0.00	0.97	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
25	---	0.00	0.42	0.00	0.00	0.00	0.26	0.41	0.00	0.00	0.10	0.00
26	---	0.00	0.00	0.00	0.16	0.02	0.25	0.01	0.00	0.00	0.00	0.00
27	---	0.00	0.00	0.00	0.94	0.01	0.00	0.00	0.00	0.00	0.00	0.00
28	---	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.16	0.00	0.00	0.00
29	---	0.00	0.00	0.16	---	0.00	0.00	0.06	0.00	0.35	0.00	0.00
30	---	0.00	0.00	0.92	---	0.94	0.00	0.00	0.47	0.97	0.00	0.00
31	---	---	0.00	0.00	---	0.00	---	0.04	---	0.00	0.48	---
TOTAL	---	---	4.49*	1.69	4.23*	7.04*	7.99	5.65	5.35	6.50*	6.54	1.26

* See REMARKS.



02147126 WAXHAW CREEK AT SECONDARY ROAD 1103 NEAR JACKSON, NC

LOCATION.--Lat 34°50'13", long 80°47'30", Union County, Hydrologic Unit 03040103, on right upstream wingwall on Secondary Road 1103, 6 mi upstream from mouth, 6 mi southwest of Jackson and 6.5 mi south of Waxhaw.

DRAINAGE AREA.--35.0 mi².

PERIOD OF RECORD.--May 2002 to September 2003

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 490 ft above NGVD of 1929, from topographic map. Satellite telemetry at site.

REMARKS.--Records poor. Peak stage for period of record and current water year from floodmark. Peak discharge for period of record and current water year from rating curve extended above 1,200 cfs on basis of step-backwater computations. No flow also occurred many days in June, July, Aug., and Sept. 2002, and Oct. 7-10, 2002.

DISCHARGE, CUBIC FEET PER SECOND
FOR PERIOD MAY TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	3.8	9.3	0.00	0.00	28
2	---	---	---	---	---	---	---	4.3	6.6	0.00	0.00	4.7
3	---	---	---	---	---	---	---	4.2	5.6	0.00	0.00	2.0
4	---	---	---	---	---	---	---	6.7	5.4	0.00	0.00	0.92
5	---	---	---	---	---	---	---	8.2	5.1	0.00	0.00	0.13
6	---	---	---	---	---	---	---	5.9	3.4	0.00	0.00	0.00
7	---	---	---	---	---	---	---	3.7	4.9	0.00	0.00	0.00
8	---	---	---	---	---	---	---	2.6	5.4	0.00	0.00	0.00
9	---	---	---	---	---	---	---	2.1	4.3	0.00	0.00	0.00
10	---	---	---	---	---	---	---	1.8	4.1	0.00	0.00	0.00
11	---	---	---	---	---	---	---	1.8	3.5	0.00	0.00	0.00
12	---	---	---	---	---	---	---	2.0	2.3	0.00	0.00	0.00
13	---	---	---	---	---	---	---	1.9	1.7	0.93	0.00	0.00
14	---	---	---	---	---	---	---	3.0	1.5	11	0.00	0.00
15	---	---	---	---	---	---	---	2.5	1.3	3.9	0.00	14
16	---	---	---	---	---	---	---	2.2	0.92	1.9	0.00	100
17	---	---	---	---	---	---	---	2.0	0.57	0.75	0.00	23
18	---	---	---	---	---	---	---	2.9	0.45	0.34	0.00	40
19	---	---	---	---	---	---	---	3.8	0.31	0.06	0.00	7.3
20	---	---	---	---	---	---	---	3.1	0.17	0.00	0.00	3.1
21	---	---	---	---	---	---	---	3.2	0.02	0.00	0.00	1.8
22	---	---	---	---	---	---	---	2.8	0.01	0.00	0.00	1.5
23	---	---	---	---	---	---	---	2.5	0.13	0.00	0.00	1.3
24	---	---	---	---	---	---	---	2.0	0.00	0.00	0.00	0.94
25	---	---	---	---	---	---	---	3.3	0.00	0.00	0.18	0.76
26	---	---	---	---	---	---	---	4.0	0.00	0.00	0.65	1.2
27	---	---	---	---	---	---	---	5.1	0.00	0.00	0.24	1.5
28	---	---	---	---	---	---	---	5.5	0.00	0.00	0.00	1.4
29	---	---	---	---	---	---	---	5.9	0.00	0.00	0.00	1.1
30	---	---	---	---	---	---	---	6.1	0.00	0.00	0.00	0.84
31	---	---	---	---	---	---	---	10	---	0.00	2.8	---
TOTAL	---	---	---	---	---	---	---	118.9	66.98	18.88	3.87	235.49
MEAN	---	---	---	---	---	---	---	3.84	2.23	0.61	0.12	7.85
MAX	---	---	---	---	---	---	---	10	9.3	11	2.8	100
MIN	---	---	---	---	---	---	---	1.8	0.00	0.00	0.00	0.00
CFSM	---	---	---	---	---	---	---	0.11	0.06	0.02	0.00	0.22
IN.	---	---	---	---	---	---	---	0.13	0.07	0.02	0.00	0.25

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2002 - 2002, BY WATER YEAR (WY)

MEAN	---	---	---	---	---	---	---	3.84	2.23	0.61	0.12	7.85
MAX	---	---	---	---	---	---	---	3.84	2.23	0.61	0.12	7.85
(WY)	---	---	---	---	---	---	---	(2002)	(2002)	(2002)	(2002)	(2002)
MIN	---	---	---	---	---	---	---	3.84	2.23	0.61	0.12	7.85
(WY)	---	---	---	---	---	---	---	(2002)	(2002)	(2002)	(2002)	(2002)

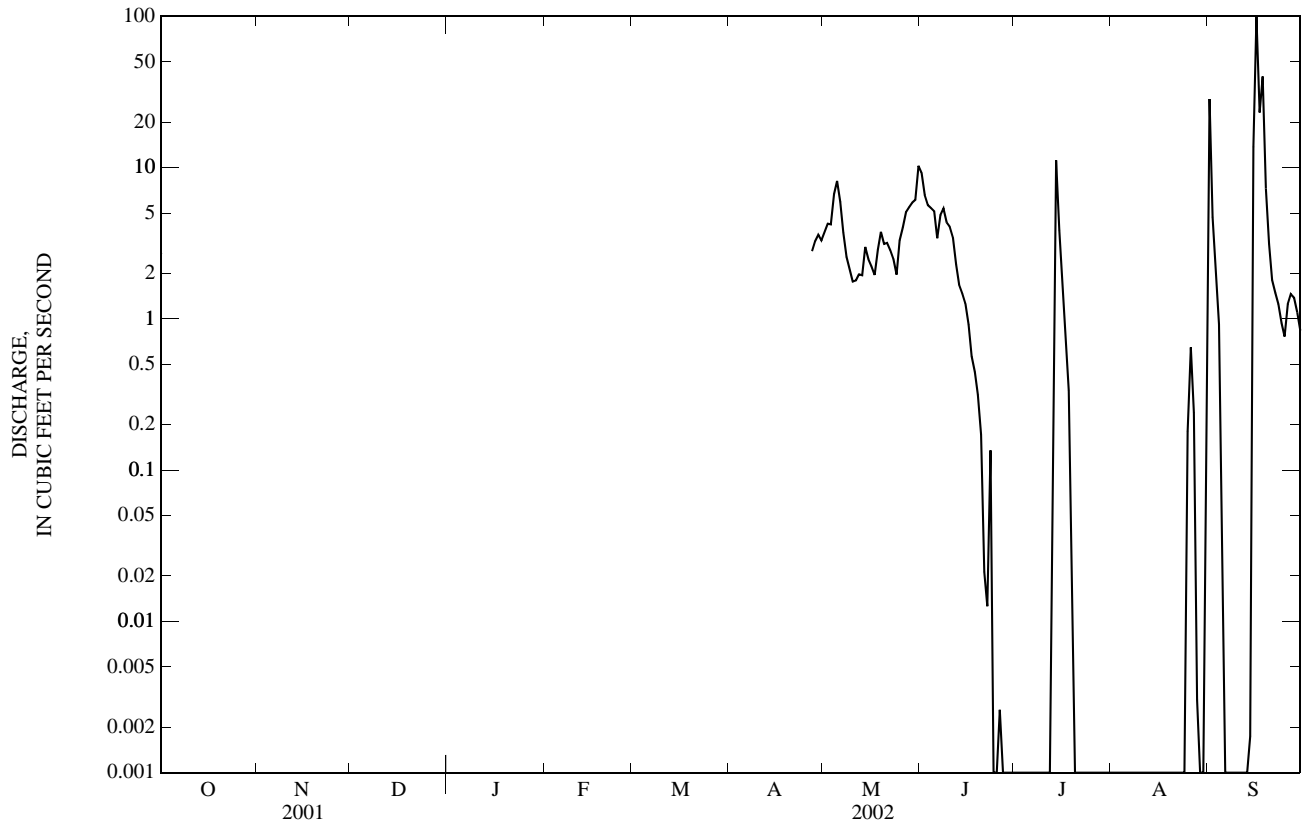
SUMMARY STATISTICS

FOR PERIOD
MAY TO SEPTEMBER 2002

HIGHEST DAILY MEAN	100	Sep 16
LOWEST DAILY MEAN	0.00	Jun 24
MAXIMUM PEAK FLOW	132	Sep 16
MAXIMUM PEAK STAGE	4.61	Sep 16
INSTANTANEOUS LOW FLOW	0.00*	Jun 24

* See REMARKS.

02147126 WAXHAW CREEK AT SECONDARY ROAD 1103 NEAR JACKSON, NC—Continued



02147126 WAXHAW CREEK AT SECONDARY ROAD 1103 NEAR JACKSON, NC—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.72	3.6	6.4	e15	54	99	38	11	6.7	17	31	5.1
2	0.66	3.6	7.3	17	32	231	26	11	6.1	469	11	4.5
3	0.64	3.5	6.0	16	23	97	e22	12	6.0	346	22	3.9
4	0.52	3.6	6.0	16	22	e40	e20	17	8.3	26	63	3.7
5	0.35	4.6	26	16	25	e30	18	15	7.8	14	224	3.8
6	0.12	17	78	12	19	742	17	83	6.0	10	131	3.5
7	0.00	17	30	11	184	521	263	280	59	8.4	58	3.3
8	0.00	7.0	17	10	129	62	341	54	312	7.2	18	3.4
9	0.00	4.6	13	9.4	38	40	948	24	35	6.4	12	3.3
10	0.00	4.2	10	8.8	38	31	1,270	16	15	6.2	25	3.1
11	33	32	20	7.4	48	26	e960	13	10	8.3	16	2.7
12	116	203	27	6.6	30	e20	e120	11	9.5	7.2	9.8	2.6
13	51	241	194	6.3	22	e30	51	9.1	9.6	142	8.5	2.6
14	38	41	496	e6.0	20	78	e45	7.8	7.7	288	8.9	2.5
15	9.4	19	62	e6.0	19	36	e30	7.4	6.6	33	93	2.5
16	33	22	30	6.1	31	470	e25	9.4	6.0	16	24	2.3
17	25	165	19	8.4	129	164	e30	9.4	49	11	180	2.2
18	7.1	144	15	7.5	60	127	e310	8.8	411	8.1	34	2.0
19	4.1	38	14	7.1	54	122	e500	8.9	87	11	15	2.0
20	3.3	21	31	6.9	35	e1,600	e90	8.5	21	9.2	11	1.9
21	3.4	16	48	e7.0	26	e400	e70	7.7	13	7.4	9.4	1.9
22	3.2	13	23	e8.0	185	79	e45	58	9.5	6.7	7.8	2.0
23	2.8	9.8	e15	e9.0	641	43	e35	267	7.6	8.8	6.7	54
24	2.6	8.3	e150	e8.0	68	33	e25	51	6.4	13	6.1	28
25	2.7	7.8	452	e8.0	34	26	19	40	5.5	7.6	5.7	6.2
26	3.0	7.4	127	7.6	27	e26	26	24	4.9	5.6	5.2	4.1
27	2.8	7.5	37	8.6	222	e24	19	15	4.6	4.9	4.9	3.4
28	2.7	9.3	25	e5.00	691	21	15	12	4.7	4.6	4.5	3.2
29	3.7	7.4	20	e6.8	---	18	13	10	5.1	4.1	4.2	2.8
30	4.2	7.6	17	53	---	e80.0	11	8.8	4.9	4.5	3.9	2.6
31	4.1	---	e15	239	---	e140	---	7.5	---	132	5.2	---
TOTAL	358.11	1,088.8	2,036.7	559.50	2,906	5,456.0	5,402	1,117.3	1,145.5	1,643.2	1,058.8	169.1
MEAN	11.6	36.3	65.7	18.0	104	176	180	36.0	38.2	53.0	34.2	5.64
MAX	116	241	496	239	691	1,600	1,270	280	411	469	224	54
MIN	0.00	3.5	6.0	5.0	19	18	11	7.4	4.6	4.1	3.9	1.9
CFSM	0.33	1.04	1.88	0.52	2.97	5.03	5.14	1.03	1.09	1.51	0.98	0.16
IN.	0.38	1.16	2.16	0.59	3.09	5.80	5.74	1.19	1.22	1.75	1.13	0.18

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2002 - 2003, BY WATER YEAR (WY)

	2003	2003	2003	2003	2003	2003	2003	2003	2003	2003	2003	2002
MEAN	11.6	36.3	65.7	18.0	104	176	180	19.9	20.2	26.8	17.1	6.74
MAX	116	241	496	239	691	1,600	1,270	280	411	469	224	54
(WY)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2002)
MIN	11.6	36.3	65.7	18.0	104	176	180	3.84	2.23	0.61	0.12	5.64
(WY)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2002)	(2002)	(2002)	(2002)	(2003)

SUMMARY STATISTICS

FOR 2002 CALENDAR YEAR

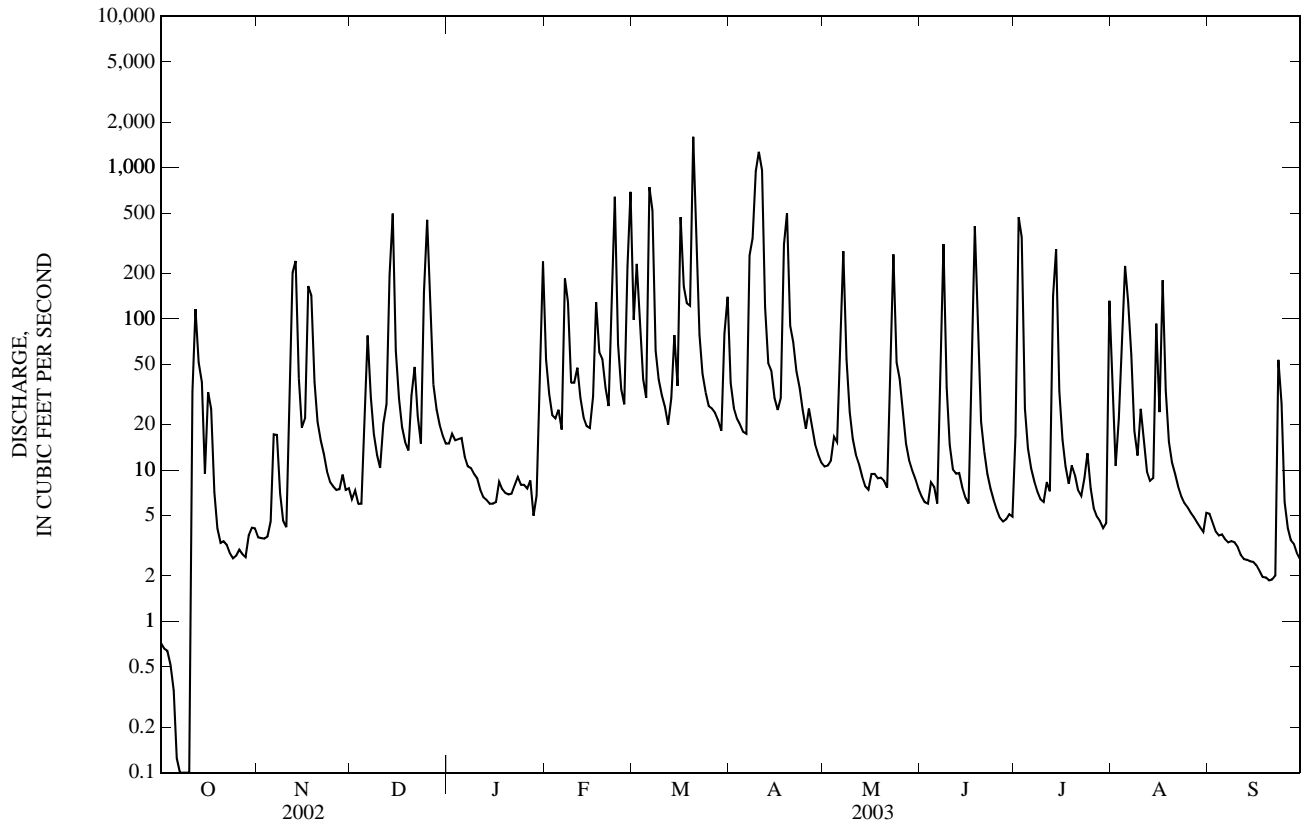
FOR 2003 WATER YEAR

WATER YEARS 2002 - 2003

ANNUAL TOTAL								22,941.01				
ANNUAL MEAN								62.9				
HIGHEST ANNUAL MEAN										62.9		2003
LOWEST ANNUAL MEAN										62.9		2003
HIGHEST DAILY MEAN				496	Dec 14		e1,600	Mar 20		e1,600	Mar 20,	2003
LOWEST DAILY MEAN				0.00	Jun 24		0.00*	Oct 7		0.00*	Jun 24,	2002
ANNUAL SEVEN-DAY MINIMUM				0.00	Jun 24		0.14	Oct 4		0.00	Jun 24,	2002
MAXIMUM PEAK FLOW							2,880*	Mar 20		2,880*	Mar 20,	2003
MAXIMUM PEAK STAGE							10.71*	Mar 20		10.71*	Mar 20,	2003
INSTANTANEOUS LOW FLOW							0.00*	Oct 7		0.00*	Jun 21,	2002
ANNUAL RUNOFF (CFSM)							1.80			1.80		
ANNUAL RUNOFF (INCHES)							24.38			24.40		
10 PERCENT EXCEEDS							146			146		
50 PERCENT EXCEEDS							15			15		
90 PERCENT EXCEEDS							3.4			3.4		

e Estimated.
* See REMARKS.

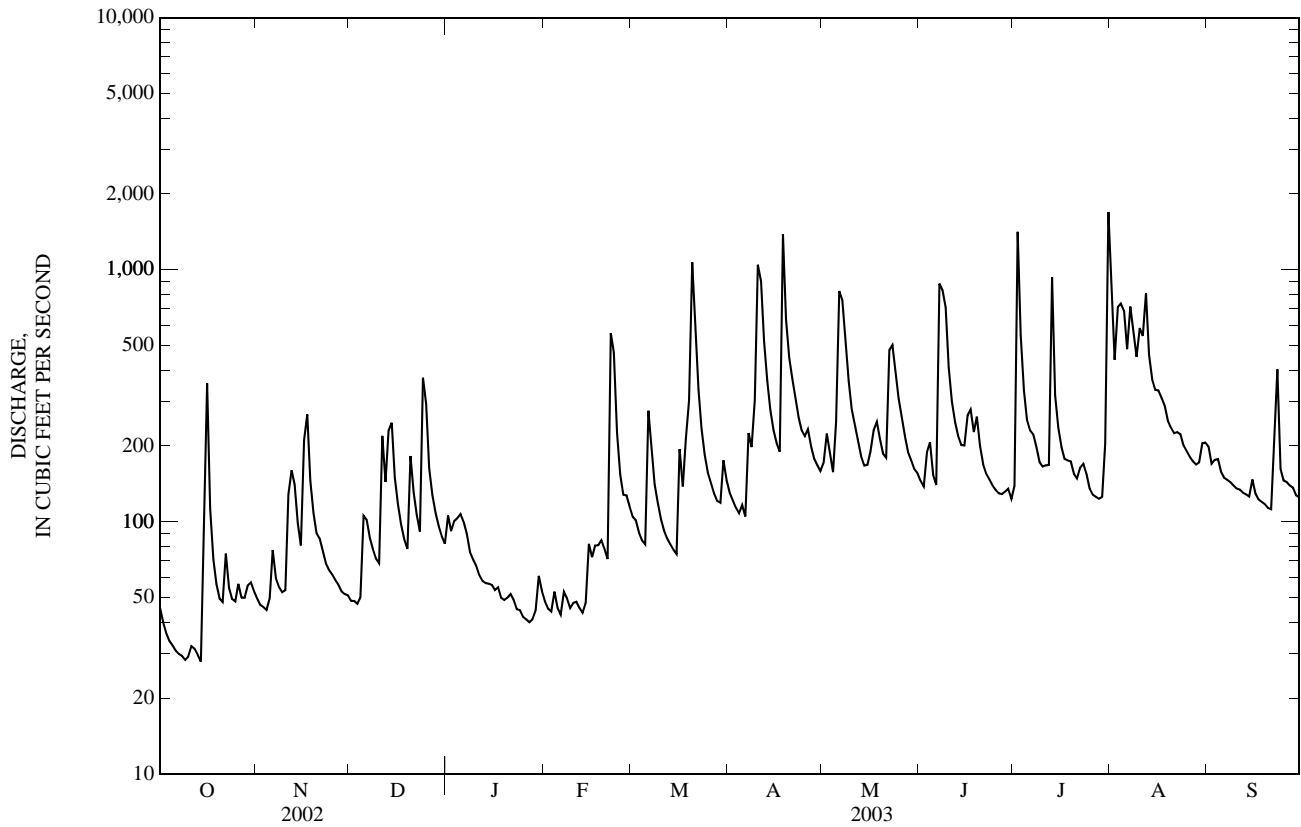
02147126 WAXHAW CREEK AT SECONDARY ROAD 1103 NEAR JACKSON, NC—Continued



02149000 COVE CREEK NEAR LAKE LURE, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1951 - 2003	
ANNUAL TOTAL	20,872.2		72,001		134	
ANNUAL MEAN	57.2		197		231	
HIGHEST ANNUAL MEAN					43.7	
LOWEST ANNUAL MEAN					1993	
HIGHEST DAILY MEAN	373	Dec 24	1,700	Jul 31	3,190	Oct 4, 1964
LOWEST DAILY MEAN	8.1	Aug 14	28	Oct 9	8.1	Aug 14, 2002
ANNUAL SEVEN-DAY MINIMUM	9.2	Aug 9	30	Oct 8	9.2	Aug 9, 2002
MAXIMUM PEAK FLOW			3,170	Jul 31	7,050	Jun 5, 1957
MAXIMUM PEAK STAGE			11.33	Jul 31	18.53	Jun 5, 1957
INSTANTANEOUS LOW FLOW			28*	Oct 8	7.7*	Aug 14, 2002
ANNUAL RUNOFF (CFSM)	0.72		2.50		1.70	
ANNUAL RUNOFF (INCHES)	9.83		33.90		23.12	
10 PERCENT EXCEEDS	102		405		227	
50 PERCENT EXCEEDS	47		140		103	
90 PERCENT EXCEEDS	21		48		48	

e Estimated.
 * See REMARKS.



02150495 SECOND BROAD RIVER NEAR LOGAN, NC

LOCATION.--Lat 35°24'15", long 81°52'19", Rutherford County, Hydrologic Unit 03050105, on right bank 30 ft downstream of bridge on Secondary Road 1538, 2.2 mi southeast of Logan, and 2.7 mi upstream from Catheys Creek.

DRAINAGE AREA.--86.2 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1998 to current year.

REVISED RECORDS.--WDR NC-03-1B: 2000 (M).

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 840 ft above NGVD of 1929, from topographic map. Satellite telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges and those above 2,500 ft³/s, which are poor. Maximum discharge for period of record from rating curve extended above 2,500 ft³/s by logarithmic plotting. Minimum discharge for current water year also occurred Oct. 9.

REVISIONS.--The maximum discharge for the water year 2000 has been revised to 2,080 ft³/s, Mar. 20, 2000, gage height, 11.05 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	45	49	105	68	133	138	186	146	149	660	161
2	29	43	49	98	65	127	128	350	139	1,020	334	153
3	27	41	48	104	64	114	122	256	190	466	477	159
4	26	41	50	96	71	105	117	201	506	283	701	159
5	25	44	118	90	67	102	124	218	267	218	402	152
6	24	69	127	86	63	226	117	831	201	187	294	146
7	24	57	110	81	74	209	274	796	708	173	734	143
8	23	50	98	79	74	162	256	499	1,450	162	638	142
9	23	48	88	77	70	138	341	335	805	149	489	135
10	24	50	83	74	71	120	1,350	262	426	163	842	132
11	35	206	223	69	70	109	1,220	222	309	154	688	130
12	30	217	183	66	68	102	497	198	245	151	822	128
13	28	175	306	65	65	97	339	177	206	1,340	443	127
14	26	120	350	64	68	94	262	166	183	472	343	126
15	68	95	203	63	97	90	215	160	181	316	585	128
16	357	188	150	61	98	173	187	169	188	255	356	127
17	138	321	122	64	104	156	170	178	195	226	307	123
18	78	183	105	59	110	181	1,960	192	178	183	270	121
19	59	128	96	59	122	211	735	179	201	215	281	121
20	51	104	245	60	116	1,560	423	167	168	227	229	117
21	48	93	187	62	106	654	330	162	152	180	210	116
22	66	84	143	60	733	354	271	445	142	171	219	123
23	54	74	119	63	523	255	220	487	137	164	207	273
24	48	68	577	e59	275	197	197	355	132	153	189	152
25	45	64	457	e56	193	163	185	275	128	140	181	135
26	50	61	244	58	154	147	199	228	125	134	174	129
27	44	58	174	58	159	136	182	197	129	130	169	128
28	45	55	140	57	148	127	165	178	138	128	163	137
29	51	53	122	61	---	124	158	171	136	135	160	122
30	54	52	109	74	---	170	155	161	128	149	158	119
31	49	---	98	72	---	153	---	155	---	542	164	---
TOTAL	1,682	2,887	5,173	2,200	3,896	6,689	11,037	8,556	8,239	8,535	11,889	4,164
MEAN	54.3	96.2	167	71.0	139	216	368	276	275	275	384	139
MAX	357	321	577	105	733	1,560	1,960	831	1,450	1,340	842	273
MIN	23	41	48	56	63	90	117	155	125	128	158	116
CFSM	0.63	1.12	1.94	0.82	1.61	2.50	4.27	3.20	3.19	3.19	4.45	1.61
IN.	0.73	1.25	2.23	0.95	1.68	2.89	4.76	3.69	3.56	3.68	5.13	1.80

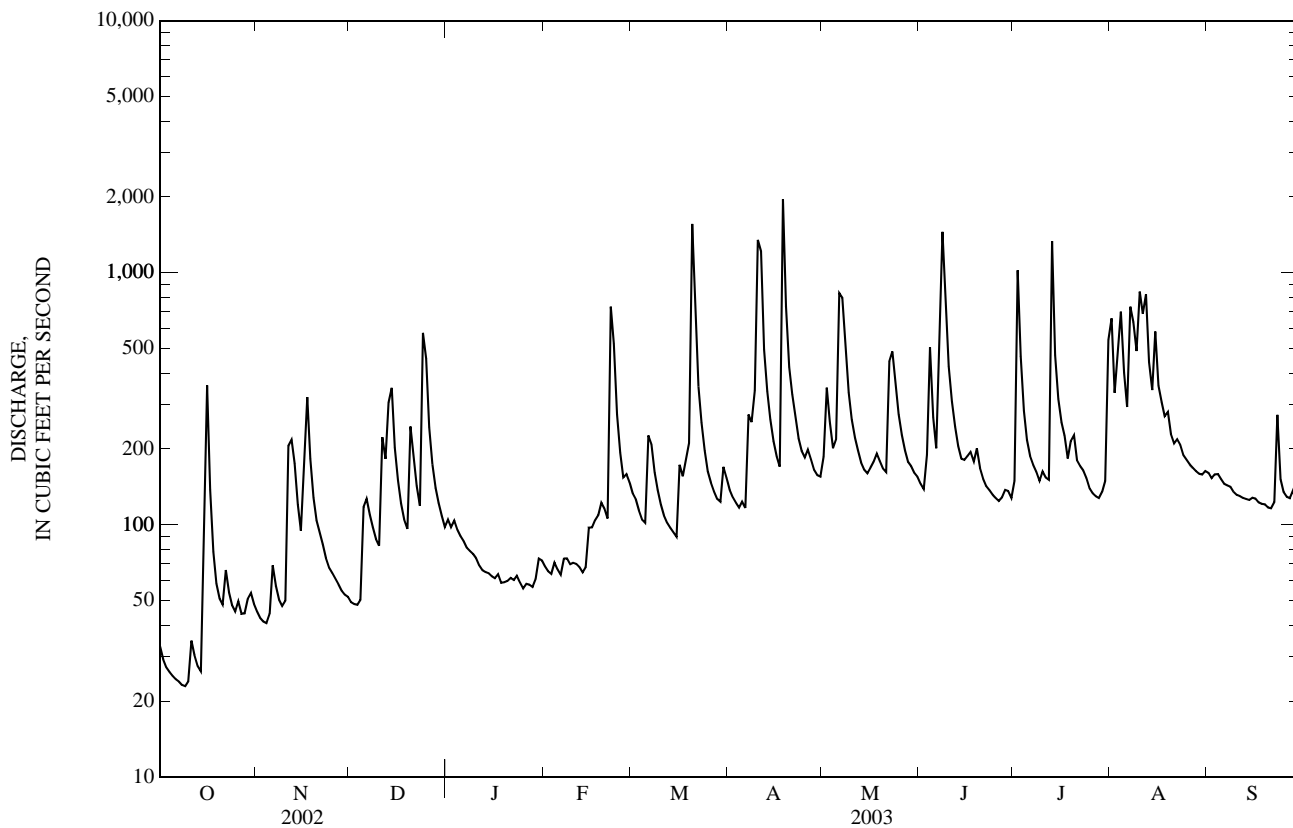
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2003, BY WATER YEAR (WY)

MEAN	46.5	59.4	80.0	77.2	93.2	126	144	98.8	87.5	87.4	96.1	60.7
MAX	72.6	96.2	167	115	139	216	368	276	275	275	384	139
(WY)	(1999)	(2003)	(2003)	(1999)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)
MIN	25.5	33.8	46.2	50.8	57.7	88.8	66.2	34.4	31.1	21.4	13.9	27.9
(WY)	(2001)	(2002)	(2002)	(2001)	(2001)	(2002)	(2002)	(2001)	(2002)	(2002)	(2002)	(2002)

02150495 SECOND BROAD RIVER NEAR LOGAN, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1999 - 2003	
ANNUAL TOTAL	23,029.1		74,947		88.0	
ANNUAL MEAN	63.1		205		205	
HIGHEST ANNUAL MEAN					205	2003
LOWEST ANNUAL MEAN					46.2	2002
HIGHEST DAILY MEAN	577	Dec 24	1,960	Apr 18	1,960	Apr 18, 2003
LOWEST DAILY MEAN	6.6	Sep 12	23	Oct 8	6.6	Sep 12, 2002
ANNUAL SEVEN-DAY MINIMUM	8.0	Sep 7	24	Oct 4	8.0	Sep 7, 2002
MAXIMUM PEAK FLOW			3,000	Apr 18	3,000*	Apr 18, 2003
MAXIMUM PEAK STAGE			14.89	Apr 18	14.89	Apr 18, 2003
INSTANTANEOUS LOW FLOW			22*	Oct 8	6.1	Sep 12, 2002
ANNUAL RUNOFF (CFSM)	0.73		2.38		1.02	
ANNUAL RUNOFF (INCHES)	9.94		32.34		13.87	
10 PERCENT EXCEEDS	122		433		165	
50 PERCENT EXCEEDS	49		143		56	
90 PERCENT EXCEEDS	15		53		25	

e Estimated.
 * See REMARKS.



PRECIPITATION RECORDS

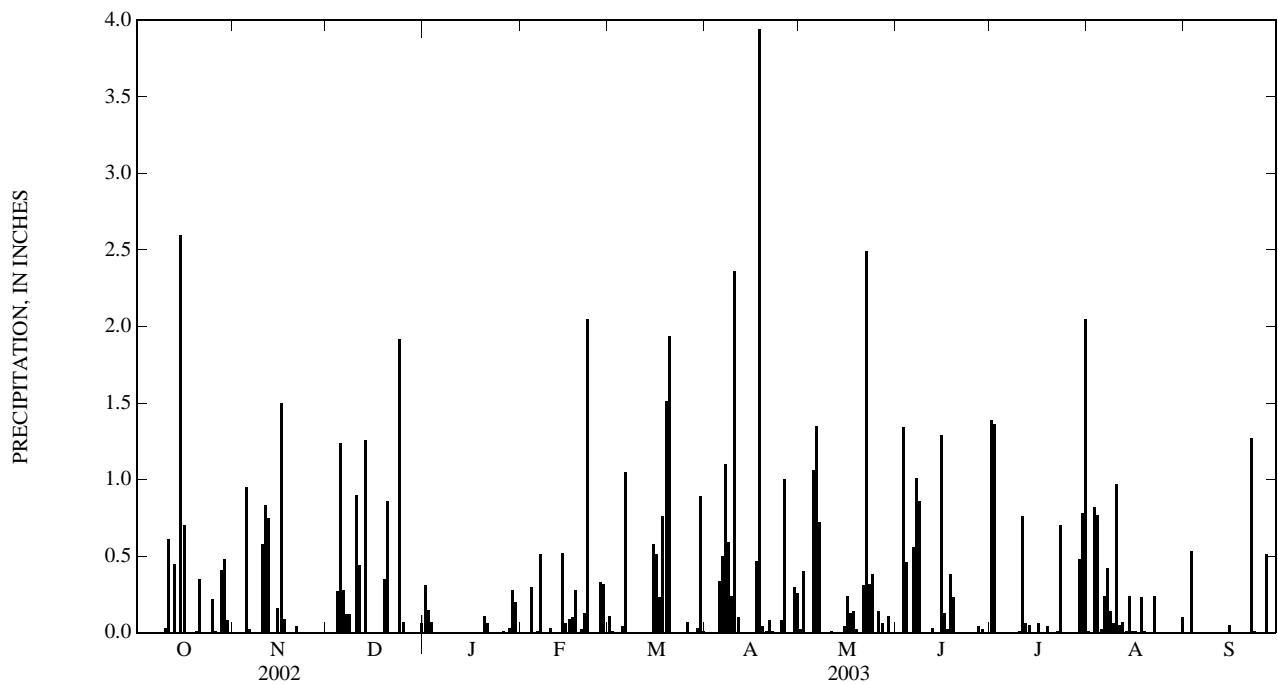
PERIOD OF RECORD.--November 2000 to current year.

GAGE.--Tipping-bucket raingage and electronic datalogger. Satellite telemetry at station.

REMARKS.--Gage is operated in cooperation with North Carolina Department of Environment and Natural Resources. Precipitation data collected during freezing periods may not be accurately reflected in daily record; consequently, winter record is poor.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.31	0.00	0.11	0.00	0.02	0.00	1.39	0.01	0.00
2	0.00	0.00	0.00	0.15	0.00	0.01	0.00	0.40	0.00	1.36	0.00	0.00
3	0.00	0.00	0.00	0.07	0.00	0.00	0.00	0.00	1.34	0.00	0.82	0.53
4	0.00	0.00	0.27	0.00	0.30	0.00	0.00	0.00	0.46	0.00	0.77	0.00
5	0.00	0.95	1.24	0.00	0.00	0.04	0.34	1.06	0.00	0.00	0.02	0.00
6	0.00	0.02	0.28	0.00	0.01	1.05	0.50	1.35	0.56	0.00	0.24	0.00
7	0.00	0.00	0.12	0.00	0.51	0.00	1.10	0.72	1.01	0.00	0.42	0.00
8	0.00	0.00	0.12	0.00	0.00	0.00	0.59	0.00	0.86	0.00	0.14	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.24	0.00	0.00	0.00	0.06	0.00
10	0.03	0.58	0.90	0.00	0.03	0.00	2.36	0.00	0.00	0.01	0.97	0.00
11	0.61	0.83	0.44	0.00	0.00	0.00	0.10	0.01	0.00	0.76	0.05	0.00
12	0.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.06	0.07	0.00
13	0.45	0.00	1.26	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.01	0.00
14	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00	0.00	0.24	0.00
15	2.60	0.16	0.00	0.00	0.06	0.58	0.00	0.04	1.29	0.00	0.01	0.05
16	0.70	1.50	0.00	0.00	0.09	0.51	0.00	0.24	0.13	0.06	0.01	0.00
17	0.00	0.09	0.00	0.00	0.10	0.23	0.47	0.13	0.02	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.28	0.76	3.94	0.14	0.38	0.00	0.23	0.00
19	0.00	0.00	0.35	0.00	0.00	1.51	0.04	0.02	0.23	0.04	0.01	0.00
20	0.01	0.00	0.86	0.11	0.02	1.94	0.01	0.00	0.00	0.00	0.00	0.00
21	0.35	0.04	0.00	0.06	0.13	0.00	0.08	0.31	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	2.05	0.00	0.01	2.49	0.00	0.01	0.24	1.27
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.32	0.00	0.70	0.00	0.01
24	0.00	0.00	1.92	0.00	0.00	0.00	0.00	0.38	0.00	0.00	0.00	0.00
25	0.22	0.00	0.07	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00
26	0.01	0.00	0.00	0.01	0.33	0.07	1.00	0.14	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.32	0.00	0.00	0.06	0.04	0.00	0.00	0.51
28	0.41	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00
29	0.48	0.00	0.00	0.28	---	0.03	0.30	0.11	0.00	0.48	0.00	0.00
30	0.08	0.00	0.00	0.20	---	0.89	0.26	0.00	0.00	0.78	0.00	0.00
31	0.00	---	0.06	0.00	---	0.01	---	0.00	---	2.05	0.10	---
TOTAL	5.95	4.92	7.89	1.22	4.75	7.74	11.42	7.94	6.37	7.75	4.42	2.37



02151500 BROAD RIVER NEAR BOILING SPRINGS, NC

LOCATION.--Lat 35°12'39", long 81°41'51". Cleveland County, Hydrologic Unit 03050105, on right bank 0.5 mi upstream from Sandy Run Creek, 3 mi downstream of Second Broad River, and 3.5 mi southwest of Boiling Springs.

DRAINAGE AREA.--875 mi².

PERIOD OF RECORD.--June 1925 to current year.

REVISED RECORDS.--WDR NC-81-1: Drainage area. WDR NC-88: 1986(m).

GAGE.--Water-stage recorder. Datum of gage is 639.92 ft above NGVD of 1929 (Duke Power Company bench mark). Prior to July 20, 1934, at site 500 ft upstream at 640.92 ft. Satellite and telephone telemetry at station.

REMARKS.--No estimated daily discharges. Records fair. Considerable diurnal fluctuation and some regulation caused by power plants upstream from station. Maximum discharge and gage height for period of record from former site, present datum.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	674	779	532	1,620	937	1,520	1,740	1,670	1,620	1,670	6,230	1,260
2	647	686	436	1,400	642	1,290	1,470	1,840	1,590	8,570	3,100	1,460
3	328	421	539	1,160	598	1,220	1,430	2,060	2,180	7,100	2,660	1,570
4	400	409	771	1,230	816	1,280	1,620	1,940	2,880	3,420	4,030	1,670
5	417	502	1,520	796	867	1,250	1,600	1,790	2,410	2,580	6,040	1,590
6	252	921	1,670	769	919	1,990	1,290	4,450	1,870	2,240	3,620	1,360
7	242	609	1,400	1,130	899	2,280	3,390	8,230	3,340	2,030	3,990	1,030
8	236	752	1,090	1,130	1,000	1,870	3,310	6,200	7,240	2,020	3,940	947
9	224	735	829	1,150	711	1,440	3,420	3,740	5,550	1,840	3,360	1,300
10	460	454	928	1,220	672	1,150	7,460	2,960	3,560	1,760	2,780	1,420
11	452	641	1,790	1,090	683	1,270	12,200	2,520	2,720	1,840	3,530	1,410
12	340	1,780	2,100	662	983	1,110	5,290	2,230	2,300	1,740	4,020	1,340
13	274	1,780	2,340	648	1,000	1,040	3,480	2,160	2,140	2,890	3,240	1,000
14	299	1,390	3,520	1,010	1,010	1,170	2,670	1,980	2,010	2,620	2,360	926
15	633	1,220	2,080	1,040	1,100	1,270	2,420	1,880	1,840	2,010	2,590	867
16	3,370	1,550	1,530	972	819	1,790	2,140	1,960	2,190	1,760	2,470	1,270
17	2,070	2,730	1,370	974	912	1,730	2,000	1,920	2,470	1,610	2,120	1,430
18	1,260	2,050	1,280	969	1,080	2,750	10,800	1,930	2,240	1,590	2,230	1,280
19	955	1,400	1,320	830	1,200	2,660	8,740	1,920	3,200	1,700	2,000	1,000
20	517	1,200	2,220	678	1,180	25,800	3,930	2,010	2,460	1,470	1,810	900
21	465	1,170	2,150	628	1,160	10,600	3,210	1,860	1,960	1,400	1,710	801
22	665	951	1,490	925	3,290	4,260	2,730	12,300	1,720	1,490	1,640	880
23	688	1,020	1,290	972	5,480	3,030	2,390	8,470	1,640	1,570	1,760	2,190
24	677	610	3,760	853	2,750	2,460	2,210	5,080	1,660	1,650	1,650	1,850
25	493	576	5,300	784	1,870	2,150	2,150	4,790	1,450	1,390	1,510	1,320
26	711	934	2,690	570	1,770	1,990	2,270	3,250	1,210	1,430	1,370	1,260
27	449	835	2,110	581	1,670	1,910	2,000	2,850	1,530	1,140	1,200	1,200
28	461	834	1,710	859	1,680	1,810	1,870	2,410	1,650	910	1,350	1,010
29	966	520	1,380	958	---	1,650	1,800	2,060	1,500	1,000	1,420	1,030
30	886	779	1,310	991	---	1,730	1,900	2,030	1,390	1,620	1,510	1,170
31	716	---	1,480	1,010	---	1,990	---	1,840	---	8,820	1,250	---
TOTAL	21,227	30,238	53,935	29,609	37,698	89,460	102,930	102,330	71,520	74,880	82,490	37,741
MEAN	685	1,008	1,740	955	1,346	2,886	3,431	3,301	2,384	2,415	2,661	1,258
MAX	3,370	2,730	5,300	1,620	5,480	25,800	12,200	12,300	7,240	8,820	6,230	2,190
MIN	224	409	436	570	598	1,040	1,290	1,670	1,210	910	1,200	801
CFSM	0.78	1.15	1.99	1.09	1.54	3.30	3.92	3.77	2.72	2.76	3.04	1.44
IN.	0.90	1.29	2.29	1.26	1.60	3.80	4.38	4.35	3.04	3.18	3.51	1.60

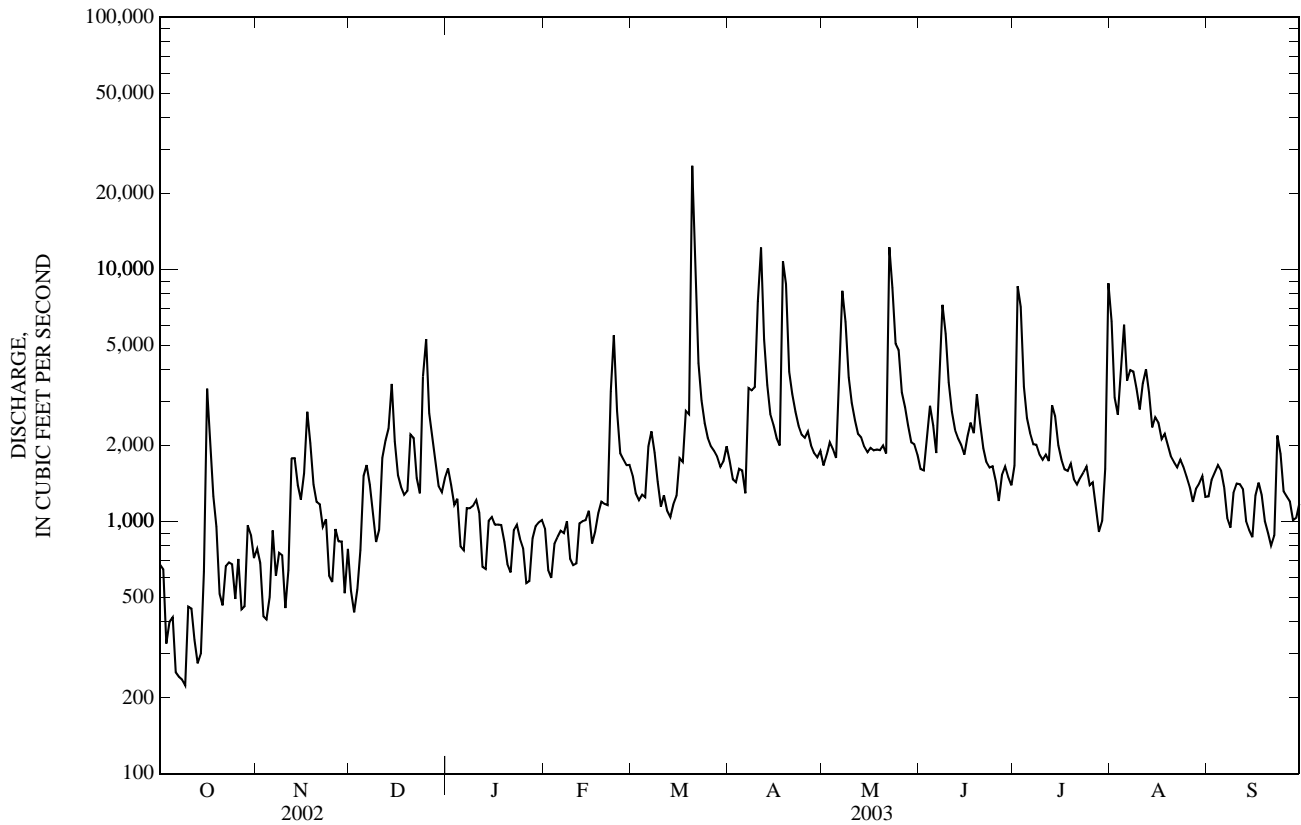
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 2003, BY WATER YEAR (WY)

MEAN	1,246	1,209	1,432	1,736	1,884	2,093	1,928	1,547	1,304	1,101	1,217	1,049
MAX	5,499	3,275	2,875	4,750	4,304	4,868	4,525	3,441	2,812	2,505	6,893	3,100
(WY)	(1965)	(1993)	(1984)	(1937)	(1960)	(1975)	(1936)	(1973)	(1973)	(1949)	(1928)	(1945)
MIN	237	407	449	422	641	783	821	505	420	305	175	288
(WY)	(1955)	(1955)	(1956)	(1956)	(2001)	(1988)	(1986)	(2001)	(1988)	(2002)	(2002)	(1954)

02151500 BROAD RIVER NEAR BOILING SPRINGS, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1925 - 2003	
ANNUAL TOTAL	272,245		734,058		1,479	
ANNUAL MEAN	746		2,011		2,328	
HIGHEST ANNUAL MEAN					578	1973
LOWEST ANNUAL MEAN					202	2002
HIGHEST DAILY MEAN	5,300	Dec 25	25,800	Mar 20	63,900	Aug 16, 1928
LOWEST DAILY MEAN	83	Sep 13	224	Oct 9	83	Sep 13, 2002
ANNUAL SEVEN-DAY MINIMUM	102	Sep 8	300	Oct 3	102	Sep 8, 2002
MAXIMUM PEAK FLOW			35,200	Mar 20	73,300*	Aug 16, 1928
MAXIMUM PEAK STAGE			15.00	Mar 20	24.30*	Aug 16, 1928
INSTANTANEOUS LOW FLOW			178	Oct 9	40	Oct 17, 1954
ANNUAL RUNOFF (CFSM)	0.85		2.30		1.69	
ANNUAL RUNOFF (INCHES)	11.57		31.21		22.97	
10 PERCENT EXCEEDS	1,380		3,440		2,490	
50 PERCENT EXCEEDS	618		1,530		1,160	
90 PERCENT EXCEEDS	203		648		552	

* See REMARKS.



02152100 FIRST BROAD RIVER NEAR CASAR, NC

LOCATION.--Lat 35°29'35", long 81°40'55", Cleveland County, Hydrologic Unit 03050105, on right bank 570 ft upstream from bridge on Secondary Road 1530, 0.5 mi upstream from No Business Creek, and 4.0 mi southwest of Casar.

DRAINAGE AREA.--60.5 mi².

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1949-5. March 1959 to current year.

REVISED RECORDS.--WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 899.87 ft above NGVD of 1929. Satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Minimum discharge for current water year also occurred Oct. 7, 8, 9, 10, 11.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of 1916 and August 1940 reached a stage of about 25 ft, from information by local resident.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	27	30	70	50	100	99	137	105	128	278	96
2	20	25	28	65	47	94	93	273	99	546	158	93
3	19	24	27	69	46	82	87	370	147	245	279	106
4	18	24	29	66	52	74	83	195	467	158	318	115
5	17	28	80	64	52	72	87	201	215	131	200	98
6	16	47	76	62	46	163	81	714	151	120	156	92
7	16	38	62	58	52	146	266	562	1,180	115	716	91
8	16	34	55	56	52	109	221	366	1,090	110	372	89
9	16	32	49	55	49	93	268	241	441	113	269	87
10	16	33	46	53	49	81	1,330	188	269	140	385	83
11	25	319	237	50	47	74	987	164	208	109	316	84
12	22	194	136	48	45	70	387	151	180	110	240	82
13	20	121	234	47	44	68	243	135	164	2,550	186	81
14	19	71	275	47	46	67	183	126	150	414	158	79
15	37	53	124	46	63	65	154	123	144	250	181	80
16	249	126	83	45	60	125	139	128	216	198	154	78
17	73	255	65	47	62	107	129	182	699	179	153	75
18	40	117	55	e38	60	115	1,810	147	242	157	134	75
19	31	74	50	e37	69	122	495	133	263	166	130	75
20	27	59	186	e36	67	1,310	289	123	188	168	126	72
21	26	52	129	43	64	488	230	118	154	142	126	72
22	30	46	85	41	575	231	193	315	138	137	121	76
23	26	41	67	44	384	158	163	416	128	134	116	129
24	24	38	367	e34	164	127	146	272	120	125	109	81
25	23	36	337	e34	113	111	141	200	115	117	107	78
26	27	34	150	e34	96	102	179	164	111	113	103	77
27	25	33	104	e33	114	93	152	147	109	111	101	80
28	25	32	85	e33	113	88	132	130	116	109	98	90
29	31	32	74	44	---	85	122	126	108	114	98	74
30	35	32	67	57	---	126	117	117	109	131	96	74
31	31	---	64	54	---	111	---	115	---	188	96	---
TOTAL	1,021	2,077	3,456	1,510	2,681	4,857	9,006	6,779	7,826	7,528	6,080	2,562
MEAN	32.9	69.2	111	48.7	95.8	157	300	219	261	243	196	85.4
MAX	249	319	367	70	575	1,310	1,810	714	1,180	2,550	716	129
MIN	16	24	27	33	44	65	81	115	99	109	96	72
CFSM	0.54	1.14	1.84	0.81	1.58	2.59	4.96	3.61	4.31	4.01	3.24	1.41
IN.	0.63	1.28	2.13	0.93	1.65	2.99	5.54	4.17	4.81	4.63	3.74	1.58

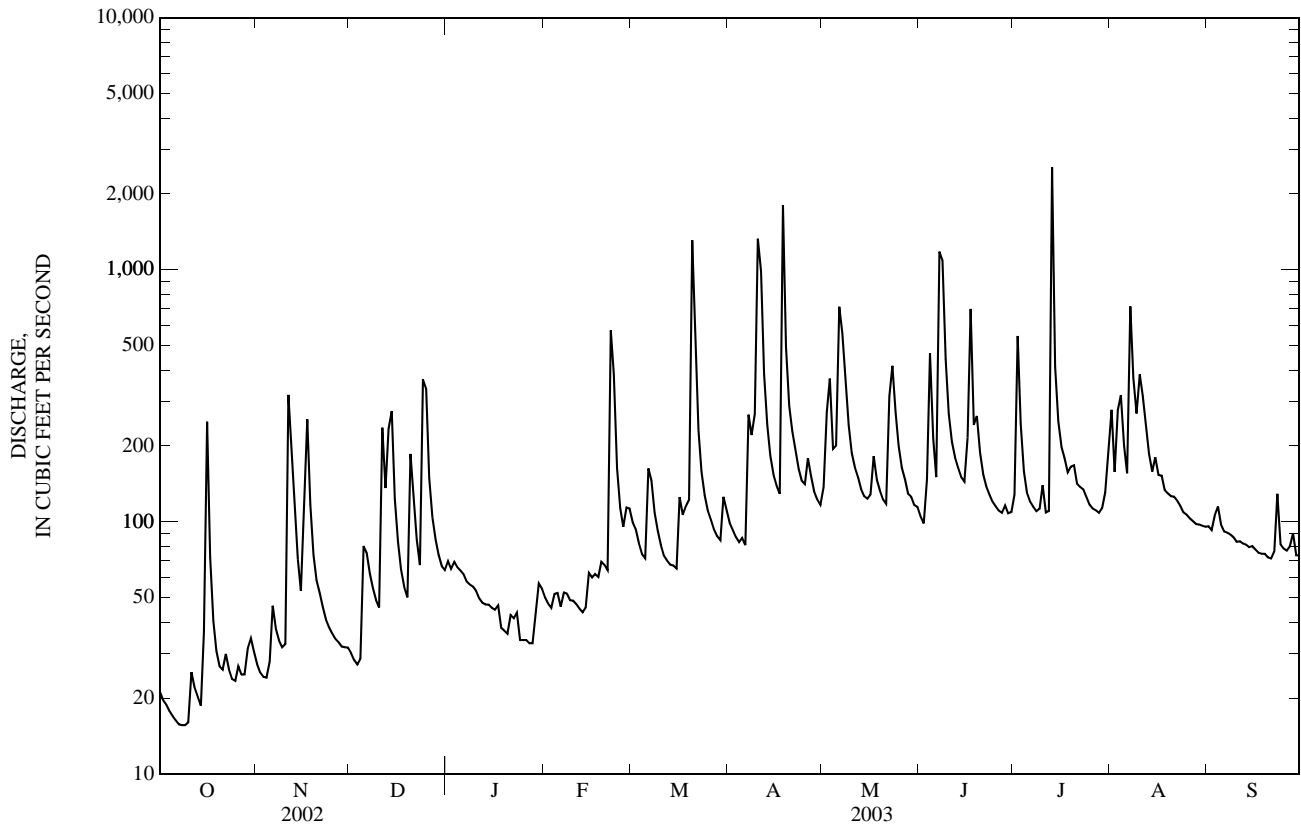
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 2003, BY WATER YEAR (WY)

	71.7	66.7	82.2	102	120	137	126	97.2	80.4	64.1	67.8	53.8
MEAN	71.7	66.7	82.2	102	120	137	126	97.2	80.4	64.1	67.8	53.8
MAX	318	191	185	273	286	386	300	254	261	243	262	132
(WY)	(1965)	(1978)	(1962)	(1995)	(1960)	(1975)	(2003)	(1975)	(2003)	(2003)	(1970)	(1959)
MIN	17.4	17.2	22.7	30.9	37.8	44.6	36.1	18.3	14.9	11.4	8.09	21.0
(WY)	(2002)	(2002)	(2002)	(2001)	(2001)	(1988)	(2002)	(2001)	(2002)	(2002)	(2002)	(2002)

02152100 FIRST BROAD RIVER NEAR CASAR, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1959 - 2003	
ANNUAL TOTAL	14,565.1		55,383		89.0	
ANNUAL MEAN	39.9		152		152	
HIGHEST ANNUAL MEAN					26.8	2003
LOWEST ANNUAL MEAN					3.9	2002
HIGHEST DAILY MEAN	367	Dec 24	2,550	Jul 13	3,130	Mar 14, 1975
LOWEST DAILY MEAN	3.9	Aug 15	16	Oct 6	3.9	Aug 15, 2002
ANNUAL SEVEN-DAY MINIMUM	4.1	Aug 9	16	Oct 4	4.1	Aug 9, 2002
MAXIMUM PEAK FLOW			6,670	Jul 13	7,790	Jan 14, 1995
MAXIMUM PEAK STAGE			14.32	Jul 13	16.70	Oct 17, 1975
INSTANTANEOUS LOW FLOW			16*	Oct 6	3.6	Aug 15, 2002
ANNUAL RUNOFF (CFSM)	0.66		2.51		1.47	
ANNUAL RUNOFF (INCHES)	8.96		34.05		20.00	
10 PERCENT EXCEEDS	74		272		148	
50 PERCENT EXCEEDS	27		103		63	
90 PERCENT EXCEEDS	9.1		32		31	

e Estimated.
 * See REMARKS.



351954080493445 CRN02

LOCATION.--Lat 35°19'54", long 80°49'35", Mecklenburg County, Hydrologic Unit 03050101, Fire Station 28, Old Statesville Road, Charlotte, NC.

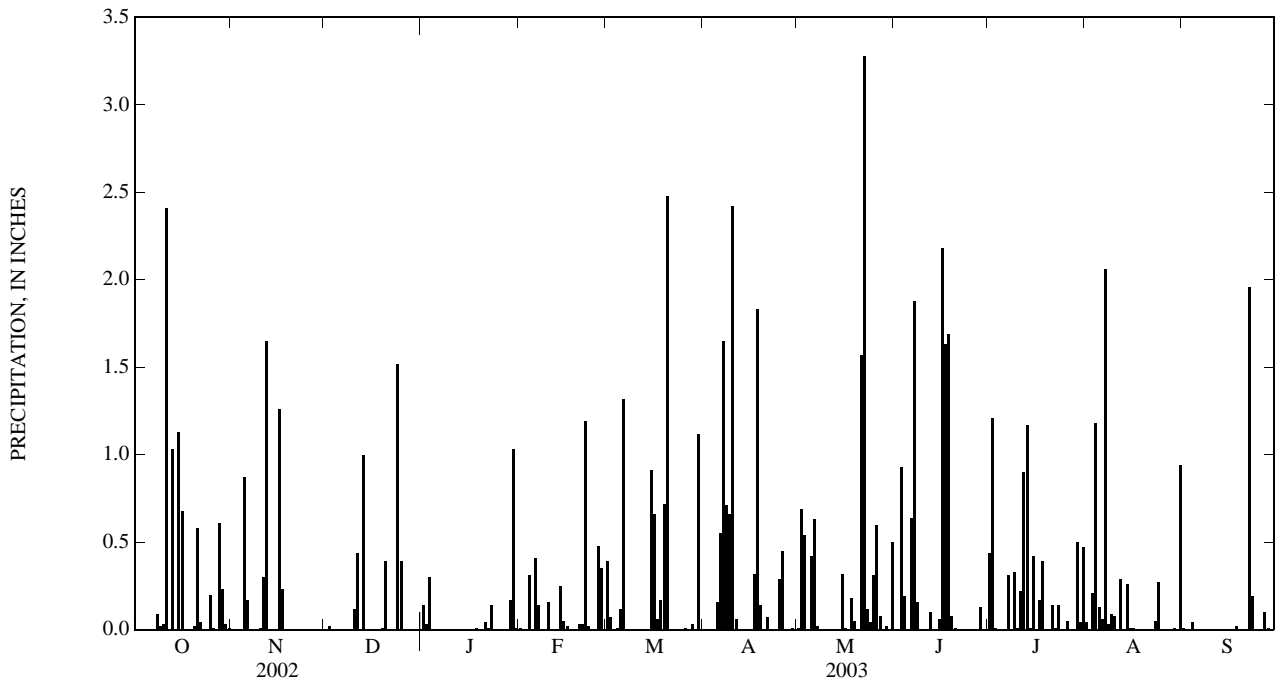
PERIOD OF RECORD.--October 1992 to current year. Records for period October 1992 to September 1998 published in USGS OFR 96-150, 98-67, and 99-273.

GAGE.--Tipping-bucket raingage and electronic datalogger. Radio telemetry at station.

REMARKS.--Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network. Collection of frozen precipitation during December 2002 and February 2003 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.14	0.01	0.39	0.00	0.01	0.00	0.44	0.04	0.01
2	0.00	0.00	0.02	0.03	0.00	0.07	0.00	0.69	0.00	1.21	0.00	0.00
3	0.00	0.00	0.00	0.30	0.00	0.00	0.00	0.54	0.93	0.01	0.21	0.00
4	0.00	0.00	---	0.00	0.31	0.01	0.00	0.00	0.19	0.00	1.18	0.04
5	0.00	0.87	---	0.00	0.00	0.12	0.16	0.42	0.00	0.00	0.13	0.00
6	0.00	0.17	---	0.00	0.41	1.32	0.55	0.63	0.64	0.00	0.06	0.00
7	0.00	0.00	0.00	0.00	0.14	0.00	1.65	0.02	1.88	0.31	2.06	0.00
8	0.09	0.00	0.00	0.00	0.00	0.00	0.71	0.00	0.16	0.00	0.03	0.00
9	0.02	0.00	0.00	0.00	0.00	0.00	0.66	0.00	0.00	0.33	0.09	0.00
10	0.03	0.01	0.12	0.00	0.16	0.00	2.42	0.00	0.00	0.01	0.08	0.00
11	2.41	0.30	0.44	0.00	0.00	0.00	0.06	0.00	0.00	0.22	0.00	0.00
12	0.00	1.65	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.90	0.29	0.00
13	1.03	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.17	0.00	0.00
14	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.01	0.26	0.00
15	1.13	0.00	0.00	0.00	0.05	0.91	0.00	0.32	0.06	0.42	0.01	0.00
16	0.68	1.26	0.00	0.00	0.02	0.66	0.00	0.01	2.18	0.00	0.01	0.00
17	0.00	0.23	0.00	0.00	---	0.06	0.32	0.00	1.63	0.17	0.00	0.00
18	0.00	0.00	0.00	0.01	---	0.17	1.83	0.18	1.69	0.39	0.00	0.02
19	0.00	0.00	0.01	0.00	0.00	0.72	0.14	0.05	0.08	0.00	0.00	0.00
20	0.02	0.00	0.39	0.00	0.03	2.48	0.00	0.00	0.01	0.00	0.00	0.00
21	0.58	0.00	0.00	0.04	0.03	0.00	0.07	1.57	0.00	0.14	0.00	0.00
22	0.04	0.00	0.00	0.01	1.19	0.00	0.00	3.28	0.00	0.01	0.00	1.96
23	0.00	0.00	0.00	0.14	0.02	0.00	0.00	0.12	0.00	0.14	0.05	0.19
24	0.00	0.00	1.52	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.27	0.00
25	0.20	0.00	0.39	0.00	0.00	0.00	0.29	0.31	0.00	0.00	0.00	0.00
26	0.01	0.00	0.00	0.00	0.48	0.01	0.45	0.60	0.00	0.05	0.00	0.00
27	0.00	0.00	0.00	0.00	0.35	0.00	0.00	0.08	0.00	0.00	0.00	0.10
28	0.61	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.13	0.00	0.00	0.01
29	0.23	0.00	0.00	0.17	---	0.00	0.01	0.02	0.00	0.50	0.01	0.00
30	0.03	0.00	0.00	1.03	---	1.12	0.00	0.00	0.00	0.04	0.00	0.00
31	0.01	---	0.00	0.01	---	0.00	---	0.50	---	0.47	0.94	---
TOTAL	7.12	4.49	---	1.88	---	8.07	9.32	9.39	9.68	6.94	5.72	2.33



LOCATION.--Lat 35°11'34", long 80°56'09", Mecklenburg County, Hydrologic Unit 03050103, Fire Station 30, Belle Oaks Road, Charlotte, NC.

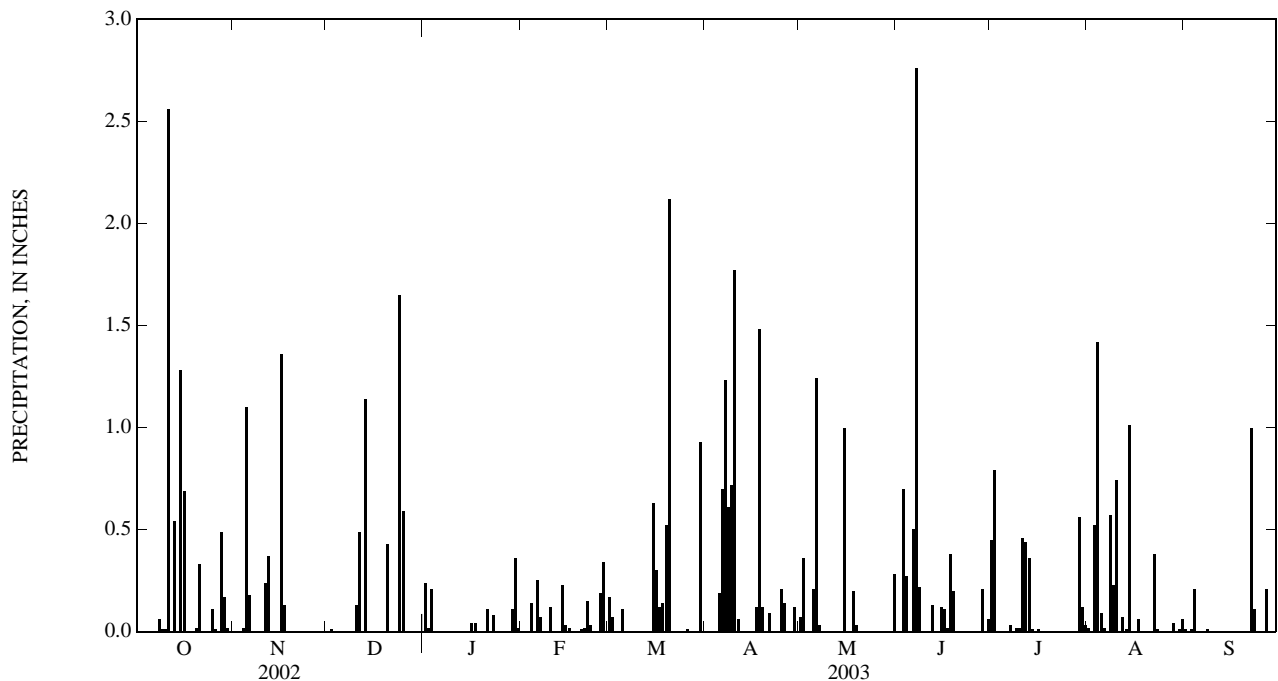
PERIOD OF RECORD.--October 1992 to current year. Records for period October 1992 to September 1998 published in USGS OFR 96-150, 98-67, and 99-273.

GAGE.--Tipping-bucket raingage and electronic datalogger. Radio telemetry at station.

REMARKS.--Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network. Collection of frozen precipitation during December 2002 and February 2003 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.24	0.00	0.17	0.00	0.07	0.00	0.45	0.02	0.01
2	0.00	0.00	0.01	0.02	0.00	0.07	0.00	0.36	0.00	0.79	0.00	0.00
3	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.00	0.70	0.00	0.52	0.01
4	0.00	0.02	---	0.00	0.14	0.00	0.00	0.00	0.27	0.00	1.42	0.21
5	0.00	1.10	---	0.00	0.00	0.11	0.19	0.21	0.00	0.00	0.09	0.00
6	0.00	0.18	---	0.00	0.25	---	0.70	1.24	0.50	0.00	0.02	0.00
7	0.00	0.00	0.00	0.00	0.07	0.00	1.23	0.03	2.76	0.03	0.00	0.00
8	0.06	0.00	0.00	0.00	0.00	0.00	0.61	0.00	0.22	0.00	0.57	0.01
9	0.01	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.02	0.23	0.00
10	0.01	0.00	0.13	0.00	0.12	0.00	1.77	0.00	0.00	0.02	0.74	0.00
11	2.56	0.24	0.49	0.00	0.00	0.00	0.06	0.00	0.00	0.46	0.00	0.00
12	0.00	0.37	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.44	0.07	---
13	0.54	0.00	1.14	0.00	0.00	0.00	0.00	0.00	0.00	0.36	0.01	---
14	0.00	0.00	0.00	0.00	0.23	0.00	0.00	0.00	0.00	0.01	1.01	---
15	1.28	0.00	0.00	0.00	0.03	0.63	0.00	1.00	0.12	0.00	0.00	---
16	0.69	1.36	0.00	0.04	0.02	0.30	0.00	0.00	0.11	0.01	0.00	---
17	0.00	0.13	0.00	0.04	---	0.12	0.12	0.00	0.02	---	0.06	0.00
18	0.00	0.00	0.00	0.00	---	0.14	1.48	0.20	0.38	---	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.52	0.12	0.03	0.20	---	0.00	0.00
20	0.02	0.00	0.43	0.00	0.01	2.12	0.00	0.00	0.00	---	0.00	0.00
21	0.33	0.00	0.00	0.11	0.02	0.00	0.09	---	0.00	---	0.00	0.00
22	0.00	0.00	0.00	0.00	0.15	0.00	0.00	---	0.00	---	0.38	1.00
23	0.00	0.00	0.00	0.08	0.03	0.00	0.00	---	0.00	---	0.01	0.11
24	0.00	0.00	1.65	0.00	0.00	0.00	0.00	---	0.00	---	0.00	0.00
25	0.11	0.00	0.59	0.00	0.00	0.00	0.21	---	0.00	---	0.00	0.00
26	0.01	0.00	0.00	0.00	0.19	0.01	0.14	---	0.00	---	0.00	0.00
27	0.00	0.00	0.00	0.00	0.34	0.00	0.00	---	0.00	---	0.00	0.21
28	0.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	---	0.04	0.00
29	0.17	0.00	0.00	0.11	---	0.00	0.12	0.00	0.00	0.56	0.00	0.00
30	0.02	0.00	0.00	0.36	---	0.93	0.00	0.00	0.06	0.12	0.01	0.00
31	0.00	---	0.00	0.02	---	0.00	---	0.28	---	0.03	0.06	---
TOTAL	6.30	3.40	---	1.23	---	---	7.56	---	5.68	---	5.26	---



351642080533445 CRN05

LOCATION.--Lat 35°16'42", long 80°53'34", Mecklenburg County, Hydrologic Unit 03050103, CMUD Administration Building, Brookshire Boulevard, Charlotte, NC.

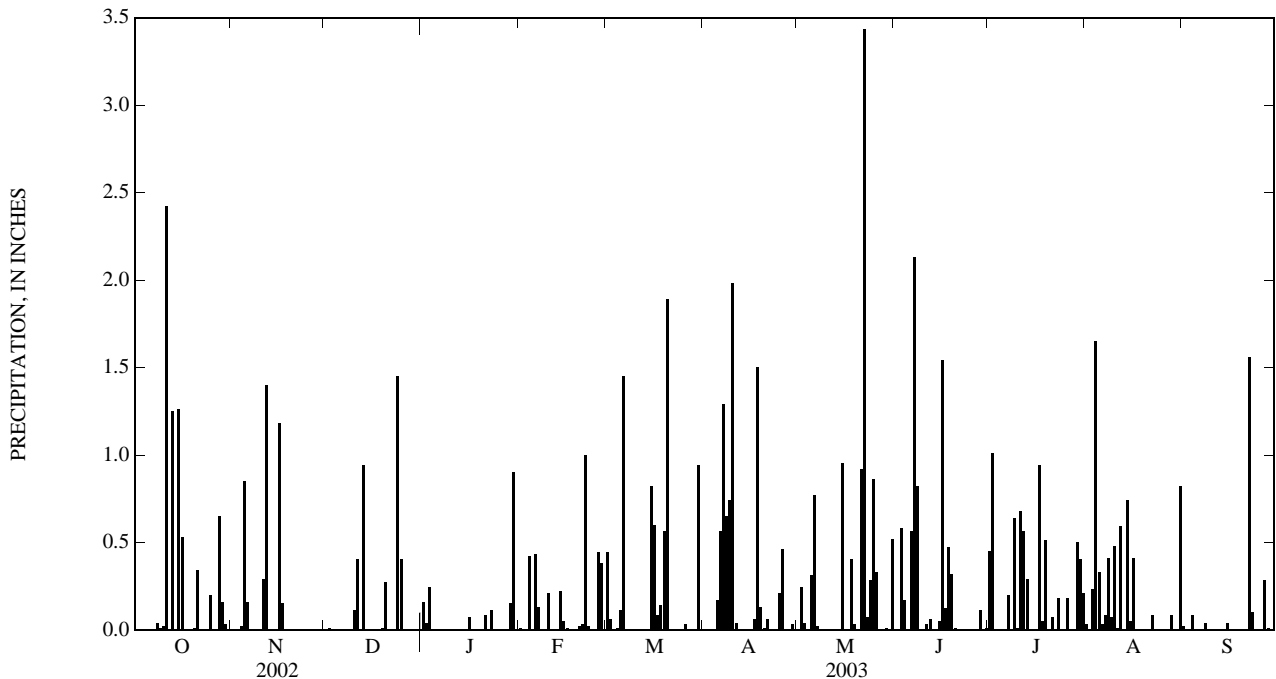
PERIOD OF RECORD.--October 1992 to current year. Records for period October 1992 to September 1998 published in USGS OFR 96-150, 98-67, and 99-273.

GAGE.--Tipping-bucket raingage and electronic datalogger. Radio telemetry at station.

REMARKS.--Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network. Collection of frozen precipitation during December 2002 and February 2003 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.16	0.01	0.44	0.00	0.00	0.00	0.45	0.03	0.02
2	0.00	0.00	0.01	0.04	0.00	0.06	0.00	0.24	0.00	1.01	0.00	0.00
3	0.00	0.00	0.00	0.24	0.00	0.00	0.00	0.04	0.58	0.00	0.23	0.00
4	0.00	0.02	0.00	0.00	0.42	0.01	0.00	0.00	0.17	0.00	1.65	0.08
5	0.00	0.85	---	0.00	0.00	0.11	0.17	0.31	0.00	0.00	0.33	0.00
6	0.00	0.16	---	0.00	0.43	1.45	0.56	0.77	0.56	0.00	0.03	0.00
7	0.00	0.00	0.00	0.00	0.13	0.00	1.29	0.02	2.13	0.20	0.08	0.00
8	0.04	0.00	0.00	0.00	0.00	0.00	0.65	0.00	0.82	0.00	0.41	0.04
9	0.01	0.00	0.00	0.00	0.00	0.00	0.74	0.00	0.00	0.64	0.07	0.00
10	0.02	0.00	0.11	0.00	0.21	0.00	1.98	0.00	0.00	0.01	0.48	0.00
11	2.42	0.29	0.40	0.00	0.00	0.00	0.04	0.00	0.03	0.68	0.01	0.00
12	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.56	0.59	0.00
13	1.25	0.00	0.94	0.00	0.00	0.00	0.00	0.00	0.00	0.29	0.00	0.00
14	0.00	0.00	0.00	0.00	0.22	0.00	0.00	0.00	0.00	0.00	0.74	0.00
15	1.26	0.00	0.00	0.00	0.05	0.82	0.00	0.95	0.05	0.00	0.05	0.04
16	0.53	1.18	0.00	0.07	0.01	0.60	0.00	0.00	1.54	0.00	0.41	0.00
17	0.00	0.15	0.00	0.00	---	0.08	0.06	0.00	0.12	0.94	0.00	0.00
18	0.00	0.00	0.00	0.00	---	0.14	1.50	0.40	0.47	0.05	0.00	0.00
19	0.00	0.00	0.01	0.00	0.00	0.56	0.13	0.03	0.32	0.51	0.00	0.00
20	0.01	0.00	0.27	0.00	0.02	1.89	0.01	0.00	0.01	0.00	0.00	0.00
21	0.34	0.00	0.00	0.08	0.03	0.00	0.06	0.92	0.00	0.07	0.00	0.00
22	0.00	0.00	0.00	0.00	1.00	0.00	0.00	3.43	0.00	0.00	0.08	1.56
23	0.00	0.00	0.00	0.11	0.02	0.00	0.00	0.07	0.00	0.18	0.00	0.10
24	0.00	0.00	1.45	0.00	0.00	0.00	0.00	0.28	0.00	0.00	0.00	0.00
25	0.20	0.00	0.40	0.00	0.00	0.00	0.21	0.86	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.44	0.03	0.46	0.33	0.00	0.18	0.00	0.00
27	0.00	0.00	0.00	0.00	0.38	0.00	0.00	0.00	0.00	0.00	0.00	0.28
28	0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.08	0.01
29	0.16	0.00	0.00	0.15	---	0.00	0.03	0.01	0.00	0.50	0.00	0.00
30	0.03	0.00	0.00	0.90	---	0.94	0.00	0.00	0.01	0.40	0.00	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.52	---	0.21	0.82	---
TOTAL	6.92	4.05	---	1.75	---	7.13	7.89	9.18	6.98	6.88	6.09	2.13



LOCATION.--Lat 35°03'51", long 80°45'41", Mecklenburg County, Hydrologic Unit 03050103, Fire Station 9, McKee Road, Charlotte, NC.

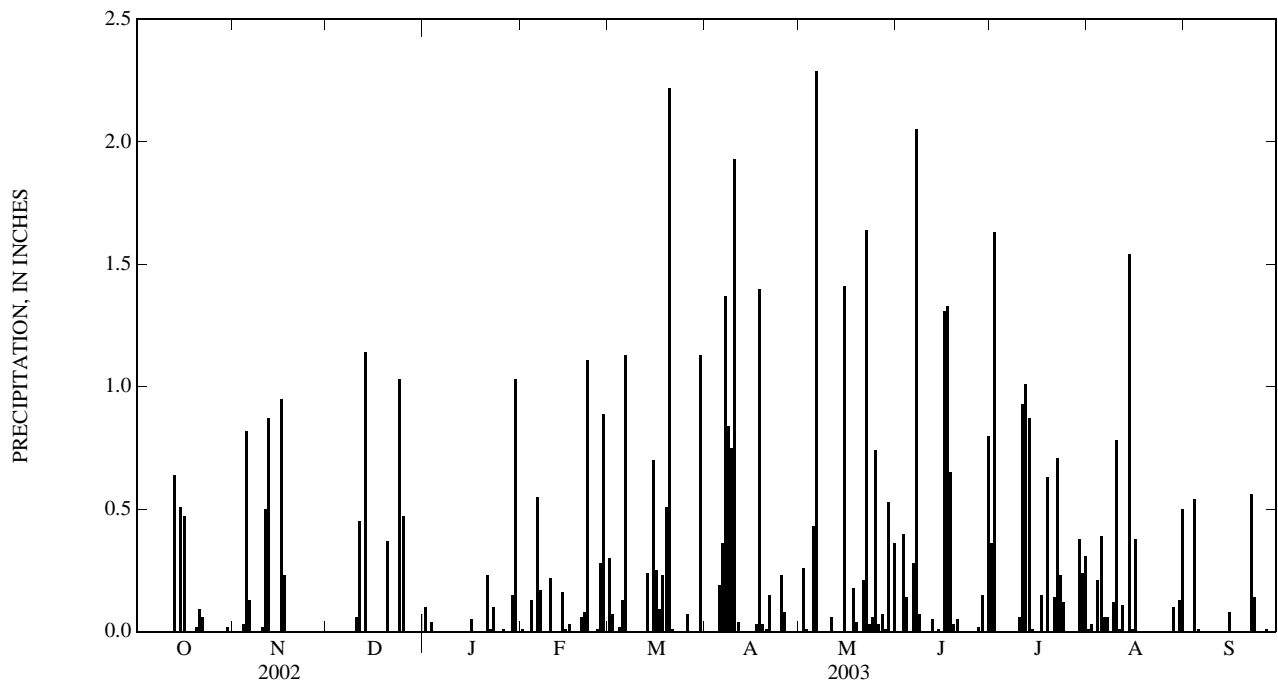
PERIOD OF RECORD.--October 1992 to current year. Records for period October 1992 to September 1998 published in USGS OFR 96-150, 98-67, and 99-273.

GAGE.--Tipping-bucket raingage and electronic datalogger. Radio telemetry at station.

REMARKS.--Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network. Collection of frozen precipitation during December 2002 and February 2003 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.10	0.01	0.30	0.00	0.00	0.00	0.36	0.01	0.00
2	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.26	0.00	1.63	0.03	0.00
3	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.01	0.40	0.00	0.00	0.00
4	0.00	0.03	---	0.00	0.13	0.02	0.00	0.00	0.14	0.00	0.21	0.54
5	0.00	0.82	---	0.00	0.00	0.13	0.19	0.43	0.00	0.00	0.39	0.01
6	0.00	0.13	---	0.00	0.55	1.13	0.36	2.29	0.28	0.00	0.06	0.00
7	---	0.00	0.00	0.00	0.17	0.00	1.37	0.00	2.05	0.00	0.06	0.00
8	---	0.00	0.00	0.00	0.00	0.00	0.84	0.00	0.07	0.00	0.00	0.00
9	---	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.12	0.00
10	---	0.02	0.06	0.00	0.22	0.00	1.93	0.00	0.00	0.06	0.78	0.00
11	---	0.50	0.45	0.00	0.00	0.00	0.04	0.06	0.00	0.93	0.01	0.00
12	0.00	0.87	0.00	0.00	0.00	0.00	0.00	0.00	0.05	1.01	0.11	0.00
13	0.64	0.00	1.14	0.00	0.00	0.24	0.00	0.00	0.00	0.87	0.00	0.00
14	0.00	0.00	0.00	0.00	0.16	0.00	0.00	0.00	0.01	0.01	1.54	0.00
15	0.51	0.00	0.00	0.00	0.01	0.70	0.00	1.41	0.00	0.00	0.01	0.08
16	0.47	0.95	0.00	0.05	0.03	0.25	0.00	0.00	1.31	0.00	0.38	0.00
17	0.00	0.23	0.00	0.00	---	0.09	0.03	0.00	1.33	0.15	0.00	0.00
18	0.00	0.00	0.00	0.00	---	0.23	1.40	0.18	0.65	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.51	0.03	0.04	0.03	0.63	0.00	0.00
20	0.02	0.00	0.37	0.00	0.06	2.22	0.01	0.00	0.05	0.00	0.00	0.00
21	0.09	0.00	0.00	0.23	0.08	0.01	0.15	0.21	0.00	0.14	0.00	0.00
22	0.06	0.00	0.00	0.01	1.11	0.00	0.00	1.64	0.00	0.71	0.00	0.56
23	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.03	0.00	0.23	0.00	0.14
24	0.00	0.00	1.03	0.00	0.00	0.00	0.00	0.06	0.00	0.12	0.00	0.00
25	---	0.00	0.47	0.00	0.01	0.00	0.23	0.74	0.00	0.00	0.00	0.00
26	---	0.00	0.00	0.01	0.28	0.07	0.08	0.03	0.00	0.00	0.00	0.00
27	---	0.00	0.00	0.00	0.89	0.00	0.00	0.07	0.02	0.00	0.00	0.01
28	---	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.15	0.00	0.10	0.00
29	---	0.00	0.00	0.15	---	0.00	0.00	0.53	0.00	0.38	0.00	0.00
30	0.02	0.00	0.00	1.03	---	1.13	0.00	0.00	0.80	0.24	0.13	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.36	---	0.31	0.50	---
TOTAL	---	3.55	---	1.72	---	7.10	7.41	8.36	7.34	7.78	4.44	1.34



350314080484945 CRN08

LOCATION.--Lat 35°03'22", long 80°48'51", Mecklenburg County, Hydrologic Unit 03050103, St. Matthews Catholic Church, Ballantyne Commons Parkway, Charlotte, NC.

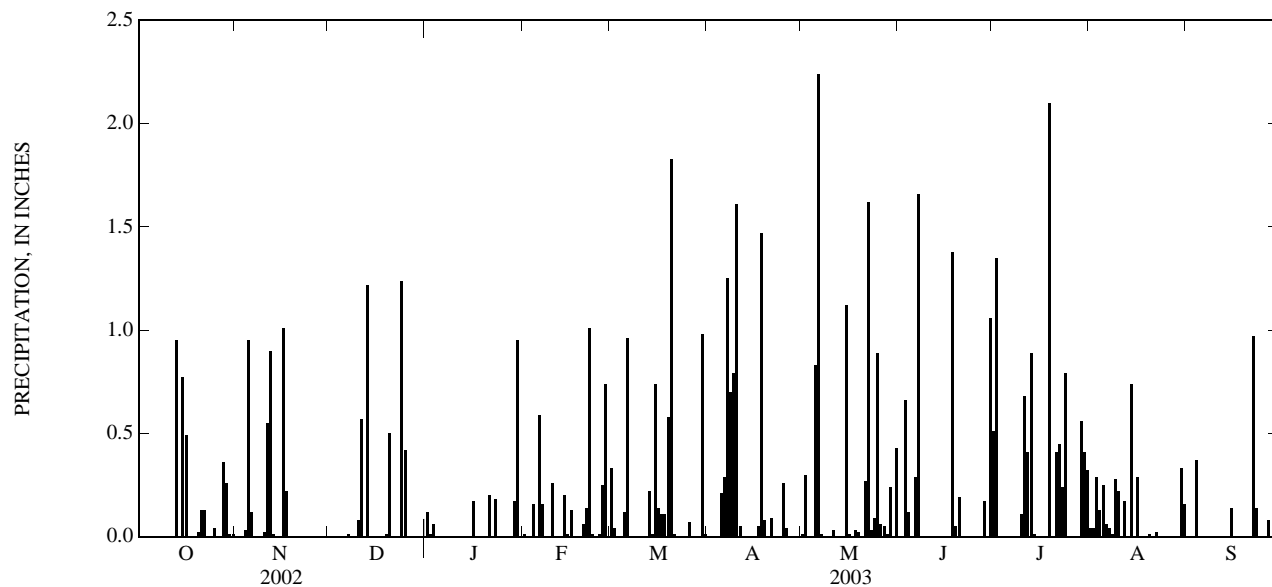
PERIOD OF RECORD.--October 1992 to current year. Records for period October 1992 to September 1998 published in USGS OFR 96-150, 98-67, and 99-273. Records for August 4, 1994 to August 15, 2001 at site Tipton Rest Home, Charlotte, NC. Records for October 1992 to August 4, 1994 at site McAlpine Creek Elementary School, Charlotte, NC (station 350458080493245).

GAGE.--Tipping-bucket raingage and electronic datalogger. Radio telemetry at station. Prior to August 16, 2001, gage located on Elm Lane at intersection of Providence Road West, Charlotte.

REMARKS.--Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network. Collection of frozen precipitation during December 2002 and February 2003 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.12	0.01	0.33	0.00	0.01	0.00	0.51	0.04	0.00
2	0.00	0.00	0.00	0.01	0.00	0.04	0.00	0.30	0.00	1.35	0.04	0.00
3	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.66	0.00	0.29	0.00
4	0.00	0.03	---	0.00	0.16	0.00	0.00	0.00	0.12	0.00	0.13	0.37
5	0.00	0.95	---	0.00	0.00	0.12	0.21	0.83	0.00	0.00	0.25	0.00
6	0.00	0.12	---	0.00	0.59	0.96	0.29	2.24	0.29	0.00	0.06	0.00
7	0.00	0.00	0.01	0.00	0.16	0.00	1.25	0.01	1.66	0.00	0.04	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.70	0.00	---	0.00	0.01	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.79	0.00	---	0.00	0.28	0.00
10	0.00	0.02	0.08	0.00	0.26	0.00	1.61	0.00	---	0.11	0.22	0.00
11	0.00	0.55	0.57	0.00	0.00	0.00	0.05	0.03	---	0.68	0.00	0.00
12	0.00	0.90	0.00	0.00	0.00	0.00	0.00	0.00	---	0.41	0.17	0.00
13	0.95	0.01	1.22	0.00	0.00	0.22	0.00	0.00	---	0.89	0.00	0.00
14	0.00	0.00	0.00	0.00	0.20	0.01	0.00	0.00	---	0.01	0.74	0.00
15	0.77	0.00	0.00	0.00	0.01	0.74	0.00	1.12	---	0.00	0.00	0.14
16	0.49	1.01	0.00	0.17	0.13	0.14	0.00	0.01	---	0.00	0.29	0.00
17	0.00	0.22	0.00	0.00	---	0.11	0.05	0.00	---	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	---	0.11	1.47	0.03	1.38	0.00	0.00	0.00
19	0.00	0.00	0.01	0.00	0.00	0.58	0.08	0.02	0.05	2.10	0.00	0.00
20	0.02	0.00	0.50	0.00	0.06	1.83	0.00	0.00	0.19	0.00	0.01	0.00
21	0.13	0.00	0.00	0.20	0.14	0.01	0.09	0.27	0.00	0.41	0.00	0.00
22	0.13	0.00	0.00	0.00	1.01	0.00	0.00	1.62	0.00	0.45	0.02	0.97
23	0.00	0.00	0.00	0.18	0.01	0.00	0.00	0.03	0.00	0.24	0.00	0.14
24	0.00	0.00	1.24	0.00	0.00	0.00	0.00	0.09	0.00	0.79	0.00	0.00
25	0.04	0.00	0.42	0.00	0.01	0.00	0.26	0.89	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.25	0.07	0.04	0.06	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.74	0.00	0.00	0.05	0.00	0.00	0.00	0.08
28	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.17	0.00	0.00	0.00
29	0.26	0.00	0.00	0.17	---	0.00	0.00	0.24	0.00	0.56	0.00	0.00
30	0.01	0.00	0.00	0.95	---	0.98	0.00	0.00	1.06	0.41	0.33	0.00
31	0.01	---	0.00	0.00	---	0.01	---	0.43	---	0.32	0.16	---
TOTAL	3.17	3.81	---	1.86	---	6.26	6.89	8.29	---	9.24	3.08	1.70



LOCATION.--Lat 35°14'15", long 80°46'31", Mecklenburg County, Hydrologic Unit 03050103, Fire Station 15, Frontenac Road, Charlotte, NC.

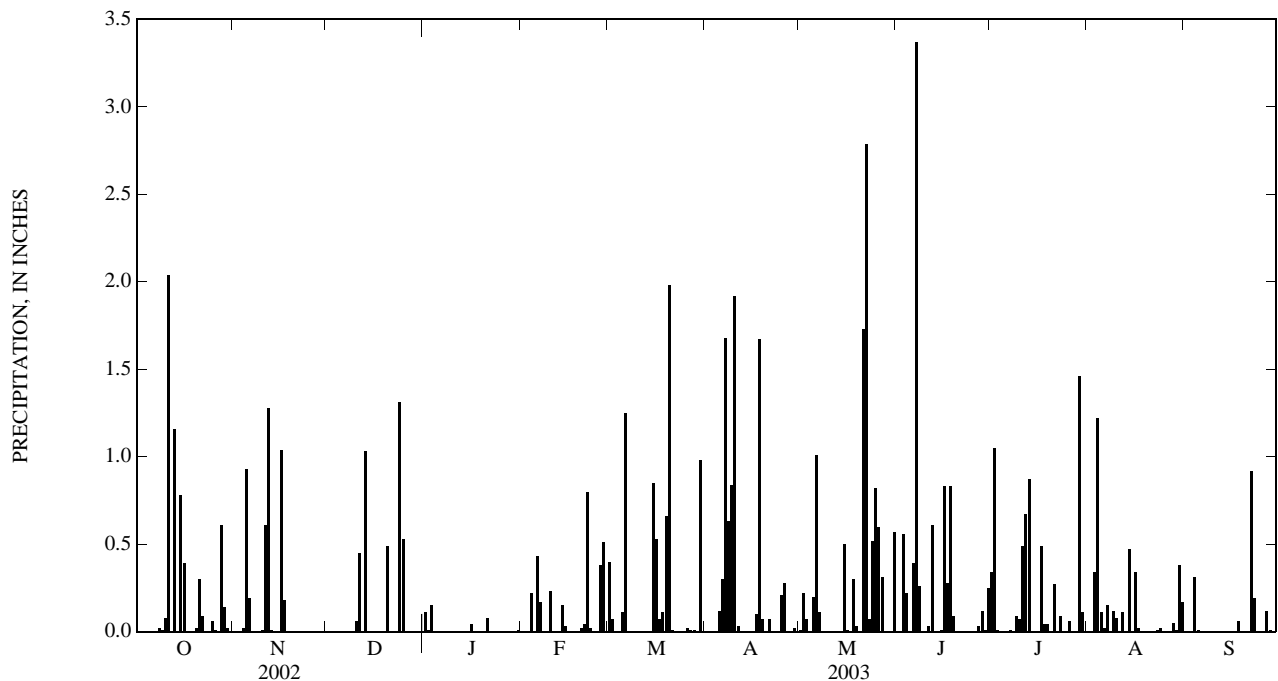
PERIOD OF RECORD.--November 1992 to current year. Records for period November 1992 to September 1998 published in USGS OFR 96-150, 98-67, and 99-273.

GAGE.--Tipping-bucket raingage and electronic datalogger. Radio telemetry at station.

REMARKS.--Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network. Collection of frozen precipitation during December 2002 and February 2003 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.11	0.00	0.40	0.00	0.01	0.00	0.34	0.00	0.00
2	0.00	0.00	0.00	0.01	0.00	0.07	0.00	0.22	0.00	1.05	0.00	0.00
3	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.07	0.56	0.01	0.34	0.00
4	0.00	0.02	---	0.00	0.22	0.00	0.00	0.00	0.22	0.00	1.22	0.31
5	0.00	0.93	---	0.00	0.00	0.11	0.12	0.20	0.00	0.00	0.11	0.01
6	0.00	0.19	---	0.00	0.43	1.25	0.30	1.01	0.39	0.00	0.02	0.00
7	0.00	0.00	0.00	0.00	0.17	0.00	1.68	0.11	3.37	0.01	0.15	0.00
8	0.02	0.00	0.00	0.00	0.00	0.00	0.63	0.00	0.26	0.00	0.00	0.00
9	0.01	0.00	0.00	0.00	0.00	0.00	0.84	0.00	0.00	0.09	0.12	0.00
10	0.08	0.01	0.06	0.00	0.23	0.00	1.92	0.00	0.00	0.07	0.08	0.00
11	2.04	0.61	0.45	0.00	0.00	0.00	0.03	0.00	0.03	0.49	0.00	0.00
12	0.00	1.28	0.00	0.00	0.00	0.00	0.00	0.00	0.61	0.67	0.11	0.00
13	1.16	0.01	1.03	0.00	0.00	0.00	0.00	0.00	0.00	0.87	0.00	0.00
14	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.47	0.00
15	0.78	0.00	0.00	0.00	0.03	0.85	0.00	0.50	0.01	0.00	0.00	0.00
16	0.39	1.04	0.00	0.04	0.00	0.53	0.00	0.01	0.83	0.00	0.34	0.00
17	0.00	0.18	0.00	0.00	---	0.07	0.10	0.00	0.28	0.49	0.02	0.00
18	0.00	0.00	0.00	0.00	---	0.11	1.67	0.30	0.83	0.04	0.00	0.06
19	0.00	0.00	0.00	0.00	0.00	0.66	0.07	0.03	0.09	0.04	0.00	0.00
20	0.02	0.00	0.49	0.00	0.02	1.98	0.00	0.00	0.00	0.00	0.00	0.00
21	0.30	0.00	0.00	0.08	0.04	0.01	0.07	1.73	0.00	0.27	0.00	0.00
22	0.09	0.00	0.00	0.00	0.80	0.00	0.00	2.79	0.00	0.00	0.00	0.92
23	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.07	0.00	0.09	0.01	0.19
24	0.00	0.00	1.31	---	0.00	0.00	0.00	0.52	0.00	0.00	0.02	0.00
25	0.06	0.00	0.53	---	0.00	0.00	0.21	0.82	0.00	0.00	0.00	0.00
26	0.01	0.00	0.00	---	0.38	0.02	0.28	0.60	0.00	0.06	0.00	0.00
27	0.00	0.00	0.00	---	0.51	0.01	0.00	0.31	0.03	0.00	0.00	0.12
28	0.61	0.00	0.00	---	0.00	0.01	0.00	0.00	0.12	0.00	0.05	0.01
29	0.14	0.00	0.00	---	---	0.00	0.02	0.00	0.01	1.46	0.01	0.00
30	0.02	0.00	0.00	---	---	0.98	0.00	0.00	0.25	0.11	0.38	0.00
31	0.00	---	0.00	0.01	---	0.00	---	0.57	---	0.00	0.17	---
TOTAL	5.73	4.27	---	---	---	7.06	7.94	9.87	7.89	6.16	3.62	1.62



351331080525945 CRN11

LOCATION.--Lat 35°13'31", long 80°52'59", Mecklenburg County, Hydrologic Unit 03050103, Fire Station 10, Remount Road, Charlotte, NC.

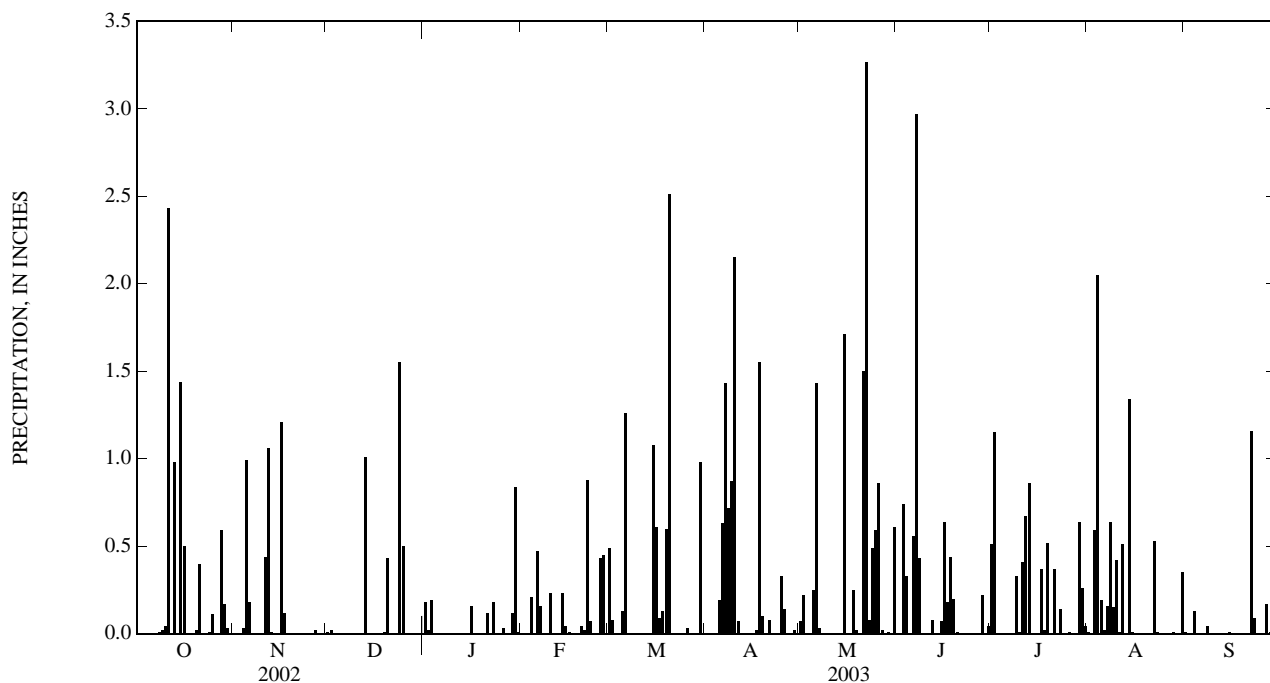
PERIOD OF RECORD.--November 1992 to current year. Records for period November 1992 to September 1998 published in USGS OFR 96-150, 98-67, and 99-273.

GAGE.--Tipping-bucket raingage and electronic datalogger. Radio telemetry at station.

REMARKS.--Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network. Collection of frozen precipitation during December 2002 and February 2003 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.01	0.18	0.00	0.49	0.00	0.07	0.00	0.51	0.01	0.01
2	0.00	0.00	0.02	0.02	0.00	0.08	0.00	0.22	0.00	1.15	0.00	0.00
3	0.00	0.00	0.00	0.19	0.00	0.00	0.00	0.00	0.74	0.00	0.59	0.00
4	0.00	0.03	---	0.00	0.21	0.00	0.00	0.00	0.33	0.00	2.05	0.13
5	0.00	0.99	---	0.00	0.00	0.13	0.19	0.25	0.00	0.00	0.19	0.00
6	0.00	0.18	---	0.00	0.47	1.26	0.63	1.43	0.56	0.00	0.02	0.00
7	0.00	0.00	---	0.00	0.16	0.00	1.43	0.03	2.97	0.00	0.16	0.00
8	0.01	0.00	---	0.00	0.00	0.00	0.72	0.00	0.43	0.00	0.64	0.04
9	0.02	0.00	---	0.00	0.00	0.00	0.87	0.00	0.00	0.33	0.15	0.00
10	0.04	0.00	---	0.00	0.23	0.00	2.15	0.00	0.00	0.01	0.42	0.00
11	2.43	0.44	---	0.00	0.00	0.00	0.07	0.00	0.00	0.41	0.01	0.00
12	0.00	1.06	---	0.00	0.00	0.00	0.00	0.00	0.08	0.67	0.51	0.00
13	0.98	0.01	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.86	0.00	0.00
14	0.00	0.00	0.00	0.00	0.23	0.00	0.00	0.00	0.00	0.00	1.34	0.00
15	1.44	0.00	0.00	0.00	0.04	1.08	0.00	1.71	0.07	0.00	0.01	0.01
16	0.50	1.21	0.00	0.16	0.01	0.61	0.00	0.00	0.64	0.00	0.00	0.00
17	0.00	0.12	0.00	0.00	---	0.09	0.02	0.00	0.18	0.37	0.00	0.00
18	0.00	0.00	0.00	0.00	---	0.13	1.55	0.25	0.44	0.02	0.00	0.00
19	0.00	0.00	0.01	0.00	0.00	0.60	0.10	0.02	0.20	0.52	0.00	0.00
20	0.02	0.00	0.43	0.00	0.04	2.51	0.00	0.00	0.01	0.00	0.00	0.00
21	0.40	0.00	0.00	0.12	0.02	0.00	0.08	1.50	0.00	0.37	0.00	0.00
22	0.00	0.00	0.00	0.00	0.88	0.00	0.00	3.27	0.00	0.00	0.53	1.16
23	0.00	0.00	0.00	0.18	0.07	0.00	0.00	0.08	0.00	0.14	0.01	0.09
24	0.01	0.00	1.55	---	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00
25	0.11	0.00	0.50	0.00	0.00	0.00	0.33	0.59	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.03	0.43	0.03	0.14	0.86	0.00	0.01	0.00	0.00
27	0.00	0.02	0.00	0.00	0.45	0.00	0.00	0.02	0.00	0.00	0.00	0.17
28	0.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.22	0.00	0.01	0.01
29	0.17	0.00	0.00	0.12	---	0.00	0.02	0.01	0.00	0.64	0.00	0.00
30	0.03	0.00	0.00	0.84	---	0.98	0.00	0.00	0.04	0.26	0.00	0.00
31	0.00	---	0.00	0.01	---	0.00	---	0.61	---	0.04	0.35	---
TOTAL	6.75	4.06	---	---	---	7.99	8.30	11.41	6.91	6.31	7.00	1.62



LOCATION.--Lat 35°08'24", long 80°50'51", Mecklenburg County, Hydrologic Unit 03050103, Fire Station 16, Park South Drive, Charlotte, NC.

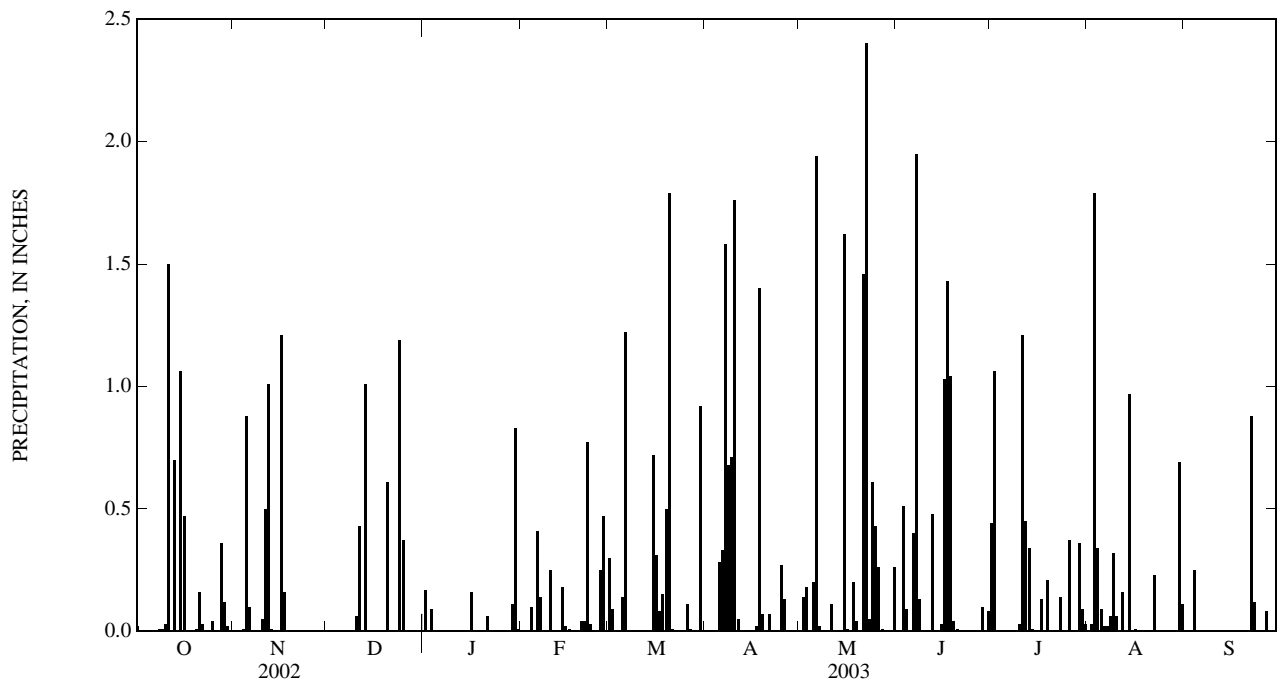
PERIOD OF RECORD.--March 1993 to current year. Records for period March 1993 to September 1998 published in USGS OFR 96-150, 98-67, and 99-273.

GAGE.--Tipping-bucket raingage and electronic datalogger. Radio telemetry at station.

REMARKS.--Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network. Collection of frozen precipitation during December 2002 and February 2003 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.02	0.00	0.00	0.17	0.00	0.30	0.00	0.00	0.00	0.44	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.14	0.00	1.06	0.03	0.00
3	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.18	0.51	0.00	1.79	0.00
4	0.00	0.01	---	0.00	0.10	0.00	0.00	0.00	0.09	0.00	0.34	0.25
5	0.00	0.88	---	0.00	0.00	0.14	0.28	0.20	0.00	0.00	0.09	0.00
6	0.00	0.10	---	0.00	0.41	1.22	0.33	1.94	0.40	0.00	0.02	0.00
7	0.00	0.00	0.00	0.00	0.14	0.00	1.58	0.02	1.95	0.00	0.02	0.00
8	0.01	0.00	0.00	0.00	0.00	0.00	0.68	0.00	0.13	0.00	0.06	0.00
9	0.01	0.00	0.00	0.00	0.00	0.00	0.71	0.00	0.00	0.00	0.32	0.00
10	0.03	0.05	0.06	0.00	0.25	0.00	1.76	0.00	0.00	0.03	0.06	0.00
11	1.50	0.50	0.43	0.00	0.00	0.00	0.05	0.11	0.00	1.21	0.00	0.00
12	0.00	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.48	0.45	0.16	0.00
13	0.70	0.01	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.34	0.00	0.00
14	0.00	0.00	0.00	0.00	0.18	0.00	0.00	0.00	0.00	0.01	0.97	0.00
15	1.06	0.00	0.00	0.00	0.02	0.72	0.00	1.62	0.03	0.00	0.00	0.00
16	0.47	1.21	0.00	0.16	0.01	0.31	0.00	0.01	1.03	0.00	0.01	0.00
17	0.00	0.16	0.00	0.00	---	0.08	0.02	0.00	1.43	0.13	0.00	0.00
18	0.00	0.00	0.00	0.00	---	0.15	1.40	0.20	1.04	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.50	0.07	0.04	0.04	0.21	0.00	0.00
20	0.01	0.00	0.61	0.00	0.04	1.79	0.00	0.00	0.01	0.00	0.00	0.00
21	0.16	0.00	0.00	0.06	0.04	0.01	0.07	1.46	0.00	0.00	0.00	0.00
22	0.03	0.00	0.00	0.00	0.77	0.00	0.00	2.40	0.00	0.00	0.23	0.88
23	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.05	0.00	0.14	0.00	0.12
24	0.00	0.00	1.19	---	0.00	0.00	0.00	0.61	0.00	0.00	0.00	0.00
25	0.04	0.00	0.37	---	0.00	0.00	0.27	0.43	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.25	0.11	0.13	0.26	0.00	0.37	0.00	0.00
27	0.00	0.00	0.00	0.00	0.47	0.01	0.00	0.01	0.00	0.00	0.00	0.08
28	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00
29	0.12	0.00	0.00	0.11	---	0.00	0.00	0.00	0.00	0.36	0.00	0.00
30	0.02	0.00	0.00	0.83	---	0.92	0.00	0.00	0.08	0.09	0.69	0.00
31	0.00	---	0.00	0.01	---	0.00	---	0.26	---	0.03	0.11	---
TOTAL	4.54	3.93	---	---	---	6.35	7.35	9.94	7.32	4.87	4.90	1.33



350947080524945 CRN13

LOCATION.--Lat 35°09'47", long 80°52'49", Mecklenburg County, Hydrologic Unit 03050103, U.S. Geological Survey Office, Tyvola Road, Charlotte, NC.

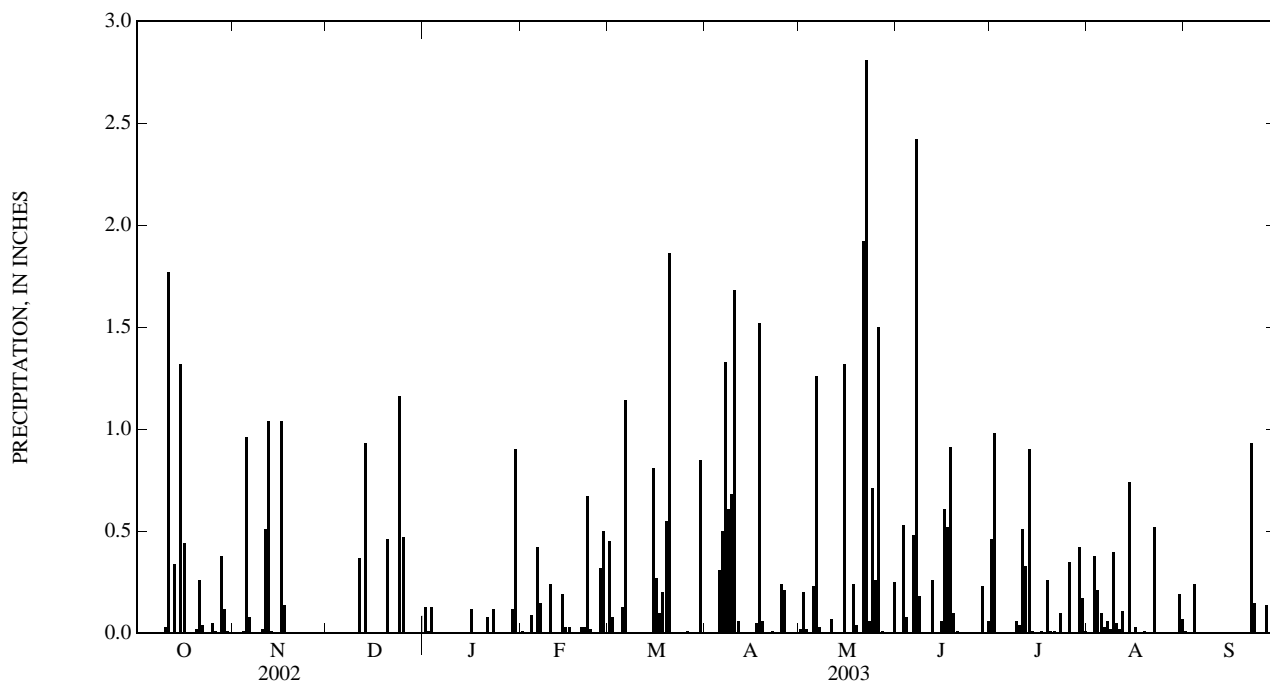
PERIOD OF RECORD.--May 1993 to current year. Records for period May 1993 to September 1998 published in USGS OFR 96-150, 98-67, and 99-273.

GAGE.--Tipping-bucket raingage and electronic datalogger. Radio telemetry at station.

REMARKS.--Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network. Collection of frozen precipitation during December 2002 and February 2003 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.13	0.01	0.45	0.00	0.02	0.00	0.46	0.00	0.01
2	0.00	0.00	0.00	0.01	0.00	0.08	0.00	0.20	0.00	0.98	0.00	0.00
3	0.00	0.00	0.00	0.13	0.00	0.00	0.00	0.02	0.53	0.00	0.38	0.00
4	0.00	0.01	---	0.00	0.09	0.00	0.00	0.00	0.08	0.00	0.21	0.24
5	0.00	0.96	---	0.00	0.00	0.13	0.31	0.23	0.00	0.00	0.10	0.00
6	0.00	0.08	---	0.00	0.42	1.14	0.50	1.26	0.48	0.00	0.03	0.00
7	0.00	0.00	0.00	0.00	0.15	0.00	1.33	0.03	2.42	0.00	0.06	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.61	0.00	0.18	0.00	0.02	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.68	0.00	0.00	0.06	0.40	0.00
10	0.03	0.02	0.00	0.00	0.24	0.00	1.68	0.00	0.00	0.04	0.05	0.00
11	1.77	0.51	0.37	0.00	0.00	0.00	0.06	0.07	0.00	0.51	0.02	0.00
12	0.00	1.04	0.00	0.00	0.00	0.00	0.00	0.00	0.26	0.33	0.11	0.00
13	0.34	0.01	0.93	0.00	0.00	0.00	0.00	0.00	0.00	0.90	0.00	0.00
14	0.00	0.00	0.00	0.00	0.19	0.00	0.00	0.00	0.00	0.01	0.74	0.00
15	1.32	0.00	0.00	0.00	0.03	0.81	0.00	1.32	0.06	0.00	0.00	0.00
16	0.44	1.04	0.00	0.12	0.03	0.27	0.00	0.00	0.61	0.00	0.03	0.00
17	0.00	0.14	0.00	0.00	---	0.10	0.05	0.00	0.52	0.01	0.00	0.00
18	0.00	0.00	0.00	0.00	---	0.20	1.52	0.24	0.91	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.55	0.06	0.04	0.10	0.26	0.01	0.00
20	0.02	0.00	0.46	0.00	0.03	1.86	0.00	0.00	0.01	0.01	0.00	0.00
21	0.26	0.00	0.00	0.08	0.03	0.00	0.00	1.92	0.00	0.01	0.00	0.00
22	0.04	0.00	0.00	0.00	0.67	0.00	0.01	2.81	0.00	0.00	0.52	0.93
23	0.00	0.00	0.00	0.12	0.02	0.00	0.00	0.06	0.00	0.10	0.00	0.15
24	0.00	0.00	1.16	0.00	0.00	0.00	0.00	0.71	0.00	0.00	0.00	0.00
25	0.05	0.00	0.47	0.00	0.00	0.00	0.24	0.26	0.00	0.00	0.00	0.00
26	0.01	0.00	0.00	0.00	0.32	0.01	0.21	1.50	0.00	0.35	0.00	0.00
27	0.00	0.00	0.00	0.00	0.50	0.00	0.00	0.01	0.00	0.00	0.00	0.14
28	0.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.00	0.00	0.00
29	0.12	0.00	0.00	0.12	---	0.00	0.00	0.00	0.00	0.42	0.00	0.00
30	0.01	0.00	0.00	0.90	---	0.85	0.00	0.00	0.06	0.17	0.19	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.25	---	0.01	0.07	---
TOTAL	4.79	3.81	---	1.61	---	6.45	7.26	10.95	6.45	4.63	2.94	1.47



LOCATION.--Lat 35°15'53", long 80°56'23", Mecklenburg County, Hydrologic Unit 03050101, Fire Station 21, Little Rock Road, Charlotte, NC.

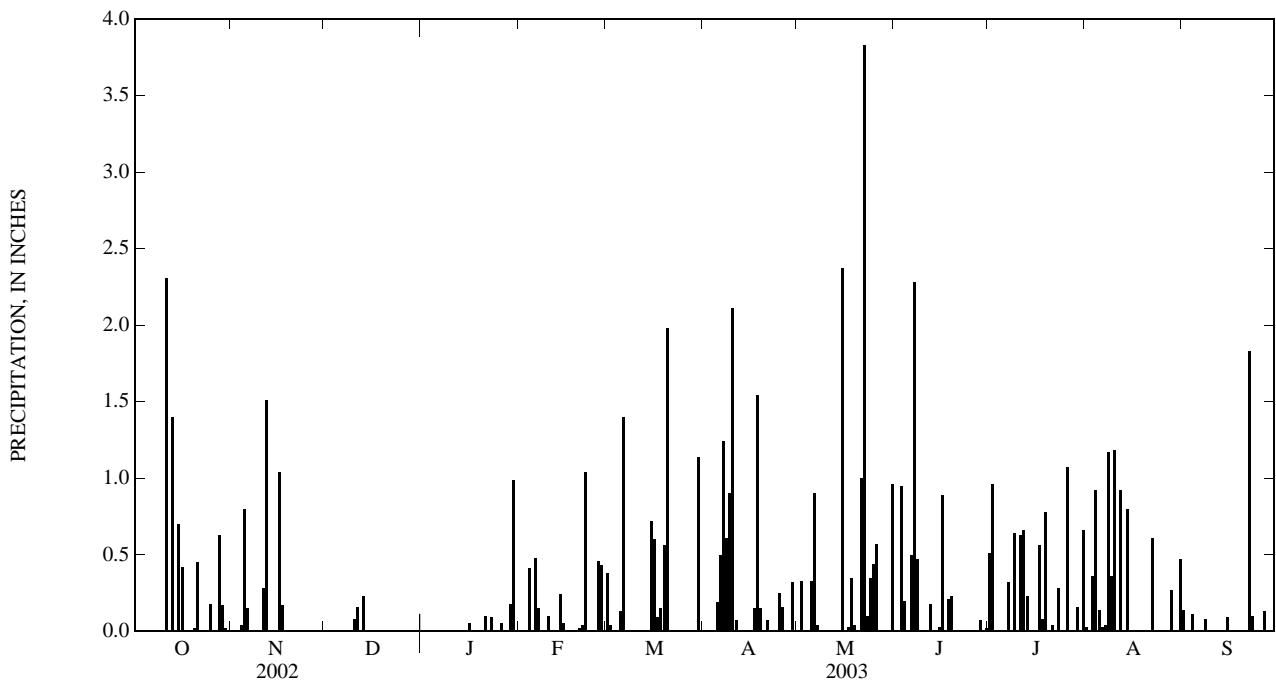
PERIOD OF RECORD.--March 1993 to current year. Records for period March 1993 to September 1998 published in USGS OFR 96-150, 98-67, and 99-273.

GAGE.--Tipping-bucket raingage and electronic datalogger. Radio telemetry at station.

REMARKS.--Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network. Collection of frozen precipitation during December 2002, January 2003 and February 2003 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	---	0.00	0.38	0.00	0.01	0.00	0.51	0.03	0.14
2	0.00	0.00	0.01	---	0.00	0.04	0.00	0.33	0.00	0.96	0.00	0.00
3	0.00	0.00	0.00	---	0.00	0.00	0.00	0.00	0.95	0.00	0.36	0.00
4	0.00	0.04	---	---	0.41	0.00	0.00	0.00	0.20	0.00	0.92	0.11
5	0.00	0.80	---	---	0.00	0.13	0.19	0.33	0.00	0.00	0.14	0.00
6	0.00	0.15	---	---	0.48	1.40	0.50	0.90	0.50	0.00	0.03	0.00
7	0.00	0.00	0.01	---	0.15	0.00	1.24	0.04	2.28	0.32	0.04	0.00
8	0.00	0.00	0.00	---	0.00	0.00	0.61	0.00	0.47	0.00	1.17	0.08
9	0.01	0.00	0.00	---	0.00	0.00	0.90	0.00	0.00	0.64	0.36	0.00
10	0.01	0.01	0.08	---	0.10	0.00	2.11	0.00	0.00	0.01	1.18	0.00
11	2.31	0.28	0.16	0.00	0.00	0.00	0.07	0.00	0.01	0.63	0.00	0.00
12	0.00	1.51	0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.66	0.92	0.00
13	1.40	0.01	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.00	0.00
14	0.00	0.00	0.00	0.01	0.24	0.00	0.00	0.00	0.00	0.00	0.80	0.00
15	0.70	0.00	0.00	0.00	0.05	0.72	0.00	2.37	0.03	0.00	0.01	0.09
16	0.42	1.04	0.00	0.05	0.01	0.60	0.00	0.00	0.89	0.00	0.00	0.00
17	0.00	0.17	0.00	0.00	---	0.09	0.15	0.03	0.01	0.56	0.01	0.00
18	0.00	0.00	0.00	0.00	---	0.15	1.54	0.35	0.21	0.08	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.56	0.15	0.04	0.23	0.78	0.00	0.00
20	0.02	0.00	---	0.00	0.02	1.98	0.00	0.00	0.01	0.00	0.00	0.00
21	0.45	0.00	---	0.10	0.04	0.00	0.07	1.00	0.00	0.04	0.00	0.00
22	0.00	0.00	---	0.00	1.04	0.00	0.00	3.83	0.00	0.00	0.61	1.83
23	0.00	0.00	---	0.09	0.01	0.00	0.00	0.10	0.00	0.28	0.01	0.10
24	0.00	0.00	---	---	0.00	0.00	0.00	0.35	0.00	0.00	0.00	0.00
25	0.18	0.00	---	0.00	0.00	0.00	0.25	0.44	0.00	0.00	0.00	0.00
26	0.01	0.00	---	0.05	0.46	0.01	0.16	0.57	0.00	1.07	0.00	0.00
27	0.00	0.00	---	0.00	0.43	0.00	0.00	0.01	0.00	0.00	0.00	0.13
28	0.63	0.00	---	0.00	0.01	0.00	0.00	0.00	0.07	0.00	0.27	0.00
29	0.17	0.00	---	0.18	---	0.00	0.32	0.01	0.00	0.16	0.00	0.00
30	0.02	0.00	---	0.99	---	1.14	0.00	0.00	0.02	0.01	0.00	0.00
31	0.00	---	---	0.01	---	0.00	---	0.96	---	0.66	0.47	---
TOTAL	6.33	4.01	---	---	---	7.20	8.26	11.67	6.06	7.60	7.33	2.48



351320080502645 CRN15

LOCATION.--Lat 35°13'17", long 80°50'23", Mecklenburg County, Hydrologic Unit 03050103, Charlotte Mecklenburg Government Center, East Fourth Street, Charlotte, NC.

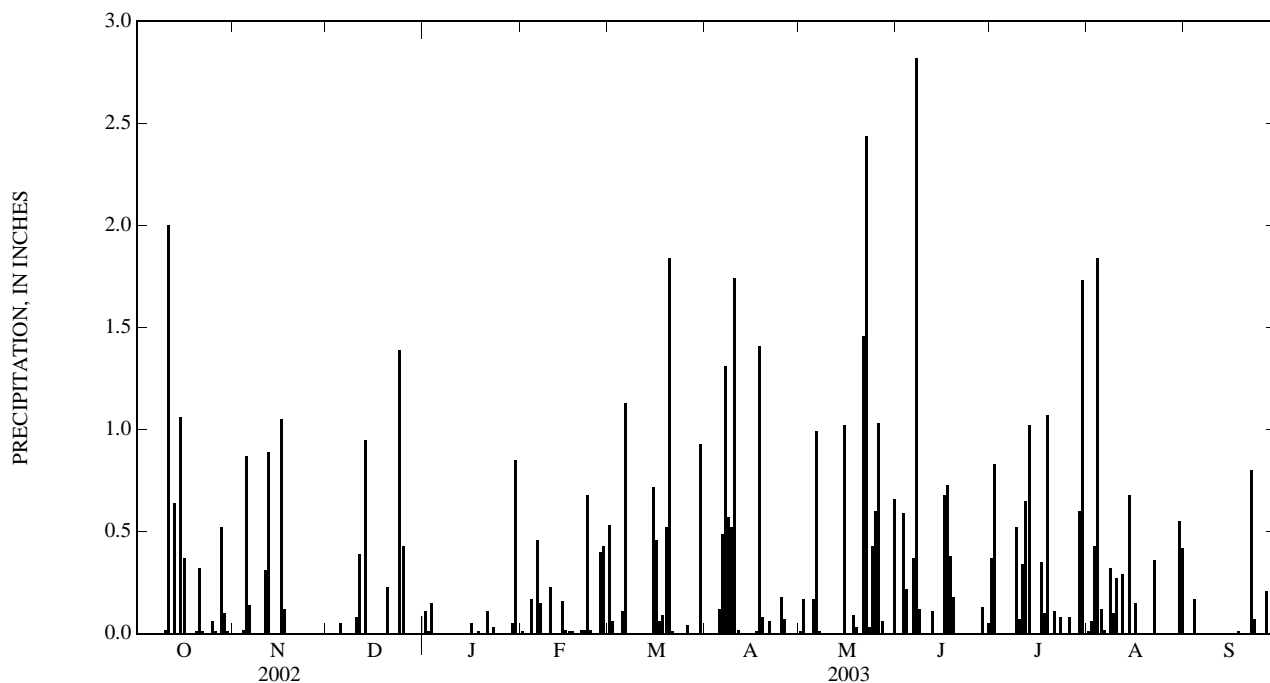
PERIOD OF RECORD.--March 1993 to current year. Records for period March 1993 to September 1998 published in USGS OFR 96-150, 98-67, and 99-273.

GAGE.--Tipping-bucket raingage and electronic datalogger. Radio telemetry at station.

REMARKS.--Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network. Collection of frozen precipitation during December 2002 and February 2003 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.11	0.01	0.53	0.00	0.01	0.00	0.37	0.01	0.00
2	0.00	0.00	0.00	0.01	0.00	0.06	0.00	0.17	0.00	0.83	0.06	0.00
3	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.59	0.00	0.43	0.00
4	0.00	0.02	0.00	0.00	0.17	0.00	0.00	0.00	0.22	0.00	1.84	0.17
5	0.00	0.87	0.05	0.00	0.00	0.11	0.12	0.17	0.00	0.00	0.12	0.00
6	0.00	0.14	---	0.00	0.46	1.13	0.49	0.99	0.37	0.00	0.02	0.00
7	0.00	0.00	0.00	0.00	0.15	0.00	1.31	0.01	2.82	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.57	0.00	0.12	0.00	0.32	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.52	0.10	0.00
10	0.02	0.00	0.08	0.00	0.23	0.00	1.74	0.00	0.00	0.07	0.27	0.00
11	2.00	0.31	0.39	0.00	0.00	0.00	0.02	0.00	0.00	0.34	0.00	0.00
12	0.00	0.89	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.65	0.29	0.00
13	0.64	0.00	0.95	0.00	0.00	0.00	0.00	0.00	0.00	1.02	0.00	0.00
14	0.00	0.00	0.00	0.00	0.16	0.00	0.00	0.00	0.00	0.00	0.68	0.00
15	1.06	0.00	0.00	0.00	0.02	0.72	0.00	1.02	0.00	0.00	0.00	0.00
16	0.37	1.05	0.00	0.05	0.01	0.46	0.00	0.00	0.68	0.00	0.15	0.00
17	0.00	0.12	0.00	0.00	0.01	0.06	0.01	0.00	0.73	0.35	0.00	0.00
18	0.00	0.00	0.00	0.01	---	0.09	1.41	0.09	0.38	0.10	0.00	0.01
19	0.00	0.00	0.00	0.00	0.00	0.52	0.08	0.03	0.18	1.07	0.00	0.00
20	0.01	0.00	0.23	0.00	0.02	1.84	0.00	0.00	0.00	0.00	0.00	0.00
21	0.32	0.00	0.00	0.11	0.02	0.01	0.06	1.46	0.00	0.11	0.00	0.00
22	0.01	0.00	0.00	0.00	0.68	0.00	0.00	2.44	0.00	0.00	0.36	0.80
23	0.00	0.00	0.00	0.03	0.02	0.00	0.00	0.03	0.00	0.08	0.00	0.07
24	0.00	0.00	1.39	0.00	0.00	0.00	0.00	0.43	0.00	0.00	0.00	0.00
25	0.06	0.00	0.43	0.00	0.00	0.00	0.18	0.60	0.00	0.00	0.00	0.00
26	0.01	0.00	0.00	0.00	0.40	0.04	0.07	1.03	0.00	0.08	0.00	0.00
27	0.00	0.00	0.00	0.00	0.43	0.00	0.00	0.06	0.00	0.00	0.00	0.21
28	0.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.00	0.00
29	0.10	0.00	0.00	0.05	---	0.00	0.00	0.00	0.00	0.60	0.00	0.00
30	0.01	0.00	0.00	0.85	---	0.93	0.00	0.00	0.05	1.73	0.55	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.66	---	0.00	0.42	---
TOTAL	5.13	3.40	---	1.37	---	6.50	6.58	9.20	6.38	7.92	5.62	1.26



LOCATION.--Lat 35°10'25", long 80°43'50", Mecklenburg County, Hydrologic Unit 03050103, Piney Grove Elementary School, Eaglewind Drive, Charlotte, NC.

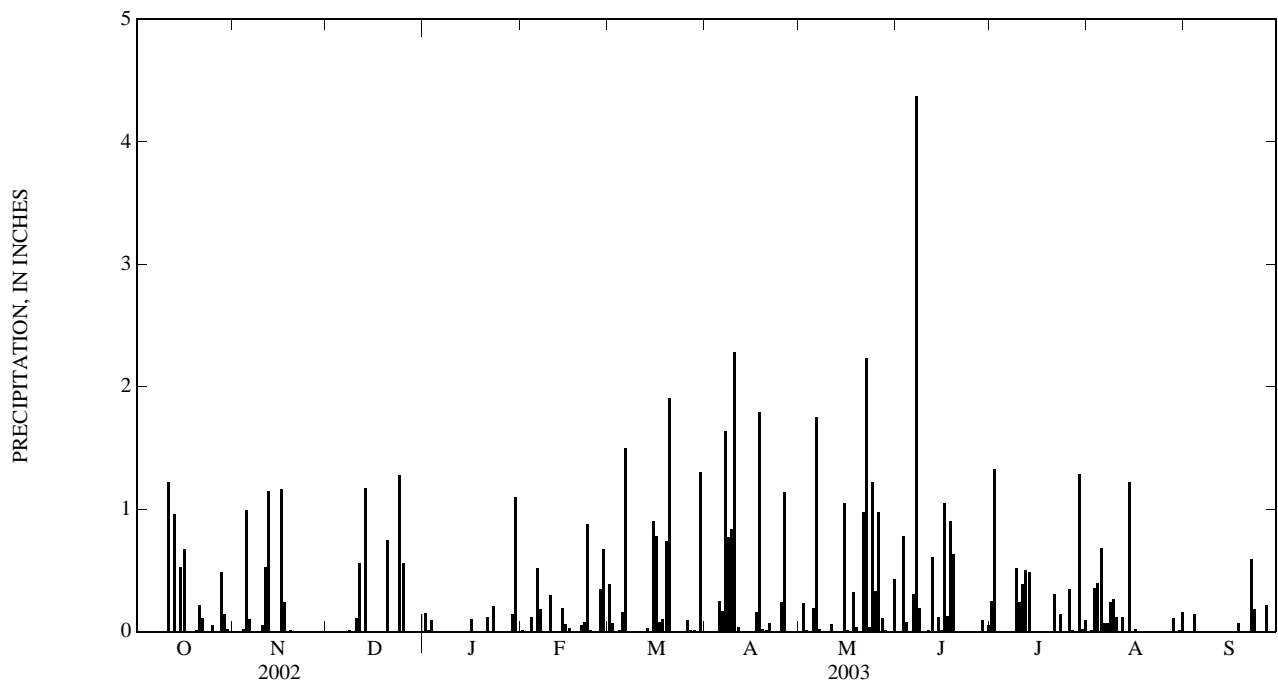
PERIOD OF RECORD.--March 1993 to current year. Records for period March 1993 to September 1998 published in USGS OFR 96-150, 98-67, and 99-273.

GAGE.--Tipping-bucket raingage and electronic datalogger. Radio telemetry at station.

REMARKS.--Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network. Collection of frozen precipitation during December 2002 and February 2003 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.15	0.01	0.39	0.00	0.00	0.00	0.25	0.00	0.00
2	0.00	0.00	0.00	0.01	0.00	0.07	0.00	0.23	0.00	1.33	0.01	0.00
3	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.01	0.78	0.00	0.36	0.00
4	0.00	0.02	---	0.00	0.12	0.01	0.00	0.00	0.08	0.00	0.40	0.14
5	0.00	0.99	---	0.00	0.00	0.16	0.25	0.19	0.00	0.00	0.68	0.00
6	0.00	0.10	---	0.00	0.52	1.50	0.17	1.75	0.31	0.00	0.07	0.00
7	0.00	0.00	0.00	0.00	0.18	0.00	1.64	0.02	4.37	0.00	0.07	0.00
8	0.00	0.00	0.01	0.00	0.00	0.00	0.77	0.00	0.19	0.00	0.24	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.84	0.00	0.00	0.52	0.27	0.00
10	0.00	0.05	0.11	0.00	0.30	0.00	2.28	0.00	0.00	0.24	0.12	0.00
11	1.22	0.53	0.56	0.00	0.00	0.00	0.04	0.06	0.01	0.39	0.00	0.00
12	0.00	1.15	0.00	0.00	0.00	0.00	0.00	0.00	0.61	0.50	0.12	0.00
13	0.96	0.00	1.17	0.00	0.00	0.03	0.00	0.00	0.49	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.19	0.00	0.00	0.00	0.12	0.00	1.22	0.00
15	0.53	0.00	0.00	0.00	0.06	0.90	0.00	1.05	0.01	0.00	0.00	0.00
16	0.67	1.16	0.00	0.10	0.03	0.78	0.00	0.01	1.05	0.00	0.02	0.00
17	0.00	0.24	0.00	0.00	---	0.08	0.16	0.00	0.13	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	---	0.10	1.79	0.32	0.90	0.00	0.00	0.07
19	0.00	0.01	0.00	0.00	0.00	0.74	0.02	0.04	0.63	0.00	0.00	0.00
20	0.01	0.00	0.75	0.00	0.05	1.91	0.01	0.00	0.00	0.00	0.00	0.00
21	0.22	0.00	0.00	0.12	0.08	0.00	0.07	0.98	0.00	0.31	0.00	0.00
22	0.11	0.00	0.00	0.00	0.88	0.00	0.00	2.23	0.00	0.00	0.00	0.59
23	0.00	0.00	0.00	0.21	0.01	0.00	0.00	0.04	0.00	0.14	0.00	0.18
24	0.00	0.00	1.28	0.00	0.00	0.00	0.00	1.22	0.00	0.00	0.00	0.00
25	0.05	0.00	0.56	0.00	0.00	0.00	0.24	0.33	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.35	0.09	1.14	0.98	0.00	0.35	0.00	0.00
27	0.00	0.00	0.00	0.00	0.67	0.01	0.00	0.11	0.00	0.01	0.00	0.22
28	0.49	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.09	0.00	0.11	0.00
29	0.14	0.00	0.00	0.14	---	0.00	0.00	0.00	0.00	1.29	0.00	0.00
30	0.02	0.00	0.00	1.10	---	1.30	0.00	0.00	0.05	0.02	0.01	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.43	---	0.09	0.16	---
TOTAL	4.42	4.25	---	1.92	---	8.08	9.42	10.01	9.33	5.93	3.86	1.20



351132080504145 CRN19

LOCATION.--Lat 35°11'33", long 80°50'41", Mecklenburg County, Hydrologic Unit 03050103, Freedom Park, Cumberland Drive, Charlotte, NC.

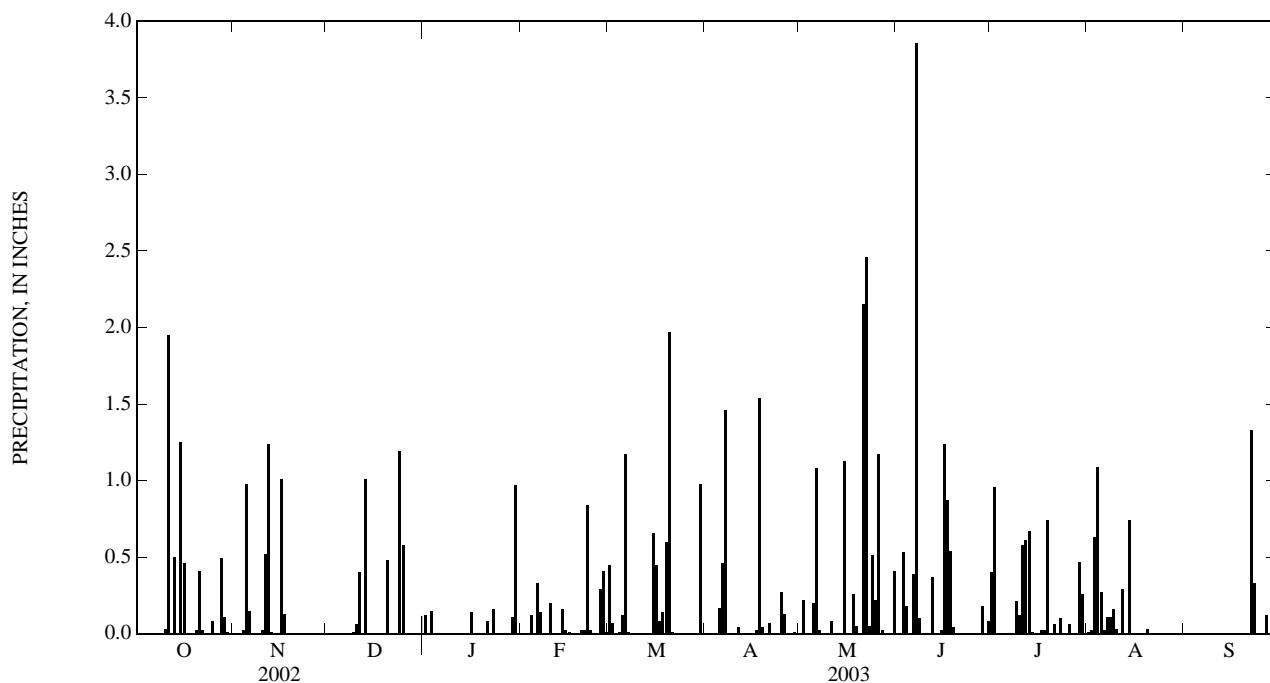
PERIOD OF RECORD.--September 1993 to current year. Records for period September 1993 to September 1998 published in USGS OFR 96-150, 98-67, and 99-273.

GAGE.--Tipping-bucket raingage and electronic datalogger. Radio telemetry at station.

REMARKS.--Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network. Collection of frozen precipitation during December 2002 and February 2003 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.12	0.00	0.45	0.00	0.00	0.00	0.40	0.01	---
2	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.22	0.00	0.96	0.02	---
3	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.53	0.00	0.63	---
4	0.00	0.02	---	0.00	0.12	0.01	0.00	0.00	0.18	0.00	1.09	---
5	0.00	0.98	---	0.00	0.00	0.12	0.17	0.20	0.00	0.00	0.27	---
6	0.00	0.15	---	0.00	0.33	1.17	0.46	1.08	0.39	0.00	0.02	---
7	0.00	0.00	0.00	0.00	0.14	0.01	1.46	0.02	3.86	0.00	0.11	---
8	0.00	0.00	0.00	0.00	0.00	0.00	---	0.00	0.10	0.00	0.11	---
9	0.00	0.00	0.01	0.00	0.00	0.00	---	0.00	0.00	0.21	0.16	0.00
10	0.03	0.02	0.06	0.00	0.20	0.00	---	0.00	0.00	0.12	0.03	0.00
11	1.95	0.52	0.40	0.00	0.00	0.00	0.04	0.08	0.00	0.58	0.00	0.00
12	0.00	1.24	0.00	0.00	0.00	0.00	0.00	0.00	0.37	0.61	0.29	0.00
13	0.50	0.01	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0.00	0.00
14	0.00	0.00	0.00	0.00	0.16	0.00	0.00	0.00	0.00	0.01	0.74	0.00
15	1.25	0.00	0.00	0.00	0.02	0.66	0.00	1.13	0.02	0.00	0.00	0.00
16	0.46	1.01	0.00	0.14	0.01	0.45	0.00	0.00	1.24	0.00	0.00	0.00
17	0.00	0.13	0.00	0.00	---	0.08	0.02	0.00	0.87	0.02	0.00	0.00
18	0.00	0.00	0.00	0.00	---	0.14	1.54	0.26	0.54	0.02	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.60	0.04	0.05	0.04	0.74	0.00	0.00
20	0.02	0.00	0.48	0.00	0.02	1.97	0.00	0.00	0.00	0.00	0.03	0.00
21	0.41	0.00	0.00	0.08	0.02	0.01	0.07	2.15	0.00	0.06	0.00	0.00
22	0.02	0.00	0.00	0.00	0.84	0.00	0.00	2.46	0.00	0.00	---	1.33
23	0.00	0.00	0.00	0.16	0.02	0.00	0.00	0.05	0.00	0.10	---	0.33
24	0.00	0.00	1.19	0.00	0.00	0.00	0.00	0.51	0.00	0.00	---	0.00
25	0.08	0.00	0.58	0.00	0.00	0.00	0.27	0.22	0.00	0.00	---	0.00
26	0.00	0.00	0.00	0.00	0.29	0.00	0.13	1.17	0.00	0.06	---	0.00
27	0.00	0.00	0.00	0.00	0.41	0.00	0.00	0.02	0.00	0.00	---	0.12
28	0.49	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.18	0.00	---	0.00
29	0.11	0.00	0.00	0.11	---	0.00	0.01	0.00	0.00	0.47	---	0.00
30	0.01	0.00	0.00	0.97	---	0.98	0.00	0.00	0.08	0.26	---	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.41	---	0.00	---	---
TOTAL	5.33	4.08	---	1.73	---	6.72	---	10.03	8.40	5.29	---	---



LOCATION.--Lat 35°10'33", long 80°47'51", Mecklenburg County, Hydrologic Unit 03050103, Fire Station 14, North Sharon Amity Road, Charlotte, NC.

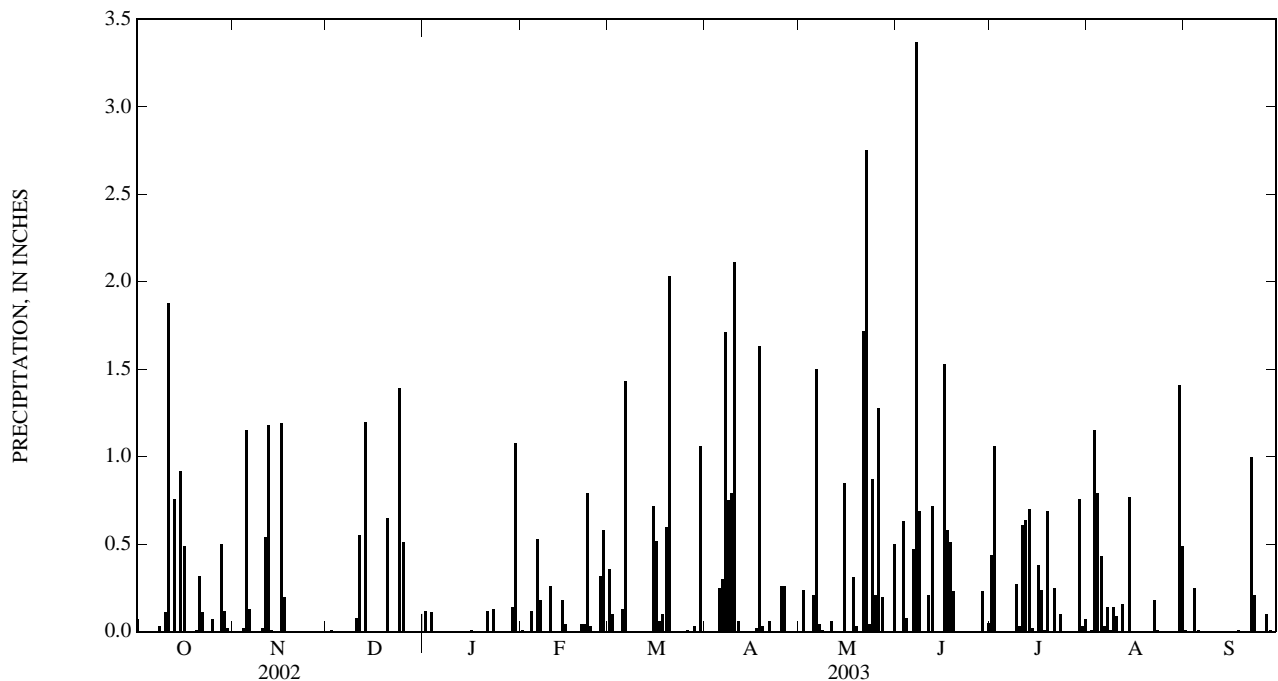
PERIOD OF RECORD.--September 1993 to current year. Records for period September 1993 to September 1998 published in USGS OFR 96-150, 98-67, and 99- 273.

GAGE.--Tipping-bucket raingage and electronic datalogger. Radio telemetry at station.

REMARKS.--Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network. Collection of frozen precipitation during December 2002 and February 2003 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.07	0.00	0.00	0.12	0.01	0.36	0.00	0.00	0.00	0.44	0.00	0.01
2	0.00	0.00	0.01	0.00	0.00	0.10	0.00	0.24	0.00	1.06	0.01	0.00
3	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.00	0.63	0.00	1.15	0.00
4	0.00	0.02	0.00	0.00	0.12	0.00	0.00	0.00	0.08	0.00	0.79	0.25
5	0.00	1.15	---	0.00	0.00	0.13	0.25	0.21	0.00	0.00	0.43	0.01
6	0.00	0.13	---	0.00	0.53	1.43	0.30	1.50	0.47	0.00	0.03	0.00
7	0.00	0.00	0.00	0.00	0.18	0.00	1.71	0.04	3.37	0.00	0.14	0.00
8	0.03	0.00	0.00	0.00	0.00	0.00	0.75	0.01	0.69	0.00	0.01	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.79	0.00	0.00	0.27	0.14	0.00
10	0.11	0.02	0.08	0.00	0.26	0.00	2.11	0.00	0.00	0.03	0.09	0.00
11	1.88	0.54	0.55	0.00	0.00	0.00	0.06	0.06	0.21	0.61	0.00	0.00
12	0.00	1.18	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.64	0.16	0.00
13	0.76	0.01	1.20	0.00	0.00	0.00	0.00	0.00	0.00	0.70	0.00	0.00
14	0.00	0.00	0.00	0.00	0.18	0.00	0.00	0.00	0.00	0.02	0.77	0.00
15	0.92	0.00	0.00	0.00	0.04	0.72	0.00	0.85	0.00	0.00	0.00	0.00
16	0.49	1.19	0.00	0.01	0.00	0.52	0.00	0.00	1.53	0.38	0.00	0.00
17	0.00	0.20	0.00	0.00	---	0.06	0.02	0.00	0.58	0.24	0.00	0.00
18	0.00	0.00	0.00	0.00	---	0.10	1.63	0.31	0.51	0.01	0.00	0.01
19	0.00	0.00	0.00	0.00	0.00	0.60	0.03	0.03	0.23	0.69	0.00	0.00
20	0.01	0.00	0.65	0.00	0.04	2.03	0.00	0.00	0.00	0.00	0.00	0.00
21	0.32	0.00	0.00	0.12	0.04	0.00	0.06	1.72	0.00	0.25	0.00	0.00
22	0.11	0.00	0.00	0.00	0.79	0.00	0.00	2.75	0.00	0.00	0.18	1.00
23	0.00	0.00	0.00	0.13	0.03	0.00	0.00	0.04	0.00	0.10	0.01	0.21
24	0.00	0.00	1.39	---	0.00	0.00	0.00	0.87	0.00	0.00	0.00	0.00
25	0.07	0.00	0.51	0.00	0.00	0.00	0.26	0.21	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.32	0.01	0.26	1.28	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.58	0.00	0.00	0.20	0.00	0.00	0.00	0.10
28	0.50	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.23	0.00	0.00	0.01
29	0.12	0.00	0.00	0.14	---	0.00	0.00	0.00	0.00	0.76	0.00	0.00
30	0.02	0.00	0.00	1.08	---	1.06	0.00	0.00	0.05	0.03	1.41	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.50	---	0.07	0.49	---
TOTAL	5.41	4.44	---	---	---	7.15	8.23	10.82	9.30	6.30	5.81	1.60



350842080572801 CRN21

LOCATION.--Lat 35°09'13", long 80°57'21", Mecklenburg County, Hydrologic Unit 03050103, Kennedy Junior High School, Gallant Lane, Charlotte, NC.

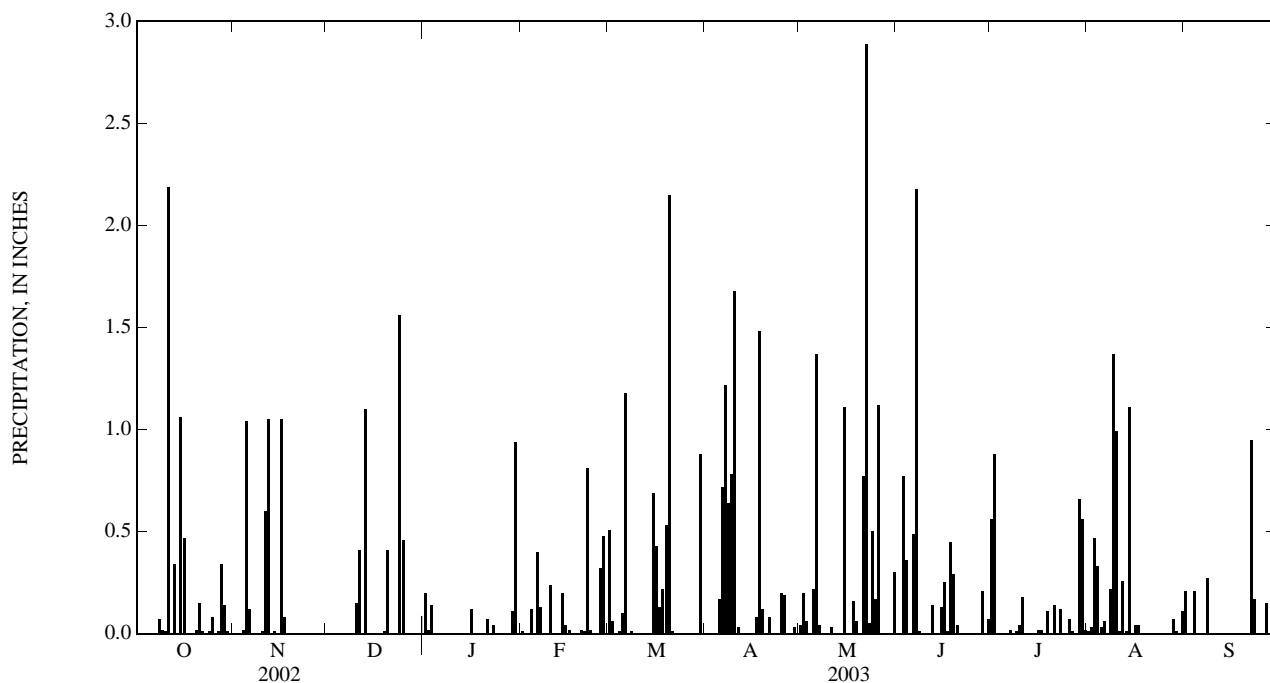
PERIOD OF RECORD.--September 1990 to current year. Records for period September 1990 to September 1998 published in USGS OFR 96-150, 98-67, and 99-273.

GAGE.--Tipping-bucket raingage and electronic datalogger. Radio telemetry at station.

REMARKS.--Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network. Collection of frozen precipitation during December 2002 and February 2003 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.20	0.01	0.51	0.00	0.04	0.00	0.56	0.01	0.21
2	0.00	0.00	0.00	0.02	0.00	0.06	0.00	0.20	0.00	0.88	0.03	0.00
3	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.06	0.77	0.00	0.47	0.00
4	0.00	0.02	---	0.00	0.12	0.01	0.00	0.00	0.36	0.00	0.33	0.21
5	0.00	1.04	---	0.00	0.00	0.10	0.17	0.22	0.00	0.00	0.03	0.00
6	0.00	0.12	---	0.00	0.40	1.18	0.72	1.37	0.49	0.00	0.06	0.00
7	0.00	0.00	---	0.00	0.13	0.00	1.22	0.04	2.18	0.02	0.00	0.00
8	0.07	0.00	---	0.00	0.00	0.01	0.64	0.00	0.01	0.00	0.22	0.27
9	0.02	0.00	0.00	0.00	0.00	0.00	0.78	0.00	0.00	0.01	1.37	0.00
10	0.01	0.01	0.15	0.00	0.24	0.00	1.68	0.00	0.00	0.04	0.99	0.00
11	2.19	0.60	0.41	0.00	0.00	0.00	0.03	0.03	0.00	0.18	0.01	0.00
12	0.00	1.05	0.00	0.00	0.00	0.00	0.00	0.00	0.14	---	0.26	0.00
13	0.34	0.00	1.10	0.00	0.00	0.00	0.00	0.00	0.00	---	0.01	0.00
14	0.00	0.01	0.00	0.00	0.20	0.00	0.00	0.00	0.00	---	1.11	0.00
15	1.06	0.00	0.00	0.00	0.04	0.69	0.00	1.11	0.13	0.00	0.00	0.00
16	0.47	1.05	0.00	0.12	0.02	0.43	0.00	0.00	0.25	0.02	0.04	0.00
17	0.00	0.08	0.00	0.00	---	0.13	0.08	0.00	0.01	0.02	0.04	0.00
18	0.00	0.00	0.00	0.00	---	0.22	1.48	0.16	0.45	0.00	0.00	0.00
19	0.00	0.00	0.01	0.00	0.00	0.53	0.12	0.06	0.29	0.11	0.00	0.00
20	0.02	0.00	0.41	0.00	0.02	2.15	0.00	0.00	0.04	0.00	0.00	0.00
21	0.15	0.00	0.00	0.07	0.01	0.01	0.08	0.77	0.00	0.14	0.00	0.00
22	0.01	0.00	0.00	0.00	0.81	0.00	0.00	2.89	0.00	0.00	0.00	0.95
23	0.00	0.00	0.00	0.04	0.02	0.00	0.00	0.05	0.00	0.12	0.00	0.17
24	0.01	0.00	1.56	0.00	0.00	0.00	0.00	0.50	0.00	0.00	0.00	0.00
25	0.08	0.00	0.46	0.00	0.00	0.00	0.20	0.17	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.32	0.00	0.19	1.12	0.00	0.07	0.00	0.00
27	0.01	0.00	0.00	0.00	0.48	0.00	0.00	0.00	0.00	0.01	0.00	0.15
28	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.00	0.07	0.00
29	0.14	0.00	0.00	0.11	---	0.00	0.03	0.00	0.00	0.66	0.01	0.00
30	0.01	0.00	0.00	0.94	---	0.88	0.00	0.00	0.07	0.56	0.00	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.30	---	0.02	0.11	---
TOTAL	4.93	3.98	---	1.64	---	6.91	7.42	9.09	5.40	---	5.17	1.96



LOCATION.--Lat 35°06'54", long 80°58'18", Mecklenburg County, Hydrologic Unit 03050103, Lake Wylie Elementary School, Erwin Road, Charlotte, NC.

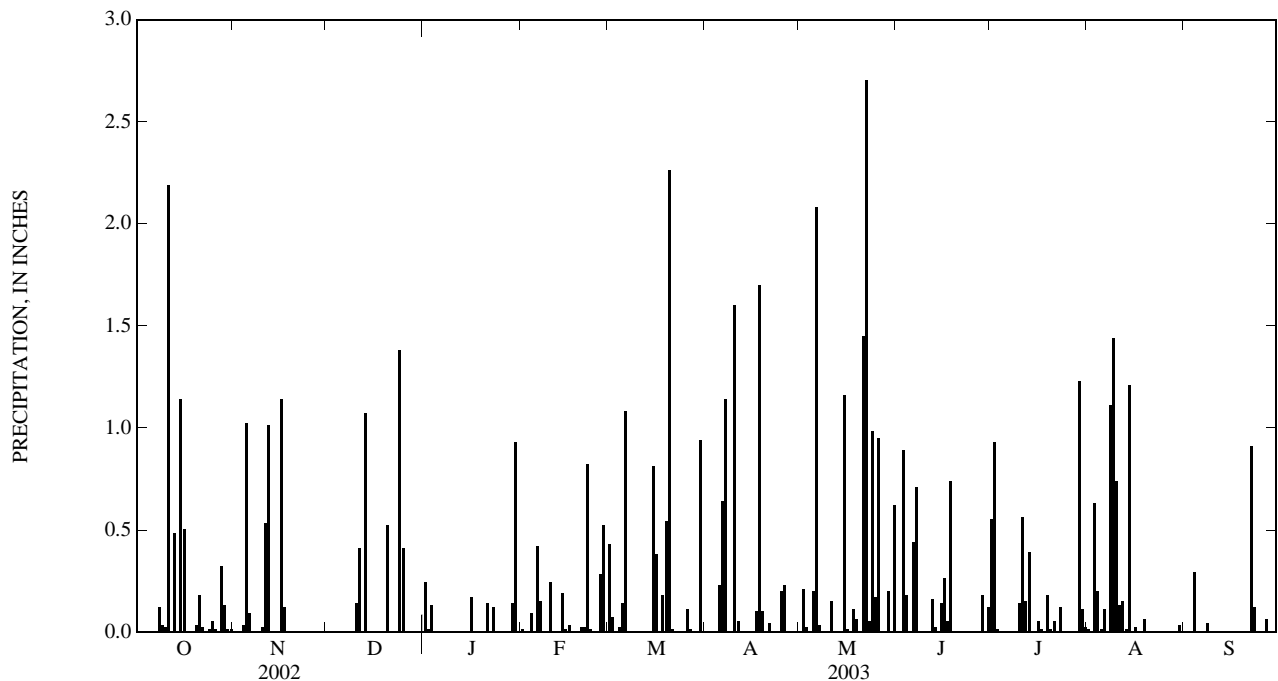
PERIOD OF RECORD.--September 1990 to current year. Records for period September 1990 to September 1998 published in USGS OFR 96-150, 98-67, and 99-273.

GAGE.--Tipping-bucket raingage and electronic datalogger. Radio telemetry at station. Prior to Aug. 23, 2000 gage located at private residence, Choate Circle, Charlotte, NC.

REMARKS.--Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network. Collection of frozen precipitation during December 2002 and February 2003 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.24	0.01	0.43	0.00	0.00	0.00	0.55	0.01	0.00
2	0.00	0.00	0.00	0.01	0.00	0.07	0.00	0.21	0.00	0.93	0.00	0.00
3	0.00	0.00	0.00	0.13	0.00	0.00	0.00	0.02	0.89	0.01	0.63	0.00
4	0.00	0.03	---	0.00	0.09	0.02	0.00	0.00	0.18	0.00	0.20	0.29
5	0.00	1.02	---	0.00	0.00	0.14	0.23	0.20	0.00	0.00	0.01	0.00
6	0.00	0.09	---	0.00	0.42	1.08	0.64	2.08	0.44	0.00	0.11	0.00
7	0.00	0.00	0.00	0.00	0.15	0.00	1.14	0.03	0.71	0.00	0.00	0.00
8	0.12	0.00	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	1.11	0.04
9	0.03	0.00	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	1.44	0.00
10	0.02	0.02	0.14	0.00	0.24	0.00	1.60	0.00	0.00	0.14	0.74	0.00
11	2.19	0.53	0.41	0.00	0.00	0.00	0.05	0.15	0.00	0.56	0.13	0.00
12	0.00	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.15	0.15	0.00
13	0.48	0.00	1.07	0.00	0.00	0.00	0.00	0.00	0.02	0.39	0.01	0.00
14	0.00	0.00	0.00	0.00	0.19	0.00	0.00	0.00	0.00	0.00	1.21	0.00
15	1.14	0.00	0.00	0.00	0.01	0.81	0.00	1.16	0.14	0.00	0.00	0.00
16	0.50	1.14	0.00	0.17	0.03	0.38	0.00	0.01	0.26	0.05	0.02	0.00
17	0.00	0.12	0.00	0.00	---	0.00	0.10	0.00	0.05	0.01	0.00	0.00
18	0.00	0.00	0.00	0.00	---	0.18	1.70	0.11	0.74	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.54	0.10	0.06	0.00	0.18	0.06	0.00
20	0.03	0.00	0.52	0.00	0.02	2.26	0.00	0.00	0.00	0.01	0.00	0.00
21	0.18	0.00	0.00	0.14	0.02	0.01	0.04	1.45	0.00	0.05	0.00	0.00
22	0.02	0.00	0.00	0.00	0.82	0.00	0.00	2.70	0.00	0.00	0.00	0.91
23	0.00	0.00	0.00	0.12	0.01	0.00	0.00	0.05	0.00	0.12	0.00	0.12
24	0.01	0.00	1.38	---	0.00	0.00	0.00	0.98	0.00	0.00	0.00	0.00
25	0.05	0.00	0.41	0.00	0.00	0.00	0.20	0.17	0.00	0.00	0.00	0.00
26	0.01	0.00	0.00	0.00	0.28	0.11	0.23	0.95	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.52	0.01	0.00	0.00	0.00	0.00	0.00	0.06
28	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.00	0.00	0.00
29	0.13	0.00	0.00	0.14	---	0.00	0.00	0.20	0.00	1.23	0.00	0.00
30	0.01	0.00	0.00	0.93	---	0.94	0.00	0.00	0.12	0.11	0.03	0.00
31	0.01	---	0.00	0.00	---	0.00	---	0.62	---	0.02	0.00	---
TOTAL	5.25	3.96	---	---	---	6.98	---	11.15	3.89	4.51	5.86	1.42



351604080470845 CRN27

LOCATION.--Lat 35°16'04", long 80°47'08", Mecklenburg County, Hydrologic Unit 03050103, Hidden Valley Elementary School, Snow White Lane, Charlotte, NC.

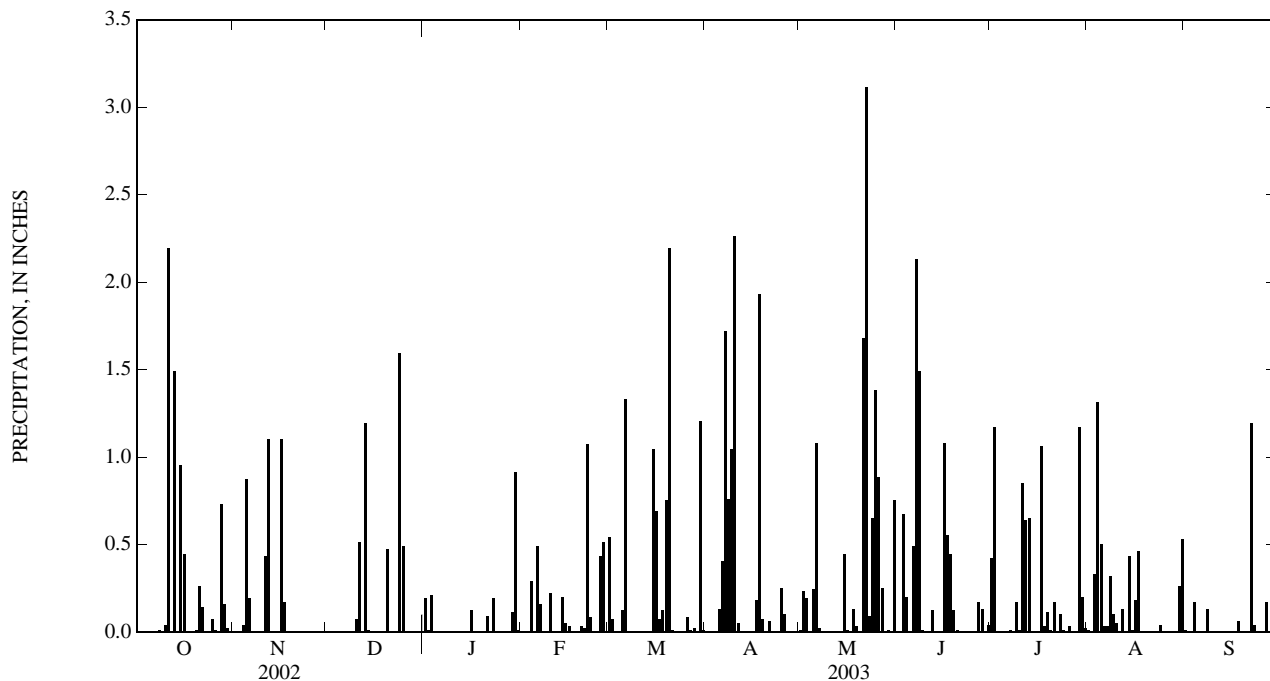
PERIOD OF RECORD.--October 1994 to current year. Records for period October 1994 to September 1998 published in USGS OFR 96-150, 98-67, and 99-273.

GAGE.--Tipping-bucket raingage and electronic datalogger. Radio telemetry at station.

REMARKS.--Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network. Collection of frozen precipitation during December 2002 and February 2003 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.19	0.00	0.54	0.00	0.01	0.00	0.42	0.01	0.01
2	0.00	0.00	0.00	0.01	0.00	0.07	0.00	0.23	0.00	1.17	0.00	0.00
3	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.19	0.67	0.00	0.33	0.00
4	0.00	0.04	0.00	0.00	0.29	0.00	0.00	0.00	0.20	0.00	1.31	0.17
5	0.00	0.87	---	0.00	0.00	0.12	0.13	0.24	0.00	0.00	0.50	0.00
6	0.00	0.19	---	0.00	0.49	1.33	0.40	1.08	0.49	0.00	0.03	0.00
7	0.00	0.00	---	0.00	0.16	0.00	1.72	0.02	2.13	0.01	0.03	0.00
8	0.01	0.00	0.00	0.00	0.00	0.00	0.76	0.00	1.49	0.00	0.32	0.13
9	0.00	0.00	0.00	0.00	0.00	0.00	1.04	0.00	0.01	0.17	0.10	0.00
10	0.04	0.00	0.07	0.00	0.22	0.00	2.26	0.00	0.00	0.01	0.05	0.00
11	2.19	0.43	0.51	0.00	0.00	0.00	0.05	0.00	0.00	0.85	0.00	0.00
12	0.00	1.10	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.64	0.13	0.00
13	1.49	0.00	1.19	0.00	0.00	0.00	0.00	0.00	0.00	0.65	0.00	0.00
14	0.00	0.00	0.01	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.43	0.00
15	0.95	0.00	0.00	0.00	0.05	1.04	0.00	0.44	0.00	0.00	0.01	0.00
16	0.44	1.10	0.00	0.12	0.03	0.69	0.00	0.01	1.08	0.00	0.18	0.00
17	0.00	0.17	0.00	0.00	---	0.07	0.18	0.00	0.55	1.06	0.46	0.00
18	0.00	0.00	0.00	0.00	---	0.12	1.93	0.13	0.44	0.03	0.00	0.06
19	0.00	0.00	0.00	0.00	0.00	0.75	0.07	0.03	0.12	0.11	0.00	0.00
20	0.01	0.00	0.47	0.00	0.03	2.19	0.00	0.00	0.01	0.01	0.00	0.00
21	0.26	0.00	0.00	0.09	0.02	0.01	0.06	1.68	0.00	0.17	0.00	0.00
22	0.14	0.00	0.00	0.00	1.07	0.00	0.00	3.11	0.00	0.00	0.00	1.19
23	0.00	0.00	0.00	0.19	0.08	0.00	0.00	0.09	0.00	0.10	0.00	0.04
24	0.00	0.00	1.59	0.00	0.00	0.00	0.00	0.65	0.00	0.01	0.04	0.00
25	0.07	0.00	0.49	0.00	0.00	0.00	0.25	1.38	0.00	0.00	0.00	0.00
26	0.01	0.00	0.00	0.00	0.43	0.08	0.10	0.88	0.00	0.03	0.00	0.00
27	0.00	0.00	0.00	0.00	0.51	0.01	0.00	0.25	0.17	0.00	0.00	0.17
28	0.73	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.13	0.00	0.00	0.00
29	0.16	0.00	0.00	0.11	---	0.00	0.00	0.01	0.00	1.17	0.00	0.00
30	0.02	0.00	0.00	0.91	---	1.20	0.00	0.00	0.04	0.20	0.26	0.00
31	0.00	---	0.00	0.01	---	0.01	---	0.75	---	0.02	0.53	---
TOTAL	6.52	3.90	---	1.84	---	8.25	8.95	11.18	7.65	6.83	4.72	1.77



LOCATION.--Lat 35°01'11", long 80°50'17", Mecklenburg County, Hydrologic Unit 03050103, Elon Homes for Children, Ardrey-Kell Road, Charlotte, NC.

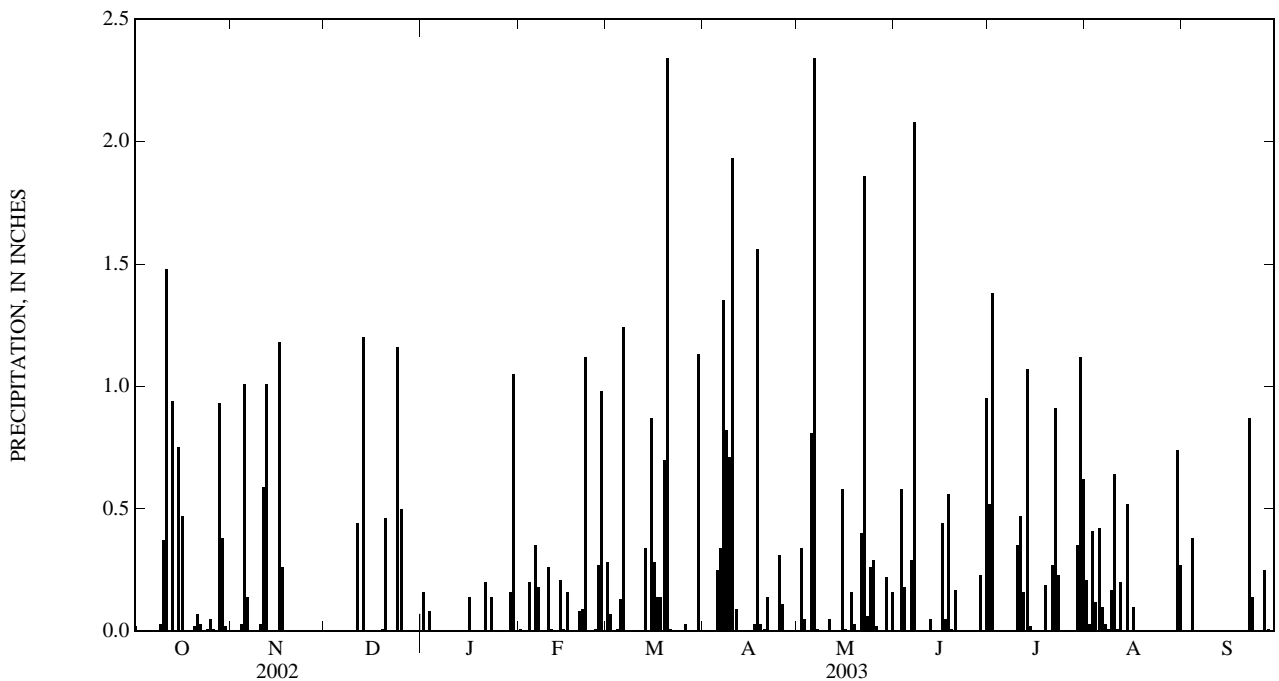
PERIOD OF RECORD.--February 1996 to current year. Records for period February 1996 to September 1998 published in USGS OFR 98-67 and 99-273.

GAGE.--Tipping-bucket raingage and electronic datalogger. Radio telemetry at station.

REMARKS.--Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network. Collection of frozen precipitation during December 2002 and February 2003 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.02	0.00	0.00	0.16	0.01	0.28	0.00	0.00	0.00	0.52	0.21	0.00
2	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.34	0.00	1.38	0.03	0.00
3	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.05	0.58	0.00	0.41	0.00
4	0.00	0.03	---	0.00	0.20	0.01	0.00	0.00	0.18	0.00	0.12	0.38
5	0.00	1.01	---	0.00	0.00	0.13	0.25	0.81	0.00	0.00	0.42	0.00
6	0.00	0.14	---	0.00	0.35	1.24	0.34	2.34	0.29	0.00	0.10	0.00
7	0.00	0.00	0.00	0.00	0.18	0.00	1.35	0.01	2.08	0.00	0.03	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.82	0.00	0.00	0.00	0.01	0.00
9	0.03	0.00	0.00	0.00	0.00	0.00	0.71	0.00	0.00	0.00	0.17	0.00
10	0.37	0.03	0.00	0.00	0.26	0.00	1.93	0.00	0.00	0.35	0.64	0.00
11	1.48	0.59	0.44	0.00	0.01	0.00	0.09	0.05	0.00	0.47	0.01	0.00
12	0.00	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.16	0.20	0.00
13	0.94	0.00	1.20	0.00	0.00	0.34	0.00	0.00	0.00	1.07	0.00	0.00
14	0.00	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.00	0.02	0.52	0.00
15	0.75	0.00	0.00	0.00	0.01	0.87	0.00	0.58	0.00	0.00	0.00	0.00
16	0.47	1.18	0.00	0.14	0.16	0.28	0.00	0.01	0.44	0.00	0.10	0.00
17	0.00	0.26	0.00	0.00	---	0.14	0.03	0.00	0.05	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	---	0.14	1.56	0.16	0.56	0.00	0.00	0.00
19	0.00	0.00	0.01	0.00	0.00	0.70	0.03	0.03	0.01	0.19	0.00	0.00
20	0.02	0.00	0.46	0.00	0.08	2.34	0.01	0.00	0.17	0.00	0.00	0.00
21	0.07	0.00	0.00	0.20	0.09	0.01	0.14	0.40	0.00	0.27	0.00	0.00
22	0.03	0.00	0.00	0.00	1.12	0.00	0.00	1.86	0.00	0.91	0.00	0.87
23	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.06	0.00	0.23	0.00	0.14
24	0.01	0.00	1.16	---	0.00	0.00	0.00	0.26	0.00	0.00	0.00	0.00
25	0.05	0.00	0.50	0.00	0.01	0.00	0.31	0.29	0.00	0.00	0.00	0.00
26	0.01	0.00	0.00	0.00	0.27	0.03	0.11	0.02	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.98	0.00	0.00	0.00	0.00	0.00	0.00	0.25
28	0.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.00	0.00	0.01
29	0.38	0.00	0.00	0.16	---	0.00	0.00	0.22	0.00	0.35	0.00	0.00
30	0.02	0.00	0.00	1.05	---	1.13	0.00	0.00	0.95	1.12	0.74	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.16	---	0.62	0.27	---
TOTAL	5.58	4.25	---	---	---	7.71	7.68	7.65	5.59	7.66	3.98	1.65



352555080574445 CRN34

LOCATION.--Lat 35°25'52", long 80°57'45", Lincoln County, Hydrologic Unit 03050101, Cowans Ford Dam warehouse, Duke Lane, Huntersville, NC.

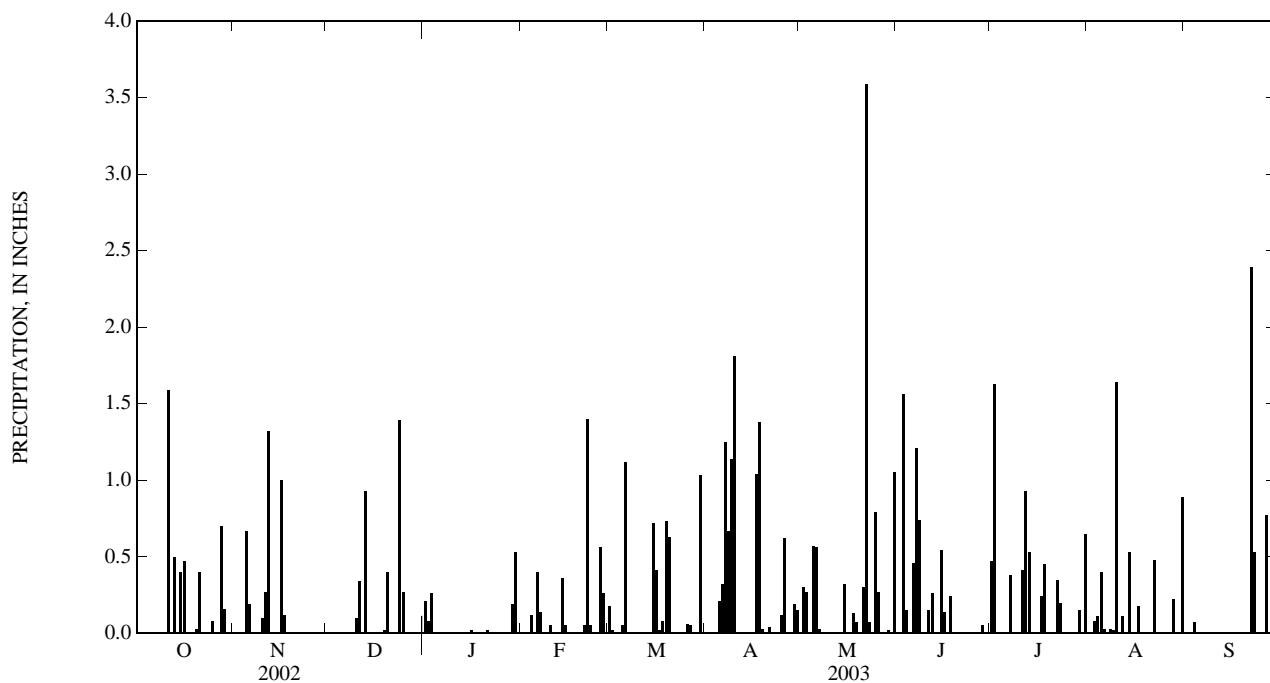
PERIOD OF RECORD.--February 1996 to current year. Records for period February 1996 to September 1998 published in USGS OFR 98-67 and 99-273.

GAGE.--Tipping-bucket raingage and electronic datalogger. Radio telemetry at station.

REMARKS.--Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network. Collection of frozen precipitation during December 2002 and February 2003 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.21	0.00	0.18	0.00	0.00	0.00	0.47	0.01	0.01
2	0.00	0.00	0.01	0.08	0.00	0.02	0.00	0.30	0.00	1.63	0.00	0.00
3	0.00	0.00	0.01	0.26	0.00	0.00	0.00	0.27	1.56	0.00	0.08	0.00
4	0.00	0.00	---	0.00	0.12	0.01	0.00	0.00	0.15	0.00	0.11	0.07
5	0.00	0.67	---	0.00	0.00	0.05	0.21	0.57	0.00	0.00	0.40	0.00
6	0.00	0.19	---	0.00	0.40	1.12	0.32	0.56	0.46	0.01	0.03	0.00
7	0.00	0.00	---	0.00	0.14	0.00	1.25	0.03	1.21	0.38	0.01	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0.00	0.74	0.00	0.03	0.01
9	0.00	0.00	0.00	0.00	0.00	0.00	1.14	0.00	0.01	0.01	0.02	0.00
10	0.00	0.10	0.10	0.00	0.05	0.00	1.81	0.00	0.00	0.00	1.64	0.00
11	1.59	0.27	0.34	0.00	0.00	0.00	0.01	0.00	0.15	0.41	0.00	0.00
12	0.00	1.32	0.00	0.00	0.00	0.00	0.00	0.00	0.26	0.93	0.11	0.00
13	0.50	0.00	0.93	0.00	0.00	0.00	0.00	0.00	0.00	0.53	0.01	0.00
14	0.00	0.00	0.00	0.00	0.36	0.00	0.00	0.00	0.00	0.01	0.53	0.00
15	0.40	0.01	0.00	0.00	0.05	0.72	0.00	0.32	0.54	0.00	0.01	0.00
16	0.47	1.00	0.00	0.02	---	0.41	0.00	0.00	0.14	0.01	0.01	0.00
17	0.00	0.12	0.00	0.00	---	0.02	1.04	0.00	0.00	0.24	0.18	0.00
18	0.00	0.00	0.00	0.00	---	0.08	1.38	0.13	0.24	0.45	0.00	0.00
19	0.00	0.00	0.02	0.00	0.00	0.73	0.03	0.07	0.01	0.01	0.00	0.00
20	0.03	0.00	0.40	0.00	0.00	0.63	0.00	0.00	0.00	0.00	0.00	0.00
21	0.40	0.00	0.00	0.02	0.05	0.01	0.04	0.30	0.00	0.00	0.00	0.00
22	0.01	0.00	0.00	0.00	1.40	0.00	0.00	3.59	0.00	0.35	0.48	2.39
23	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.07	0.00	0.20	0.00	0.53
24	0.00	0.00	1.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.08	0.00	0.27	0.00	0.00	0.00	0.12	0.79	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.56	0.06	0.62	0.27	0.00	0.01	0.00	0.00
27	0.01	0.00	0.00	0.00	0.26	0.05	0.00	0.00	0.00	0.00	0.00	0.77
28	0.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.22	0.00
29	0.16	0.00	0.00	0.19	---	0.00	0.19	0.02	0.00	0.15	0.01	0.00
30	0.01	0.00	0.00	0.53	---	1.03	0.15	0.00	0.00	0.00	0.00	0.00
31	0.00	---	0.00	0.00	---	0.00	---	1.05	---	0.65	0.89	---
TOTAL	4.36	3.68	---	1.31	---	5.12	8.98	8.34	5.52	6.45	4.78	3.78



LOCATION.--Lat 35°12'47", long 80°59'26", Mecklenburg County, Hydrologic Unit 03050101, Berryhill Elementary School, Walkers Ferry Road, Charlotte, NC.

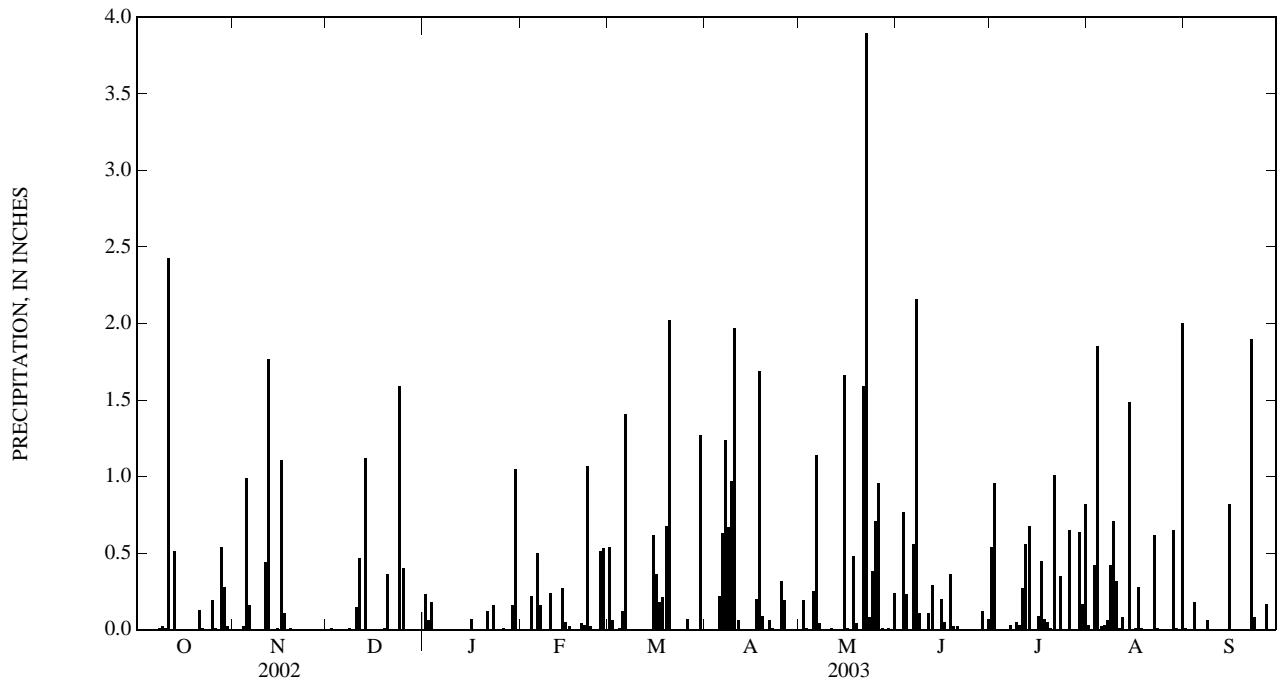
PERIOD OF RECORD.--February 1996 to current year. Records for period February 1996 to September 1998 published in USGS OFR 98-67 and 99-273.

GAGE.--Tipping-bucket raingage and electronic datalogger. Radio telemetry at station.

REMARKS.--Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network. Collection of frozen precipitation during December 2002 and February 2003 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.23	0.00	0.54	0.00	0.00	0.00	0.54	0.03	0.01
2	0.00	0.00	0.01	0.06	0.00	0.06	0.00	0.19	0.00	0.96	0.00	0.00
3	0.00	0.00	0.00	0.18	0.00	0.00	0.00	0.01	0.77	0.00	0.42	0.00
4	0.00	0.02	---	0.00	0.22	0.01	0.00	0.00	0.23	0.00	1.85	0.18
5	0.00	0.99	---	0.00	0.00	0.12	0.22	0.25	0.00	0.00	0.02	0.00
6	0.00	0.16	---	0.00	0.50	1.41	0.63	1.14	0.56	0.00	0.03	0.00
7	0.00	0.00	0.00	0.00	0.16	0.00	1.24	0.04	2.16	0.03	0.06	0.00
8	0.01	0.00	0.01	0.00	0.00	0.00	0.67	0.00	0.11	0.00	0.42	0.06
9	0.02	0.00	0.00	0.00	0.00	0.00	0.97	0.00	0.00	0.05	0.71	0.00
10	0.01	0.00	0.15	0.00	0.24	0.00	1.97	0.00	0.00	0.03	0.32	0.00
11	2.43	0.44	0.47	0.00	0.00	0.00	0.06	0.01	0.11	0.27	0.01	0.00
12	0.00	1.77	0.00	0.00	0.00	0.00	0.00	0.00	0.29	0.56	0.08	0.00
13	0.51	0.00	1.12	0.00	0.00	0.00	0.00	0.00	0.00	0.68	0.00	0.00
14	0.00	0.00	0.00	0.00	0.27	0.00	0.00	0.00	0.00	0.00	1.49	0.00
15	---	0.01	0.00	0.00	0.05	0.62	0.00	1.66	0.20	0.00	0.00	0.82
16	---	1.11	0.00	0.07	0.02	0.36	0.00	0.01	0.05	0.09	0.01	0.00
17	0.00	0.11	0.00	0.00	---	0.18	0.20	0.00	0.00	0.45	0.28	0.00
18	0.00	0.00	0.00	0.00	---	0.21	1.69	0.48	0.36	0.07	0.01	0.00
19	0.00	0.01	0.01	0.00	0.00	0.68	0.09	0.04	0.02	0.05	0.00	0.00
20	0.00	0.00	0.36	0.00	0.04	2.02	0.00	0.00	0.02	0.01	0.00	0.00
21	0.13	0.00	0.00	0.12	0.03	0.00	0.06	1.59	0.00	1.01	0.00	0.00
22	0.01	0.00	0.00	0.00	1.07	0.00	0.01	3.90	0.00	0.00	0.62	1.90
23	0.00	0.00	0.00	0.16	0.02	0.00	0.00	0.08	0.00	0.35	0.01	0.08
24	0.00	0.00	1.59	---	0.00	0.00	0.00	0.38	0.00	0.00	0.00	0.00
25	0.19	0.00	0.40	0.00	0.00	0.00	0.32	0.71	0.00	0.00	0.00	0.00
26	0.01	0.00	0.00	0.01	0.51	0.07	0.19	0.96	0.00	0.65	0.00	0.00
27	0.00	0.00	0.00	0.00	0.53	0.00	0.00	0.01	0.00	0.00	0.00	0.17
28	0.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.00	0.65	0.00
29	0.28	0.00	0.00	0.16	---	0.00	0.00	0.01	0.00	0.64	0.01	0.00
30	0.02	0.00	0.00	1.05	---	1.27	0.00	0.00	0.07	0.17	0.00	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.24	---	0.82	2.00	---
TOTAL	---	4.62	---	---	---	7.55	8.32	11.71	5.07	7.43	9.03	3.22



350200081020345 CRN38

LOCATION.--Lat 35°02'00", long 81°02'06", York County, South Carolina, Hydrologic Unit 03050101, Tega Cay Town Hall, Tega Cay Drive, Tega Cay, SC.

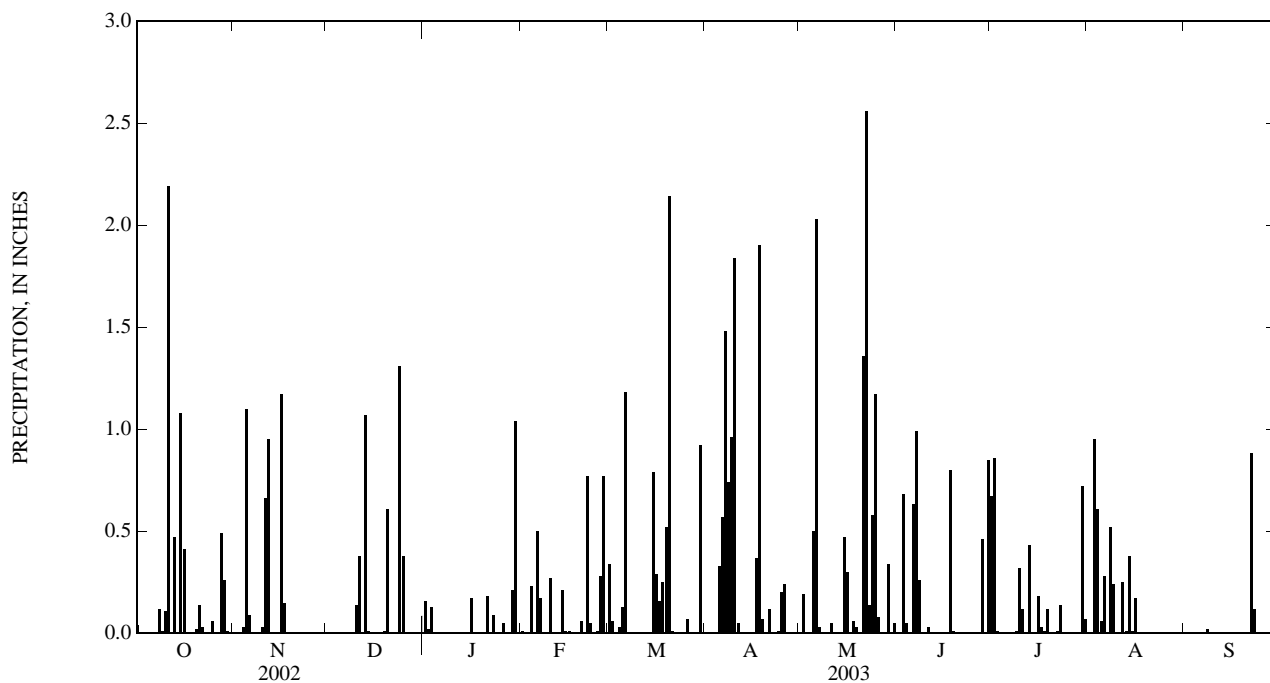
PERIOD OF RECORD.--February 1996 to current year. Records for period February 1996 to September 1998 published in USGS OFR 98-67 and 99-273.

GAGE.--Tipping-bucket raingage and electronic datalogger. Radio telemetry at station.

REMARKS.--Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network. Collection of frozen precipitation during December 2002 and February 2003 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.04	0.00	0.00	0.16	0.01	0.34	0.00	0.00	0.00	0.67	0.00	0.00
2	0.00	0.00	0.00	0.02	0.00	0.06	0.00	0.19	0.00	0.86	0.00	0.00
3	0.00	0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.68	0.01	0.95	0.00
4	0.00	0.03	---	0.00	0.23	0.03	0.00	0.00	0.05	0.00	0.61	0.00
5	0.00	1.10	---	0.00	0.00	0.13	0.33	0.50	0.00	0.00	0.06	0.00
6	0.00	0.09	---	0.00	0.50	1.18	0.57	2.03	0.63	0.00	0.28	0.00
7	0.00	0.00	0.00	0.00	0.17	0.00	1.48	0.03	0.99	0.00	0.00	0.00
8	0.12	0.00	0.00	0.00	0.00	0.00	0.74	0.00	0.26	0.00	0.52	0.02
9	0.01	0.00	0.00	0.00	0.00	0.00	0.96	0.00	0.00	0.01	0.24	0.00
10	0.11	0.03	0.14	0.00	0.27	0.00	1.84	0.00	0.00	0.32	0.00	0.00
11	2.19	0.66	0.38	0.00	0.00	0.00	0.05	0.05	0.03	0.12	0.00	0.00
12	0.00	0.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00
13	0.47	0.00	1.07	0.00	0.00	0.00	0.00	0.00	---	0.43	0.01	0.00
14	0.00	0.00	0.01	0.00	0.21	0.00	0.00	0.00	---	0.00	0.38	0.00
15	1.08	0.00	0.00	0.00	0.01	0.79	0.00	0.47	---	0.00	0.01	0.00
16	0.41	1.17	0.00	0.17	0.01	0.29	0.00	0.30	---	0.18	0.17	0.00
17	0.00	0.15	0.00	0.00	---	0.16	0.37	0.00	0.00	0.03	0.00	0.00
18	0.00	0.00	0.00	0.00	---	0.25	1.90	0.06	0.80	0.01	0.00	0.00
19	0.00	0.00	0.01	0.00	0.00	0.52	0.07	0.03	0.01	0.12	0.00	0.00
20	0.02	0.00	0.61	0.00	0.06	2.14	0.00	0.00	0.00	0.00	0.00	0.00
21	0.14	0.00	0.00	0.18	0.00	0.01	0.12	1.36	0.00	0.00	0.00	0.00
22	0.03	0.00	0.00	0.00	0.77	0.00	0.00	2.56	0.00	0.01	0.00	0.88
23	0.00	0.00	0.00	0.09	0.05	0.00	0.00	0.14	0.00	0.14	0.00	0.12
24	0.00	0.00	1.31	---	0.00	0.00	0.01	0.58	0.00	0.00	0.00	0.00
25	0.06	0.00	0.38	0.00	0.01	0.00	0.20	1.17	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.05	0.28	0.07	0.24	0.08	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.46	0.00	0.00	0.00
29	0.26	0.00	0.00	0.21	---	0.00	0.00	0.34	0.00	0.00	0.00	0.00
30	0.01	0.00	0.00	1.04	---	0.92	0.00	0.00	0.85	0.72	0.00	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.05	---	0.07	0.00	---
TOTAL	5.44	4.18	---	---	---	6.89	8.88	9.94	---	3.70	3.48	1.02



LOCATION.--Lat 35°29'56", long 80°59'12", Lincoln County, Hydrologic Unit 03050101, Westport Golf Course driving range, Denver, NC.

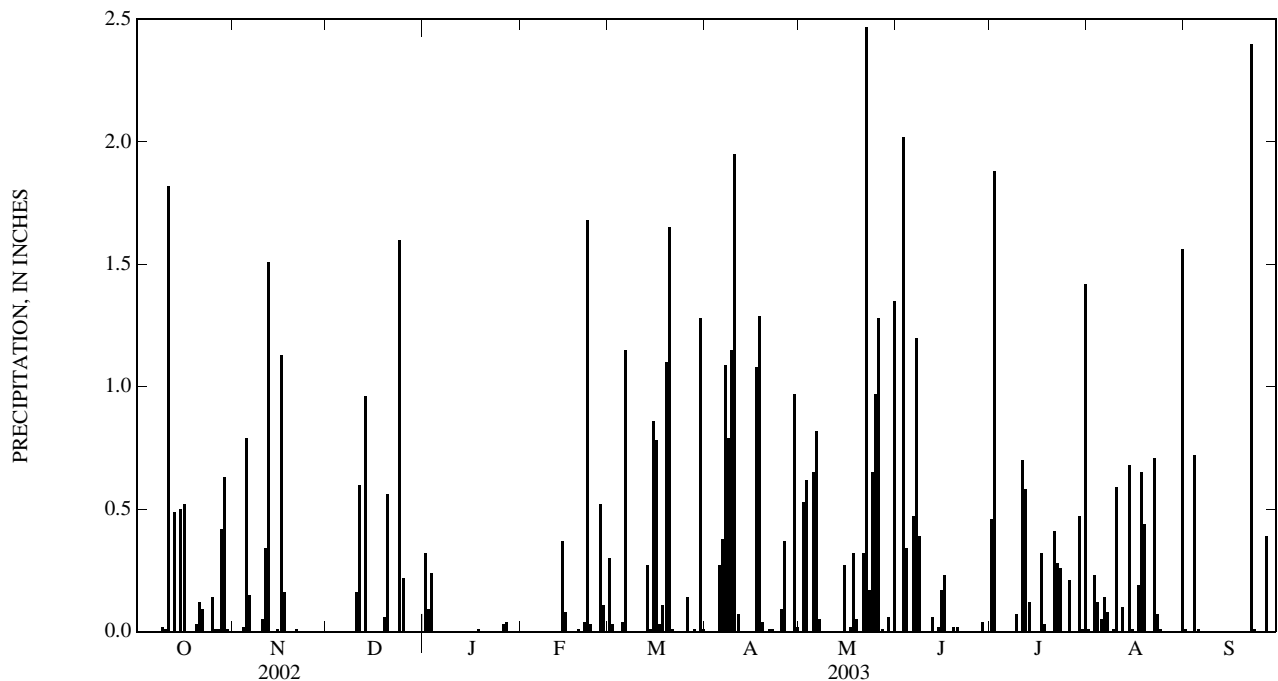
PERIOD OF RECORD.--February 1996 to current year. Records for period February 1996 to September 1998 published in USGS OFR 98-67 and 99-273. Records for February 1996 to June 1996 at site Lake Norman Fire Department, Mooresville, NC (station 353402080543145).

GAGE.--Tipping-bucket raingage and electronic datalogger. Radio telemetry at station.

REMARKS.--Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network. Collection of frozen precipitation during December 2002, January and February 2003 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.32	---	0.30	0.00	0.00	0.00	0.46	0.01	0.01
2	0.00	0.00	0.00	0.09	---	0.03	0.00	0.53	0.00	1.88	0.00	0.00
3	0.00	0.00	0.00	0.24	---	0.00	0.00	0.62	2.02	0.00	0.23	0.00
4	0.00	0.02	---	0.00	---	0.00	0.00	0.00	0.34	0.00	0.12	0.72
5	0.00	0.79	---	0.00	---	0.04	0.27	0.65	0.00	0.00	0.05	0.01
6	0.00	0.15	---	0.00	---	1.15	0.38	0.82	0.47	0.00	0.14	0.00
7	0.00	0.00	---	0.00	---	0.00	1.09	0.05	1.20	0.00	0.08	0.00
8	0.00	0.00	---	0.00	---	0.00	0.79	0.00	0.39	0.00	0.00	0.00
9	0.02	0.00	0.00	0.00	---	0.00	1.15	0.00	0.00	0.07	0.01	0.00
10	0.01	0.05	0.16	0.00	---	0.00	1.95	0.00	0.00	0.00	0.59	0.00
11	1.82	0.34	0.60	0.00	0.00	0.00	0.07	0.00	0.00	0.70	0.00	0.00
12	0.00	1.51	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.58	0.10	0.00
13	0.49	0.00	0.96	0.00	0.00	0.27	0.00	0.00	0.00	0.12	0.00	0.00
14	0.00	0.00	0.00	0.00	0.37	0.01	0.00	0.00	0.02	0.00	0.68	0.00
15	0.50	0.01	0.00	0.00	0.08	0.86	0.00	0.27	0.17	0.00	0.01	0.00
16	0.52	1.13	0.00	0.00	---	0.78	0.00	0.00	0.23	0.00	0.00	0.00
17	0.00	0.16	0.00	0.00	---	0.03	1.08	0.02	0.00	0.32	0.19	0.00
18	0.00	0.00	0.00	0.01	---	0.11	1.29	0.32	---	0.03	0.65	0.00
19	0.00	0.00	0.06	0.00	0.01	1.10	0.04	0.05	0.02	0.00	0.44	0.00
20	0.03	0.00	0.56	0.00	0.00	1.65	0.00	0.00	0.02	0.00	0.00	0.00
21	0.12	0.01	0.00	0.00	0.04	0.01	0.01	0.32	0.00	0.41	0.00	0.00
22	0.09	0.00	0.00	0.00	1.68	0.00	0.01	2.47	0.00	0.28	0.71	2.40
23	0.00	0.00	0.00	---	0.03	0.00	0.00	0.17	0.00	0.26	0.07	0.01
24	0.00	0.00	1.60	---	0.00	0.00	0.00	0.65	0.00	0.00	0.01	0.00
25	0.14	0.00	0.22	---	0.00	0.00	0.09	0.97	0.00	0.00	0.00	0.00
26	0.01	0.00	0.00	0.03	0.52	0.14	0.37	1.28	0.00	0.21	0.00	0.00
27	0.01	0.00	0.00	0.04	0.11	0.00	0.00	0.01	0.00	0.00	0.00	0.39
28	0.42	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.04	0.00	0.00	0.00
29	0.63	0.00	0.00	---	---	0.00	0.97	0.06	0.00	0.47	0.00	0.00
30	0.01	0.00	0.00	---	---	1.28	0.02	0.00	0.00	0.01	0.00	0.00
31	0.00	---	0.00	---	---	0.01	---	1.35	---	1.42	1.56	---
TOTAL	4.82	4.17	---	---	---	7.78	9.58	10.61	---	7.22	5.65	3.54



353014080524945 CRN42

LOCATION.--Lat 35°30'16", long 80°52'47", Mecklenburg County, Hydrologic Unit 03050101, private residence, Norman Shores Drive, Cornelius, NC.

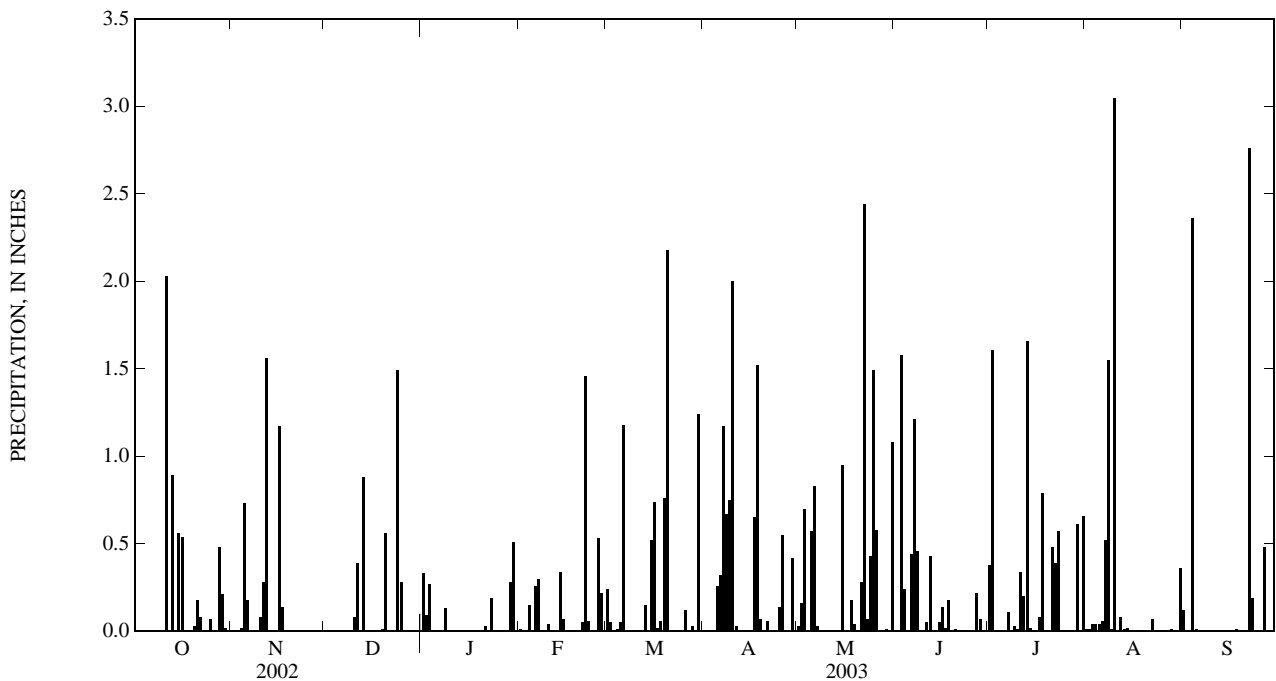
PERIOD OF RECORD.--January 1997 to current year. Records for period January 1997 to September 1998 published in USGS OFR 98-67 and 99-273.

GAGE.--Tipping-bucket raingage and electronic datalogger. Radio telemetry at station.

REMARKS.--Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network. Collection of frozen precipitation during December 2002 and February 2003 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.33	0.01	0.24	0.00	0.03	0.00	0.38	0.01	0.12
2	0.00	0.00	0.00	0.09	0.00	0.05	0.00	0.16	0.00	1.61	0.01	0.00
3	0.00	0.00	0.00	0.27	0.00	0.00	0.00	0.70	1.58	0.00	0.04	0.00
4	0.00	0.02	---	0.00	0.15	0.01	0.00	0.00	0.24	0.00	0.04	2.36
5	0.00	0.73	---	0.00	0.00	0.05	0.26	0.57	0.00	0.00	0.04	0.01
6	0.00	0.18	---	0.00	0.26	1.18	0.32	0.83	0.44	0.00	0.06	0.00
7	0.00	0.00	---	0.00	0.30	0.00	1.17	0.03	1.21	0.11	0.52	0.00
8	0.00	0.00	0.00	0.13	0.00	0.00	0.67	0.00	0.46	0.00	1.55	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.03	0.01	0.00
10	0.00	0.08	0.08	0.00	0.04	0.00	2.00	0.00	0.00	0.01	3.05	0.00
11	2.03	0.28	0.39	0.00	0.00	0.00	0.03	0.00	0.05	0.34	0.00	0.00
12	0.00	1.56	0.00	0.00	0.00	0.00	0.00	0.00	0.43	0.20	0.08	0.00
13	0.89	0.00	0.88	0.00	0.00	0.15	0.00	0.00	0.00	1.66	0.01	0.00
14	0.00	0.00	0.00	0.00	0.34	0.00	0.00	0.00	0.00	0.02	0.02	0.00
15	0.56	0.00	0.00	0.00	0.07	0.52	0.00	0.95	0.05	0.00	0.00	0.00
16	0.54	1.17	0.00	0.00	---	0.74	0.00	0.00	0.14	0.00	0.00	0.00
17	0.00	0.14	0.00	0.00	---	0.02	0.65	0.00	0.02	0.08	0.00	0.00
18	0.00	0.00	0.00	0.00	---	0.06	1.52	0.18	0.18	0.79	0.00	0.01
19	0.00	0.00	0.01	0.00	0.00	0.76	0.07	0.04	0.00	0.00	0.00	0.00
20	0.03	0.00	0.56	0.00	0.00	2.18	0.00	0.00	0.01	0.00	0.00	0.00
21	0.18	0.00	0.00	0.03	0.05	0.00	0.06	0.28	0.00	0.48	0.00	0.00
22	0.08	0.00	0.00	0.00	1.46	0.00	0.00	2.44	0.00	0.39	0.07	2.76
23	0.00	0.00	0.00	0.19	0.06	0.00	0.00	0.07	0.00	0.57	0.00	0.19
24	0.00	0.00	1.49	0.00	0.00	0.00	0.00	0.43	0.00	0.00	0.00	0.00
25	0.07	0.00	0.28	0.00	0.00	0.00	0.14	1.49	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.53	0.12	0.55	0.58	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.22	0.00	0.00	0.00	0.22	0.00	0.00	0.48
28	0.48	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.07	0.00	0.01	0.00
29	0.21	0.00	0.00	0.28	---	0.00	0.42	0.01	0.00	0.61	0.00	0.00
30	0.02	0.00	0.00	0.51	---	1.24	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	---	0.00	0.00	---	0.00	---	1.08	---	0.66	0.36	---
TOTAL	5.09	4.16	---	1.83	---	7.35	8.61	9.87	5.10	7.94	5.88	5.93



LOCATION.--Lat 35°24'40", long 80°50'47", Mecklenburg County, Hydrologic Unit 03050101, Huntersville Elementary School, Gilead Road, Huntersville, NC.

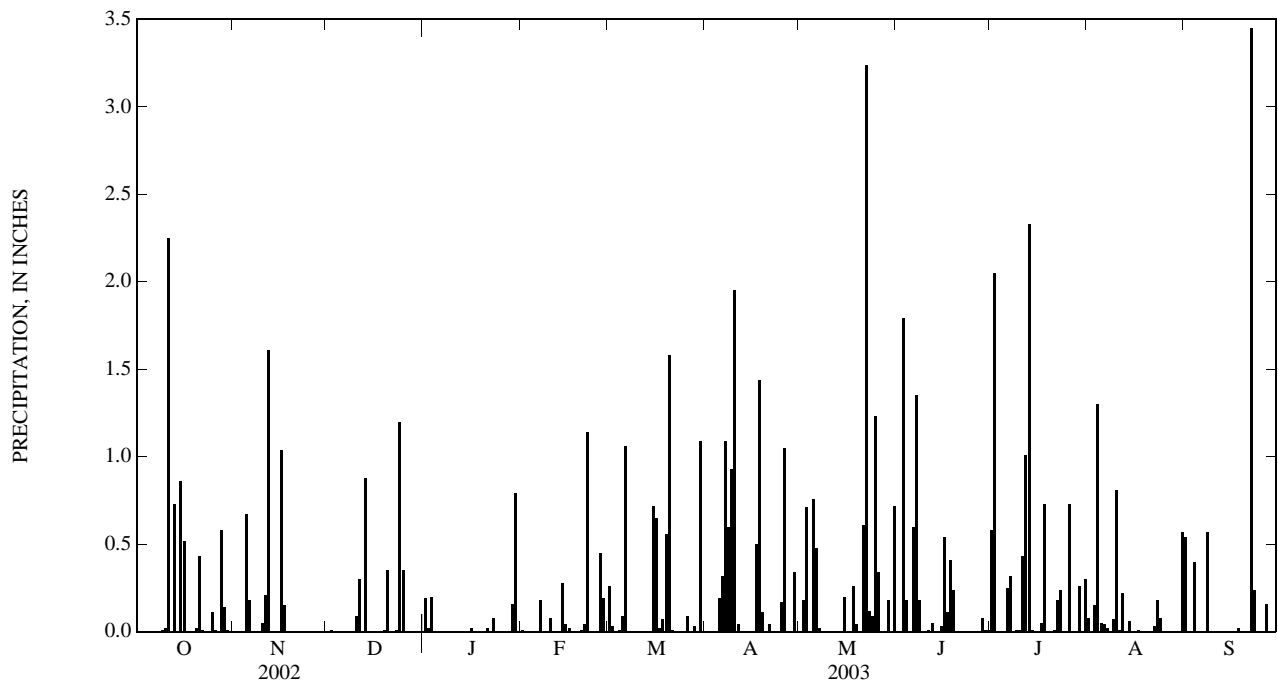
PERIOD OF RECORD.--January 1997 to current year. Records for period January 1997 to September 1998 published in USGS OFR 98-67 and 99-273.

GAGE.--Tipping-bucket raingage and electronic datalogger. Radio telemetry at station.

REMARKS.--Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network. Collection of frozen precipitation during December 2002 and February 2003 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.19	0.01	0.26	0.00	0.00	0.00	0.58	0.08	0.54
2	0.00	0.00	0.01	0.02	0.00	0.03	0.00	0.18	0.00	2.05	0.00	0.00
3	0.00	0.00	0.00	0.20	---	0.00	0.00	0.71	1.79	0.00	0.15	0.00
4	0.00	0.00	0.00	0.00	---	0.01	0.00	0.00	0.18	0.00	1.30	0.40
5	0.00	0.67	---	0.00	---	0.09	0.19	0.76	0.00	0.00	0.05	0.00
6	0.00	0.18	---	0.00	---	1.06	0.32	0.48	0.60	0.25	0.04	0.00
7	0.00	0.00	---	0.00	0.18	0.00	1.09	0.02	1.35	0.32	0.02	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.00	0.18	0.00	0.00	0.57
9	0.01	0.00	0.00	0.00	0.00	0.00	0.93	0.00	0.00	0.01	0.07	0.00
10	0.02	0.05	0.09	0.00	0.08	0.00	1.95	0.00	0.00	0.01	0.81	0.00
11	2.25	0.21	0.30	0.00	0.00	0.00	0.04	0.00	0.01	0.43	0.01	0.00
12	0.00	1.61	0.00	0.00	0.00	0.00	0.00	0.00	0.05	1.01	0.22	0.00
13	0.73	0.00	0.88	0.00	0.00	0.00	0.00	0.00	0.00	2.33	0.00	0.00
14	0.00	0.00	0.00	0.00	0.28	0.00	0.00	0.00	0.00	0.01	0.06	0.00
15	0.86	0.00	0.00	0.00	0.04	0.72	0.00	0.20	0.03	0.00	0.00	0.00
16	0.52	1.04	0.00	0.02	0.02	0.65	0.00	0.00	0.54	0.00	0.00	0.00
17	0.00	0.15	0.00	0.00	---	0.02	0.50	0.00	0.11	0.05	0.01	0.00
18	0.00	0.00	0.00	0.00	---	0.07	1.44	0.26	0.41	0.73	0.00	0.02
19	0.00	0.00	0.01	0.00	0.00	0.56	0.11	0.04	0.24	0.00	0.00	0.00
20	0.02	0.00	0.35	0.00	0.01	1.58	0.00	0.00	0.00	0.00	0.00	0.00
21	0.43	0.00	0.00	0.02	0.04	0.01	0.04	0.61	0.00	0.01	0.00	0.00
22	0.01	0.00	0.00	0.00	1.14	0.00	0.00	3.24	0.00	0.18	0.03	3.45
23	0.00	0.00	0.01	0.08	0.00	0.00	0.00	0.12	0.00	0.24	0.18	0.24
24	0.00	0.00	1.20	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.08	0.00
25	0.11	0.00	0.35	0.00	0.00	0.00	0.17	1.23	0.00	0.00	0.00	0.00
26	0.01	0.00	0.00	0.00	0.45	0.09	1.05	0.34	0.00	0.73	0.00	0.00
27	0.00	0.00	0.00	0.00	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.16
28	0.58	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.08	0.00	0.00	0.00
29	0.14	0.00	0.00	0.16	---	0.00	0.34	0.18	0.01	0.26	0.00	0.00
30	0.01	0.00	0.00	0.79	---	1.09	0.00	0.00	0.01	0.00	0.00	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.72	---	0.30	0.57	---
TOTAL	5.70	3.91	---	1.48	---	6.27	8.77	9.18	5.59	9.50	3.68	5.38



350903081004545 CRN45

LOCATION.--Lat 35°09'02", long 81°00'43", Mecklenburg County, Hydrologic Unit 03050101, private residence, Withers Cove Road, Charlotte, NC.

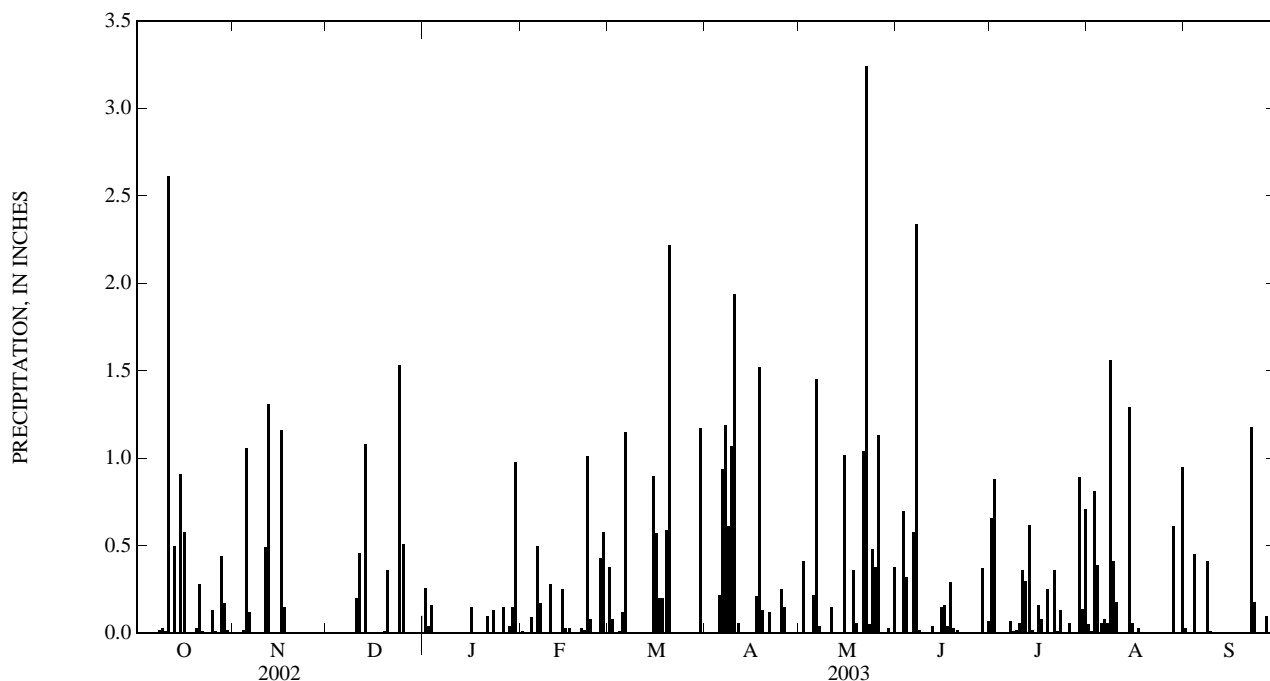
PERIOD OF RECORD.--January 1997 to current year. Records for period January 1997 to September 1998 published in USGS OFR 98-67 and 99-273.

GAGE.--Tipping-bucket raingage and electronic datalogger. Radio telemetry at station.

REMARKS.--Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network. Collection of frozen precipitation during December 2002 and February 2003 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.26	0.01	0.38	0.00	0.00	0.00	0.66	0.05	0.03
2	0.00	0.00	0.00	0.04	0.00	0.08	0.00	0.41	0.00	0.88	0.01	0.00
3	0.00	0.00	0.00	0.16	0.00	0.00	0.00	0.00	0.70	0.00	0.81	0.00
4	0.00	0.02	---	0.00	0.09	0.01	0.00	0.00	0.32	0.00	0.39	0.45
5	0.00	1.06	---	0.00	0.00	0.12	0.22	0.22	0.00	0.00	0.06	0.00
6	0.00	0.12	---	0.00	0.50	1.15	0.94	1.45	0.58	0.00	0.08	0.00
7	0.00	0.00	0.00	0.00	0.17	0.00	1.19	0.04	2.34	0.07	0.06	0.00
8	0.02	0.00	0.00	0.00	0.00	0.00	0.61	0.00	0.02	0.01	1.56	0.41
9	0.03	0.00	0.00	0.00	0.00	0.00	1.07	0.00	0.00	0.02	0.41	0.01
10	0.01	0.00	0.20	0.00	0.28	0.00	1.94	0.00	0.00	0.06	0.18	0.00
11	2.61	0.49	0.46	0.00	0.00	0.00	0.06	0.15	0.00	0.36	---	0.00
12	0.00	1.31	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.30	---	0.00
13	0.50	0.00	1.08	0.00	0.00	0.00	0.00	0.00	0.00	0.62	---	0.00
14	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.02	1.29	0.00
15	0.91	0.00	0.00	0.00	0.03	0.90	0.00	1.02	0.15	0.00	0.06	0.00
16	0.58	1.16	0.00	0.15	0.03	0.57	0.00	0.00	0.16	0.16	0.00	0.00
17	0.00	0.15	0.00	0.00	---	0.20	0.21	0.00	0.04	0.08	0.03	0.00
18	0.00	0.00	0.00	0.00	---	0.20	1.52	0.36	0.29	0.00	0.00	0.00
19	0.00	0.00	0.01	0.00	0.00	0.59	0.13	0.06	0.03	0.25	0.00	0.00
20	0.03	0.00	0.36	0.00	0.03	2.22	0.00	0.00	0.02	0.00	0.00	0.00
21	0.28	0.00	0.00	0.10	0.02	0.00	0.12	1.04	0.00	0.36	0.00	0.00
22	0.01	0.00	0.00	0.00	1.01	0.00	0.00	3.24	0.00	0.01	0.00	1.18
23	0.00	0.00	0.00	0.13	0.08	0.00	0.00	0.05	0.00	0.13	0.00	0.18
24	0.00	0.00	1.53	0.00	0.00	0.00	0.00	0.48	0.00	0.00	0.00	0.00
25	0.13	0.00	0.51	0.00	0.00	0.00	0.25	0.38	0.00	0.00	0.00	0.00
26	0.01	0.00	0.00	0.15	0.43	0.00	0.15	1.13	0.00	0.06	0.00	0.00
27	0.00	0.00	0.00	0.00	0.58	0.00	0.00	0.00	0.00	0.00	0.00	0.10
28	0.44	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.37	0.00	0.61	0.00
29	0.17	0.00	0.00	0.15	---	0.00	0.00	0.03	0.00	0.89	0.00	0.00
30	0.02	0.00	0.00	0.98	---	1.17	0.00	0.00	0.07	0.14	0.00	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.38	---	0.71	0.95	---
TOTAL	5.75	4.31	---	2.16	---	7.59	8.41	10.44	5.13	5.79	---	2.36



LOCATION.--Lat 35°12'28", long 80°46'00", Mecklenburg County, Hydrologic Unit 03050103, Winterfield Elementary School, Winterfield Place, Charlotte, NC.

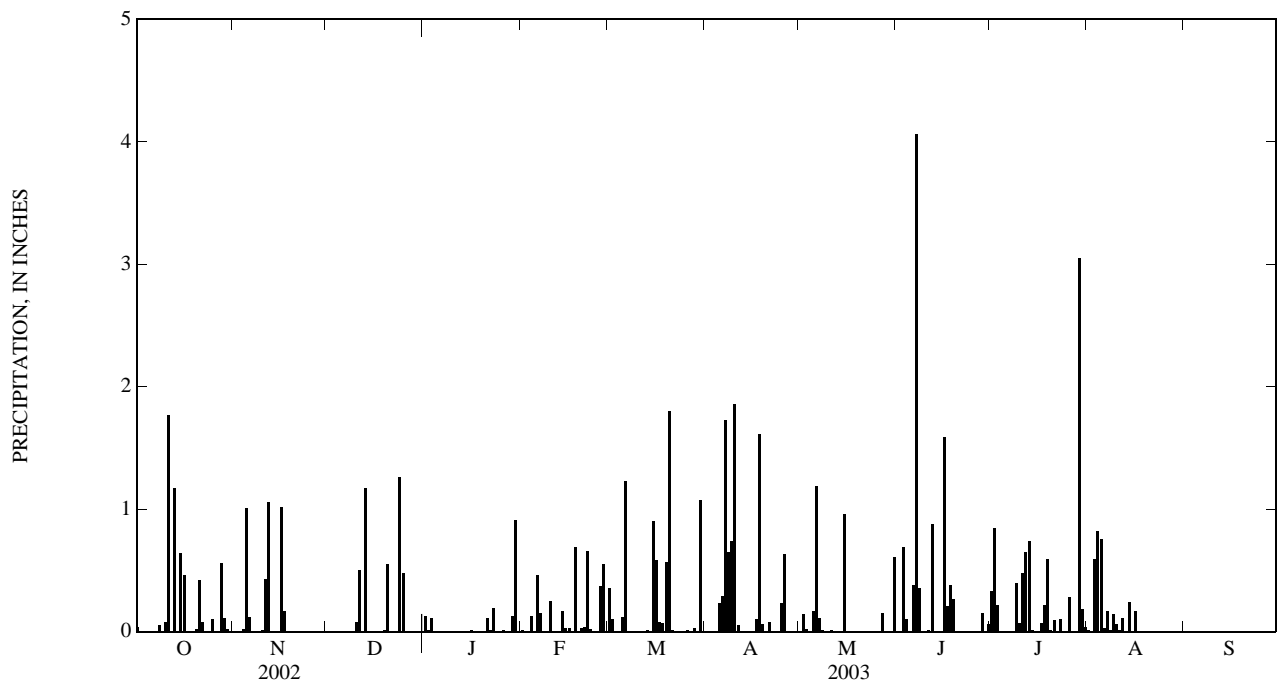
PERIOD OF RECORD.--March 1999 to current year.

GAGE.--Tipping-bucket raingage and electronic datalogger. Radio telemetry at station.

REMARKS.--Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network. Collection of frozen precipitation during December 2002 and February 2003 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.04	0.00	0.00	0.13	0.01	0.36	0.00	0.00	0.00	0.33	0.01	---
2	0.00	0.00	0.00	0.01	0.00	0.10	0.00	0.14	0.00	0.85	0.00	---
3	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.02	0.69	0.22	0.59	---
4	0.00	0.02	---	0.00	0.13	0.00	0.00	0.00	0.10	0.00	0.82	---
5	0.00	1.01	---	0.00	0.00	0.12	0.23	0.17	0.00	0.00	0.76	---
6	0.00	0.12	---	0.00	0.46	1.23	0.29	1.19	0.38	0.00	0.03	---
7	0.00	0.00	---	0.00	0.15	0.00	1.73	0.11	4.06	0.00	0.17	---
8	0.05	0.00	0.00	0.00	0.00	0.00	0.65	0.01	0.36	0.00	0.01	---
9	0.00	0.00	0.00	0.00	0.00	0.00	0.74	0.00	0.00	0.40	0.14	---
10	0.08	0.01	0.08	0.00	0.25	0.00	1.86	0.00	0.00	0.07	0.06	---
11	1.77	0.43	0.50	0.00	0.00	0.00	0.05	0.01	0.01	0.48	0.01	---
12	0.00	1.06	0.00	0.00	0.00	0.00	0.00	0.00	0.88	0.65	0.11	---
13	1.17	0.00	1.17	0.00	0.00	0.01	0.00	0.00	0.00	0.74	0.00	---
14	0.00	0.00	0.00	0.00	0.17	0.00	0.00	0.00	0.00	0.01	0.24	---
15	0.64	0.00	0.00	0.00	0.03	0.90	0.00	0.96	0.00	0.00	0.00	---
16	0.46	1.02	0.00	0.01	0.03	0.58	0.00	---	1.59	0.00	0.17	---
17	0.00	0.17	0.00	0.00	0.00	0.08	0.10	---	0.21	0.07	---	---
18	0.00	0.00	0.00	0.00	0.69	0.07	1.61	---	0.38	0.22	---	---
19	0.00	0.00	0.01	0.00	0.00	0.57	0.06	---	0.27	0.59	---	---
20	0.02	0.00	0.55	0.00	0.03	1.80	0.00	---	0.00	0.01	---	---
21	0.42	0.00	0.00	0.11	0.04	0.01	0.08	---	0.00	0.09	---	---
22	0.08	0.00	0.00	0.01	0.66	0.00	0.00	---	0.00	0.00	---	---
23	0.00	0.00	0.00	0.19	0.02	0.00	0.00	---	0.00	0.10	---	---
24	0.00	0.00	1.26	0.00	0.00	0.00	0.00	---	0.00	0.00	---	---
25	0.10	0.00	0.48	0.00	0.00	0.00	0.23	---	0.00	0.00	---	---
26	0.00	0.00	0.00	0.01	0.37	0.01	0.63	---	0.00	0.28	---	---
27	0.00	0.00	0.00	0.00	0.55	0.00	0.00	0.15	0.00	0.00	---	---
28	0.56	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.15	0.00	---	---
29	0.11	0.00	0.00	0.13	---	0.00	0.00	0.00	0.00	3.05	---	---
30	0.02	0.00	0.00	0.91	---	1.07	0.00	0.00	0.06	0.18	---	---
31	0.00	---	0.00	0.00	---	0.00	---	0.61	---	0.04	---	---
TOTAL	5.52	3.84	---	1.62	3.59	6.94	8.26	---	9.14	8.38	---	---



350637080475645 CRN48

LOCATION.--Lat 35°06'40", long 80°47'55", Mecklenburg County, Hydrologic Unit 03050103, Olde Providence School, Rea Road, Charlotte, NC.

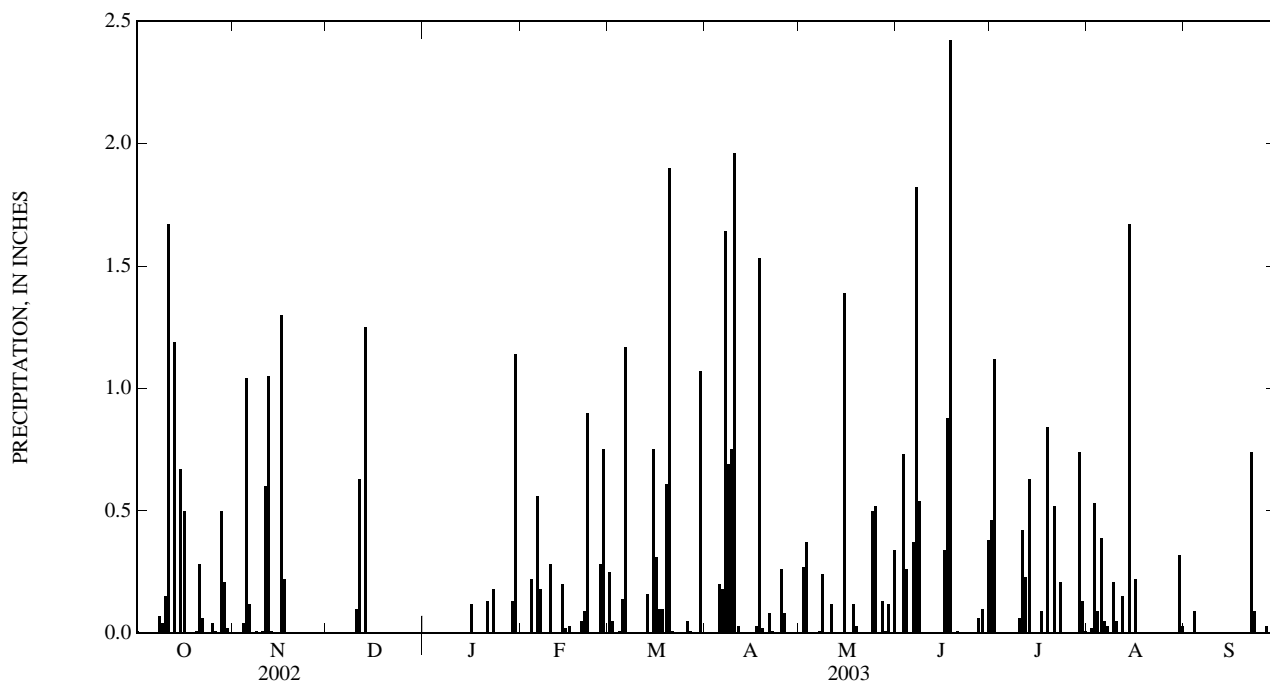
PERIOD OF RECORD.--March 1999 to current year.

GAGE.--Tipping-bucket raingage and electronic datalogger. Radio telemetry at station.

REMARKS.--Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network. Collection of frozen precipitation during December 2002 and February 2003 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.01	0.00	0.00	---	0.00	0.25	0.00	0.00	0.00	0.46	0.00	0.00
2	0.00	0.00	0.00	---	0.00	0.05	0.00	0.27	0.00	1.12	0.02	0.00
3	0.00	0.00	0.00	---	0.00	0.00	0.00	0.37	0.73	0.00	0.53	0.00
4	0.00	0.04	---	---	0.22	0.01	0.00	0.00	0.26	0.00	0.09	0.09
5	0.00	1.04	---	---	0.00	0.14	0.20	---	0.00	0.00	0.39	0.00
6	0.00	0.12	---	---	0.56	1.17	0.18	---	0.37	0.00	0.05	0.00
7	0.00	0.00	0.00	---	0.18	0.00	1.64	0.01	1.82	0.00	0.03	0.00
8	0.07	0.01	0.00	---	0.00	0.00	0.69	0.24	0.54	0.00	0.00	0.00
9	0.04	0.00	0.00	---	0.00	0.00	0.75	0.00	0.00	0.00	0.21	0.00
10	0.15	0.01	0.10	0.00	0.28	0.00	1.96	0.00	0.00	0.06	0.05	0.00
11	1.67	0.60	0.63	0.00	0.00	0.00	0.03	0.12	0.00	0.42	0.00	0.00
12	0.00	1.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.15	0.00
13	1.19	0.01	1.25	0.00	0.00	0.16	0.00	0.00	0.00	0.63	0.00	0.00
14	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	1.67	0.00
15	0.67	0.00	0.00	0.00	0.02	0.75	0.00	1.39	0.00	0.00	0.00	0.00
16	0.50	1.30	0.00	0.12	0.03	0.31	0.00	0.00	0.34	0.00	0.22	0.00
17	0.00	0.22	0.00	0.00	---	0.10	0.03	0.00	0.88	0.09	0.00	0.00
18	0.00	0.00	0.00	0.00	---	0.10	1.53	0.12	2.42	0.00	0.00	0.00
19	0.00	0.00	---	0.00	0.00	0.61	0.02	0.03	0.00	0.84	0.00	0.00
20	0.01	0.00	---	0.00	0.05	1.90	0.00	0.00	0.01	0.00	0.00	0.00
21	0.28	0.00	---	0.13	0.09	0.01	0.08	---	0.00	0.52	0.00	0.00
22	0.06	0.00	---	0.00	0.90	0.00	0.01	---	0.00	0.00	0.00	0.74
23	0.00	0.00	---	0.18	0.00	0.00	0.00	0.00	0.00	0.21	0.00	0.09
24	0.00	0.00	---	0.00	0.00	0.00	0.00	0.50	0.00	0.00	0.00	0.00
25	0.04	0.00	---	0.00	0.00	0.00	0.26	0.52	0.00	0.00	0.00	0.00
26	0.01	0.00	---	0.00	0.28	0.05	0.08	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	---	0.00	0.75	0.01	0.00	0.13	0.06	0.00	0.00	0.03
28	0.50	0.00	---	0.00	0.00	0.00	0.00	0.01	0.10	0.00	0.00	0.00
29	0.21	0.00	---	0.13	---	0.00	0.00	0.12	0.00	0.74	0.00	0.00
30	0.02	0.00	---	1.14	---	1.07	0.00	0.00	0.38	0.13	0.32	0.00
31	0.00	---	---	0.00	---	0.00	---	0.34	---	0.01	0.03	---
TOTAL	5.43	4.40	---	---	---	6.69	7.46	---	7.91	5.46	3.76	0.95



LOCATION.--Lat 35°22'24", long 80°50'03", Mecklenburg County, Hydrologic Unit 03050101, North Mecklenburg High School, Old Statesville Rd., Huntersville, NC.

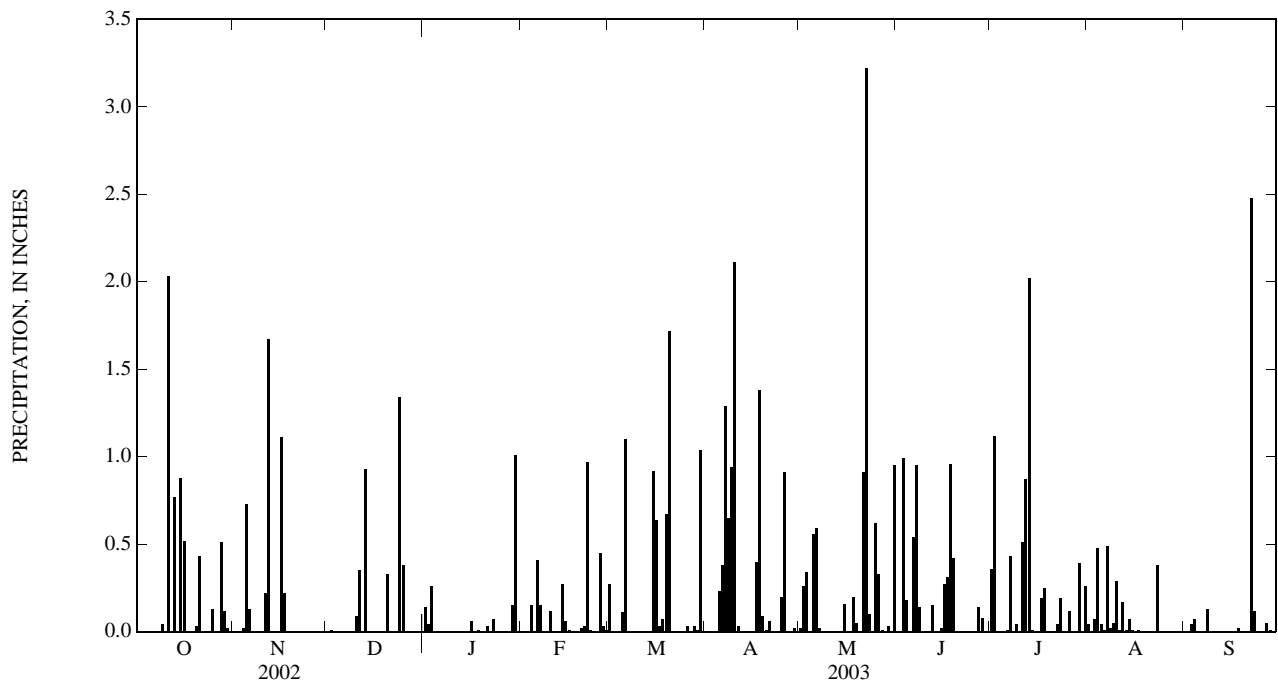
PERIOD OF RECORD.--April 1999 to current year.

GAGE.--Tipping-bucket raingage and electronic datalogger. Radio telemetry at station.

REMARKS.--Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network. Collection of frozen precipitation during December 2002 and February 2003 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.14	0.00	0.27	0.00	0.02	0.00	0.36	0.04	0.00
2	0.00	0.00	0.01	0.04	0.00	---	0.00	0.26	0.00	1.12	0.00	0.00
3	0.00	0.00	0.00	0.26	0.00	---	0.00	0.34	0.99	0.00	0.07	0.04
4	0.00	0.02	---	0.00	0.15	---	0.00	0.00	0.18	0.00	0.48	0.07
5	0.00	0.73	---	0.00	0.00	0.11	0.23	0.56	0.00	0.00	0.04	0.00
6	0.00	0.13	---	0.00	0.41	1.10	0.38	0.59	0.54	0.01	0.01	0.00
7	0.00	0.00	---	0.00	0.15	0.00	1.29	0.02	0.95	0.43	0.49	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.65	0.00	0.14	0.00	0.02	0.13
9	0.04	0.00	0.00	0.00	0.00	0.00	0.94	0.00	0.00	0.04	0.05	0.00
10	0.00	0.00	0.09	0.00	0.12	0.00	2.11	0.00	0.00	0.00	0.29	0.00
11	2.03	0.22	0.35	0.00	0.00	0.00	0.03	0.00	0.00	0.51	0.01	0.00
12	0.00	1.67	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.87	0.17	0.00
13	0.77	0.00	0.93	0.00	0.00	0.00	0.00	0.00	0.00	2.02	0.01	0.00
14	0.00	0.00	0.00	0.00	0.27	0.00	0.00	0.00	0.00	0.01	0.07	0.00
15	0.88	0.00	0.00	0.00	0.06	0.92	0.00	0.16	0.02	0.00	0.01	0.00
16	0.52	1.11	0.00	0.06	0.01	0.64	0.00	0.00	0.27	0.00	0.00	0.00
17	0.00	0.22	0.00	0.00	---	0.03	0.40	0.00	0.31	0.19	0.01	0.00
18	0.00	0.00	0.00	0.01	---	0.07	1.38	0.20	0.96	0.25	0.00	0.02
19	0.00	0.00	0.00	0.00	0.00	0.67	0.09	0.05	0.42	0.00	0.00	0.00
20	0.03	0.00	0.33	0.00	0.02	1.72	0.01	0.00	0.00	0.00	0.00	0.00
21	0.43	0.00	0.00	0.03	0.03	0.00	0.06	0.91	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.97	0.00	0.00	3.22	0.00	0.04	0.00	2.48
23	0.00	0.00	0.00	0.07	0.01	0.00	0.00	0.10	0.00	0.19	0.38	0.12
24	0.00	0.00	1.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.13	0.00	0.38	0.00	0.00	0.00	0.20	0.62	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.45	0.03	0.91	0.33	0.00	0.12	0.00	0.00
27	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.01	0.14	0.00	0.00	0.05
28	0.51	0.00	0.00	0.00	0.01	0.03	0.00	0.00	0.08	0.00	0.00	0.01
29	0.12	0.00	0.00	0.15	---	0.01	0.02	0.03	0.00	0.39	0.00	0.00
30	0.02	0.00	0.00	1.01	---	1.04	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.95	---	0.26	---	---
TOTAL	5.48	4.10	---	1.77	---	---	8.70	8.37	5.15	6.81	---	2.92



351502080512045 CRN50

LOCATION.--Lat 35°15'02", long 80°51'20", Mecklenburg County, Hydrologic Unit 03050103, Vest Treatment Plant, Charlotte, NC

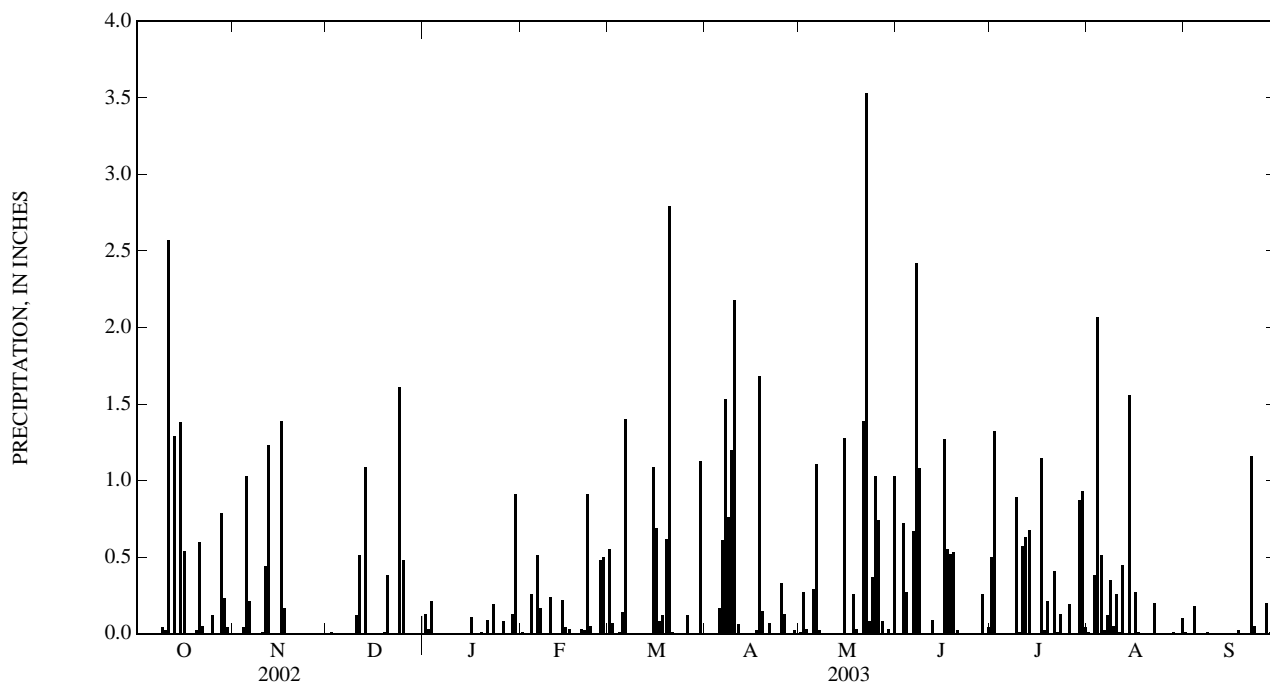
PERIOD OF RECORD.--October 2002 to September 2003. Records for July 1999 to June 2002 at site Oaklawn School of Math and Science (station 351503080510145).

GAGE.--Tipping-bucket raingage and electronic datalogger. Radio telemetry at station.

REMARKS.--Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network. Collection of frozen precipitation during December 2002 and February 2003 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.13	0.01	0.55	0.00	0.01	0.00	0.50	0.01	0.01
2	0.00	0.00	0.01	0.03	0.00	0.07	0.00	0.27	0.00	1.32	0.00	0.00
3	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.03	0.72	0.00	0.38	0.00
4	0.00	0.04	---	0.00	0.26	0.01	0.00	0.00	0.27	0.00	2.07	0.18
5	0.00	1.03	---	0.00	0.00	0.14	0.17	0.29	0.00	0.00	0.51	0.00
6	0.00	0.21	---	0.00	0.51	1.40	0.61	1.11	0.67	0.00	0.02	0.00
7	0.00	0.00	0.00	0.00	0.17	0.00	1.53	0.02	2.42	0.00	0.12	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.76	0.00	1.08	0.00	0.35	0.01
9	0.04	0.00	0.00	0.00	0.00	0.00	1.20	0.00	0.00	0.89	0.05	0.00
10	0.02	0.01	0.12	0.00	0.24	0.00	2.18	0.00	0.00	0.01	0.26	0.00
11	2.57	0.44	0.51	0.00	0.00	0.00	0.06	0.00	0.00	0.57	0.01	0.00
12	0.00	1.23	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.63	0.45	0.00
13	1.29	0.00	1.09	0.00	0.00	0.00	0.00	0.00	0.00	0.68	0.00	0.00
14	0.00	0.00	0.00	0.00	0.22	0.00	0.00	0.00	0.00	0.00	1.56	0.00
15	1.38	0.00	0.00	0.00	0.04	1.09	0.00	1.28	0.00	0.00	0.00	0.00
16	0.54	1.39	0.00	0.11	0.03	0.69	0.00	0.00	1.27	0.00	0.27	0.00
17	0.00	0.17	0.00	0.00	---	0.08	0.02	0.00	0.55	1.15	0.01	0.00
18	0.00	0.00	0.00	0.00	---	0.12	1.68	0.26	0.52	0.02	0.00	0.02
19	0.00	0.00	0.01	0.01	0.00	0.62	0.15	0.03	0.53	0.21	0.00	0.00
20	0.02	0.00	0.38	0.00	0.03	2.79	0.00	0.00	0.02	0.00	0.00	0.00
21	0.60	0.00	0.00	0.09	0.02	0.01	0.07	1.39	0.00	0.41	0.00	0.00
22	0.05	0.00	0.00	0.00	0.91	0.00	0.00	3.53	0.00	0.01	0.20	1.16
23	0.00	0.00	0.00	0.19	0.05	0.00	0.00	0.08	0.00	0.13	0.00	0.05
24	0.00	0.00	1.61	---	0.00	0.00	0.00	0.37	0.00	0.00	0.00	0.00
25	0.12	0.00	0.48	0.00	0.00	0.00	0.33	1.03	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.08	0.48	0.12	0.13	0.74	0.00	0.19	0.00	0.00
27	0.00	0.00	0.00	0.00	0.50	0.00	0.00	0.08	0.00	0.00	0.00	0.20
28	0.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.26	0.00	0.01	0.01
29	0.23	0.00	0.00	0.13	---	0.00	0.02	0.03	0.00	0.87	0.00	0.00
30	0.04	0.00	0.00	0.91	---	1.13	0.00	0.00	0.04	0.93	0.00	0.00
31	0.00	---	0.00	0.00	---	0.00	---	1.03	---	0.04	0.10	---
TOTAL	7.69	4.52	---	---	---	8.82	8.91	11.58	8.44	8.56	6.38	1.64



LOCATION.--Lat 35°23'00", long 80°42'54", Cabarrus County, Hydrologic Unit 03040105, Concord Regional Airport, Aviation Boulevard, Concord, NC.

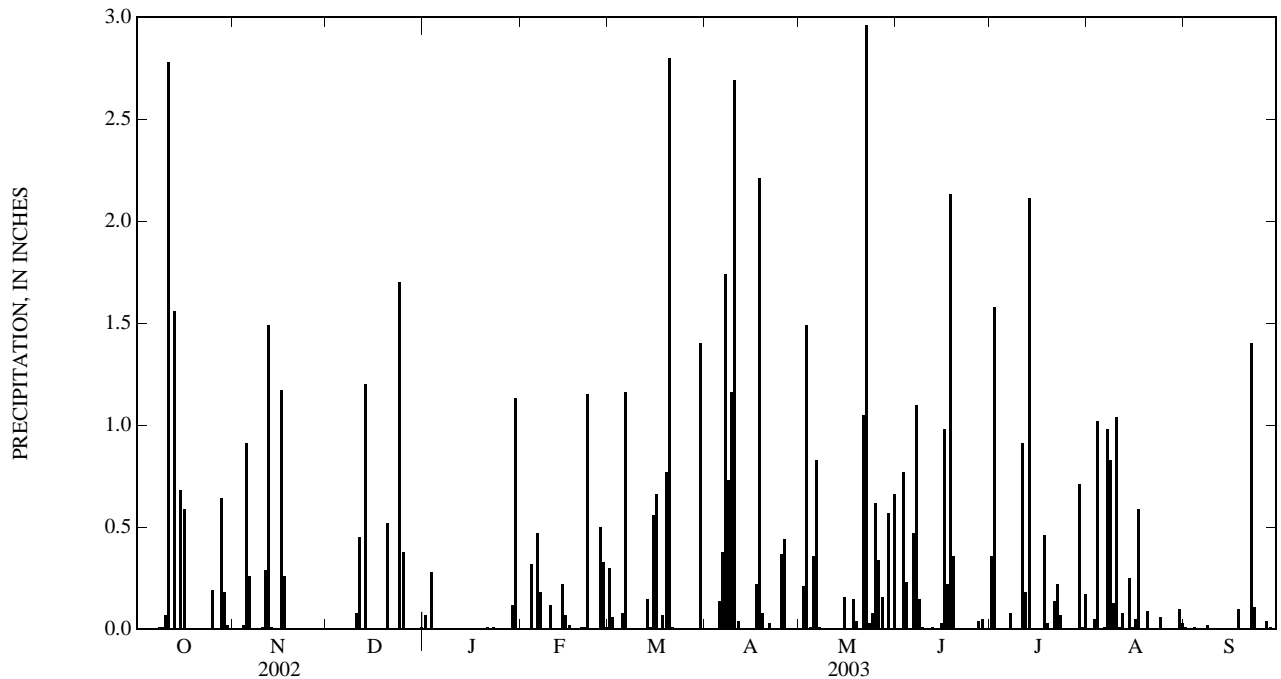
PERIOD OF RECORD.--June 2000 to current year.

GAGE.--Tipping-bucket raingage and electronic datalogger. Radio telemetry at station.

REMARKS.--Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network. Collection of frozen precipitation during December 2002 and February 2003 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.07	0.00	0.30	0.00	0.00	0.00	0.36	0.00	0.01
2	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.21	0.00	1.58	0.00	0.00
3	0.00	0.00	0.00	0.28	0.00	0.00	0.00	1.49	0.77	0.00	0.05	0.00
4	0.00	0.02	---	0.00	0.32	0.00	0.00	0.01	0.23	0.00	1.02	0.01
5	0.00	0.91	---	0.00	0.00	0.08	0.14	0.36	0.00	0.00	0.00	0.00
6	0.00	0.26	---	0.00	0.47	1.16	0.38	0.83	0.47	0.00	0.01	0.00
7	0.00	0.00	---	0.00	0.18	0.00	1.74	0.01	1.10	0.08	0.98	0.00
8	0.01	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.15	0.00	0.83	0.02
9	0.01	0.00	0.00	0.00	0.00	0.00	1.16	0.00	0.01	0.00	0.13	0.00
10	0.07	0.01	0.08	0.00	0.12	0.00	2.69	0.00	0.00	0.00	1.04	0.00
11	2.78	0.29	0.45	0.00	0.00	0.00	0.04	0.00	0.00	0.91	0.01	0.00
12	0.00	1.49	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.18	0.08	0.00
13	1.56	0.01	1.20	0.00	0.00	0.15	0.00	0.00	0.00	2.11	0.00	0.00
14	0.00	0.00	0.00	0.00	0.22	0.01	0.00	0.00	0.00	0.00	0.25	0.00
15	0.68	0.00	0.00	0.00	0.07	0.56	0.00	0.16	0.03	0.00	0.01	0.00
16	0.59	1.17	0.00	0.00	0.02	0.66	0.00	0.00	0.98	0.00	0.05	0.00
17	0.00	0.26	0.00	0.00	---	0.00	0.22	0.00	0.22	0.00	0.59	0.00
18	0.00	0.00	0.00	0.00	---	0.07	2.21	0.15	2.13	0.46	0.00	0.10
19	0.00	0.00	0.00	0.00	0.00	0.77	0.08	0.04	0.36	0.03	0.00	0.00
20	0.00	0.00	0.52	0.00	0.01	2.80	0.00	0.00	0.00	0.00	0.09	0.00
21	---	0.00	0.00	0.01	0.01	0.01	0.03	1.05	0.00	0.14	0.00	0.00
22	0.00	0.00	0.00	0.00	1.15	0.00	0.00	2.96	0.00	0.22	0.00	1.40
23	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.03	0.00	0.07	0.00	0.11
24	0.00	0.00	1.70	---	0.00	0.00	0.00	0.08	0.00	0.00	0.06	0.00
25	0.19	0.00	0.38	---	0.00	0.00	0.37	0.62	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.50	0.00	0.44	0.34	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.33	0.00	0.00	0.16	0.04	0.00	0.00	0.04
28	0.64	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.05	0.00	0.00	0.01
29	0.18	0.00	0.00	0.12	---	0.00	0.00	0.57	0.00	0.71	0.00	0.00
30	0.02	0.00	0.00	1.13	---	1.40	0.00	0.00	0.00	0.01	0.10	0.00
31	0.00	---	0.01	0.00	---	0.00	---	0.66	---	0.17	0.03	---
TOTAL	---	4.42	---	---	---	8.03	10.23	9.73	6.55	7.03	5.33	1.70



351753081011745 CRN52

LOCATION.--Lat 35°17'53", long 81°01'13", Gaston County, Hydrologic Unit 03050101, Ida Rankin Elementary School, Central Avenue, Mt. Holly, NC.

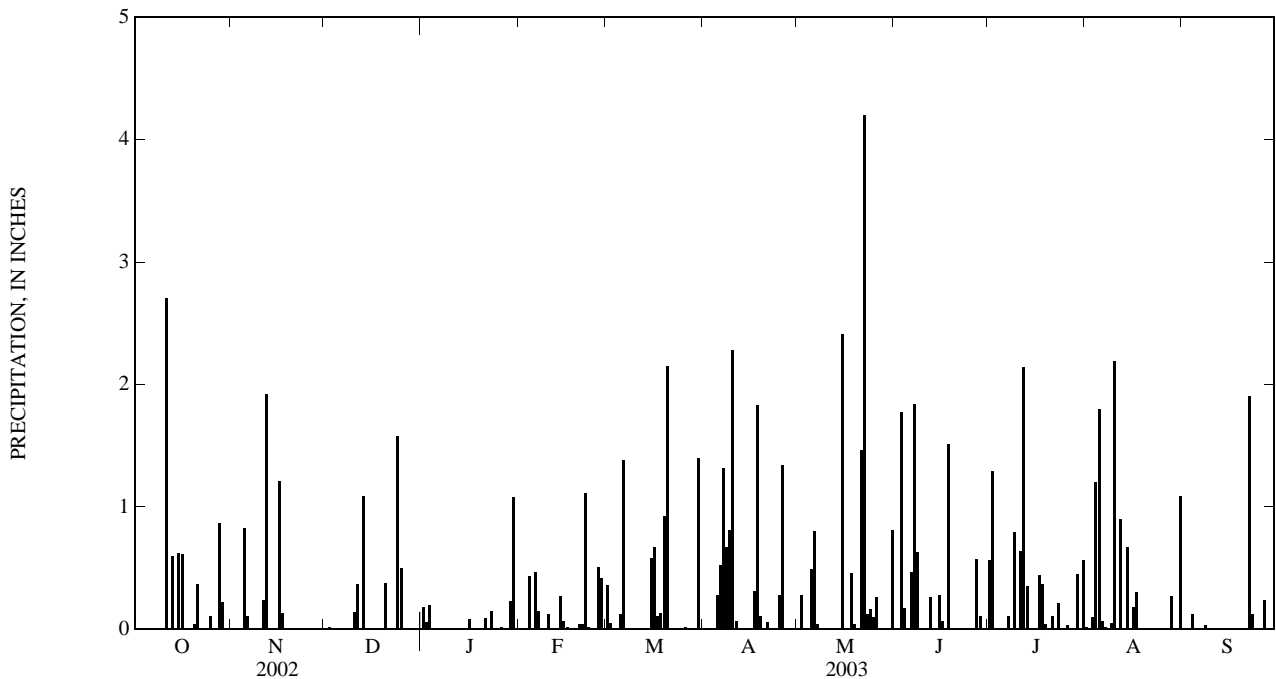
PERIOD OF RECORD.--May 2000 to current year.

GAGE.--Tipping-bucket raingage and electronic datalogger. Radio telemetry at station.

REMARKS.--Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network. Collection of frozen precipitation during December 2002 and February 2003 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.18	0.01	0.36	0.00	0.00	0.00	0.56	0.02	0.01
2	0.00	0.00	0.02	0.06	0.00	0.05	0.00	0.28	0.00	1.29	0.00	0.00
3	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	1.77	0.00	0.10	0.00
4	0.00	0.01	---	0.00	0.43	0.00	0.00	0.00	0.17	0.00	1.20	0.12
5	0.00	0.83	---	0.00	0.00	0.12	0.28	0.49	0.00	0.00	1.80	0.00
6	0.00	0.11	---	0.00	0.47	1.38	0.52	0.80	0.47	0.00	0.07	0.00
7	0.00	0.00	---	0.00	0.15	0.00	1.32	0.04	1.84	0.11	0.02	0.00
8	0.01	0.00	0.00	0.00	0.00	0.00	0.67	0.00	0.63	0.00	0.00	0.03
9	0.01	0.00	0.00	0.00	0.00	0.00	0.81	0.00	0.00	0.79	0.05	0.00
10	0.00	0.01	0.14	0.00	0.12	0.00	2.28	0.00	0.00	0.01	2.19	0.00
11	2.70	0.24	0.37	0.00	0.00	0.00	0.07	0.00	0.01	0.64	0.00	0.00
12	0.00	1.92	0.00	0.00	0.00	0.00	0.00	0.00	0.26	2.14	0.90	0.00
13	0.60	0.00	1.09	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.00	0.00
14	0.00	0.00	0.00	0.00	0.27	0.00	0.00	0.00	0.00	0.00	0.67	0.00
15	0.62	0.01	0.00	0.00	0.07	0.58	0.00	2.41	0.28	0.00	0.01	0.00
16	0.61	1.21	0.00	0.08	0.02	0.67	0.00	0.00	0.07	0.01	0.18	0.00
17	0.00	0.13	0.00	0.00	---	0.11	0.31	0.00	0.00	0.44	0.30	0.00
18	0.00	0.00	0.00	0.00	---	0.13	1.83	0.46	1.51	0.37	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.92	0.11	0.04	0.01	0.04	0.00	0.00
20	0.04	0.00	0.38	0.00	0.04	2.15	0.00	0.00	0.00	0.00	0.00	0.00
21	0.37	0.00	0.00	0.09	0.04	0.00	0.06	1.46	0.00	0.11	0.00	0.00
22	0.00	0.00	0.00	0.00	1.11	0.00	0.00	4.20	0.00	0.00	---	1.90
23	0.00	0.00	0.00	0.15	0.02	0.00	0.00	0.12	0.00	0.21	0.01	0.12
24	0.00	0.00	1.58	0.00	0.00	0.00	0.00	0.16	0.00	0.01	0.00	0.00
25	0.11	0.00	0.50	0.00	0.00	0.00	0.28	0.10	0.00	0.00	0.00	0.00
26	0.01	0.00	0.00	0.02	0.51	0.02	1.34	0.26	0.00	0.03	0.00	0.00
27	0.00	0.00	0.00	0.00	0.42	0.00	0.00	0.00	0.57	0.00	0.00	0.24
28	0.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.27	0.01
29	0.22	0.00	0.00	0.23	---	0.00	0.00	0.00	0.00	0.45	0.00	0.00
30	0.01	0.00	0.00	1.08	---	1.40	0.00	0.00	0.00	0.00	0.00	0.00
31	0.01	---	0.00	0.00	---	0.00	---	0.81	---	0.56	1.09	---
TOTAL	6.19	4.47	---	2.09	---	7.89	9.88	11.63	7.70	8.12	---	2.43



LOCATION.--Lat 35°14'12", long 80°54'08", Mecklenburg County, Hydrologic Unit 03050103, Harding University High School, Alleghany Street, Charlotte, NC.

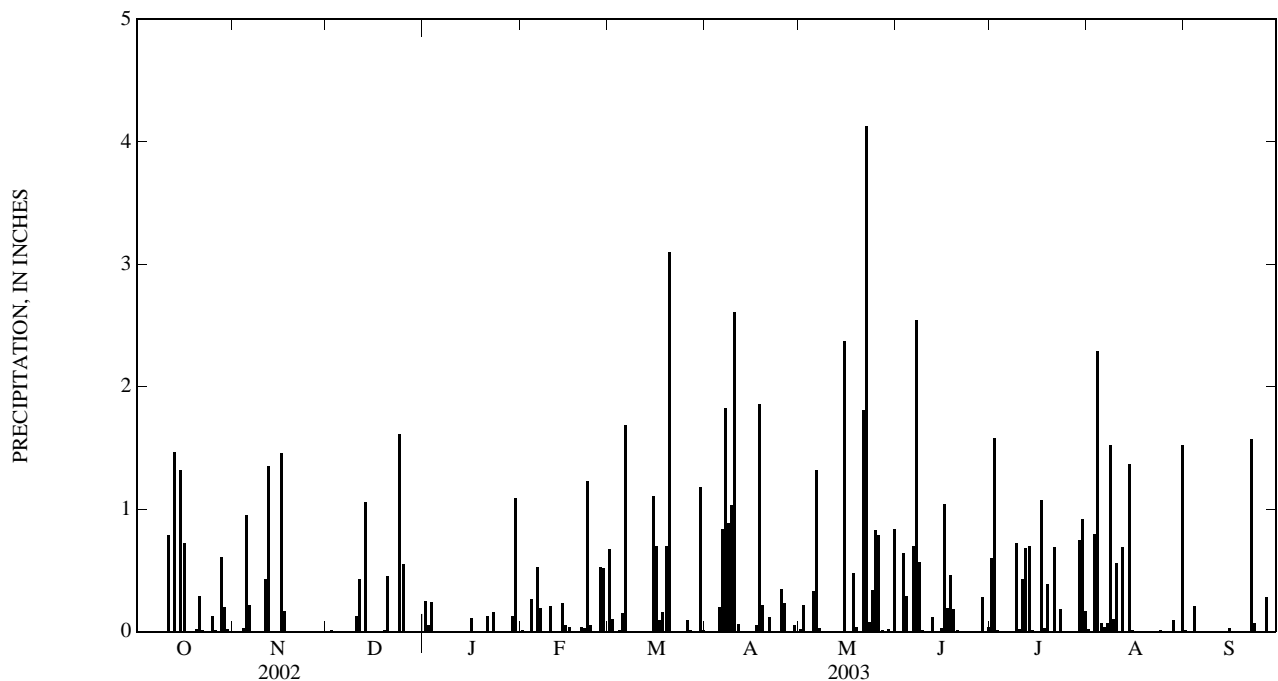
PERIOD OF RECORD.--May 2000 to current year.

GAGE.--Tipping-bucket raingage and electronic datalogger. Radio telemetry at station.

REMARKS.--Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network. Collection of frozen precipitation during December 2002 and February 2003 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.25	0.01	0.67	0.00	0.02	0.00	0.60	0.02	0.01
2	0.00	0.00	0.01	0.05	0.00	0.10	0.00	0.22	0.00	1.58	0.00	0.00
3	0.00	0.00	0.00	0.24	0.00	0.00	0.00	0.00	0.64	0.01	0.80	0.00
4	0.00	0.03	---	0.00	0.27	0.01	0.00	0.00	0.29	0.00	2.29	0.21
5	0.00	0.95	---	0.00	0.00	0.15	0.20	0.33	0.00	0.00	0.07	0.00
6	0.00	0.22	---	0.00	0.53	1.69	0.84	1.32	0.70	0.00	0.04	0.00
7	0.00	0.00	---	0.00	0.19	0.00	1.83	0.03	2.54	0.00	0.07	0.00
8	0.00	0.00	---	0.00	0.00	0.00	0.89	0.00	0.57	0.00	1.52	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	1.03	0.00	0.01	0.72	0.10	0.00
10	0.00	0.00	0.13	0.00	0.21	0.00	2.61	0.00	0.00	0.02	0.56	0.00
11	0.79	0.43	0.43	0.00	0.00	0.00	0.06	0.00	0.00	0.43	0.00	0.00
12	0.00	1.35	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.68	0.69	0.00
13	1.47	0.00	1.06	0.00	0.00	0.00	0.00	0.00	0.00	0.70	0.00	0.00
14	0.00	0.00	0.00	0.00	0.23	0.00	0.00	0.00	0.00	0.01	1.37	0.00
15	1.32	0.00	0.00	0.00	0.05	1.11	0.00	2.37	0.03	0.00	0.01	0.03
16	0.72	1.46	0.00	0.11	0.04	0.70	0.00	0.00	1.04	0.00	0.00	0.00
17	0.00	0.17	0.00	0.00	---	0.09	0.05	0.00	0.19	1.07	0.00	0.00
18	0.00	0.00	0.00	0.00	---	0.16	1.86	0.48	0.46	0.03	0.00	0.00
19	0.00	0.00	0.01	0.00	0.00	0.70	0.22	0.04	0.18	0.39	0.00	0.00
20	0.02	0.00	0.45	0.00	0.04	3.10	0.00	0.00	0.01	0.00	0.00	0.00
21	0.29	0.00	0.00	0.13	0.03	0.00	0.12	1.81	0.00	0.69	0.00	0.00
22	0.01	0.00	0.00	0.00	1.23	0.00	0.00	4.13	0.00	0.00	0.00	1.57
23	0.00	0.00	0.00	0.16	0.05	0.00	0.00	0.08	0.00	0.18	0.00	0.07
24	0.00	0.00	1.61	---	0.00	0.00	0.00	0.34	0.00	0.00	0.01	0.00
25	0.13	0.00	0.55	0.00	0.00	0.00	0.35	0.83	0.00	0.00	0.00	0.00
26	0.01	0.00	0.00	0.00	0.53	0.09	0.23	0.79	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.52	0.01	0.00	0.01	0.00	0.00	0.00	0.28
28	0.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.28	0.00	0.09	0.00
29	0.20	0.00	0.00	0.13	---	0.00	0.05	0.02	0.00	0.75	0.00	0.00
30	0.02	0.00	0.00	1.09	---	1.18	0.00	0.00	0.04	0.92	0.00	0.00
31	0.00	---	0.00	0.00	---	0.01	---	0.84	---	0.17	1.52	---
TOTAL	5.59	4.61	---	---	---	9.77	10.34	13.66	7.10	8.95	9.16	2.17



351741080475045 CRN54

LOCATION.--Lat 35°17'43", long 80°47'46", Mecklenburg County, Hydrologic Unit 03040105, Derita Elementary School, West Sugar Creek Road, Charlotte, NC.

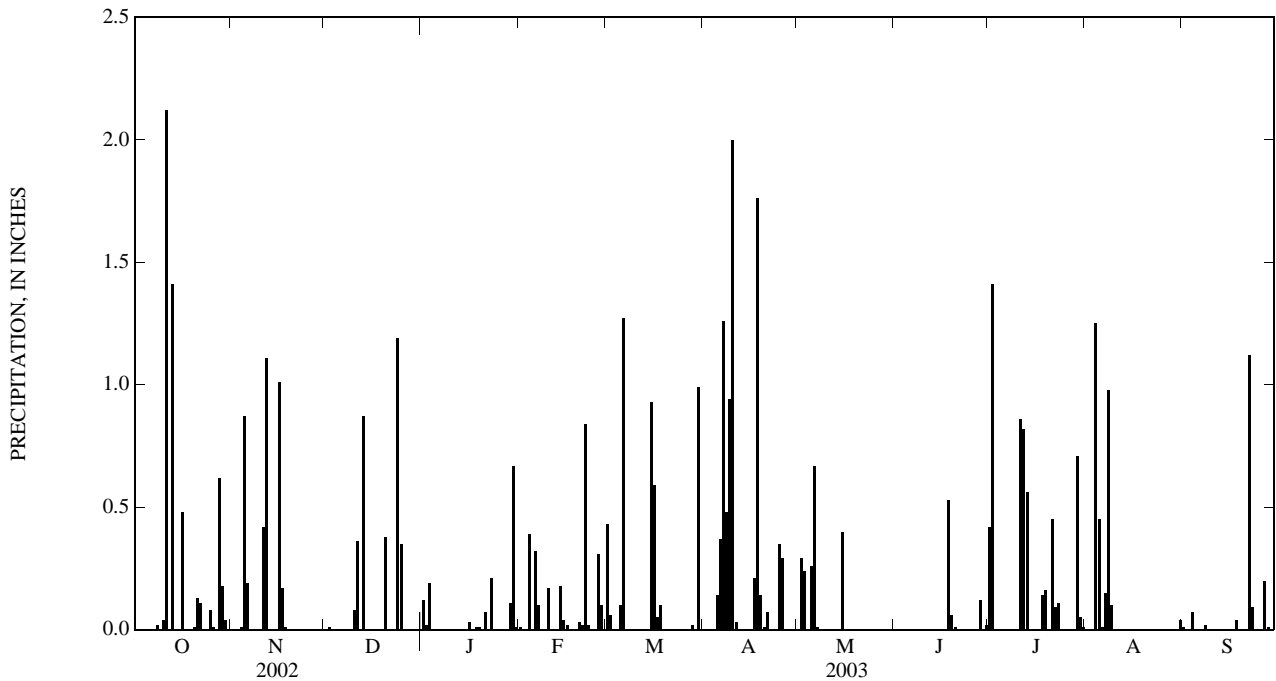
PERIOD OF RECORD.--May 2000 to current year.

GAGE.--Tipping-bucket raingage and electronic datalogger. Radio telemetry at station.

REMARKS.--Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network. Collection of frozen precipitation during December 2002 and February 2003 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.12	0.01	0.43	0.00	0.00	---	0.42	0.00	0.01
2	0.00	0.00	0.01	0.02	0.00	0.06	0.00	0.29	---	1.41	0.00	0.00
3	0.00	0.00	0.00	0.19	0.00	0.00	0.00	0.24	---	0.00	0.00	0.00
4	0.00	0.01	0.00	0.00	0.39	0.00	0.00	0.00	---	0.00	1.25	0.07
5	0.00	0.87	---	0.00	0.00	0.10	0.14	0.26	---	0.00	0.45	0.00
6	0.00	0.19	---	0.00	0.32	1.27	0.37	0.67	---	0.00	0.01	0.00
7	0.00	0.00	---	0.00	0.10	0.00	1.26	0.01	---	0.00	0.15	0.00
8	0.02	0.00	0.00	0.00	0.00	0.00	0.48	0.00	---	0.00	0.98	0.02
9	0.00	0.00	0.00	0.00	0.00	0.00	0.94	0.00	---	0.00	0.10	0.00
10	0.04	0.00	0.08	0.00	0.17	0.00	2.00	0.00	---	0.00	0.00	0.00
11	2.12	0.42	0.36	0.00	0.00	0.00	0.03	0.00	---	0.86	---	0.00
12	0.00	1.11	0.00	0.00	0.00	0.00	0.00	0.00	---	0.82	---	0.00
13	1.41	0.00	0.87	0.00	0.00	0.00	0.00	0.00	---	0.56	---	0.00
14	0.00	0.00	0.00	0.00	0.18	0.00	0.00	0.00	---	0.00	---	0.00
15	0.00	0.00	0.00	0.00	0.04	0.93	0.00	0.40	---	0.00	---	0.00
16	0.48	1.01	0.00	0.03	0.02	0.59	0.00	---	---	0.00	---	0.00
17	0.00	0.17	0.00	0.00	---	0.05	0.21	---	---	0.00	---	0.00
18	0.00	0.01	0.00	0.01	---	0.10	1.76	---	0.53	0.14	---	0.04
19	0.00	0.00	0.00	0.01	0.00	---	0.14	---	0.06	0.16	---	0.00
20	0.01	0.00	0.38	0.00	0.03	---	0.01	---	0.01	0.00	---	0.00
21	0.13	0.00	0.00	0.07	0.02	---	0.07	---	0.00	0.45	---	0.00
22	0.11	0.00	0.00	0.00	0.84	---	0.00	---	0.00	0.09	---	1.12
23	0.00	0.00	0.00	0.21	0.02	---	0.00	---	0.00	0.11	---	0.09
24	0.00	0.00	1.19	0.00	0.00	---	0.00	---	0.00	0.00	---	0.00
25	0.08	0.00	0.35	0.00	0.00	---	0.35	---	0.00	0.00	---	0.00
26	0.01	0.00	0.00	0.00	0.31	---	0.29	---	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.10	---	0.00	---	0.00	0.00	0.00	0.20
28	0.62	0.00	0.00	0.00	0.00	0.02	0.00	---	0.12	0.00	0.00	0.01
29	0.18	0.00	0.00	0.11	---	0.00	0.00	---	0.00	0.71	0.00	0.00
30	0.04	0.00	0.00	0.67	---	0.99	0.00	---	0.02	0.05	0.00	0.00
31	0.00	---	0.00	0.01	---	0.00	---	---	---	0.01	0.04	---
TOTAL	5.25	3.79	---	1.45	---	---	8.05	---	---	5.79	---	1.56



LOCATION.--Lat 35°03'26", long 80°55'15", York County, South Carolina, Hydrologic Unit 03050103, private residence, Hammond Road, Fort Mill, SC.

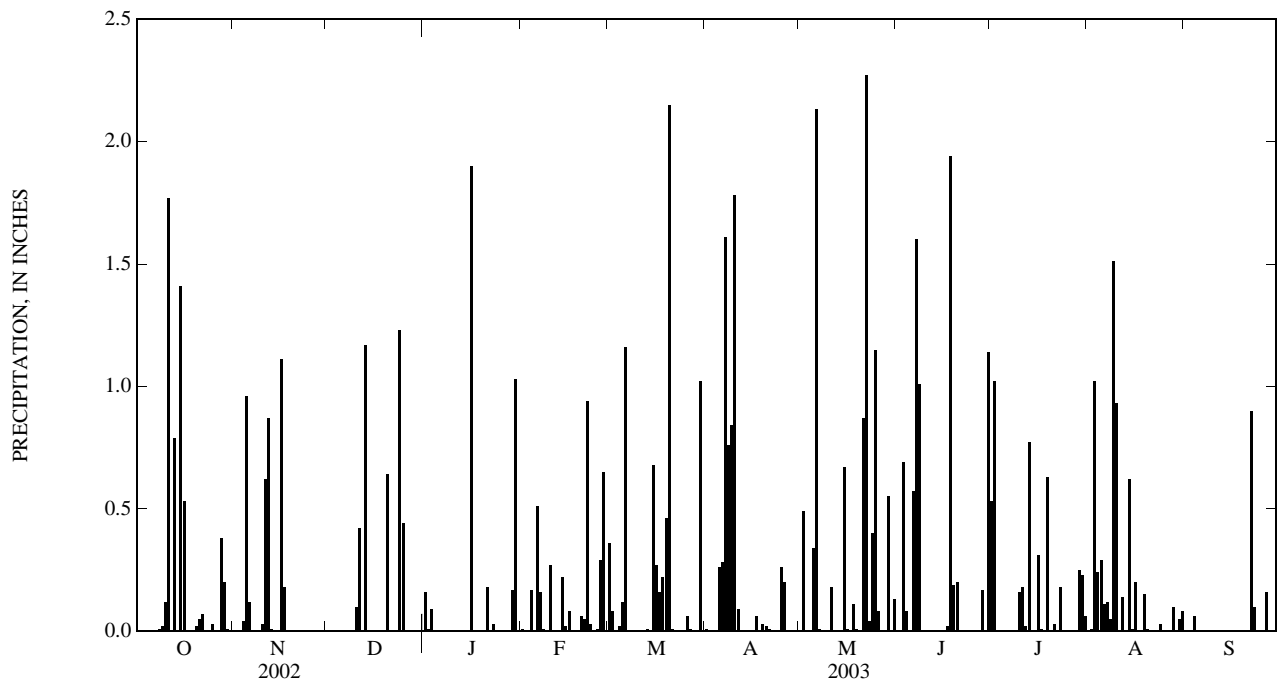
PERIOD OF RECORD.--June 2000 to current year.

GAGE.--Tipping-bucket raingage and electronic datalogger. Radio telemetry at station.

REMARKS.--Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network. Collection of frozen precipitation during December 2002 and February 2003 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.16	0.01	0.36	0.01	0.00	0.00	0.53	0.00	0.00
2	0.00	0.00	0.00	0.01	0.00	0.08	0.00	0.49	0.00	1.02	0.01	0.00
3	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.69	0.00	1.02	0.00
4	0.00	0.04	---	0.00	0.17	0.02	0.00	0.00	0.08	0.00	0.24	0.06
5	0.00	0.96	---	0.00	0.00	0.12	0.26	0.34	0.00	0.00	0.29	0.00
6	0.00	0.12	---	0.00	0.51	1.16	0.28	2.13	0.57	0.00	0.11	0.00
7	0.00	0.00	0.00	0.00	0.16	0.00	1.61	0.01	1.60	0.00	0.12	0.00
8	0.01	0.00	0.00	0.00	0.01	0.00	0.76	0.00	1.01	0.00	0.05	0.00
9	0.02	0.00	0.00	0.00	0.00	0.00	0.84	0.00	0.00	0.00	1.51	0.00
10	0.12	0.03	0.10	0.00	0.27	0.00	1.78	0.00	0.00	0.16	0.93	0.00
11	1.77	0.62	0.42	0.00	0.00	0.00	0.09	0.18	0.00	0.18	0.00	0.00
12	0.00	0.87	0.00	0.00	0.00	0.00	0.00	0.00	---	0.02	0.14	0.00
13	0.79	0.01	1.17	0.00	0.00	0.01	0.00	0.00	---	0.77	0.00	0.00
14	0.00	0.00	0.00	0.00	0.22	0.00	0.00	0.00	---	0.00	0.62	0.00
15	1.41	0.00	0.00	0.00	0.02	0.68	0.00	0.67	---	0.00	0.01	0.00
16	0.53	1.11	0.00	1.9	0.08	0.27	0.00	0.01	---	0.31	0.20	0.00
17	0.00	0.18	0.00	0.00	---	0.16	0.06	0.00	0.02	0.01	0.00	0.00
18	0.00	0.00	0.00	0.00	---	0.22	---	0.11	1.94	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.46	0.03	0.01	0.19	0.63	0.15	0.00
20	0.02	0.00	0.64	0.00	0.06	2.15	0.02	0.00	0.20	0.00	0.01	0.00
21	0.05	0.00	0.00	0.18	0.05	0.01	0.01	0.87	0.00	0.03	0.00	0.00
22	0.07	0.00	0.00	0.00	0.94	0.00	0.00	2.27	0.00	0.00	0.00	0.90
23	0.00	0.00	0.00	0.03	0.03	0.00	0.00	0.04	0.00	0.18	0.00	0.10
24	0.00	0.00	1.23	0.00	0.00	0.00	0.00	0.40	0.00	0.00	0.03	0.00
25	0.03	0.00	0.44	0.00	0.01	0.00	0.26	1.15	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.29	0.06	0.20	0.08	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.65	0.01	0.00	0.00	0.00	0.00	0.00	0.16
28	0.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.00	0.10	0.00
29	0.20	0.00	0.00	0.17	---	0.00	0.00	0.55	0.00	0.25	0.00	0.00
30	0.01	0.00	0.00	1.03	---	1.02	0.00	0.00	1.14	0.23	0.05	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.13	---	0.06	0.08	---
TOTAL	5.41	3.94	---	3.57	---	6.79	---	9.44	---	4.38	5.67	1.22



350635080513245 CRN56

LOCATION.--Lat 35°06'35", long 80°51'32", Mecklenburg County, Hydrologic Unit 03050103, South Mecklenburg High School, Park Road, Charlotte, NC.

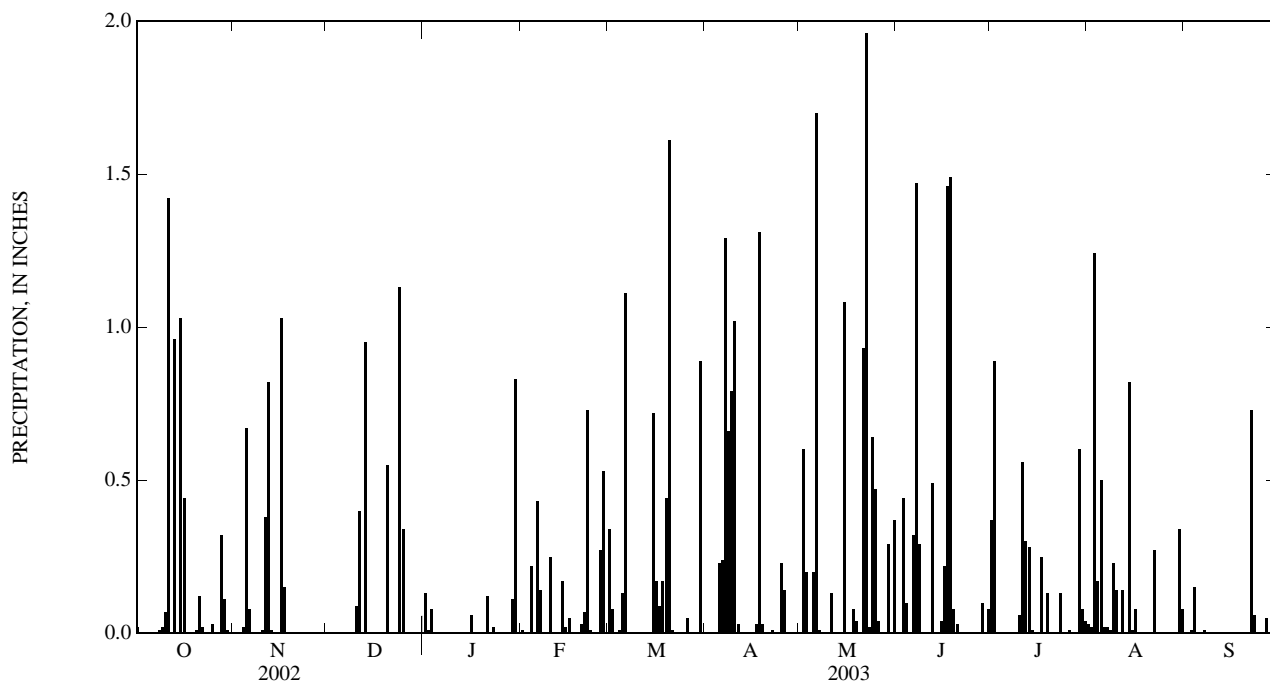
PERIOD OF RECORD.--May 2000 to current year.

GAGE.--Tipping-bucket raingage and electronic datalogger. Radio telemetry at station.

REMARKS.--Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network. Collection of frozen precipitation during December 2002 and February 2003 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.02	0.00	0.00	0.13	0.01	0.34	0.00	0.00	0.00	0.37	0.03	0.00
2	0.00	0.00	0.00	0.01	0.00	0.08	0.00	0.60	0.00	0.89	0.02	0.00
3	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.20	0.44	0.00	1.24	0.01
4	0.00	0.02	---	0.00	0.22	0.01	0.00	0.00	0.10	0.00	0.17	0.15
5	0.00	0.67	---	0.00	0.00	0.13	0.23	0.20	0.00	0.00	0.50	0.00
6	0.00	0.08	---	0.00	0.43	1.11	0.24	1.70	0.32	0.00	0.02	0.00
7	0.00	0.00	0.00	0.00	0.14	0.00	1.29	0.01	1.47	0.00	0.02	0.01
8	0.01	0.00	0.00	0.00	0.00	0.00	0.66	0.00	0.29	0.00	0.01	0.00
9	0.02	0.00	0.00	0.00	0.00	0.00	0.79	0.00	0.00	0.00	0.23	0.00
10	0.07	0.01	0.09	0.00	0.25	0.00	1.02	0.00	0.00	0.06	0.14	0.00
11	1.42	0.38	0.40	0.00	0.00	0.00	0.03	0.13	0.00	0.56	0.00	0.00
12	0.00	0.82	0.00	0.00	0.00	0.00	0.00	0.00	0.49	0.30	0.14	0.00
13	0.96	0.01	0.95	0.00	0.00	0.00	0.00	0.00	0.00	0.28	0.00	0.00
14	0.00	0.00	0.00	0.00	0.17	0.00	0.00	0.00	0.00	0.01	0.82	0.00
15	1.03	0.00	0.00	0.00	0.02	0.72	0.00	1.08	0.04	0.00	0.01	0.00
16	0.44	1.03	0.00	0.06	0.05	0.17	0.00	0.00	0.22	0.00	0.08	0.00
17	0.00	0.15	0.00	0.00	---	0.09	0.03	0.00	1.46	0.25	0.00	0.00
18	0.00	0.00	0.00	0.00	---	0.17	1.31	0.08	1.49	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.44	0.03	0.04	0.08	0.13	0.00	0.00
20	0.01	0.00	0.55	0.00	0.03	1.61	0.00	0.00	0.03	0.00	0.00	0.00
21	0.12	0.00	0.00	0.12	0.07	0.01	0.00	0.93	0.00	0.00	0.00	0.00
22	0.02	0.00	0.00	0.00	0.73	0.00	0.01	1.96	0.00	0.00	0.27	0.73
23	0.00	0.00	0.00	0.02	0.01	0.00	0.00	0.02	0.00	0.13	0.00	0.06
24	0.00	0.00	1.13	0.00	0.00	0.00	0.00	0.64	0.00	0.00	0.00	0.00
25	0.03	0.00	0.34	0.00	0.00	0.00	0.23	0.47	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.27	0.05	0.14	0.04	0.00	0.01	0.00	0.00
27	0.00	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.05
28	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00
29	0.11	0.00	0.00	0.11	---	0.00	0.00	0.29	0.00	0.60	0.00	0.00
30	0.01	0.00	0.00	0.83	---	0.89	0.00	0.00	0.08	0.08	0.34	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.37	---	0.04	0.08	---
TOTAL	4.59	3.17	---	1.36	---	5.82	6.01	8.76	6.61	3.71	4.12	1.01



LOCATION.--Lat 35°11'03", long 80°41'22", Mecklenburg County, Hydrologic Unit 03050103, Lebanon Road Elementary School, Lebanon Road, Charlotte, NC.

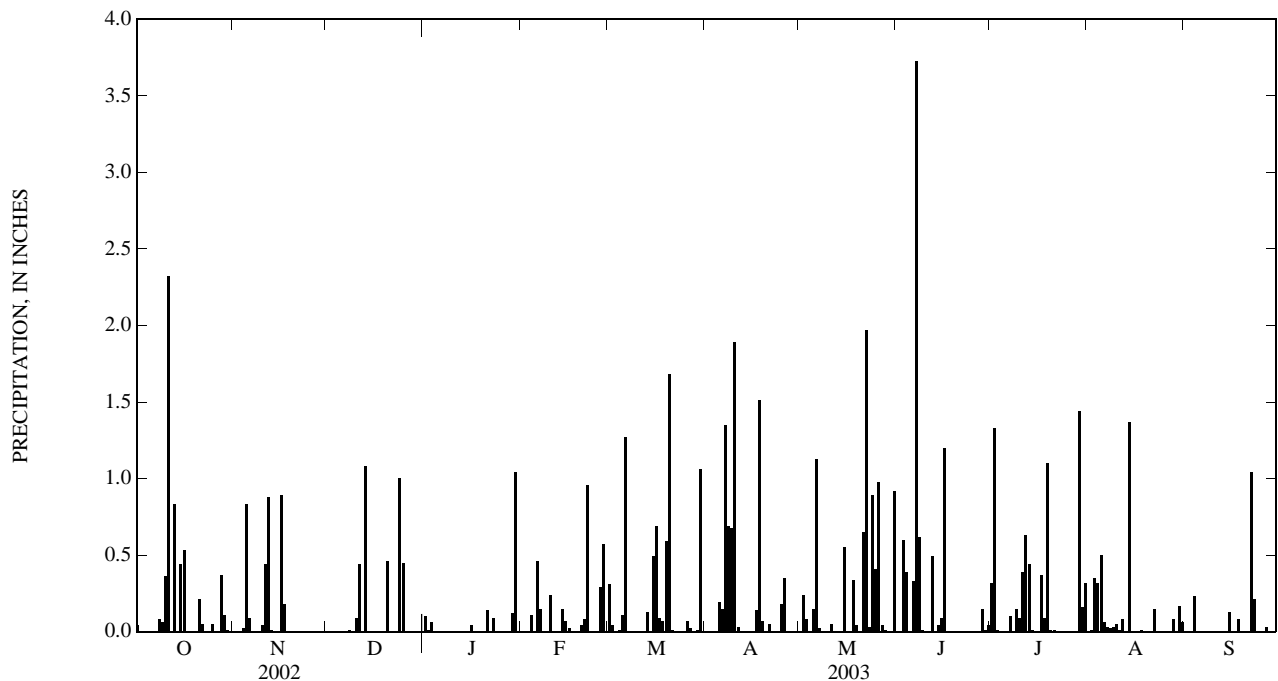
PERIOD OF RECORD.--April 2000 to current year.

GAGE.--Tipping-bucket raingage and electronic datalogger. Radio telemetry at station.

REMARKS.--Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network. Collection of frozen precipitation during December 2002 and February 2003 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.04	0.00	0.00	0.10	0.00	0.31	0.00	0.00	0.00	0.32	0.00	0.00
2	0.00	0.00	0.00	0.01	0.00	0.04	0.00	0.24	0.00	1.33	0.01	0.00
3	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.08	0.60	0.01	0.35	0.00
4	0.00	0.02	---	0.00	0.11	0.01	0.00	0.00	0.39	0.00	0.32	0.23
5	0.00	0.83	---	0.00	0.00	0.11	0.19	0.15	0.00	0.00	0.50	0.00
6	0.00	0.09	---	0.00	0.46	1.27	0.15	1.13	0.33	0.00	0.06	0.00
7	0.00	0.00	0.00	0.00	0.15	0.00	1.35	0.02	3.73	0.10	0.03	0.00
8	0.08	0.00	0.01	0.00	0.00	0.00	0.69	0.00	0.62	0.00	0.02	0.00
9	0.06	0.00	0.00	0.00	0.00	0.00	0.68	0.00	0.01	0.15	0.03	0.00
10	0.36	0.04	0.09	0.00	0.24	0.00	1.89	0.00	0.00	0.09	0.05	0.00
11	2.32	0.44	0.44	0.00	0.00	0.00	0.03	0.05	0.00	0.39	0.01	0.00
12	0.00	0.88	0.00	0.00	0.00	0.00	0.00	0.00	0.49	0.63	0.08	0.00
13	0.83	0.01	1.08	0.00	0.00	0.13	0.00	0.00	0.00	0.44	0.00	0.00
14	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.04	0.01	1.37	0.00
15	0.44	0.00	0.00	0.00	0.07	0.49	0.00	0.55	0.09	0.00	0.00	0.13
16	0.53	0.89	0.00	0.04	0.02	0.69	0.00	0.00	1.20	0.00	0.00	0.00
17	0.00	0.18	0.00	0.00	---	0.09	0.14	0.00	---	0.37	0.00	0.00
18	0.00	0.00	0.00	0.00	---	0.07	1.51	0.34	---	0.09	0.01	0.08
19	0.00	0.00	0.00	0.00	0.00	0.59	0.07	0.04	0.00	1.10	0.00	0.00
20	0.00	0.00	0.46	0.00	0.04	1.68	0.00	0.00	0.00	0.01	0.00	0.00
21	0.21	0.00	0.00	0.14	0.08	0.01	0.05	0.65	0.00	0.01	0.00	0.00
22	0.05	0.00	0.00	0.00	0.96	0.00	0.00	1.97	0.00	---	0.15	1.04
23	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.03	0.00	---	0.00	0.21
24	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.89	0.00	---	0.00	0.00
25	0.05	0.00	0.45	0.00	0.00	0.00	0.18	0.41	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.29	0.07	0.35	0.98	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.57	0.02	0.00	0.04	0.00	0.00	0.00	0.03
28	0.37	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.15	0.00	0.08	0.00
29	0.11	0.00	0.00	0.12	---	0.01	0.00	0.00	0.01	1.44	0.00	0.00
30	0.01	0.00	0.00	1.04	---	1.06	0.00	0.00	0.04	0.16	0.17	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.92	---	0.32	0.06	---
TOTAL	5.46	3.38	---	1.60	---	6.65	7.28	8.50	---	---	3.30	1.72



352006080462845 CRN58

LOCATION.--Lat 35°20'06", long 80°46'28", Mecklenburg County, North Carolina, Hydrologic Unit 03050103, Mallard Creek Elementary School, Charlotte, NC.

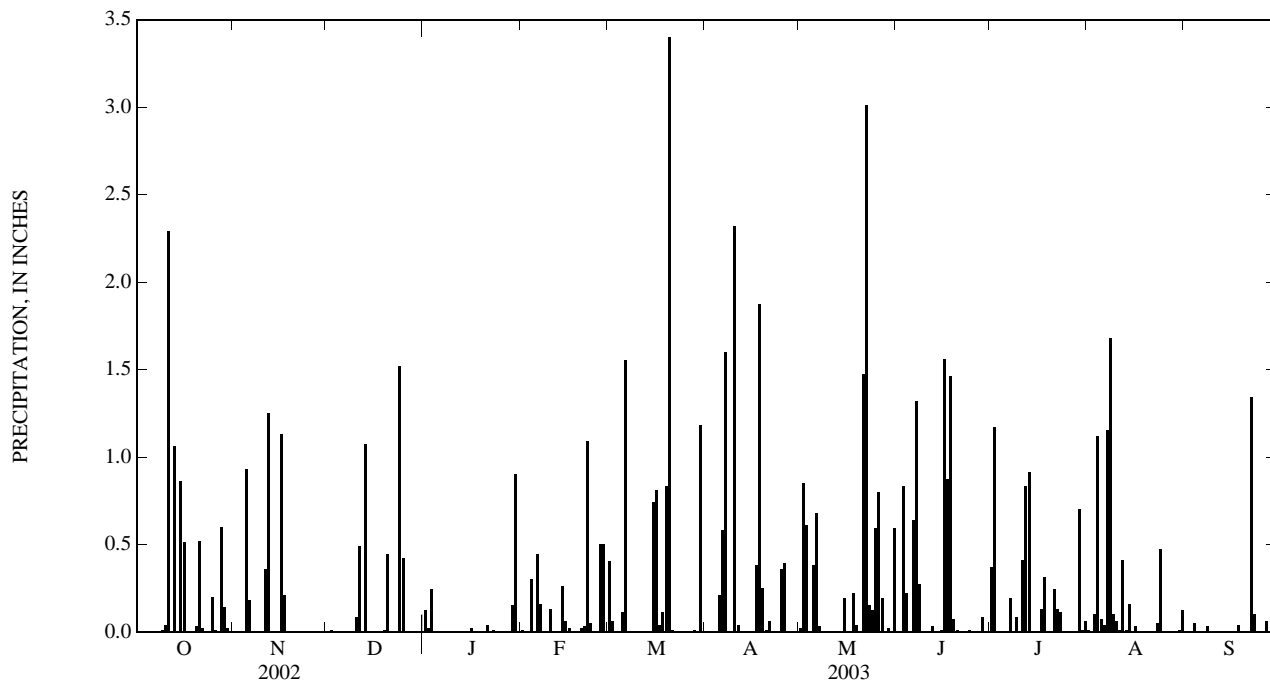
PERIOD OF RECORD.--October 2002 to September 2003. Records for June 2000 to June 2001 at site Highland Elementary School, Charlotte, NC (station 351441080481545).

GAGE.--Tipping-bucket raingage and electronic datalogger. Radio telemetry at station.

REMARKS.--Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network. Collection of frozen precipitation during December 2002 and February 2003 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.12	0.01	0.40	0.00	0.02	0.00	0.37	0.01	0.00
2	0.00	0.00	0.01	0.02	0.00	0.06	0.00	0.85	0.00	1.17	0.00	0.00
3	0.00	0.00	0.00	0.24	0.00	0.00	0.00	0.61	0.83	0.00	0.10	0.00
4	0.00	0.00	0.00	0.00	0.30	0.00	0.00	0.00	0.22	0.00	1.12	0.05
5	0.00	0.93	---	0.00	0.00	0.11	0.21	0.38	0.00	0.00	0.07	0.00
6	0.00	0.18	---	0.00	0.44	1.55	0.58	0.68	0.64	0.00	0.04	0.00
7	0.00	0.00	---	0.00	0.16	0.00	1.60	0.03	1.32	0.19	1.15	0.00
8	0.00	0.00	---	0.00	0.00	0.00	---	0.00	0.27	0.00	1.68	0.03
9	0.01	0.00	0.00	0.00	0.00	0.00	---	0.00	0.00	0.08	0.10	0.00
10	0.04	0.00	0.08	0.00	0.13	0.00	2.32	0.00	0.00	0.00	0.06	0.00
11	2.29	0.36	0.49	0.00	0.00	0.00	0.04	0.00	0.00	0.41	0.01	0.00
12	0.00	1.25	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.83	0.41	0.00
13	1.06	0.00	1.07	0.00	0.00	0.00	0.00	0.00	0.00	0.91	0.01	0.00
14	0.00	0.00	0.00	0.00	0.26	0.00	0.00	0.00	0.00	0.00	0.16	0.00
15	0.86	0.00	0.00	0.00	0.06	0.74	0.00	0.19	0.01	0.00	0.00	0.00
16	0.51	1.13	0.00	0.02	0.02	0.81	0.00	0.00	1.56	0.00	0.03	0.00
17	0.00	0.21	0.00	0.00	---	0.04	0.38	0.00	0.87	0.13	0.00	0.00
18	0.00	0.00	0.00	0.00	---	0.11	1.87	0.22	1.46	0.31	0.00	0.04
19	0.00	0.00	0.01	0.00	0.00	0.83	0.25	0.04	0.07	0.00	0.00	0.00
20	0.03	0.00	0.44	0.00	0.02	3.40	0.01	0.00	0.01	0.00	0.00	0.00
21	0.52	0.00	0.00	0.04	0.03	0.01	0.06	1.47	0.00	0.24	0.00	0.00
22	0.02	0.00	0.00	0.00	1.09	0.00	0.00	3.01	0.00	0.13	0.00	1.34
23	0.00	0.00	0.00	0.01	0.05	0.00	0.00	0.15	0.00	0.11	0.05	0.10
24	0.00	0.00	1.52	---	0.00	0.00	0.00	0.12	0.01	0.00	0.47	0.00
25	0.20	0.00	0.42	0.00	0.00	0.00	0.36	0.59	0.00	0.00	0.00	0.00
26	0.01	0.00	0.00	0.00	0.50	0.00	0.39	0.80	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.50	0.00	0.00	0.19	0.00	0.00	0.00	0.06
28	0.60	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.08	0.00	0.00	0.00
29	0.14	0.00	0.00	0.15	---	0.00	0.00	0.02	0.00	0.70	0.00	0.00
30	0.02	0.00	0.00	0.90	---	1.18	0.00	0.00	0.00	0.01	0.01	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.59	---	0.06	0.12	---
TOTAL	6.31	4.06	---	---	---	9.25	---	9.96	7.38	5.65	5.60	1.62



LOCATION.--Lat 35°06'24", long 81°02'33", York County, South Carolina, Hydrologic Unit 03050101, YMCA Camp Thunderbird, Thunderbird Lane, Lake Wylie, SC.

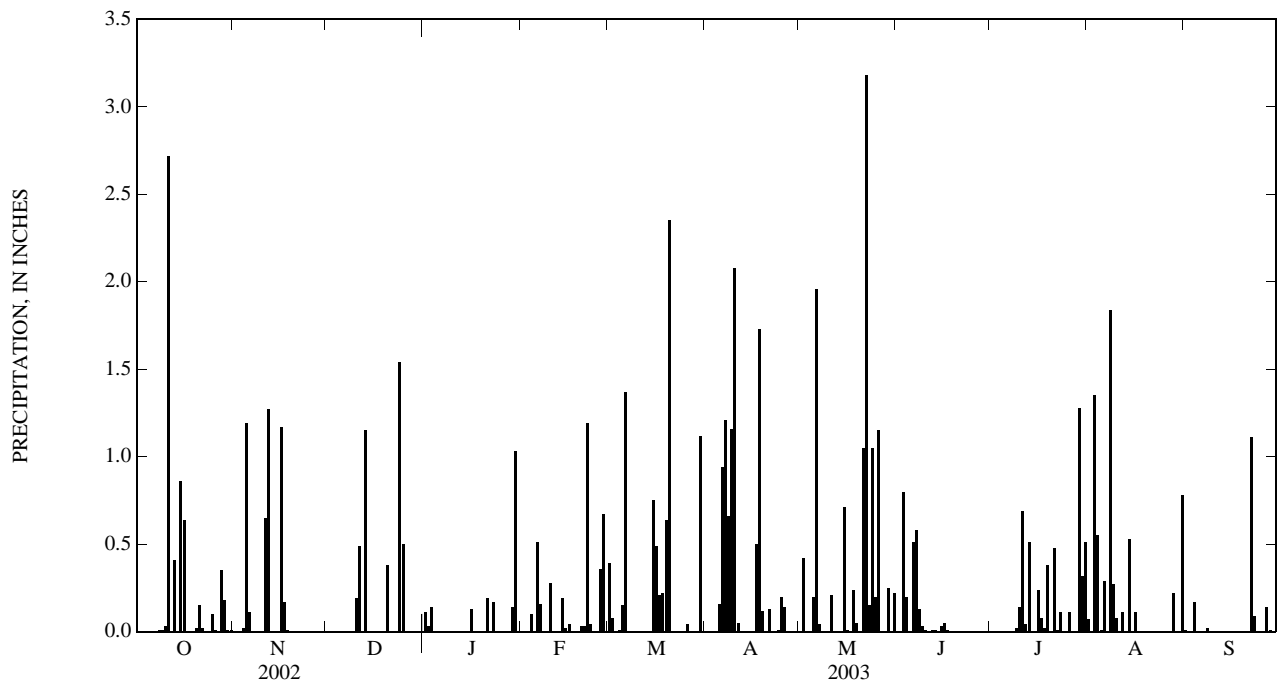
PERIOD OF RECORD.--June 2000 to current year.

GAGE.--Tipping-bucket raingage and electronic datalogger. Radio telemetry at station.

REMARKS.--Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network. Collection of frozen precipitation during December 2002 and February 2003 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.11	0.00	0.39	0.00	0.00	0.00	---	0.07	0.01
2	0.00	0.00	0.00	0.03	0.00	0.08	0.00	0.42	0.00	---	0.00	0.00
3	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.80	0.00	1.35	0.00
4	0.00	0.02	---	0.00	0.10	0.01	0.00	0.00	0.20	0.00	0.55	0.17
5	0.00	1.19	---	0.00	0.00	0.15	0.16	0.20	0.00	0.00	0.01	0.00
6	0.00	0.11	---	0.00	0.51	1.37	0.94	1.96	0.51	0.00	0.29	0.00
7	0.00	0.00	0.00	0.00	0.16	0.00	1.21	0.04	0.58	0.00	0.00	0.00
8	0.01	0.00	0.00	0.00	0.00	0.00	0.66	0.00	0.13	0.00	1.84	0.02
9	0.01	0.00	0.00	0.00	0.00	0.00	1.16	0.00	0.03	0.02	0.27	0.00
10	0.03	0.00	0.19	0.00	0.28	0.00	2.08	0.00	0.01	0.14	0.08	0.00
11	2.72	0.65	0.49	0.00	0.00	0.00	0.05	0.21	0.00	0.69	0.00	0.00
12	0.00	1.27	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.04	0.11	0.00
13	0.41	0.00	1.15	0.00	0.00	0.00	0.00	0.00	0.01	0.51	0.00	0.00
14	0.00	0.00	0.00	0.00	0.19	0.00	0.00	0.00	0.00	0.00	0.53	0.00
15	0.86	0.00	0.00	0.00	0.02	0.75	0.00	0.71	0.03	0.00	0.00	0.00
16	0.64	1.17	0.00	0.13	0.04	0.49	0.00	0.01	0.05	0.24	0.11	0.00
17	0.00	0.17	0.00	0.00	---	0.21	0.50	0.00	0.01	0.08	0.00	0.00
18	0.00	0.01	0.00	0.00	---	0.22	1.73	0.24	---	0.02	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.64	0.12	0.05	---	0.38	0.00	0.00
20	0.02	0.00	0.38	0.00	0.03	2.35	0.00	0.00	---	0.00	0.00	0.00
21	0.15	0.00	0.00	0.19	0.03	0.00	0.13	1.05	---	0.48	0.00	0.00
22	0.02	0.00	0.00	0.00	1.19	0.00	0.00	3.18	---	0.01	0.00	1.11
23	0.00	0.00	0.00	0.17	0.04	0.00	0.00	0.15	---	0.11	0.00	0.09
24	0.00	0.00	1.54	---	0.00	0.00	0.01	1.05	---	0.00	0.00	0.00
25	0.10	0.00	0.50	0.00	0.00	0.00	0.20	0.20	---	0.00	0.00	0.00
26	0.01	0.00	0.00	0.00	0.36	0.04	0.14	1.15	---	0.11	0.00	0.00
27	0.00	0.00	0.00	0.00	0.67	0.00	0.00	0.00	---	0.00	0.00	0.14
28	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	---	0.00	0.22	0.01
29	0.18	0.00	0.00	0.14	---	0.00	0.00	0.25	---	1.28	0.00	0.00
30	0.01	0.00	0.00	1.03	---	1.12	0.00	0.00	---	0.32	0.00	0.00
31	0.01	---	0.00	0.00	---	0.00	---	0.22	---	0.51	0.78	---
TOTAL	5.53	4.59	---	---	---	7.82	9.09	11.09	---	---	6.21	1.55



351104080521845 CRN60

LOCATION.--Lat 35°11'05", long 80°52'18", Mecklenburg County, Hydrologic Unit 03050103, Collinswood Elementary School, Applegate Road, Charlotte, NC.

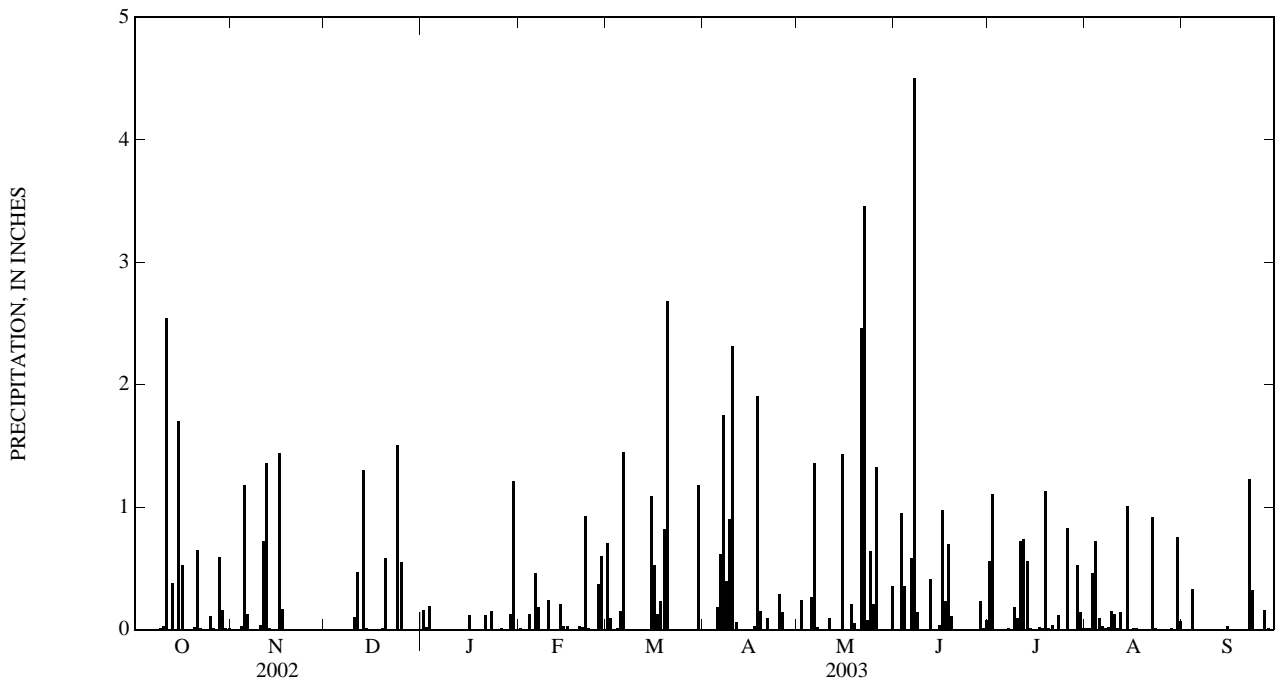
PERIOD OF RECORD.--April 2000 to current year.

GAGE.--Tipping-bucket raingage and electronic datalogger. Radio telemetry at station.

REMARKS.--Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network. Collection of frozen precipitation during December 2002 and February 2003 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.16	0.01	0.71	0.00	0.00	0.00	0.56	0.01	0.00
2	0.00	0.00	0.00	0.02	0.00	0.09	0.00	0.24	0.00	1.11	0.01	0.00
3	0.00	0.00	0.00	0.19	0.00	0.00	0.00	0.00	0.95	0.00	0.46	0.00
4	0.00	0.03	---	0.00	0.13	0.01	0.00	0.00	0.36	0.00	0.72	0.33
5	0.00	1.18	---	0.00	0.00	0.15	0.18	0.27	0.00	0.00	0.09	0.00
6	0.00	0.13	---	0.00	0.46	1.45	0.62	1.36	0.58	0.00	0.03	0.00
7	0.00	0.00	---	0.00	0.18	0.00	1.75	0.02	4.50	0.01	0.01	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.40	0.00	0.14	0.00	0.02	0.00
9	0.01	0.00	0.00	0.00	0.00	0.00	0.90	0.00	0.00	0.18	0.15	0.00
10	0.03	0.04	0.10	0.00	0.24	0.00	2.32	0.00	0.00	0.09	0.13	0.00
11	2.54	0.72	0.47	0.00	0.00	0.00	0.06	0.09	0.00	0.72	0.01	0.00
12	0.00	1.36	0.00	0.00	0.00	0.00	0.00	0.00	0.41	0.74	0.14	0.00
13	0.38	0.01	1.30	0.00	0.00	0.00	0.00	0.00	0.00	0.56	0.00	0.00
14	0.00	0.00	0.01	0.00	0.21	0.00	0.00	0.00	0.00	0.01	1.01	0.00
15	1.70	0.00	0.00	0.00	0.03	1.09	0.00	1.43	0.04	0.00	0.00	0.03
16	0.53	1.44	0.00	0.12	0.03	0.53	0.00	0.00	0.98	0.00	0.01	0.00
17	0.00	0.17	0.00	0.00	---	0.13	0.03	0.00	0.23	0.02	0.01	0.00
18	0.00	0.00	0.00	0.00	---	0.23	1.91	0.21	0.70	0.01	0.00	0.00
19	0.00	0.00	0.01	0.00	0.00	0.82	0.15	0.05	0.11	1.13	0.00	0.00
20	0.02	0.00	0.58	0.00	0.03	2.68	0.00	0.00	0.00	0.01	0.00	0.00
21	0.65	0.00	0.00	0.12	0.02	0.00	0.09	2.46	0.00	0.04	0.00	0.00
22	0.01	0.00	0.00	0.00	0.93	0.00	0.00	3.46	0.00	0.00	0.92	1.23
23	0.00	0.00	0.00	0.15	0.01	0.00	0.00	0.08	0.00	0.12	0.01	0.32
24	0.00	0.00	1.51	0.00	0.00	0.00	0.00	0.64	0.00	0.00	0.00	0.00
25	0.11	0.00	0.55	0.00	0.00	0.00	0.29	0.21	0.00	0.00	0.00	0.00
26	0.01	0.00	0.00	0.01	0.37	0.00	0.14	1.33	0.00	0.83	0.00	0.00
27	0.00	0.00	0.00	0.00	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.16
28	0.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.00	0.01	0.01
29	0.16	0.00	0.00	0.13	---	0.00	0.00	0.00	0.01	0.53	0.00	0.00
30	0.01	0.00	0.00	1.21	---	1.18	0.00	0.00	0.08	0.14	0.76	0.00
31	0.01	---	0.00	0.00	---	0.00	---	0.36	---	0.01	0.07	---
TOTAL	6.76	5.08	---	2.11	---	9.07	8.84	12.21	9.32	6.82	4.58	2.08



LOCATION.--Lat 35°18'17", long 80°56'42", Mecklenburg County, Hydrologic Unit 03050101, Coulwood Middle School, 500 Kentberry Drive, Charlotte, NC.

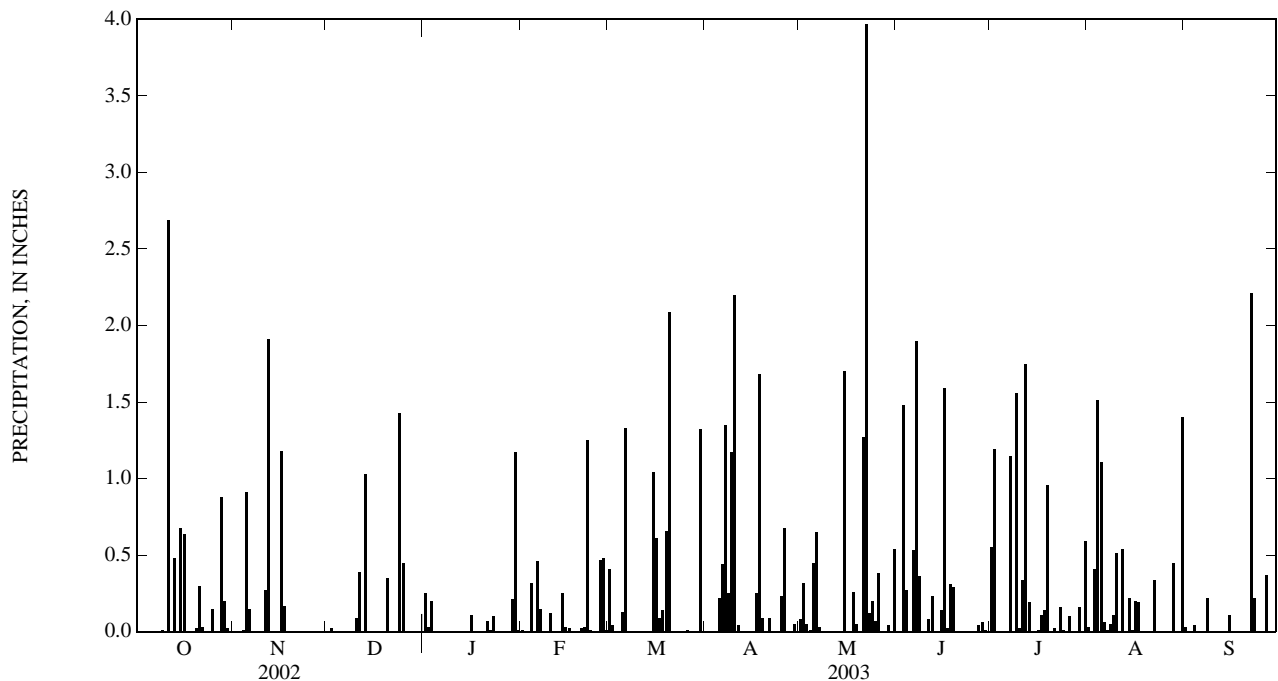
PERIOD OF RECORD.--October 2001 to current year.

GAGE.--Tipping-bucket raingage and electronic datalogger. Radio telemetry at station.

REMARKS.--Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network. Collection of frozen precipitation during December 2002 and February 2003 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.25	0.01	0.41	0.00	0.08	0.00	0.55	0.03	0.03
2	0.00	0.00	0.02	0.03	0.00	0.04	0.00	0.32	0.00	1.19	0.00	0.00
3	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.05	1.48	0.00	0.41	0.00
4	0.00	0.01	---	0.00	0.32	0.00	0.00	0.01	0.27	0.00	1.51	0.04
5	0.00	0.91	---	0.00	0.00	0.13	0.22	0.45	0.00	0.00	1.11	0.00
6	0.00	0.15	---	0.00	0.46	1.33	0.44	0.65	0.53	0.00	0.06	0.00
7	0.00	0.00	---	0.00	0.15	0.00	1.35	0.03	1.90	1.15	0.01	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.36	0.00	0.05	0.22
9	0.01	0.00	0.00	0.00	0.00	0.00	1.17	0.00	0.00	1.56	0.11	0.00
10	0.00	0.00	0.09	0.00	0.12	0.00	2.20	0.00	0.00	0.02	0.51	0.00
11	2.69	0.27	0.39	0.00	0.00	0.00	0.04	0.00	0.08	0.34	0.00	0.00
12	0.00	1.91	0.00	0.00	0.00	0.00	0.00	0.00	0.23	1.75	0.54	0.00
13	0.48	0.00	1.03	0.00	0.00	0.00	0.00	0.00	0.19	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.22	0.00
15	0.68	0.00	0.00	0.00	0.03	1.04	0.00	1.70	0.14	0.00	0.01	0.11
16	0.64	1.18	0.00	0.11	0.02	0.61	0.00	0.00	1.59	0.01	0.20	0.00
17	0.00	0.17	0.00	0.00	---	0.09	0.25	0.00	0.02	0.11	0.19	0.00
18	0.00	0.00	0.00	0.00	---	0.14	1.68	0.26	0.31	0.14	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.66	0.09	0.05	0.29	0.96	0.00	0.00
20	0.02	0.00	0.35	0.00	0.02	2.09	0.00	0.00	0.00	0.00	0.00	0.00
21	0.30	0.00	0.00	0.07	0.03	0.00	0.09	1.27	0.00	0.02	0.00	0.00
22	0.03	0.00	0.00	0.01	1.25	0.00	0.00	3.97	0.00	0.00	0.34	2.21
23	0.00	0.00	0.00	0.10	0.01	0.00	0.00	0.12	0.00	0.16	0.00	0.22
24	0.00	0.00	1.43	0.00	0.00	0.00	0.00	0.20	0.00	0.01	0.00	0.00
25	0.15	0.00	0.45	0.00	0.00	0.00	0.23	0.07	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.47	0.01	0.68	0.38	0.00	0.10	0.00	0.00
27	0.00	0.00	0.00	0.00	0.48	0.00	0.00	0.00	0.04	0.00	0.00	0.37
28	0.88	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.06	0.00	0.45	0.00
29	0.20	0.00	0.00	0.21	---	0.00	0.05	0.04	0.01	0.16	0.00	0.00
30	0.02	0.00	0.00	1.17	---	1.32	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	---	0.00	0.01	---	0.00	---	0.54	---	0.59	1.40	---
TOTAL	6.10	4.60	---	2.16	---	7.87	8.74	10.19	7.31	9.01	7.15	3.20



352523080535545 CRN62

LOCATION.--Lat 35°25'23", long 80°53'55", Mecklenburg County, Hydrologic Unit 03050101, Cooke Farm, Ervin Cooke Road, Charlotte, NC.

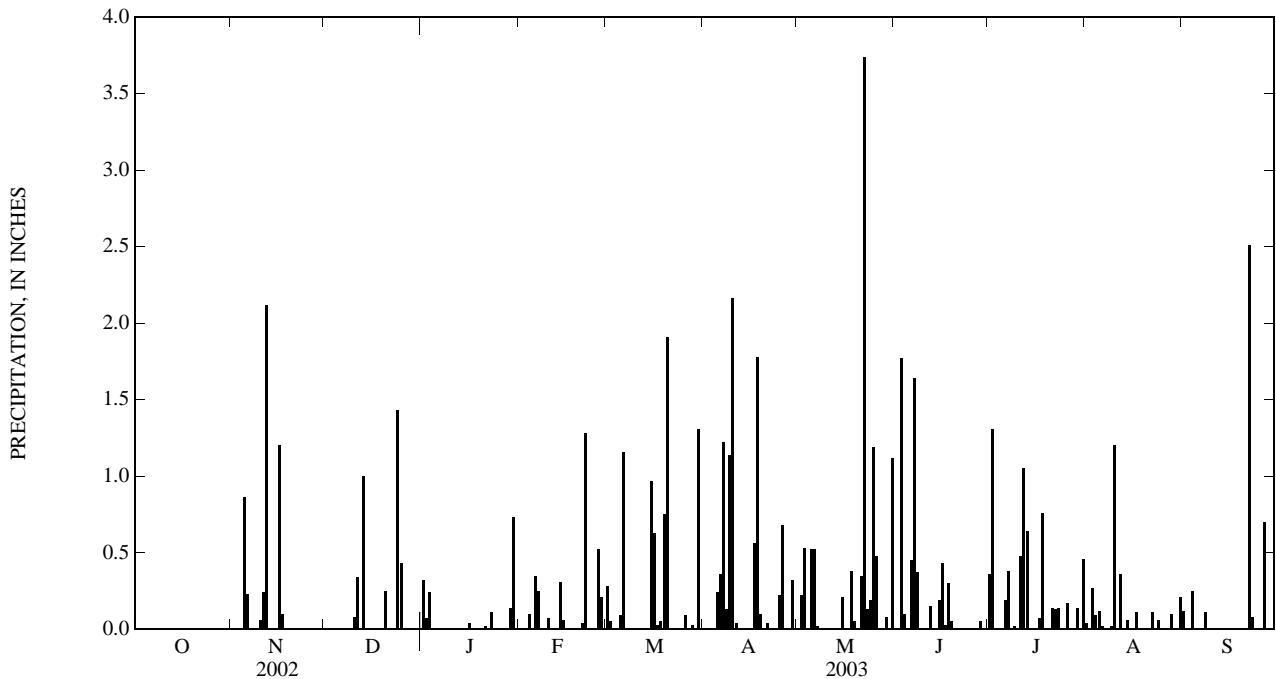
PERIOD OF RECORD.--November 2002 to September 2003.

GAGE.--Tipping-bucket raingage and electronic datalogger. Radio telemetry at station.

REMARKS.--Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network. Collection of frozen precipitation during December 2002 and February 2003 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	0.00	0.00	0.32	0.01	0.28	0.00	0.00	0.00	0.36	0.04	0.12
2	---	0.00	0.01	0.07	0.00	0.05	0.00	0.22	0.00	1.31	0.00	0.01
3	---	0.00	0.00	0.24	0.00	0.00	0.00	0.53	1.77	0.00	0.27	0.00
4	---	0.00	---	0.00	0.10	0.01	0.00	0.01	0.10	0.00	0.09	0.25
5	---	0.86	---	0.00	0.00	0.09	0.24	0.52	0.00	0.00	0.12	0.00
6	---	0.23	---	0.00	0.35	1.16	0.36	0.52	0.45	0.19	0.02	0.00
7	---	0.00	---	0.00	0.25	0.00	1.22	0.02	1.64	0.38	0.01	0.00
8	---	0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.37	0.00	0.00	0.11
9	---	0.00	0.00	0.00	0.00	0.00	1.14	0.00	0.01	0.02	0.02	0.00
10	---	0.06	0.08	0.00	0.07	0.00	2.16	0.00	0.00	0.00	1.20	0.00
11	---	0.24	0.34	0.00	0.00	0.00	0.04	0.00	0.01	0.48	0.00	0.00
12	---	2.12	0.01	0.00	0.00	0.00	0.00	0.00	0.15	1.05	0.36	0.00
13	---	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.64	0.00	0.00
14	---	0.00	0.00	0.00	0.31	0.00	0.00	0.00	0.00	0.00	0.06	0.00
15	---	0.00	0.00	0.00	0.06	0.97	0.00	0.21	0.19	0.00	0.00	0.00
16	---	1.20	0.00	0.04	0.01	0.63	0.00	0.00	0.43	0.00	0.00	0.00
17	---	0.10	0.00	0.00	---	0.03	0.56	0.00	0.03	0.07	0.11	0.00
18	---	0.00	0.00	0.00	---	0.05	1.78	0.38	0.30	0.76	0.00	0.00
19	---	0.00	0.01	0.00	0.00	0.75	0.10	0.05	0.05	0.01	0.00	0.00
20	---	0.00	0.25	0.00	0.01	1.91	0.00	0.00	0.00	0.00	0.00	0.00
21	---	0.00	0.00	0.02	0.04	0.00	0.04	0.35	0.00	0.14	0.00	0.00
22	---	0.00	0.00	0.00	1.28	0.00	0.00	3.74	0.00	0.13	0.11	2.51
23	---	0.00	0.00	0.11	0.01	0.00	0.00	0.13	0.00	0.14	0.01	0.08
24	---	0.00	1.43	---	0.00	0.00	0.00	0.19	0.00	0.01	0.06	0.00
25	---	0.00	0.43	0.00	0.00	0.00	0.22	1.19	0.00	0.00	0.00	0.00
26	---	0.00	0.00	0.00	0.52	0.09	0.68	0.48	0.00	0.17	0.00	0.00
27	---	0.00	0.00	0.00	0.21	0.00	0.00	0.01	0.00	0.00	0.00	0.70
28	---	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.05	0.00	0.10	0.01
29	---	0.00	0.00	0.14	---	0.00	0.32	0.08	0.00	0.14	0.01	0.00
30	---	0.00	0.00	0.73	---	1.31	0.00	0.00	0.00	0.00	0.00	0.00
31	---	---	0.00	0.00	---	0.00	---	1.12	---	0.46	0.21	---
TOTAL	---	4.81	---	---	---	7.36	8.99	9.75	5.55	6.46	2.80	3.79



LOCATION.--Lat 35°19'28", long 80°51'56", Mecklenburg County, Hydrologic Unit 03050101, Hornets Nest Elementary School, Beatties Ford Road, Charlotte, NC.

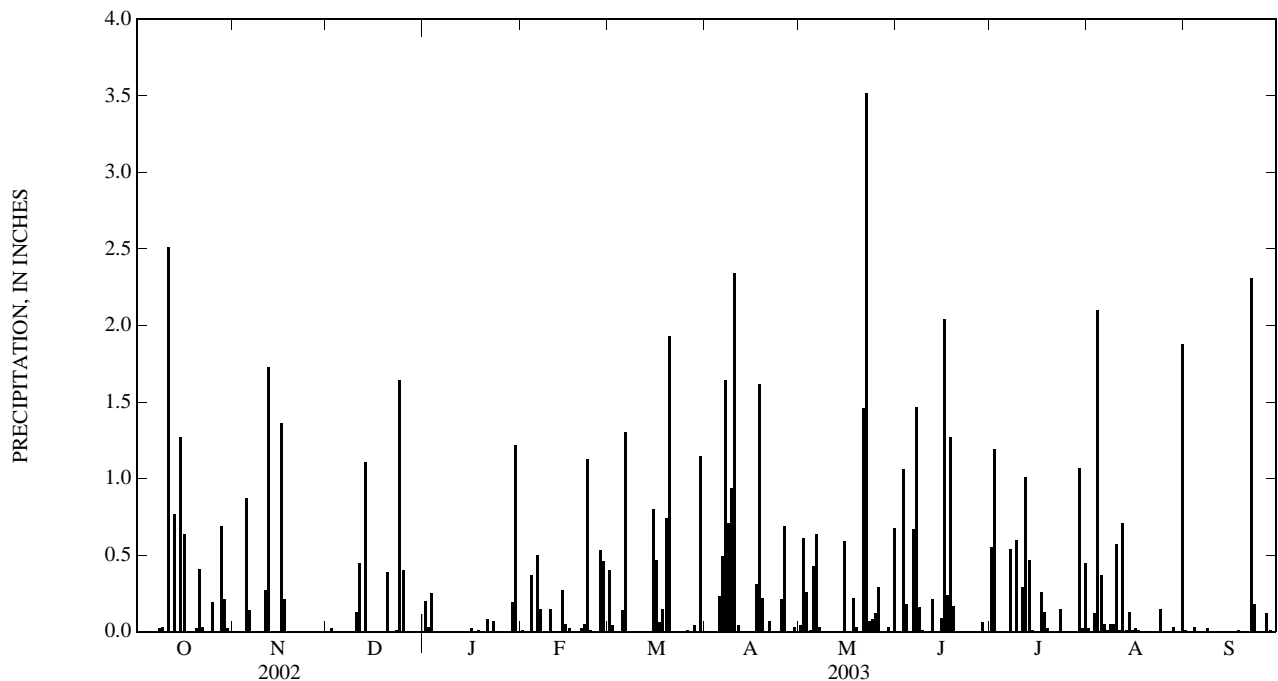
PERIOD OF RECORD.--October 2001 to current year.

GAGE.--Tipping-bucket raingage and electronic datalogger. Radio telemetry at station.

REMARKS.--Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network. Collection of frozen precipitation during December 2002 and February 2003 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.20	0.01	0.40	0.00	0.04	0.00	0.55	0.02	0.01
2	0.00	0.00	0.02	0.03	0.00	0.04	0.00	0.61	0.00	1.19	0.00	0.00
3	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.26	1.06	0.00	0.12	0.00
4	0.00	0.00	---	0.00	0.37	0.00	0.00	0.01	0.18	0.00	2.10	0.03
5	0.00	0.87	---	0.00	0.00	0.14	0.23	0.43	0.00	0.00	0.37	0.00
6	0.00	0.14	---	0.00	0.50	1.30	0.49	0.64	0.67	0.00	0.05	0.00
7	0.00	0.00	---	0.00	0.15	0.00	1.64	0.03	1.47	0.54	0.01	0.00
8	0.02	0.00	0.00	0.00	0.00	0.00	0.71	0.00	0.16	0.00	0.05	0.02
9	0.03	0.00	0.00	0.00	0.00	0.00	0.94	0.00	0.01	0.60	0.05	0.00
10	0.00	0.00	0.13	0.00	0.15	0.00	2.34	0.00	0.00	0.00	0.57	0.00
11	2.51	0.27	0.45	0.00	0.00	0.00	0.04	0.00	0.00	0.29	0.01	0.00
12	0.00	1.73	0.00	0.00	0.00	0.00	0.00	0.00	0.21	1.01	0.71	0.00
13	0.77	0.00	1.11	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.01	0.00
14	0.00	0.00	0.00	0.00	0.27	0.00	0.00	0.00	0.00	0.01	0.13	0.00
15	1.27	0.00	0.00	0.00	0.05	0.80	0.00	0.59	0.09	0.00	0.01	0.00
16	0.64	1.36	0.00	0.02	0.02	0.47	0.00	0.00	2.04	0.00	0.02	0.00
17	0.00	0.21	0.00	0.00	---	0.06	0.31	0.00	0.24	0.26	0.01	0.00
18	0.00	0.00	0.00	0.01	---	0.15	1.62	0.22	1.27	0.13	0.00	0.01
19	0.00	0.00	0.00	0.00	0.00	0.74	0.22	0.03	0.17	0.02	0.00	0.00
20	0.02	0.00	0.39	0.00	0.02	1.93	0.00	0.00	0.00	0.00	0.00	0.00
21	0.41	0.00	0.00	0.08	0.05	0.00	0.07	1.46	0.00	0.00	0.00	0.00
22	0.03	0.00	0.00	0.00	1.13	0.00	0.00	3.52	0.00	0.00	0.00	2.31
23	0.00	0.00	0.01	0.07	0.01	0.00	0.00	0.07	0.00	0.15	0.00	0.18
24	0.00	0.00	1.64	0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.15	0.00
25	0.19	0.00	0.40	0.00	0.00	0.00	0.21	0.12	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.53	0.01	0.69	0.29	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.46	0.00	0.00	0.00	0.00	0.00	0.00	0.12
28	0.69	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.06	0.00	0.03	0.01
29	0.21	0.00	0.00	0.19	---	0.00	0.03	0.03	0.00	1.07	0.00	0.00
30	0.02	0.00	0.00	1.22	---	1.15	0.00	0.00	0.00	0.02	0.00	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.68	---	0.45	1.88	---
TOTAL	6.81	4.58	---	2.07	---	7.23	9.54	9.11	7.63	6.76	6.30	2.69



351229080480145 CRN66

LOCATION.--Lat 35°12'29", long 80°48'03", Mecklenburg County, Hydrologic Unit 03050103, Chantilly Elementary School, Briar Creek Road, Charlotte, NC.

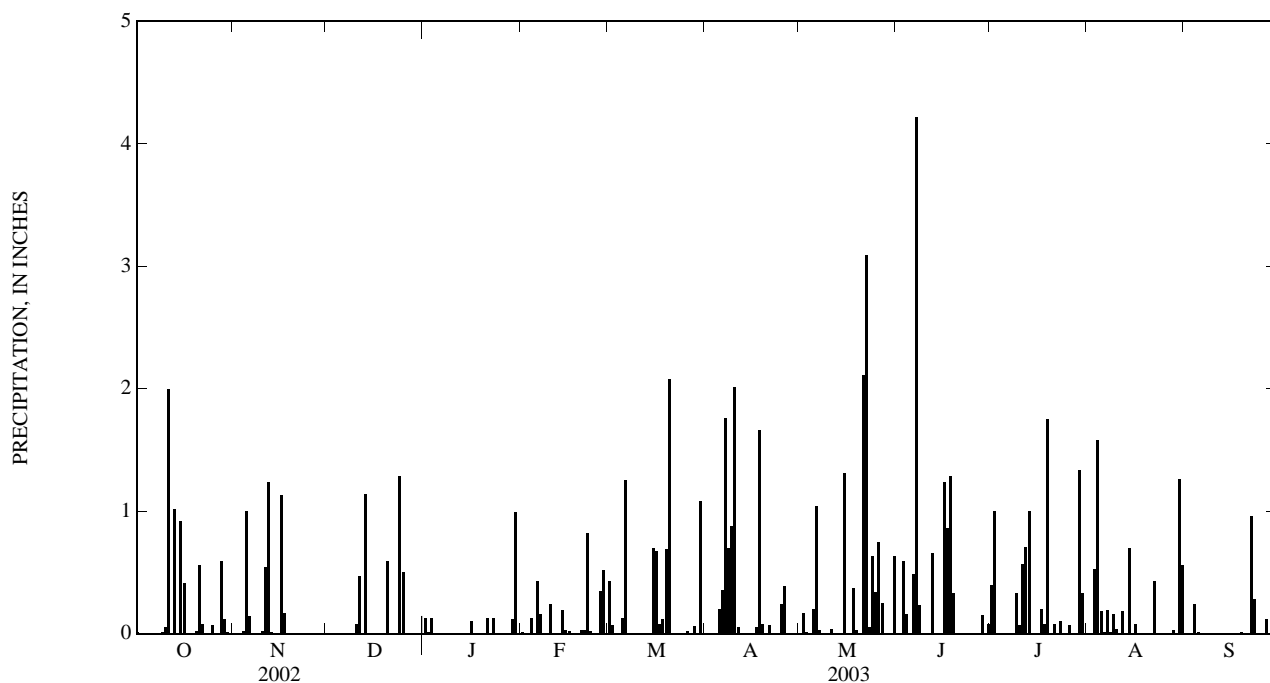
PERIOD OF RECORD.--February 2002 to current year.

GAGE.--Tipping-bucket raingage and electronic datalogger. Radio telemetry at station.

REMARKS.--Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network. Collection of frozen precipitation during December 2002 and February 2003 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.01	0.00	0.00	0.13	0.01	0.43	0.00	0.00	0.00	0.40	0.00	0.00
2	0.00	0.00	0.00	0.01	0.00	0.07	0.00	0.17	0.00	1.00	0.00	0.00
3	0.00	0.00	0.00	0.13	0.00	0.00	0.00	0.01	0.59	0.00	0.53	0.00
4	0.00	0.02	0.00	0.00	0.13	0.00	0.00	0.00	0.16	0.00	1.58	0.24
5	0.00	1.00	---	0.00	0.00	0.13	0.20	0.20	0.00	0.00	0.18	0.01
6	0.00	0.14	---	0.00	0.43	1.25	0.36	1.04	0.49	0.00	0.01	0.00
7	0.00	0.00	0.00	0.00	0.16	0.00	1.76	0.03	4.22	0.00	0.19	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.70	0.00	0.23	0.00	0.01	0.00
9	0.01	0.00	0.00	0.00	0.00	0.00	0.88	0.00	0.00	0.33	0.16	0.00
10	0.05	0.02	0.08	0.00	0.24	0.00	2.01	0.00	0.00	0.07	0.04	0.00
11	2.00	0.54	0.47	0.00	0.00	0.00	0.05	0.04	0.00	0.57	0.00	0.00
12	0.00	1.24	0.00	0.00	0.00	0.00	0.00	0.00	0.66	0.71	0.18	0.00
13	1.02	0.01	1.14	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.19	0.00	0.00	0.00	0.00	0.00	0.70	0.00
15	0.92	0.00	0.00	0.00	0.03	0.70	0.00	1.31	0.00	0.00	0.00	0.00
16	0.41	1.13	0.00	0.10	0.02	0.67	0.00	0.00	1.24	0.00	0.08	0.00
17	0.00	0.17	0.00	0.00	---	0.08	0.05	0.00	0.86	0.20	0.00	0.00
18	0.00	0.00	0.00	0.00	---	0.12	1.66	0.37	1.29	0.08	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.69	0.08	0.03	0.33	1.75	0.00	0.01
20	0.02	0.00	0.59	0.00	0.03	2.08	0.00	0.00	0.00	0.00	0.00	0.00
21	0.56	0.00	0.00	0.13	0.03	0.00	0.07	2.11	0.00	0.08	0.00	0.00
22	0.08	0.00	0.00	0.00	0.82	0.00	0.00	3.09	0.00	0.00	0.43	0.96
23	0.00	0.00	0.00	0.13	0.02	0.00	0.00	0.05	0.00	0.10	0.00	0.28
24	0.00	0.00	1.29	---	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00
25	0.07	0.00	0.50	0.00	0.00	0.00	0.24	0.34	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	---	0.35	0.02	0.39	0.75	0.00	0.07	0.00	0.00
27	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.25	0.00	0.00	0.00	0.12
28	0.59	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.15	0.00	0.03	0.00
29	0.12	0.00	0.00	0.12	---	0.00	0.00	0.00	0.00	1.34	0.00	0.00
30	0.01	0.00	0.00	0.99	---	1.08	0.00	0.00	0.08	0.33	1.26	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.63	---	0.00	0.56	---
TOTAL	5.87	4.27	---	---	---	7.38	8.45	11.05	10.30	8.03	5.94	1.62



LOCATION.--Lat 35°06'46", long 80°43'24", Mecklenburg County, Hydrologic Unit 03050103, Matthews Elementary School, McDowell Avenue, Matthews, NC.

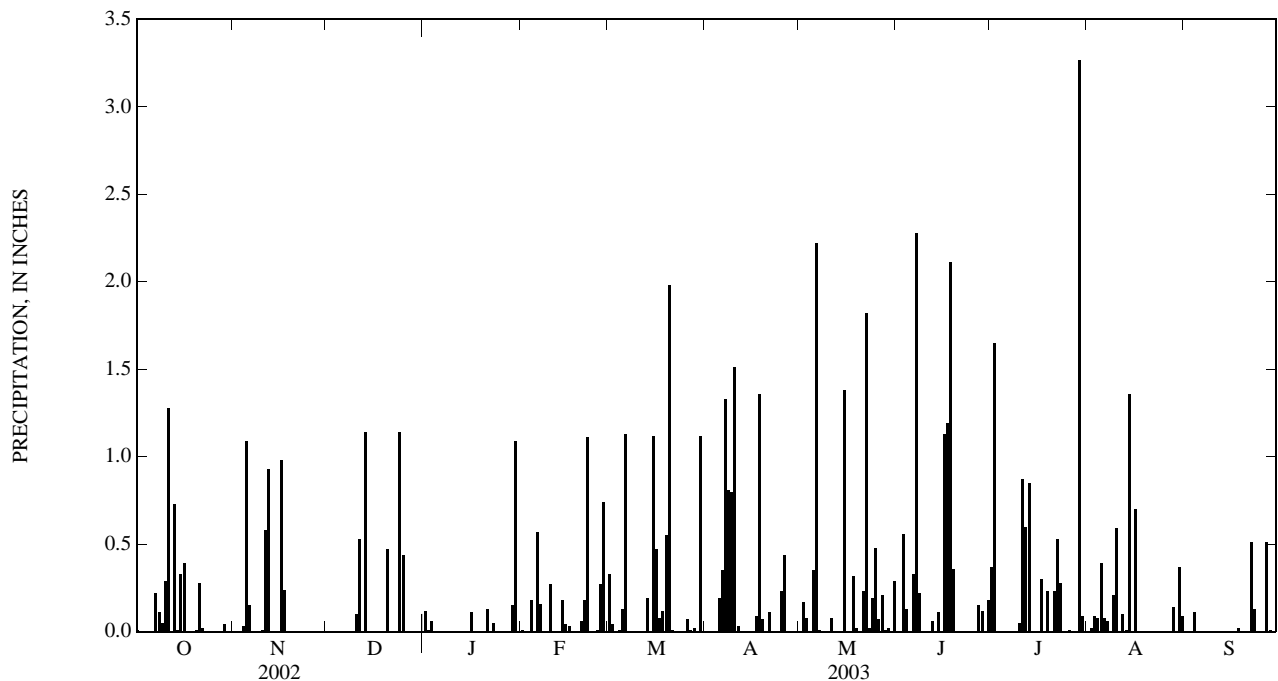
PERIOD OF RECORD.--October 2001 to current year.

GAGE.--Tipping-bucket raingage and electronic datalogger. Radio telemetry at station.

REMARKS.--Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network. Collection of frozen precipitation during December 2002 and February 2003 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.01	0.00	0.00	0.12	0.01	0.33	0.00	0.00	0.00	0.37	0.00	0.00
2	0.00	0.00	0.00	0.01	0.00	0.04	0.00	0.17	0.00	1.65	0.02	0.00
3	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.08	0.56	0.00	0.09	0.00
4	0.00	0.03	---	0.00	0.18	0.01	0.00	0.00	0.13	0.00	0.08	0.11
5	0.00	1.09	---	0.00	0.00	0.13	0.19	0.35	0.00	0.00	0.39	0.00
6	0.00	0.15	---	0.00	0.57	1.13	0.35	2.22	0.33	0.00	0.08	0.00
7	0.22	0.00	0.00	0.00	0.16	0.00	1.33	0.01	2.28	0.00	0.06	0.00
8	0.11	0.00	0.00	0.00	0.00	0.00	0.81	0.00	0.22	0.00	0.00	0.00
9	0.05	0.00	0.00	0.00	0.00	0.00	0.80	0.00	0.00	0.00	0.21	0.00
10	0.29	0.01	0.10	0.00	0.27	0.00	1.51	0.00	0.00	0.05	0.59	0.00
11	1.28	0.58	0.53	0.00	0.00	0.00	0.03	0.08	0.00	0.87	0.00	0.00
12	0.00	0.93	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.60	0.10	0.00
13	0.73	0.00	1.14	0.00	0.00	0.19	0.00	0.00	0.00	0.85	0.01	0.00
14	0.01	0.00	0.00	0.00	0.18	0.00	0.00	0.00	0.11	0.00	1.36	0.00
15	0.33	0.00	0.00	0.00	0.04	1.12	0.00	1.38	0.00	0.00	0.00	0.00
16	0.39	0.98	0.00	0.11	0.03	0.47	0.00	0.00	1.13	0.00	0.70	0.00
17	0.00	0.24	0.00	0.00	---	0.08	0.09	0.00	1.19	0.30	0.00	0.00
18	0.00	0.00	0.00	0.00	---	0.12	1.36	0.32	2.11	0.00	0.00	0.02
19	0.00	0.00	0.00	0.00	0.00	0.55	0.07	0.02	0.36	0.23	0.00	0.00
20	0.01	0.00	0.47	0.00	0.06	1.98	0.00	0.00	0.00	0.00	0.00	0.00
21	0.28	0.00	0.00	0.13	0.18	0.01	0.11	0.23	0.00	0.23	0.00	0.00
22	0.02	0.00	0.00	0.00	1.11	0.00	0.00	1.82	0.00	0.53	0.00	0.51
23	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.02	0.00	0.28	0.00	0.13
24	0.00	0.00	1.14	0.00	0.00	0.00	0.00	0.19	0.00	0.00	0.00	0.00
25	---	0.00	0.44	0.00	0.01	0.00	0.23	0.48	0.00	0.00	0.00	0.00
26	---	0.00	0.00	0.00	0.27	0.07	0.44	0.07	0.00	0.01	0.00	0.00
27	---	0.00	0.00	0.00	0.74	0.01	0.00	0.21	0.15	0.00	0.00	0.51
28	---	0.00	0.00	0.00	0.00	0.02	0.00	0.01	0.12	0.00	0.14	0.01
29	0.04	0.00	0.00	0.15	---	0.00	0.00	0.02	0.00	3.27	0.00	0.00
30	0.00	0.00	0.00	1.09	---	1.12	0.00	0.00	0.18	0.09	0.37	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.29	---	0.00	0.09	---
TOTAL	---	4.01	---	1.72	---	7.38	7.32	7.97	8.93	9.33	4.29	1.29



350630080455845 CRN70

LOCATION.--Lat 35°06'42", long 80°45'50", Mecklenburg County, Hydrologic Unit 03050103, Providence High School, Pineville-Matthews Road, Charlotte, NC.

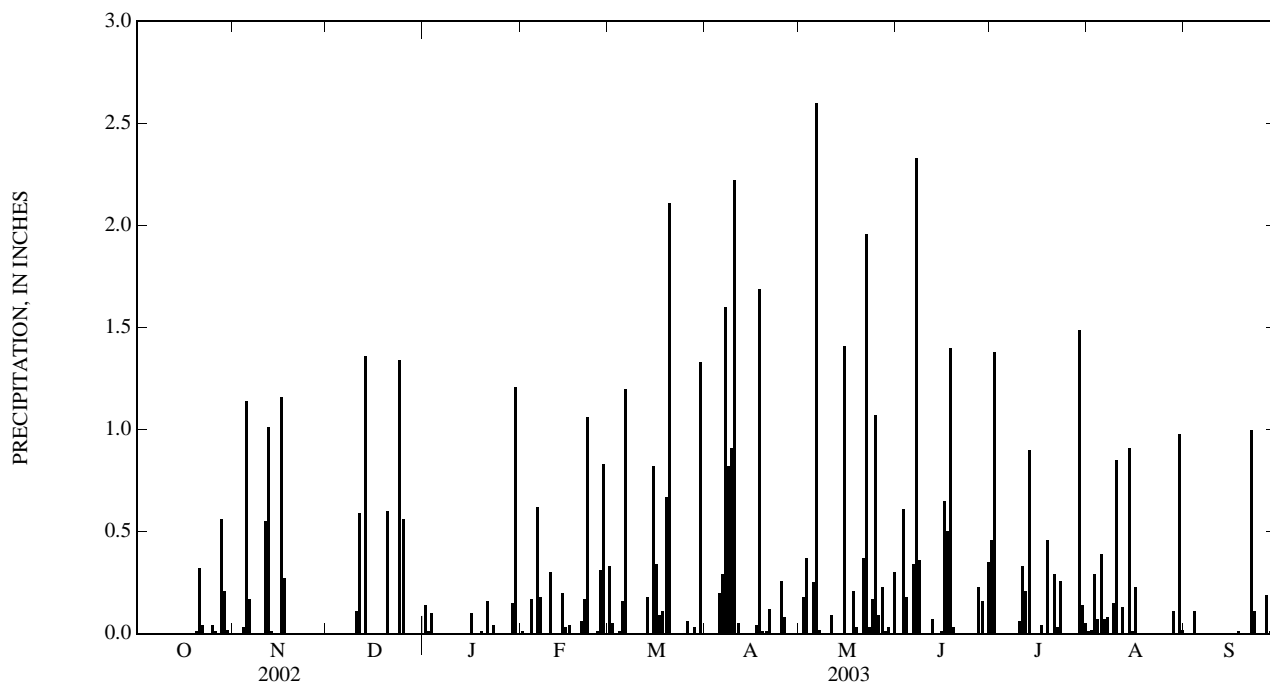
PERIOD OF RECORD.--October 2001 to current year.

GAGE.--Tipping-bucket raingage and electronic datalogger. Radio telemetry at station.

REMARKS.--Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network. Collection of frozen precipitation during December 2002 and February 2003 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.14	0.01	0.33	0.00	0.00	0.00	0.46	0.01	0.00
2	0.00	0.00	0.00	0.01	0.00	0.05	0.00	0.18	0.00	1.38	0.02	0.00
3	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.37	0.61	0.00	0.29	0.00
4	0.00	0.03	---	0.00	0.17	0.01	0.00	0.00	0.18	0.00	0.07	0.11
5	0.00	1.14	---	0.00	0.00	0.16	0.20	0.25	0.00	0.00	0.39	0.00
6	---	0.17	---	0.00	0.62	1.20	0.29	2.60	0.34	0.00	0.07	0.00
7	---	0.00	0.00	0.00	0.18	0.00	1.60	0.02	2.33	0.00	0.08	0.00
8	---	0.00	0.00	0.00	0.00	0.00	0.82	0.00	0.36	0.00	0.00	0.00
9	---	0.00	0.00	0.00	0.00	0.00	0.91	0.00	0.00	0.00	0.15	0.00
10	---	0.00	0.11	0.00	0.30	0.00	2.22	0.00	0.00	0.06	0.85	0.00
11	---	0.55	0.59	0.00	0.00	0.00	0.05	0.09	0.00	0.33	0.00	0.00
12	---	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.21	0.13	0.00
13	---	0.01	1.36	0.00	0.00	0.18	0.00	0.00	0.00	0.90	0.00	0.00
14	---	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.91	0.00
15	---	0.00	0.00	0.00	0.03	0.82	0.00	1.41	0.01	0.00	0.01	0.00
16	---	1.16	0.00	0.10	0.04	0.34	0.00	0.00	0.65	0.00	0.23	0.00
17	0.00	0.27	0.00	0.00	---	0.09	0.04	0.00	0.50	0.04	0.00	0.00
18	0.00	0.00	0.00	0.00	---	0.11	1.69	0.21	1.40	0.00	0.00	0.01
19	0.00	0.00	0.00	0.01	0.00	0.67	0.01	0.03	0.03	0.46	0.00	0.00
20	0.01	0.00	0.60	0.00	0.06	2.11	0.01	0.00	0.00	0.00	0.00	0.00
21	0.32	0.00	0.00	0.16	0.17	0.00	0.12	0.37	0.00	0.29	0.00	0.00
22	0.04	0.00	0.00	0.00	1.06	0.00	0.00	1.96	0.00	0.03	0.00	1.00
23	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.03	0.00	0.26	0.00	0.11
24	0.00	0.00	1.34	---	0.00	0.00	0.00	0.17	0.00	0.00	0.00	0.00
25	0.04	0.00	0.56	0.00	0.01	0.00	0.26	1.07	0.00	0.00	0.00	0.00
26	0.01	0.00	0.00	0.00	0.31	0.06	0.08	0.09	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.83	0.00	0.00	0.23	0.23	0.00	0.00	0.19
28	0.56	0.00	0.00	0.00	0.00	0.03	0.00	0.01	0.16	0.00	0.11	0.01
29	0.21	0.00	0.00	0.15	---	0.00	0.00	0.03	0.00	1.49	0.00	0.00
30	0.02	0.00	0.00	1.21	---	1.33	0.00	0.00	0.35	0.14	0.98	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.30	---	0.05	0.02	---
TOTAL	---	4.34	---	---	---	7.49	8.30	9.42	7.22	6.10	4.32	1.43



LAKES AND RESERVOIRS IN SOUTH ATLANTIC SLOPE BASIN

02098197 B. EVERETT JORDAN LAKE

LOCATION.--Lat 35°39'17", long 79°04'02", Chatham County, Hydrologic Unit 03030002, at B. Everett Jordan Dam on Haw River, 0.3 mi downstream of mouth of New Hope River, 2.5 mi north of Moncure, 4.2 mi upstream from mouth of Haw River, and 202.2 mi upstream from mouth of Cape Fear River.

DRAINAGE AREA.--1,689 mi².

PERIOD OF RECORD.--December 1972 to current year.

GAGE.--Water-stage recorder and staff gage at dam. Datum of gage is sea level.

REMARKS.--Lake is used for flood control, water supply, low-flow augmentation, and recreation. Some storage was affected during construction and then operated temporarily as a "dry reservoir" January 1975 to August 1981. Reservoir began filling September 1981 and reached normal pool elevation, 216 ft, Feb. 4, 1982. Total capacity is 32,825,074,000 ft³ at 240.0 ft, of which 23,454,011,000 ft³ is controlled flood storage. (See station 02098198.)

02111391 W. KERR SCOTT RESERVOIR

LOCATION.--Lat 36°08'04", long 81°13'30", Wilkes County, Hydrologic Unit 03040101, at W. Kerr Scott Dam on Yadkin River, 0.1 mi upstream from Fish Trap Creek, 2.0 mi upstream from Millers Creek, and 4.0 mi west of Wilkesboro.

DRAINAGE AREA.--350 mi², approximately.

PERIOD OF RECORD.--August 1962 to current year.

GAGE.--Water-stage recorder and staff gage at dam. Datum of gage is sea level.

REMARKS.--Lake is used for flood control, low-flow augmentation, recreation, and water supply. Some storage was affected during construction in July 1962, but gates were closed Aug. 22, 1962. Reservoir reached normal pool elevation on Jan. 19, 1963. Total capacity at elevation 1075.0 ft is 6,664,680,000 ft³ of which 4,878,720,000 ft³ is controlled flood storage.

COOPERATION.--Records furnished by Corps of Engineers. (See station 02129000.)

02122400 HIGH ROCK LAKE

LOCATION.--Lat 35°36'02", long 80°14'06", Davidson County, Hydrologic Unit 03040103, at High Rock Dam on Yadkin River, 2 mi upstream from Lick Creek, 0.8 mi northwest of High Rock, and 256 mi upstream from mouth of Pee Dee River in Winyah Bay.

DRAINAGE AREA.--4,000 mi², approximately.

PERIOD OF RECORD.--November 1927 to September 1960 (monthend contents only, published in WSP 1723), October 1960 to current year.

GAGE.--Water-stage recorder and staff gage at dam. Datum of gage is 30.9 ft below sea level.

REMARKS.--Lake, used for hydroelectric power development, was first put in operation Nov. 7, 1927. Total capacity is 11,090,000,000 ft³. Usable capacity, 10,230,000,000 ft³, is between 625 and 655 ft gage datum (top of gates).

COOPERATION.--Records furnished by Yadkin, Inc. (See station 02129000.)

02122699 TUCKERTOWN RESERVOIR

LOCATION.--Lat 35°29'03", long 80°10'30", Stanly County, Hydrologic Unit 03040103, at Tuckertown Dam on Yadkin River, 2.5 mi upstream from Garr Creek, 3.8 mi northeast of New London, and 250 mi upstream from mouth of Pee Dee River in Winyah Bay.

DRAINAGE AREA.--4,120 mi², approximately.

PERIOD OF RECORD.--April 1962 to current year.

GAGE.--Remote water-stage recorder in powerhouse. Datum of gage is 30.9 ft below sea level.

REMARKS.--Lake, used for hydroelectric power development, was first filled Apr. 6, 1962. Total capacity is 1,852,400,000 ft³. Usable capacity, 293,800,000 ft³, is between 593 and 596 ft gage datum.

COOPERATION.--Records furnished by Yadkin, Inc. (See station 02129000.)

02122844 BADIN LAKE

LOCATION.--Lat 35°35'10", long 80°05'34", Stanly County, Hydrologic Unit 03040103, at Badin Dam on Yadkin River, 2.5 mi upstream from Falls Dam, 1.5 mi northeast of Badin, and 242 mi upstream from mouth of Pee Dee River in Winyah Bay.

DRAINAGE AREA.--4,180 mi², approximately.

PERIOD OF RECORD.--December 1917 to September 1960 (monthend contents only, published in WSP 1723), October 1960 to current year.

GAGE.--Water-stage recorder and staff gage at dam. Datum of gage is 30.9 ft below sea level.

REMARKS.--Lake, generally known as Narrows Reservoir, used for hydroelectric power development, was first put in operation July 12, 1917. Total capacity is 10,497,960,000 ft³. Usable capacity, 5,616,584,000 ft³, is between 510.00 and 541.10 ft.

COOPERATION.--Records furnished by Yadkin, Inc. (See station 02129000.)

LAKES AND RESERVOIRS IN SOUTH ATLANTIC SLOPE BASIN--Continued

02123736 LAKE TILLERY

LOCATION.--Lat 35°12'24", long 80°03'57", Stanly County, Hydrologic Unit 03040104, at Norwood Dam on Pee Dee River, 700 ft upstream from Norfolk Southern Railroad bridge, 5 mi upstream from Rocky River, 3.5 mi southeast of Norwood, and 224 mi upstream from mouth in Winyah Bay.

DRAINAGE AREA.--4,600 mi², approximately.

PERIOD OF RECORD.--February 1928 to September 1960 (monthend contents only, published in WSP 1723), October 1960 to current year.

GAGE.--Water-stage recorder and float-tape gage at dam. Datum of gage is 38.67 ft above sea level (levels by Carolina Power and Light Co.).

REMARKS.--Lake, used for hydroelectric power development, was first put in operation during January 1928. Total capacity is 7,274,520,000 ft³. Usable capacity, 5,927,040,000 ft³, is between elevations 200.5 and 239.5 ft gage datum (top of gates).

COOPERATION.--Records furnished by Carolina Power and Light Co. (See station 02129000.)

02128800 BLEWETT FALLS LAKE

LOCATION.--Lat 34°58'58", long 79°52'40", Richmond County, Hydrologic Unit 03040104, at Blewett Falls Dam on Pee Dee River, 1.2 mi upstream from Cartledge Creek, 6.5 mi northwest of Rockingham, and 195 mi upstream from mouth in Winyah Bay.

DRAINAGE AREA.--6,830 mi², approximately.

PERIOD OF RECORD.--December 1929 to September 1960 (monthend contents only, published in WSP 1723), October 1960 to current year.

GAGE.--Self-synchronous motor, dial indicator, and staff gage at dam. Datum of gage is 39.08 ft above sea level (levels by Carolina Power and Light Co.).

REMARKS.--Lake, used for hydroelectric power development, was first put in use during 1911. Total capacity is 4,225,320,000 ft³. Usable capacity, 1,850,000,000 ft³, is between 120.0 and 139.0 ft gage datum (top of flashboards).

COOPERATION.--Records furnished by Carolina Power and Light Co. (See station 02129000.)

02138519 LAKE JAMES

LOCATION.--Lat 35°44'36", long 81°50'22", Burke County, Hydrologic Unit 03050101, at Linville Dam at intake tower on Catawba River, 2.1 mi northeast of Bridgewater, and 279 mi upstream from mouth of Wateree River.

DRAINAGE AREA.--380 mi², approximately.

PERIOD OF RECORD.--March 1920 to September 1960 (monthend contents only, published in WSP 1723), October 1960 to current year.

GAGE.--Float gage with self-synchronous motor to indicator in powerhouse. Staff gage at Catawba River Dam is also read when lake elevation drops below 1,160 ft, 60 ft gage datum, and lake becomes two separate reservoirs. Datum of gage is 1,100.00 ft above sea level (levels by Duke Power Co.).

REMARKS.--Lake, generally known as Bridgewater Reservoir, used for hydroelectric power development, was first put in operation May 5, 1919. The total capacity is 12,581,800,000 ft³ at 100.0 ft gage datum (crest of spillway). Usable capacity, 7,943,700,000 ft³, is between 65.0 and 100.0 ft gage datum.

COOPERATION.--Records furnished by Duke Power Co.

02141490 RHODHISS LAKE

LOCATION.--Lat 35°46'54", long 81°26'42", Caldwell County, Hydrologic Unit 03030101, at Rhodhiss Dam on Catawba River, 0.8 mi west of Rhodhiss, 1.8 mi south of Granite Falls, and 243 mi upstream from mouth of Wateree River.

DRAINAGE AREA.--1,090 mi², approximately.

PERIOD OF RECORD.--September 1935 to September 1960 (monthend contents only, published in WSP 1723), October 1960 to current year.

GAGE.--Float gage, indicator, and reference point at dam. Datum of gage is 895.1 ft above sea level (levels by Duke Power Co.).

REMARKS.--Lake, used for hydroelectric power development, was first put in operation Feb. 18, 1925. Total capacity is 3,188,592,000 ft³. Usable capacity, 1,717,000,000 ft³, is between elevations 85.0 and 100.0 ft gage datum (crest of spillway).

COOPERATION.--Records furnished by Duke Power Co.

LAKES AND RESERVOIRS IN SOUTH ATLANTIC SLOPE BASIN--Continued

02141961 LAKE HICKORY

LOCATION.--Lat 35°49'28", long 81°11'28", Alexander County, Hydrologic Unit 03050101, at Oxford Dam on Catawba River, 2 mi upstream from Lower Little River, 7 mi south of Taylorsville, and 226 mi upstream from mouth of Wateree River.

DRAINAGE AREA.--1,310 mi², approximately.

PERIOD OF RECORD.--September 1935 to September 1960 (monthend contents only, published in WSP 1723), October 1960 to current year.

GAGE.--Float gage and indicator at dam. Datum of gage is 835.0 ft above sea level (levels by Duke Power Co.).

REMARKS.--Lake, generally known as Oxford Reservoir, used for hydroelectric power development, was first put in operation Apr. 5, 1928. Total capacity is 5,552,985,000 ft³. The usable capacity from Sept. 1, 1935, to Sept. 30, 1957, was considered to be 2,277,970,200 ft³ between 85.0 and 100.0 ft gage datum (top of flood gates). Usable capacity from Apr. 30, 1928, to Aug. 31, 1935, Oct. 1, 1957, to Sept. 30, 1964, was considered to be 3,378,400,000 ft³ between 75.0 and 100.0 ft gage datum (top of flood gates); and from Oct. 1, 1964, to present, is considered to be 2,277,800,000 ft³ between 85.0 and 100.0 ft gage datum (top of flood gates).

COOPERATION.--Records furnished by Duke Power Co.

02142441 LOOKOUT SHOALS LAKE

LOCATION.--Lat 35°45'57", long 81°05'36", Catawba County, Hydrologic Unit 03050101, at Lookout Shoals Dam on Catawba River, 4 mi upstream from bridge on U.S. Highways 64 and 70, 4.2 mi north of Catawba, and 216 mi upstream from mouth of Wateree River.

DRAINAGE AREA.--1,450 mi², approximately.

PERIOD OF RECORD.--December 1915 to September 1960 (monthend contents only, published in WSP 1723), October 1960 to current year.

GAGE.--Float gage, indicator, and staff gage at dam. Datum of gage is 738.1 ft above sea level (levels by Duke Power Co.).

REMARKS.--Lake, used for hydroelectric power development, was first put in operation Dec. 2, 1915. Total capacity was originally 1,355,190,000 ft³. Capacity has been reduced by silting. The usable capacity prior to October 1957 was considered to be 473,980,000 ft³ and from October 1957 to Sept. 30, 1964, was considered to be 388,300,000 ft³ between elevations 90.0 and 100.0 ft gage datum (crest of spillway). Usable capacity from Oct. 1, 1964, to present is considered to be 208,200,000 ft³ between 95.0 and 100.0 ft gage datum (crest of spillway). Flood of July 16, 1916, washed out an earth dike.

COOPERATION.--Records furnished by Duke Power Co.

02142647 LAKE NORMAN

LOCATION.--Lat 35°26'05", long 80°57'28", Mecklenburg County, Hydrologic Unit 03050101, at Cowans Ford Dam on Catawba River, 0.8 mi upstream from Derr Creek, 7.8 mi southwest of Davidson, and 182 mi upstream from mouth of Wateree River.

DRAINAGE AREA.--1,790 mi², approximately.

PERIOD OF RECORD.--March 1962 to current year.

GAGE.--Float gage with transmitter to dial meter in control room. Datum of gage is 660 ft above sea level (levels by Duke Power Co.).

REMARKS.--Lake, used for hydroelectric power development, began filling in March 1962. Total capacity is 47,586,200,000 ft³. Usable capacity, 26,910,400,000 ft³, is between 75.0 and 100.0 ft gage datum (top of flood gates).

COOPERATION.--Records furnished by Duke Power Co.

02142676 MOUNTAIN ISLAND LAKE

LOCATION.--Lat 35°20'03", long 80°59'12", Gaston County, Hydrologic Unit 03050101, at Mountain Island Dam on Catawba River, 1.5 mi downstream from bridge on State Highway 16, 3 mi northeast of Mount Holly, and 167 mi upstream from mouth of Wateree River.

DRAINAGE AREA.--1,860 mi², approximately.

PERIOD OF RECORD.--December 1923 to September 1960 (monthend contents only, published in WSP 1723), October 1960 to current year.

GAGE.--Float gage, indicator, and stage gage at dam. Datum of gage is 547.5 ft above sea level (levels by Duke Power Co.).

REMARKS.--Lake, used for hydroelectric power development, was first put in operation Dec. 16, 1923. Total capacity is 2,495,988,000 ft³. Usable capacity prior to October 1964 was considered to be 1,132,000,000 ft³ between 90.0 and 100.0 ft gage datum (crest of spillway) and from October 1964 to present, 845,000,000 ft³, is considered to be between 93.0 and 100.0 ft gage datum (crest of spillway).

COOPERATION.--Records furnished by Duke Power Co.

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.

02093981 LAKE HIGGINS

LOCATION.--Lat 36°10'11", long 79°52'49", Guilford County, Hydrologic Unit 03030002, on Brush Creek near Greensboro.

DRAINAGE AREA.--12 mi², approximately.

REMARKS.--Lake is part of Greensboro's municipal water supply. Total capacity is 107,000,000 ft³. Reservoir was first filled Mar. 1, 1957. (See station 02094500.)

02094117 LAKE BRANDT

LOCATION.--Lat 36°10'20", long 79°50'20", Guilford County, Hydrologic Unit 03030002, on Reedy Fork and Horsepen Creek near Greensboro.

DRAINAGE AREA.--70.0 mi², approximately.

REMARKS.--Total capacity is 294,000,000 ft³. Dam was completed February 1923 and raised to present level 1959-60.

Reservoir first filled to present level on Oct. 8, 1960. Lake is part of Greensboro's municipal water supply. (See station 02094500.)

02094305 LAKE TOWNSEND

LOCATION.--Lat 36°11'25", long 79°43'57", Guilford County, Hydrologic Unit 03030002, on Reedy Fork near Greensboro.

DRAINAGE AREA.--105 mi².

REMARKS.--Lake is part of Greensboro's municipal water supply. Total capacity is 869,000,000 ft³. Dam was completed Oct. 18, 1968, and reservoir was first filled on Aug. 17, 1969. (See station 02094500.)

02096003 LAKE BURLINGTON

LOCATION.--Lat 36°10'25", long 79°24'53", Alamance County, Hydrologic Unit 03030002, on Stony Creek near Burlington.

DRAINAGE AREA.--44 mi², approximately.

REMARKS.--Lake is part of Burlington's municipal water supply. Prior to October 1971 published as "Stony Creek Reservoir." Total capacity is 427,800,000 ft³. Dam completed August 1960 and reservoir first filled Jan. 28, 1961. (See station 02096500.)

02096432 STONY CREEK RESERVOIR

LOCATION.--Lat 36°07'37", long 79°24'20", Alamance County, Hydrologic Unit 03030002, on Stony Creek near Burlington.

DRAINAGE AREA.--95.0 mi², approximately.

REMARKS.--Lake is part of Burlington's water supply. Prior to October 1971 published as "Lake Burlington." Total capacity is 64,900,000 ft³. Dam completed and reservoir filled in 1928. (See station 02096500.)

02098495 OAK HOLLOW RESERVOIR

LOCATION.--Lat 36°00'42", long 79°59'11", Guilford County, Hydrologic Unit 03030003, on West Fork Deep River and 1.8 mi southwest of Deep River.

DRAINAGE AREA.--32 mi², approximately.

REMARKS.--Lake is part of High Point's municipal water supply. Total capacity is 468,000,000 ft³. Dead storage (nonwithdrawal) is minor. Total surface area, about 725 acres. Dam completed and filling began in May 1970. Reservoir first filled Dec. 24, 1970. (See station 02099500.)

02099096 HIGH POINT MUNICIPAL LAKE

LOCATION.--Lat 35°59'43", long 79°56'42", Guilford County, Hydrologic Unit 03030003, on Deep River near High Point, High Point's municipal water supply.

DRAINAGE AREA.--61.4 mi².

REMARKS.--Total capacity is 220,588,000 ft³. Dam completed in 1926 and reservoir first filled in 1927. (See station 02099500)

02102178 BUCKHORN RESERVOIR

LOCATION.--Lat 35°31'35", long 78°59'22", Chatham County, Hydrologic Unit 03030004, on Cape Fear River near Corinth.

DRAINAGE AREA.--3,200 mi², approximately.

REMARKS.-- Usable capacity is 69,700,000 ft³. Completed and filled in 1908. Hydroelectric power operation stopped Dec. 31, 1962.

02102190 SHEARON HARRIS MAIN RESERVOIR

LOCATION.--Lat 35°34'00", long 78°57'55", Chatham County, Hydrologic Unit 03030004, on Buckhorn Creek near Corinth.

DRAINAGE AREA.--71 mi².

REMARKS.--Lake is a cooling-water reservoir for Carolina Power and Light Co. powerplant. Total capacity is 3,136,320,000 ft³ with a surface area of 4,150 acres at a normal elevation of 220 ft above sea level. Dam was completed Dec. 23, 1981, and filling began Dec. 1, 1980. (See station 02102192.)

LAKES AND RESERVOIRS IN SOUTH ATLANTIC SLOPE BASIN--Continued

02121461 LEXINGTON-THOMASVILLE RESERVOIR

LOCATION.--Lat 35°51'54", long 80°11'41", Davidson County, Hydrologic Unit 03050103, on Abbots Creek near Lexington.

DRAINAGE AREA.--70.3 mi².

REMARKS.--Total capacity is 284,100,000 ft³ of which 281,400,000 ft³ is usable. Dam completed Aug. 8, 1957, and reservoir first filled Nov. 23, 1957. Lexington and Thomasville's municipal water supply.

02184122 LAKE TOXAWAY

LOCATION.--Lat 35°07'27", long 82°55'56", Transylvania County, Hydrologic Unit 03060101, on Toxaway River at town of Lake Toxaway.

DRAINAGE AREA.--7.79 mi².

REMARKS.--A recreation lake. Total surface area is about 640 acres. Lake reached spillway elevation September 1961.

LAKES AND RESERVOIRS IN SOUTH ATLANTIC SLOPE BASIN--Continued

MONTHEND ELEVATION AND CONTENTS AT 2400 HOURS, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

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)
02098197 B. Everett Jordan Lake						
02111391 W. Kerr Scott Reservoir						
Sept. 30	213.98	8,205	--	1,032.06	1,944	--
Oct. 31	218.44	10,940	2,735	1,031.25	1,889	-55
Nov. 30	216.17	9,478	-1,462	1,030.44	1,824	-65
Dec. 31	217.09	10,057	579	1,030.20	1,803	-21
CAL YR 2002		--	-3,445		--	-151
Jan. 31	216.92	9,949	-108	1,030.33	1,814	11
Feb. 28	220.91	12,700	2,751	1,031.10	1,878	64
Mar. 31	220.43	12,348	-352	1,030.52	1,830	-48
Apr. 30	216.33	9,578	-2,770	1,030.52	1,830	0
May 31	217.80	10,513	935	3,030.17	1,801	-30
June 30	216.47	9,666	-847	1,030.43	1,823	22
July 31	216.34	9,584	-82	1,030.05	1,790	-33
Aug. 31	216.30	9,559	-25	1,030.70	1,846	56
Sept. 30	216.37	9,603	44	1,029.92	1,783	-63
WTR YR 2003		--	1,398		--	-161
Date	Gage Height (feet)	Contents (million cubic feet)	Change in contents (million cubic feet)	Gage Height (feet)	Contents (million cubic feet)	Change in contents (million cubic feet)
02122400 High Rock Lake						
02122699 Tuckertown Reservoir						
Sept. 30	645.46	5,872	--	594.87	1,735	--
Oct. 31	651.00	8,644	2,772	594.82	1,730	-5
Nov. 30	650.12	8,159	-485	595.02	1,751	21
Dec. 31	652.60	9,577	1,418	594.49	1,698	-53
CAL YR 2002		--	3,983		--	-103
Jan. 31	646.18	6,194	3,383	595.49	1,800	102
Feb. 28	654.72	10,893	4,699	595.57	1,808	8
Mar. 31	654.34	10,645	-248	595.00	1,749	-59
Apr. 30	653.78	10,291	-354	593.50	1,604	-145
May 31	654.38	10,670	379	594.00	1,652	48
June 30	654.34	10,645	-25	594.81	1,729	77
July 31	654.56	10,787	142	595.40	1,790	61
Aug. 31	653.56	10,158	-629	594.54	1,703	-87
Sept. 30	652.40	9,456	-702	594.45	1,695	-8
WTR YR 2003		--	3,584		--	-40

LAKES AND RESERVOIRS IN SOUTH ATLANTIC SLOPE BASIN--Continued

MONTHEND ELEVATION AND CONTENTS AT 2400 HOURS, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Gage Height (feet)	Contents (million cubic feet)	Change in contents (million cubic feet)	Gage Height (feet)	Contents (million cubic feet)	Change in contents (million cubic feet)
		02122844 Badin Lake				
Sept. 30	536.17	9,368	--	275.30	5,307	--
Oct. 31	540.01	10,243	875	277.70	5,822	515
Nov. 30	540.39	10,332	89	277.90	5,866	44
Dec. 31	539.92	10,222	-110	276.50	5,563	-303
CAL YR 2002		--	-140		--	-303
				02123736 Lake Tillery		
Jan. 31	539.83	10,201	-21	277.70	5,822	259
Feb. 28	541.00	10,474	273	276.70	5,822	0
Mar. 31	540.90	10,451	-23	277.10	5,693	-129
Apr. 30	540.46	10,348	-103	277.50	5,779	86
May 31	539.38	10,236	-112	276.90	5,649	-130
June 30	540.60	10,381	145	276.90	5,649	0
July 31	540.38	10,329	-52	277.20	5,714	65
Aug. 31	539.88	10,212	-117	277.70	5,822	108
Sept. 30	540.42	10,339	127	277.20	5,714	-108
WTR YR 2003		--	971		--	407
Date	Gage Height (feet)	Contents (million cubic feet)	Change in contents (million cubic feet)	Gage Height (feet)	Contents (million cubic feet)	Change in contents (million cubic feet)
		02128800 Blewett Falls Lake				
Sept. 30	175.70	1,602	--	93.7	10,890	--
Oct. 31	176.60	1,692	90	95.8	11,464	544
Nov. 30	177.90	1,822	130	96.7	11,673	293
Dec. 31	177.80	1,812	-10	97.3	11,865	162
CAL YR 2002		--	150		--	1,147
				02138519 Lake James		
Jan. 31	177.00	1,732	-80	95.7	11,408	-427
Feb. 28	181.10	2,142	410	98.4	12,135	727
Mar. 31	176.20	1,652	-490	99.4	12,413	278
Apr. 30	175.20	1,552	-100	99.9	12,553	140
May 31	176.10	1,642	90	99.7	12,497	-56
June 30	176.20	1,652	10	98.9	12,274	-223
July 31	174.40	1,472	-180	97.8	11,971	-303
Aug. 31	171.50	1,182	-290	96.2	11,540	-431
Sept. 30	172.20	1,252	70	97.2	11,808	268
WTR YR 2003		--	-350		--	918

LAKES AND RESERVOIRS IN SOUTH ATLANTIC SLOPE BASIN--Continued

MONTHEND ELEVATION AND CONTENTS AT 2400 HOURS, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Gage Height (feet)	Contents (million cubic feet)	Change in contents (million cubic feet)	Gage Height (feet)	Contents (million cubic feet)	Change in contents (million cubic feet)
		02141490 Rhodhiss Lake				
Sept. 30	96.8	1,257	--	95.3	1,478	--
Oct. 31	97.3	1,325	68	97.5	1,842	364
Nov. 30	97.8	1,395	70	97.1	1,775	-68
Dec. 31	96.0	1,150	-245	97.2	1,791	17
CAL YR 2002		--	-134		--	134
				02141961 Lake Hickory		
Jan. 31	95.9	1,137	-13	97.0	1,758	-34
Feb. 28	96.9	1,270	133	97.5	1,842	84
Mar. 31	96.1	1,163	-107	97.8	1,893	51
Apr. 30	97.4	1,339	176	98.1	1,944	51
May 31	97.4	1,339	0	98.3	1,979	35
June 30	95.9	1,137	-202	97.8	1,893	-86
July 31	97.3	1,325	188	98.2	1,962	69
Aug. 31	97.8	1,395	70	97.8	1,893	-69
Sept. 30	96.9	1,270	-125	97.2	1,791	-102
WTR YR 2003		--	13		--	314
Date	Gage Height (feet)	Contents (million cubic feet)	Change in contents (million cubic feet)	Gage Height (feet)	Contents (million cubic feet)	Change in contents (million cubic feet)
		02142441 Lookout Shoals Lake				
Sept. 30	87.7	0	--	93.9	39,510	--
Oct. 31	79.0	0	0	94.5	40,260	750
Nov. 30	78.4	0	0	97.2	43,600	3,340
Dec. 31	85.7	0	0	98.2	45,090	1,490
CAL YR 2002		--	-92		--	5,580
				02142647 Lake Norman		
Jan. 31	97.9	117	25	97.2	43,740	-1,350
Feb. 28	97.8	113	-4	99.0	46,190	2,450
Mar. 31	98.4	138	25	98.9	46,050	-140
Apr. 30	97.1	84	-54	98.7	45,780	-270
May 31	97.5	100	16	99.0	46,190	410
June 30	97.4	94	-6	98.1	44,960	-1,230
July 31	96.7	68	-26	98.4	45,370	410
Aug 31	95.8	31	-37	97.6	44,280	-1,090
Sept. 30	87.7	0	-31	97.4	44,010	-270
WTR YR 2003		--	-84		--	4,500

LAKES AND RESERVOIRS IN SOUTH ATLANTIC SLOPE BASIN--Continued

MONTHEND ELEVATION AND CONTENTS AT 2400 HOURS, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Gage Height (feet)	Contents (million cubic feet)	Change in contents (million cubic feet)
02142676 Mountain Island Lake			
Sept. 30	95.2	238	--
Oct. 31	96.8	426	188
Nov. 30	97.0	450	24
Dec. 31	97.8	550	100
CAL YR 2002		--	208
Jan. 31	97.0	450	-100
Feb. 28	97.3	488	38
Mar. 31	98.8	679	191
Apr. 30	98.4	627	-52
May 31	98.7	666	39
June 30	97.3	488	-178
July 31	97.5	512	24
Aug. 31	97.0	450	-62
Sept. 30	97.2	475	25
WTR YR 2003		--	237

03161000 SOUTH FORK NEW RIVER NEAR JEFFERSON, NC

LOCATION.--Lat 36°23'35", long 81°24'25", Ashe County, Hydrologic Unit 05050001, on right bank 600 ft upstream from bridge on State Highways 16 and 88, 0.2 mi downstream of Bear Creek, and 4 mi southeast of Jefferson.

DRAINAGE AREA.--205 mi².

PERIOD OF RECORD.--October 1924 to current year. Monthly discharge only for some periods, published in WSP 1305.

REVISED RECORDS.--WSP 1275: 1925-26(M), 1928-30(M), 1931-32, 1933-35(M), 1941-42(m), 1944(m). WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,657.04 ft above NGVD of 1929. Prior to Oct. 14, 1934, nonrecording gage on bridge 400 ft downstream at same datum. Oct. 14, 1934, to Mar. 25, 1935, nonrecording gage at present site and datum. Satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Maximum discharge for period of record, from rating curve extended above 14,000 ft³/s on basis of slope-area measurement of peak flow. Minimum discharge for period of record result of freezeup. Minimum discharge for current water year also occurred Oct. 9, 10, 2002. Maximum peak stage for current water year from high-water mark in well.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 15, 1916, reached a stage of 18.0 ft, from floodmarks witnessed by local resident; discharge, 35,200 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	291	307	288	484	332	602	542	979	511	660	477	494
2	253	268	275	637	e310	560	594	688	431	1,720	529	480
3	230	246	278	586	295	527	545	652	441	1,800	696	416
4	216	237	284	590	333	487	504	584	561	975	782	488
5	202	256	375	506	406	470	504	599	505	764	575	521
6	192	416	468	476	332	557	513	683	437	732	547	431
7	185	413	358	446	329	608	494	642	927	758	607	401
8	178	332	e306	e425	e306	502	530	594	1,410	692	806	389
9	174	292	e294	e402	e298	475	649	558	1,170	604	999	386
10	174	280	291	393	e294	450	1,550	548	816	573	1,100	367
11	202	430	608	371	294	429	2,150	515	672	572	912	352
12	253	702	734	346	289	414	1,400	496	627	547	747	341
13	203	675	665	e330	e279	406	1,090	469	649	529	687	334
14	179	493	954	e320	294	413	930	454	689	499	590	332
15	204	417	671	e310	393	388	811	455	982	517	615	329
16	871	591	545	e300	831	891	732	608	1,010	482	752	335
17	720	975	485	e290	573	1,010	665	508	1,650	461	685	319
18	407	704	440	e284	458	720	1,830	497	1,070	442	563	310
19	322	545	413	e282	458	685	1,700	494	1,180	423	511	309
20	285	472	529	e280	447	1,040	1,130	470	905	412	484	301
21	263	468	580	e278	446	1,150	965	459	751	422	464	294
22	255	502	468	e276	e1,640	845	891	485	660	415	489	318
23	242	428	437	e270	e2,120	709	782	508	601	577	464	818
24	223	385	496	e268	1,100	634	713	525	557	445	481	495
25	224	361	704	e264	800	581	677	501	523	400	428	373
26	234	341	532	e262	670	542	662	570	509	383	407	342
27	230	328	463	e270	641	521	616	504	504	375	391	350
28	229	312	e425	e300	683	495	583	455	521	363	397	632
29	276	297	e402	e340	---	498	566	447	482	387	422	462
30	334	292	392	428	---	606	582	472	527	496	458	382
31	404	---	380	388	---	614	---	473	---	459	485	---
TOTAL	8,655	12,765	14,540	11,402	15,651	18,829	25,900	16,892	22,278	18,884	18,550	12,101
MEAN	279	426	469	368	559	607	863	545	743	609	598	403
MAX	871	975	954	637	2,120	1,150	2,150	979	1,650	1,800	1,100	818
MIN	174	237	275	262	279	388	494	447	431	363	391	294
CFSM	1.36	2.08	2.29	1.79	2.73	2.96	4.21	2.66	3.62	2.97	2.92	1.97
IN.	1.57	2.32	2.64	2.07	2.84	3.42	4.70	3.07	4.04	3.43	3.37	2.20

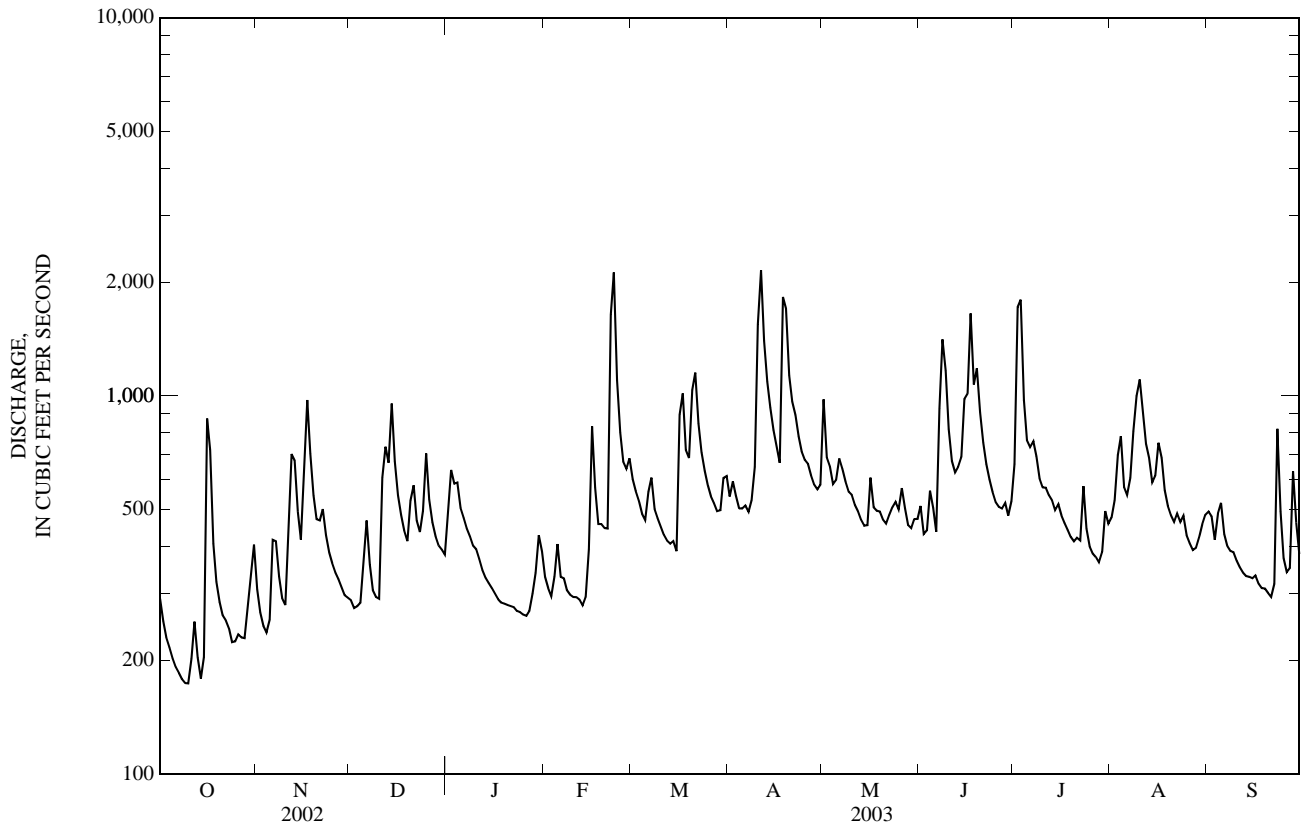
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 2003, BY WATER YEAR (WY)

MEAN	352	398	402	468	513	584	562	455	389	332	352	321
MAX	901	1,889	797	1,346	1,173	1,316	1,350	1,052	1,036	904	2,613	1,212
(WY)	(1991)	(1978)	(1958)	(1995)	(1998)	(1979)	(1983)	(1973)	(1992)	(1941)	(1940)	(1979)
MIN	111	124	146	140	188	222	236	220	158	111	93.7	99.5
(WY)	(2001)	(1932)	(1934)	(1940)	(2001)	(1988)	(1986)	(2001)	(1988)	(1930)	(1925)	(1954)

03161000 SOUTH FORK NEW RIVER NEAR JEFFERSON, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1925 - 2003	
ANNUAL TOTAL	98,015		196,447		427	
ANNUAL MEAN	269		538		215	
HIGHEST ANNUAL MEAN					669	1949
LOWEST ANNUAL MEAN					215	2002
HIGHEST DAILY MEAN	2,020	Sep 27	2,150	Apr 11	27,700	Aug 14, 1940
LOWEST DAILY MEAN	75	Aug 24	174	Oct 9	65	Sep 9, 1925
ANNUAL SEVEN-DAY MINIMUM	83	Aug 9	187	Oct 5	72	Aug 21, 1925
MAXIMUM PEAK FLOW			3,440	Feb 22	52,800*	Aug 14, 1940
MAXIMUM PEAK STAGE			5.99*	Feb 22	22.50	Aug 14, 1940
INSTANTANEOUS LOW FLOW			173	Oct 8	52*	Dec 24, 1943
ANNUAL RUNOFF (CFSM)	1.31		2.63		2.08	
ANNUAL RUNOFF (INCHES)	17.79		35.65		28.28	
10 PERCENT EXCEEDS	465		855		705	
50 PERCENT EXCEEDS	223		482		342	
90 PERCENT EXCEEDS	119		279		167	

e Estimated.
 * See REMARKS.



03439000 FRENCH BROAD RIVER AT ROSMAN, NC

LOCATION.--Lat 35°08'32", long 82°49'27", Transylvania County, Hydrologic Unit 06010105, on left bank 50 ft upstream from bridge on U.S. Highway 178 at Rosman, 1.0 mi upstream from East Fork, and at mile 216.4.

DRAINAGE AREA.--67.9 mi².

PERIOD OF RECORD.--May 1907 to June 1909, October 1935 to current year. Monthly discharge only for some periods published in WSP 1306.

REVISED RECORDS.--WSP 823: Drainage area. WSP 1306: 1908(M). WSP 1910: 1936(M), 1938(M), 1939-40, 1942-43, WDR NC-93-1: 1993(M).

GAGE.--Water-stage recorder. Datum of gage is 2,173.83 ft above NGVD of 1929. Prior to June 30, 1909, nonrecording gage at site 500 ft downstream at different datum. Jan. 1, 1936, to July 6, 1937, nonrecording gage at present site and datum. Satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Minimum discharge for period of record result of freezeup. Minimum daily discharge occurred several days in Sept. and Oct. 1954. Minimum discharge for current water year also occurred Oct. 15.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 1916 reached a stage of 13.9 ft, from floodmarks.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	203	143	157	432	155	270	241	233	230	358	210	902
2	179	138	154	323	150	257	235	229	224	1,460	196	315
3	164	134	152	316	147	239	228	219	276	506	247	271
4	153	132	168	280	181	228	223	211	261	374	219	249
5	148	166	347	263	157	225	261	342	229	336	193	225
6	137	212	238	248	154	419	234	1,090	218	342	182	208
7	132	164	204	234	163	309	467	1,060	829	332	184	200
8	126	153	190	228	149	275	355	690	510	296	195	191
9	122	148	181	219	146	257	367	505	374	280	190	183
10	127	224	180	211	155	241	469	424	319	277	212	179
11	132	520	267	202	150	230	445	389	314	255	188	174
12	121	357	210	196	147	221	380	349	339	237	177	169
13	118	279	300	193	143	215	341	324	309	235	187	165
14	112	235	298	188	158	210	314	308	291	238	172	162
15	222	221	248	182	220	212	293	316	277	237	208	215
16	427	454	226	181	238	284	280	289	262	222	218	171
17	210	384	211	179	261	235	272	298	343	219	205	162
18	174	302	200	e175	218	237	377	346	321	277	184	158
19	159	263	203	e171	199	341	319	311	309	269	185	153
20	150	238	506	169	188	826	294	289	274	219	181	150
21	147	260	301	e165	182	514	309	294	249	217	231	147
22	144	231	264	e161	989	404	291	435	236	270	191	1,090
23	135	211	241	e159	669	356	269	393	226	243	187	690
24	131	201	654	e156	410	325	259	376	218	210	175	327
25	134	192	461	e153	335	303	257	331	211	197	166	265
26	142	184	355	152	314	288	255	308	206	190	158	237
27	129	178	313	149	324	273	240	284	219	192	158	227
28	148	171	284	147	293	262	232	266	223	188	169	230
29	171	166	263	163	---	255	245	256	207	183	163	205
30	169	163	246	178	---	282	250	244	199	280	232	197
31	152	---	239	161	---	251	---	236	---	235	215	---
TOTAL	4,918	6,824	8,261	6,334	6,995	9,244	9,002	11,645	8,703	9,374	5,978	8,217
MEAN	159	227	266	204	250	298	300	376	290	302	193	274
MAX	427	520	654	432	989	826	469	1,090	829	1,460	247	1,090
MIN	112	132	152	147	143	210	223	211	199	183	158	147
CFSM	2.34	3.35	3.92	3.01	3.68	4.39	4.42	5.53	4.27	4.45	2.84	4.03
IN.	2.69	3.74	4.53	3.47	3.83	5.06	4.93	6.38	4.77	5.14	3.28	4.50

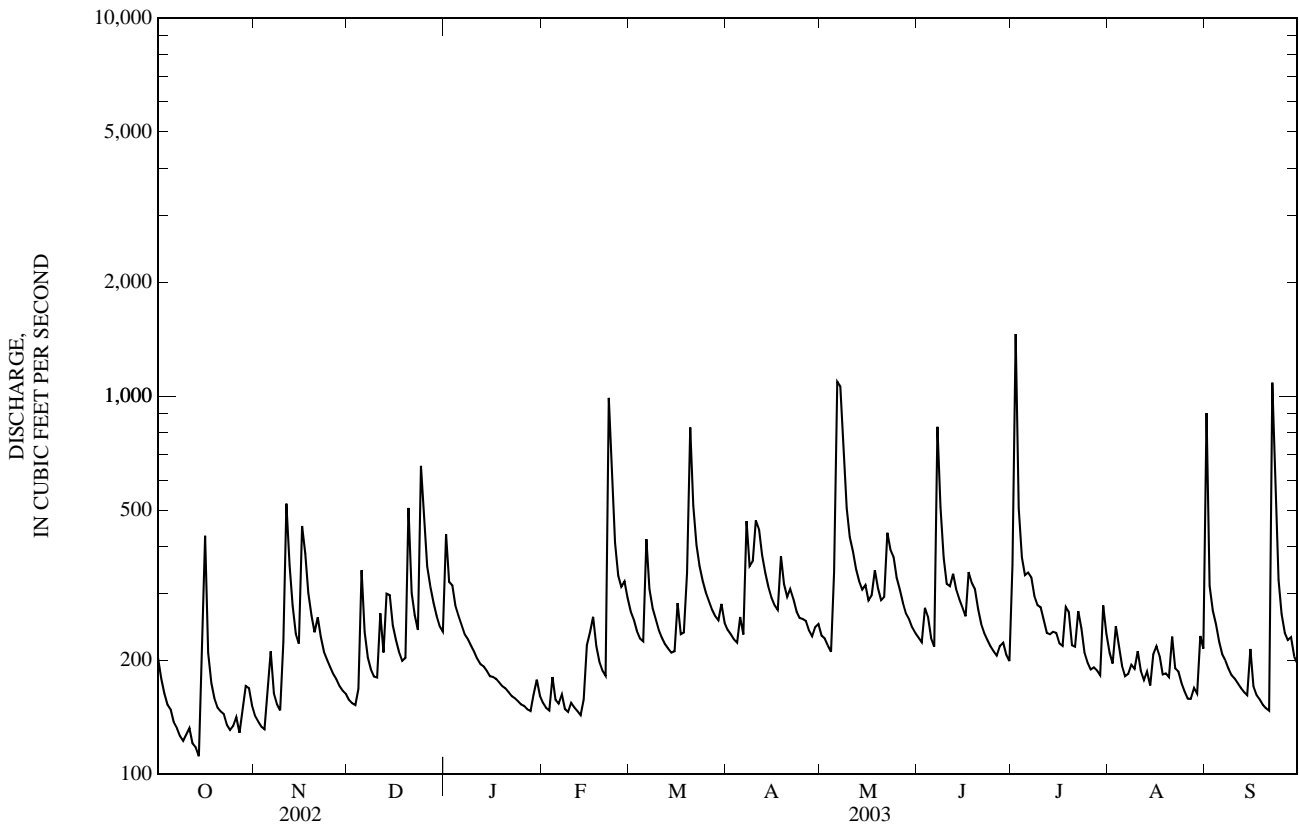
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1908 - 2003,[@] BY WATER YEAR (WY)

	175	202	243	281	315	335	322	262	217	175	185	165
MEAN	175	202	243	281	315	335	322	262	217	175	185	165
MAX	734	635	489	672	648	787	582	551	882	624	543	447
(WY)	(1965)	(1993)	(1993)	(1937)	(1939)	(1979)	(1983)	(1909)	(1909)	(1989)	(1994)	(1950)
MIN	42.2	56.7	72.6	72.0	130	135	108	114	79.8	75.8	65.3	43.6
(WY)	(1955)	(1955)	(1940)	(1981)	(1963)	(1988)	(1986)	(1941)	(1988)	(1986)	(1954)	(1954)

03439000 FRENCH BROAD RIVER AT ROSMAN, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1908 - 2003 [@]	
ANNUAL TOTAL	61,438		95,495		237	
ANNUAL MEAN	168		262		136	
HIGHEST ANNUAL MEAN					370	1949
LOWEST ANNUAL MEAN					136	1981
HIGHEST DAILY MEAN	1,600	Sep 27	1,460	Jul 2	5,630	Oct 4, 1964
LOWEST DAILY MEAN	48	Sep 11	112	Oct 14	37*	Sep 25, 1954
ANNUAL SEVEN-DAY MINIMUM	50	Sep 7	123	Oct 8	38	Sep 23, 1954
MAXIMUM PEAK FLOW			5,420	Sep 22	13,500	Oct 4, 1964
MAXIMUM PEAK STAGE			10.11	Sep 22	14.95	Oct 4, 1964
INSTANTANEOUS LOW FLOW			110*	Oct 14	23*	Jan 3, 1940
ANNUAL RUNOFF (CFSM)	2.48		3.85		3.50	
ANNUAL RUNOFF (INCHES)	33.66		52.32		47.52	
10 PERCENT EXCEEDS	266		375		413	
50 PERCENT EXCEEDS	150		228		189	
90 PERCENT EXCEEDS	67		152		87	

e Estimated.
[@] See PERIOD OF RECORD.
 * See REMARKS.



03440000 CATHEYS CREEK NEAR BREVARD, NC

LOCATION.--Lat 35°12'40", long 82°46'59", Transylvania County, Hydrologic Unit 06010105, on right bank 1,200 ft downstream of Kuykendall Creek, 1.0 mi upstream from U.S. Highway 64, 2.1 mi upstream from mouth, and 3.2 mi southwest of Brevard.

DRAINAGE AREA.--11.7 mi².

PERIOD OF RECORD.--October 1944 to September 1955, November 1986 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 2,230 ft above NGVD of 1929, from topographic map. Prior to Oct. 2, 1946, at site 0.9 mi downstream at different datum. October 2, 1946, to Jan. 9, 1947, at site 0.8 mi downstream of present gage at different datum. Jan. 10, 1947, to Oct. 3, 1951, at present site at different datum. Oct. 3, 1951, to Sept. 30, 1955, at site 40 ft downstream at different datum. Satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Maximum discharge for period of record from rating curve extended above 600 ft³/s on basis of slope-area measurement of peak flow. City of Brevard diverted about 1.8 ft³/s from Catheys Creek for municipal water supply. Minimum discharge for period of record also occurred Sept. 11, 12, 2002.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	16	19	52	23	41	40	41	38	67	43	64
2	15	15	19	41	22	40	39	40	37	192	41	38
3	13	14	19	41	22	37	38	38	44	76	52	48
4	13	14	22	37	27	36	37	37	41	57	45	44
5	12	21	45	35	23	36	43	59	37	50	40	38
6	12	24	31	34	23	67	39	155	36	49	38	36
7	11	19	27	32	24	48	72	149	97	46	42	34
8	11	17	25	32	22	44	57	100	64	43	52	33
9	11	17	24	31	21	41	57	75	51	43	51	32
10	11	25	25	29	23	39	78	65	44	42	48	31
11	12	57	38	28	22	37	77	61	43	39	49	30
12	11	42	29	28	22	36	63	56	46	36	46	29
13	10	33	44	28	21	35	56	52	44	37	44	28
14	9.5	27	41	27	25	35	52	50	42	37	41	28
15	25	27	35	26	32	35	49	51	40	38	39	35
16	41	69	32	26	34	45	47	47	38	58	59	28
17	20	55	29	26	32	38	47	48	41	58	50	27
18	16	40	28	25	31	39	57	55	46	49	45	26
19	15	34	31	25	29	60	49	50	44	46	43	26
20	14	30	72	e25	27	129	47	47	40	42	41	25
21	13	32	42	e25	27	78	49	49	37	55	39	25
22	13	28	37	25	153	61	46	65	35	67	38	153
23	12	26	34	e24	84	55	43	60	34	60	37	91
24	12	24	98	e24	58	50	42	60	33	49	36	50
25	13	23	67	e24	49	47	42	53	32	44	34	42
26	14	22	51	e24	47	45	43	49	30	41	33	38
27	13	21	44	e24	47	43	40	46	30	40	34	36
28	18	21	40	e24	43	42	39	44	32	38	32	34
29	20	20	38	24	---	41	42	43	30	37	31	33
30	19	20	35	27	---	47	42	41	30	52	32	31
31	17	---	35	24	---	41	---	40	---	44	31	---
TOTAL	463.5	833	1,156	897	1,013	1,468	1,472	1,826	1,236	1,632	1,286	1,213
MEAN	15.0	27.8	37.3	28.9	36.2	47.4	49.1	58.9	41.2	52.6	41.5	40.4
MAX	41	69	98	52	153	129	78	155	97	192	59	153
MIN	9.5	14	19	24	21	35	37	37	30	36	31	25
CFSM	1.28	2.37	3.19	2.47	3.09	4.05	4.19	5.03	3.52	4.50	3.55	3.46
IN.	1.47	2.65	3.68	2.85	3.22	4.67	4.68	5.81	3.93	5.19	4.09	3.86

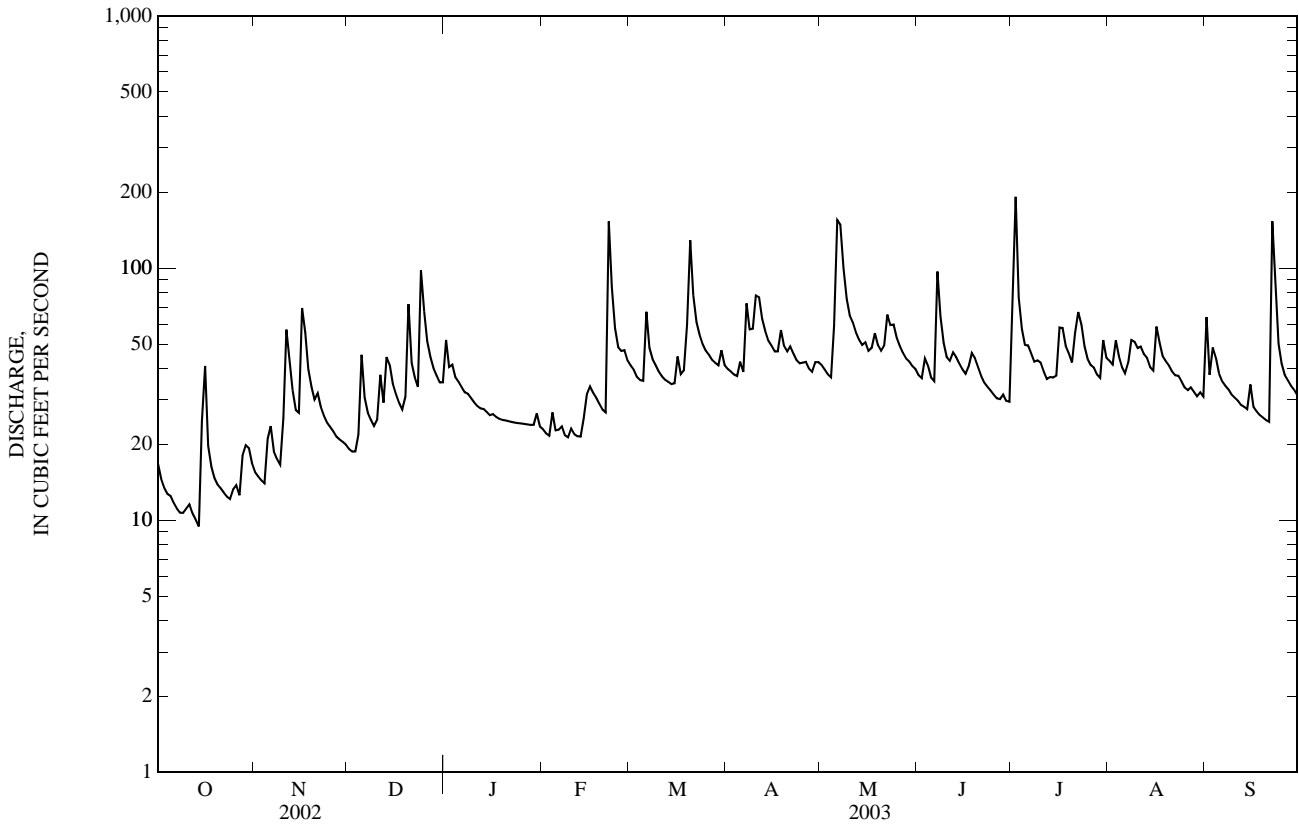
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 2003,[@] BY WATER YEAR (WY)

MEAN	23.4	29.4	34.0	42.6	45.7	52.8	47.9	38.4	32.7	28.8	28.1	24.6
MAX	70.0	77.9	63.3	86.3	90.1	110	71.4	58.9	78.2	94.9	91.2	67.8
(WY)	(1996)	(1949)	(1993)	(1998)	(1998)	(1952)	(1998)	(2003)	(1989)	(1949)	(1994)	(1950)
MIN	7.30	8.69	13.4	14.5	24.2	20.7	27.2	17.2	11.6	10.9	9.02	8.21
(WY)	(1955)	(1955)	(1999)	(1955)	(2002)	(1988)	(1988)	(1988)	(1988)	(1988)	(2002)	(1954)

03440000 CATHEYS CREEK NEAR BREVARD, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1945 - 2003 [®]	
ANNUAL TOTAL	8,378.6		14,495.5		35.6	
ANNUAL MEAN	23.0		39.7		18.3	
HIGHEST ANNUAL MEAN					59.7	1949
LOWEST ANNUAL MEAN					18.3	1988
HIGHEST DAILY MEAN	122	Sep 27	192	Jul 2	814	Aug 17, 1994
LOWEST DAILY MEAN	4.7	Sep 11	9.5	Oct 14	4.7	Sep 11, 2002
ANNUAL SEVEN-DAY MINIMUM	5.3	Sep 7	11	Oct 8	5.3	Sep 7, 2002
MAXIMUM PEAK FLOW			1,020	Sep 22	2,410*	Aug 17, 1994
MAXIMUM PEAK STAGE			4.85	Sep 22	7.28	Aug 17, 1994
INSTANTANEOUS LOW FLOW			6.6	Oct 14	1.0*	Sep 10, 2002
ANNUAL RUNOFF (CFSM)	1.96		3.39		3.04	
ANNUAL RUNOFF (INCHES)	26.64		46.09		41.33	
10 PERCENT EXCEEDS	36		58		62	
50 PERCENT EXCEEDS	21		38		29	
90 PERCENT EXCEEDS	9.4		19		13	

e Estimated.
[®] See PERIOD OF RECORD.
 * See REMARKS.



03441000 DAVIDSON RIVER NEAR BREVARD, NC

LOCATION.--Lat 35°16'23", long 82°42'20", Transylvania County, Hydrologic Unit 06010105, on right bank 150 ft upstream of bridge on State Highway 280, 2.1 mi downstream of Avery Creek, 3.3 mi northeast of Brevard, and at mile 2.2.

DRAINAGE AREA.--40.4 mi².

PERIOD OF RECORD.--October 1920 to September 1990, October 1993 to current year. Monthly discharge only for some periods, published in WSP 1306.

REVISED RECORDS.--WSP 823: Drainage Area. WSP 1336: 1921, 1922 (M), 1923, 1924-25(M), 1926, 1927(M), 1929-32(M).

GAGE.--Water-stage recorder. Datum of gage is 2,115.13 ft above NGVD of 1929 (levels by Tennessee Valley Authority). Prior to May 17, 1934, nonrecording gage at site 50 ft downstream at same datum. Satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Minimum discharge for current water year also occurred Oct. 15.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 1876 reached a stage of 11.9 ft, from studies by Tennessee Valley Authority.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	113	76	85	276	87	166	150	148	131	202	128	203
2	97	71	82	201	83	158	145	168	125	1,120	114	110
3	86	68	81	201	82	144	139	144	157	379	135	109
4	77	66	89	174	106	136	137	136	143	258	127	105
5	77	88	204	162	88	132	156	225	126	211	123	94
6	67	118	138	152	86	351	139	820	120	212	107	88
7	63	88	117	142	92	222	285	725	525	199	126	85
8	61	80	109	138	82	186	229	469	312	175	169	83
9	58	76	104	132	80	168	256	339	218	166	154	79
10	60	87	105	126	90	154	351	281	181	159	152	77
11	67	285	193	120	85	144	331	251	164	145	132	74
12	60	208	138	115	84	136	270	222	174	135	120	72
13	56	160	214	113	81	131	236	201	153	149	126	70
14	52	134	214	111	99	126	210	188	143	149	112	68
15	106	124	168	106	144	124	194	190	137	199	106	101
16	254	305	148	105	166	168	182	173	134	203	135	75
17	118	263	134	104	173	139	176	177	153	217	123	69
18	94	191	125	e100	146	156	256	207	160	172	110	65
19	83	161	126	e98	131	294	209	187	154	157	102	63
20	76	143	320	e96	121	732	191	172	134	146	101	62
21	72	164	190	e94	116	411	199	178	122	137	99	60
22	68	141	164	e92	744	302	185	296	116	169	111	382
23	65	126	148	e90	538	256	170	253	111	151	101	310
24	62	118	440	e89	291	225	162	244	106	132	92	147
25	67	112	322	e88	222	205	159	206	103	123	88	119
26	72	106	240	e87	204	191	157	189	100	116	84	106
27	63	101	205	e86	207	179	146	172	103	115	81	113
28	82	96	182	e85	183	170	140	159	113	112	81	124
29	97	92	167	94	---	163	146	154	101	106	85	98
30	101	90	155	104	---	178	149	145	101	124	90	92
31	84	---	149	92	---	157	---	139	---	132	87	---
TOTAL	2,558	3,938	5,256	3,773	4,611	6,404	5,855	7,558	4,620	6,170	3,501	3,303
MEAN	82.5	131	170	122	165	207	195	244	154	199	113	110
MAX	254	305	440	276	744	732	351	820	525	1,120	169	382
MIN	52	66	81	85	80	124	137	136	100	106	81	60
CFSM	2.04	3.25	4.20	3.01	4.08	5.11	4.83	6.03	3.81	4.93	2.80	2.73
IN.	2.36	3.63	4.84	3.47	4.25	5.90	5.39	6.96	4.25	5.68	3.22	3.04

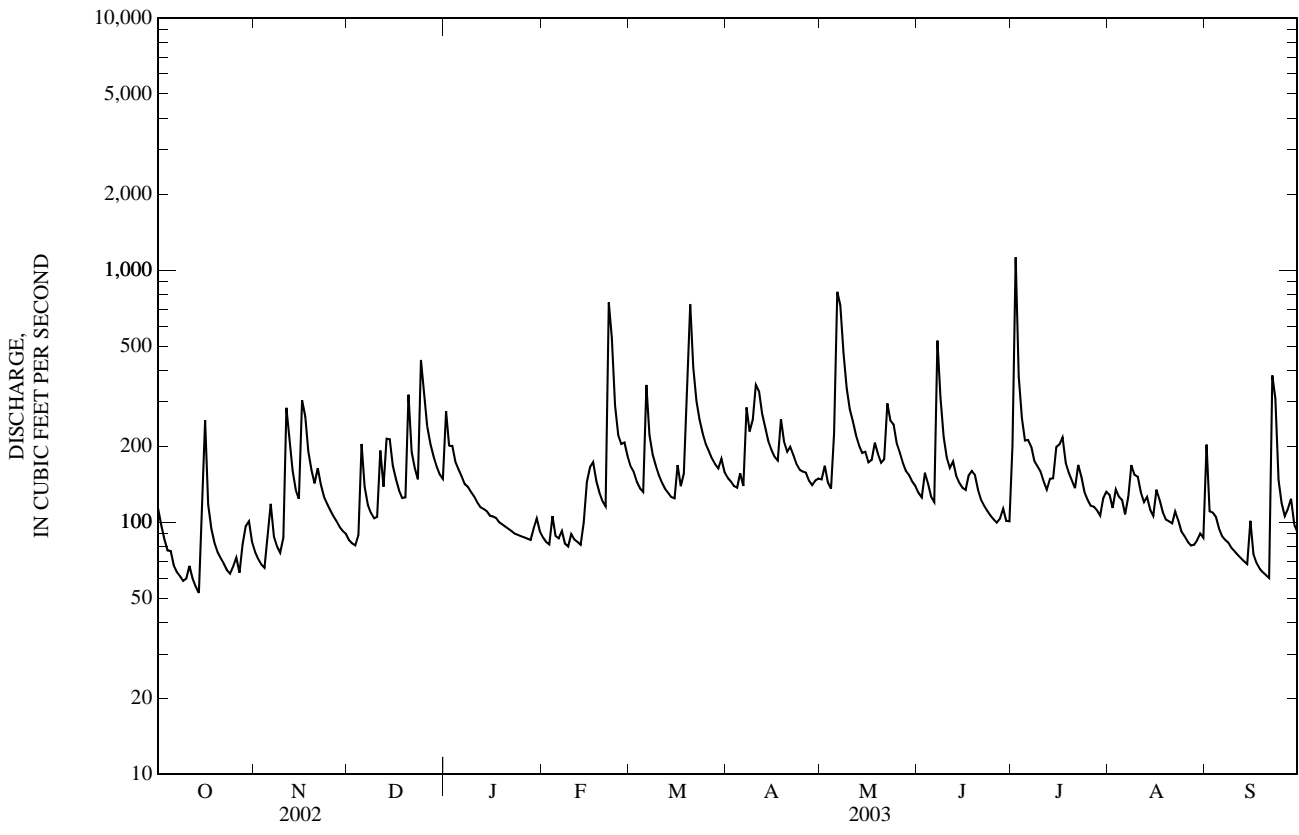
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1921 - 2003,® BY WATER YEAR (WY)

MEAN	94.4	105	129	155	168	184	173	142	112	92.1	97.6	88.5
MAX	379	362	323	374	363	466	349	293	254	285	404	297
(WY)	(1965)	(1980)	(1933)	(1937)	(1939)	(1929)	(1957)	(1923)	(1967)	(1989)	(1928)	(1928)
MIN	18.2	24.5	31.7	37.8	66.5	74.1	57.7	54.6	37.9	37.2	24.0	17.5
(WY)	(1955)	(1955)	(1940)	(1956)	(1941)	(1988)	(1986)	(1941)	(1988)	(1986)	(1925)	(1954)

03441000 DAVIDSON RIVER NEAR BREVARD, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1921 - 2003 [®]	
ANNUAL TOTAL	34,156		57,547		128	
ANNUAL MEAN	93.6		158		208	
HIGHEST ANNUAL MEAN					1949	
LOWEST ANNUAL MEAN					70.6	
HIGHEST DAILY MEAN	1,040	Sep 27	1,120	Jul 2	2,940	Aug 17, 1994
LOWEST DAILY MEAN	20	Sep 12	52	Oct 14	14	Sep 28, 1954
ANNUAL SEVEN-DAY MINIMUM	22	Sep 7	59	Oct 8	15	Sep 25, 1954
MAXIMUM PEAK FLOW			2,280	Jul 2	e8,400	Aug 15, 1928
MAXIMUM PEAK STAGE			5.39	Jul 2	12.08	Aug 17, 1994
INSTANTANEOUS LOW FLOW			51*	Oct 14	13	Oct 11, 1954
ANNUAL RUNOFF (CFSM)	2.32		3.90		3.17	
ANNUAL RUNOFF (INCHES)	31.45		52.99		43.09	
10 PERCENT EXCEEDS	160		253		228	
50 PERCENT EXCEEDS	80		135		100	
90 PERCENT EXCEEDS	36		80		42	

e Estimated.
[®] See PERIOD OF RECORD.
 * See REMARKS.



03443000 FRENCH BROAD RIVER AT BLANTYRE, NC

LOCATION.--Lat 35°17'56", long 82°37'25", Transylvania County, Hydrologic Unit 06010105, on left bank 40 ft upstream from bridge on Secondary Road 1503, 700 ft east of railroad at Blantyre, 3.5 mi downstream of Little River, and at mile 183.7.

DRAINAGE AREA.--296 mi².

PERIOD OF RECORD.--October 1920 to current year. Monthly discharge only for some periods, published in WSP 1306.

REVISED RECORDS.--WSP 923: 1921-23, 1929, 1933, 1935-36(M), 1938, 1940.

GAGE.--Water-stage recorder. Datum of gage is 2,060.32 ft above NGVD of 1929 (levels by Tennessee Valley Authority). Prior to July 5, 1930, nonrecording gage at same site and datum. Satellite and telephone telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges and those above 2,600 ft³/s, which are poor. Considerable diurnal fluctuation at low flow caused by power plant about 8 mi upstream from station. Maximum gage height for period of record, 25.50 ft, from floodmarks.

EXTREMES OUTSIDE PERIOD OF RECORD.--Since at least 1791, maximum stage 27.1 ft, July 16, 1916, from floodmarks (from studies by Tennessee Valley Authority).

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	838	553	631	1,420	653	1,140	981	1,030	978	799	1,040	2,310
2	710	520	611	1,400	625	1,080	938	985	929	3,480	1,010	1,980
3	632	498	603	1,290	609	1,010	907	945	988	4,050	997	1,290
4	575	485	606	1,180	691	952	882	934	1,150	2,750	1,090	1,110
5	547	523	1,290	1,090	707	926	949	1,030	1,040	1,510	947	1,010
6	509	964	1,260	1,030	633	1,660	986	3,280	916	1,340	861	902
7	475	756	941	980	684	1,540	1,700	4,380	1,740	1,370	841	842
8	456	644	839	949	649	1,220	1,760	4,480	2,580	1,310	1,020	809
9	437	596	782	918	613	1,110	1,660	3,530	1,590	1,190	1,120	765
10	439	662	750	881	641	1,030	1,950	2,040	1,270	1,260	1,140	730
11	453	1,960	1,350	838	662	971	2,650	1,650	1,130	1,140	1,290	705
12	432	2,100	1,150	808	629	928	1,960	1,500	1,160	1,020	1,100	683
13	407	1,470	1,320	786	613	888	1,590	1,340	1,190	1,010	1,090	658
14	403	1,130	1,720	771	631	866	1,410	1,250	1,110	1,020	1,020	641
15	508	961	1,300	754	902	849	1,280	1,240	1,070	1,060	984	731
16	1,870	1,750	1,110	733	920	1,150	1,190	1,190	1,060	1,070	970	722
17	1,170	2,070	991	746	1,090	1,060	1,140	1,210	1,120	1,450	1,060	633
18	780	1,470	913	e710	947	1,050	1,430	1,590	1,160	1,170	1,090	607
19	662	1,190	866	e700	894	1,270	1,420	1,520	1,360	1,390	954	590
20	601	1,050	2,020	e695	825	3,140	1,240	1,320	1,190	1,160	920	561
21	566	1,050	1,610	705	786	3,450	1,200	1,240	1,050	1,030	939	548
22	565	1,020	1,240	706	2,500	2,120	1,240	1,880	960	1,050	954	863
23	527	897	1,110	673	4,010	1,580	1,120	2,060	905	1,090	967	3,030
24	483	833	2,170	e660	2,850	1,400	1,060	2,100	860	974	883	2,050
25	473	793	3,060	e646	1,560	1,260	1,030	1,620	822	875	824	1,080
26	553	757	1,880	633	1,320	1,180	1,050	1,440	792	824	775	915
27	507	730	1,480	616	1,340	1,120	997	1,290	771	795	743	e878
28	511	697	1,300	600	1,260	1,060	949	1,190	822	805	736	e902
29	656	673	1,190	624	---	1,020	924	1,130	806	757	768	e808
30	687	658	1,100	736	---	1,110	998	1,070	768	891	740	734
31	620	---	1,040	710	---	1,060	---	1,020	---	1,360	950	---
TOTAL	19,052	29,460	38,233	25,988	30,244	40,200	38,591	52,484	33,287	41,000	29,823	30,087
MEAN	615	982	1,233	838	1,080	1,297	1,286	1,693	1,110	1,323	962	1,003
MAX	1,870	2,100	3,060	1,420	4,010	3,450	2,650	4,480	2,580	4,050	1,290	3,030
MIN	403	485	603	600	609	849	882	934	768	757	736	548
CFSM	2.08	3.32	4.17	2.83	3.65	4.38	4.35	5.72	3.75	4.47	3.25	3.39
IN.	2.39	3.70	4.80	3.27	3.80	5.05	4.85	6.60	4.18	5.15	3.75	3.78

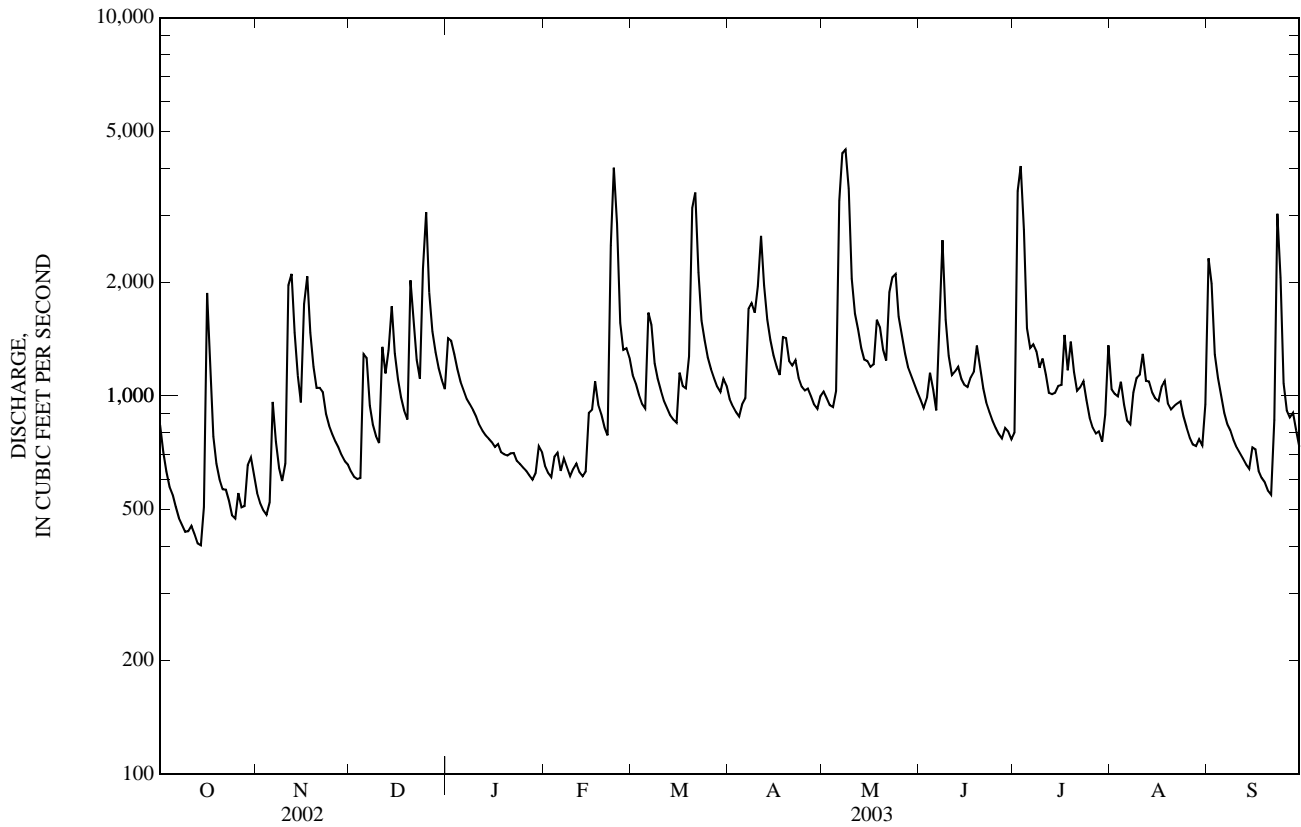
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1921 - 2003, BY WATER YEAR (WY)

MEAN	753	834	1,019	1,197	1,268	1,387	1,298	1,063	870	725	766	685
MAX	3,504	2,486	2,142	2,783	2,735	3,169	2,509	2,339	1,872	2,214	2,363	1,828
(WY)	(1965)	(1980)	(1962)	(1937)	(1998)	(1979)	(1936)	(1973)	(1989)	(1949)	(1994)	(1979)
MIN	157	235	301	260	561	550	473	434	278	290	191	169
(WY)	(1955)	(1955)	(1956)	(1956)	(1941)	(1988)	(1986)	(1988)	(1988)	(1925)	(1925)	(1954)

03443000 FRENCH BROAD RIVER AT BLANTYRE, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1921 - 2003	
ANNUAL TOTAL	253,279		408,449			
ANNUAL MEAN	694		1,119		987	
HIGHEST ANNUAL MEAN					1,564	1949
LOWEST ANNUAL MEAN					534	1988
HIGHEST DAILY MEAN	3,880	Sep 28	4,480	May 8	22,700	Oct 5, 1964
LOWEST DAILY MEAN	153	Sep 12	403	Oct 14	123	Oct 10, 1954
ANNUAL SEVEN-DAY MINIMUM	161	Sep 7	432	Oct 8	133	Oct 8, 1954
MAXIMUM PEAK FLOW			4,610	May 8	30,000	Oct 5, 1964
MAXIMUM PEAK STAGE			17.27	May 8	25.50*	Oct 5, 1964
INSTANTANEOUS LOW FLOW			382	Oct 15	119	Oct 1, 1954
ANNUAL RUNOFF (CFSM)	2.34		3.78		3.34	
ANNUAL RUNOFF (INCHES)	31.83		51.33		45.33	
10 PERCENT EXCEEDS	1,190		1,730		1,710	
50 PERCENT EXCEEDS	611		991		804	
90 PERCENT EXCEEDS	234		612		353	

e Estimated.
 * See REMARKS.



03446000 MILLS RIVER NEAR MILLS RIVER, NC

LOCATION.--Lat 35°23'55", long 82°35'41", Henderson County, Hydrologic Unit 06010105, on right bank 1.5 mi downstream of confluence of North and South Forks, 1.8 mi northwest of Mills River, 4.2 mi northwest of Horseshoe, and at mile 4.6.

DRAINAGE AREA.--66.7 mi².

PERIOD OF RECORD.--September 1924 to September 1926, October 1933 to current year. Monthly discharge only for some periods, published in WSP 1306.

REVISED RECORDS.--WSP 823: Drainage area. WSP 923: 1935, 1937, 1939. WSP 1003: 1938, 1940-42. WSP 1143: 1940(P). WSP 1276: 1926.

GAGE.--Water-stage recorder. Datum of gage is 2,088.47 ft above NGVD of 1929 (levels by Tennessee Valley Authority). Prior to Oct. 1, 1926, nonrecording gage at site 500 ft upstream at 2,091.44 ft. Satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are fair. City of Hendersonville diverted about 5.4 ft³/s from North Fork and Bradley Creek for municipal water supply. Maximum discharge for period of record, from rating curve extended above 6,200 ft³/s on basis of slope-area measurement of peak flow. Minimum discharge for period of record result of freezeup. Minimum discharge for current water year also occurred Oct. 15.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	124	78	92	299	114	223	213	370	226	226	313	307
2	105	76	89	256	110	214	207	500	216	1,490	304	248
3	96	73	88	256	108	198	199	394	245	617	311	221
4	85	71	95	229	126	189	194	339	234	435	381	214
5	81	84	195	216	114	184	212	419	210	428	531	205
6	75	139	153	206	110	361	197	1,200	201	374	325	188
7	71	95	128	191	118	287	347	1,050	457	344	332	183
8	70	87	120	186	106	250	305	760	415	305	345	178
9	69	87	114	177	104	230	310	596	308	311	316	174
10	69	95	114	171	112	213	421	506	264	300	316	170
11	74	234	241	162	110	201	490	448	242	272	309	164
12	68	224	189	155	106	192	415	400	245	247	311	159
13	64	182	268	152	103	184	378	368	226	270	309	153
14	60	152	307	149	117	178	337	343	224	282	266	149
15	93	137	239	144	168	173	307	334	220	399	246	161
16	265	287	205	142	190	232	286	319	229	300	299	145
17	140	289	182	142	187	197	271	324	351	280	286	135
18	110	223	166	e137	175	218	337	353	267	283	249	130
19	96	189	160	e134	163	318	299	324	267	282	229	125
20	88	166	370	e132	152	751	278	303	232	256	219	123
21	83	168	251	e130	145	540	282	310	211	239	226	123
22	80	151	215	e128	661	406	269	437	200	263	237	257
23	77	135	193	e127	709	346	249	414	189	258	224	365
24	75	127	485	e125	406	307	238	377	180	226	205	197
25	77	120	463	e123	318	280	234	340	173	211	196	169
26	89	114	352	e122	278	262	233	320	168	201	184	156
27	78	110	299	e121	265	246	219	294	195	194	178	150
28	79	104	264	e119	242	234	210	275	204	202	183	169
29	93	100	240	e120	---	226	219	265	181	267	199	143
30	94	97	222	131	---	248	357	251	176	273	273	140
31	84	---	211	121	---	223	---	240	---	277	251	---
TOTAL	2,812	4,194	6,710	5,003	5,617	8,311	8,513	13,173	7,156	10,312	8,553	5,401
MEAN	90.7	140	216	161	201	268	284	425	239	333	276	180
MAX	265	289	485	299	709	751	490	1,200	457	1,490	531	365
MIN	60	71	88	119	103	173	194	240	168	194	178	123
CFSM	1.36	2.10	3.25	2.42	3.01	4.02	4.25	6.37	3.58	4.99	4.14	2.70
IN.	1.57	2.34	3.74	2.79	3.13	4.64	4.75	7.35	3.99	5.75	4.77	3.01

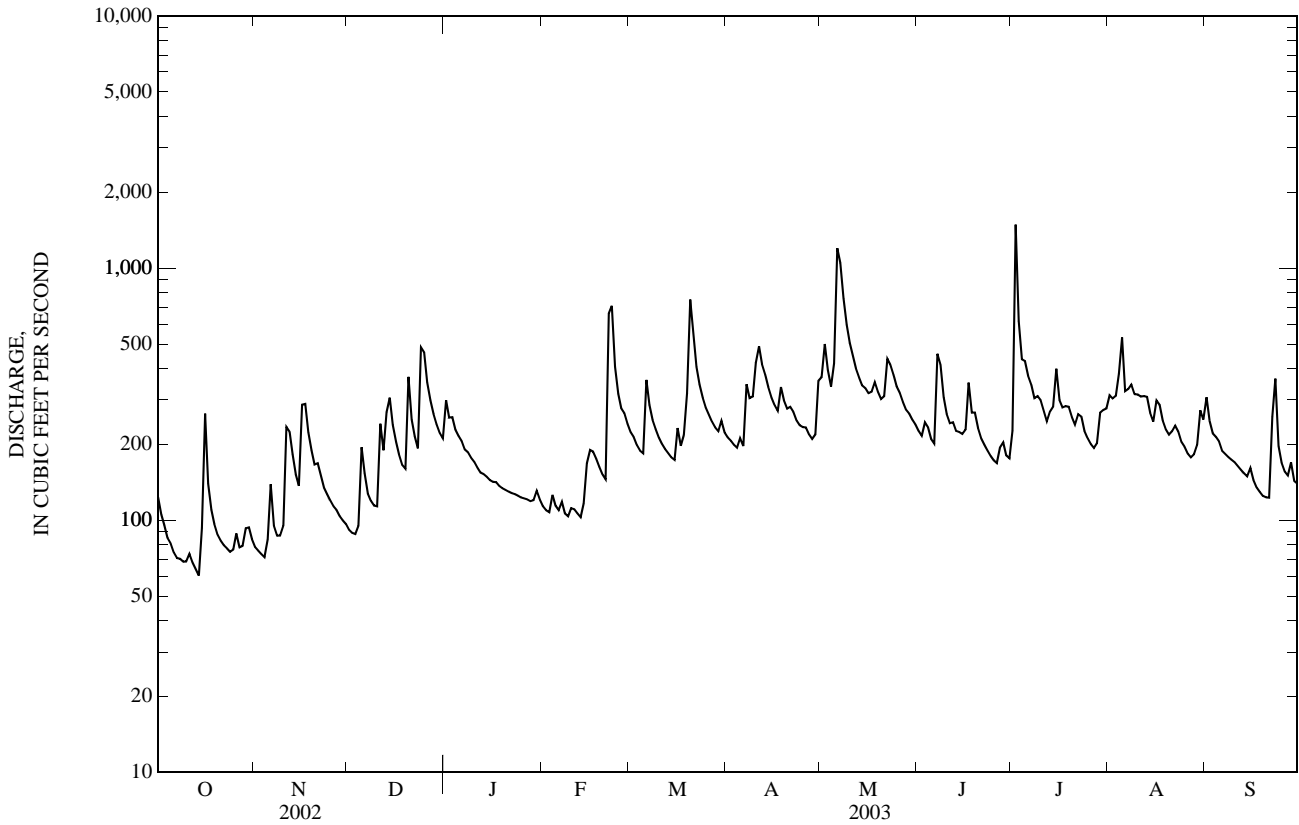
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 2003,® BY WATER YEAR (WY)

	124	141	162	197	218	244	235	189	151	121	128	114
MEAN	465	510	338	534	499	520	468	425	359	356	506	354
(WY)	(1965)	(1980)	(1962)	(1937)	(1998)	(1979)	(1957)	(2003)	(1992)	(1989)	(1940)	(1979)
MIN	24.8	35.2	40.7	43.5	88.9	87.5	79.7	76.2	41.7	38.6	25.4	22.8
(WY)	(1955)	(1955)	(1940)	(1956)	(1941)	(1988)	(1986)	(1988)	(1988)	(1988)	(1925)	(1925)

03446000 MILLS RIVER NEAR MILLS RIVER, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1925 - 2003 [®]	
ANNUAL TOTAL	38,771		85,755		168	
ANNUAL MEAN	106		235		86.3	
HIGHEST ANNUAL MEAN					272	1949
LOWEST ANNUAL MEAN					86.3	2002
HIGHEST DAILY MEAN	783	Sep 27	1,490	Jul 2	4,470	Aug 13, 1940
LOWEST DAILY MEAN	22	Sep 11	60	Oct 14	18	Sep 30, 1954
ANNUAL SEVEN-DAY MINIMUM	24	Sep 7	68	Oct 8	19	Sep 24, 1954
MAXIMUM PEAK FLOW			2,430	Jul 2	13,400*	Aug 30, 1940
MAXIMUM PEAK STAGE			6.43	Jul 2	13.62	Aug 30, 1940
INSTANTANEOUS LOW FLOW			59*	Oct 14	16*	Dec 24, 1943
ANNUAL RUNOFF (CFSM)	1.59		3.52		2.52	
ANNUAL RUNOFF (INCHES)	21.62		47.83		34.27	
10 PERCENT EXCEEDS	190		370		301	
50 PERCENT EXCEEDS	90		214		134	
90 PERCENT EXCEEDS	36		95		54	

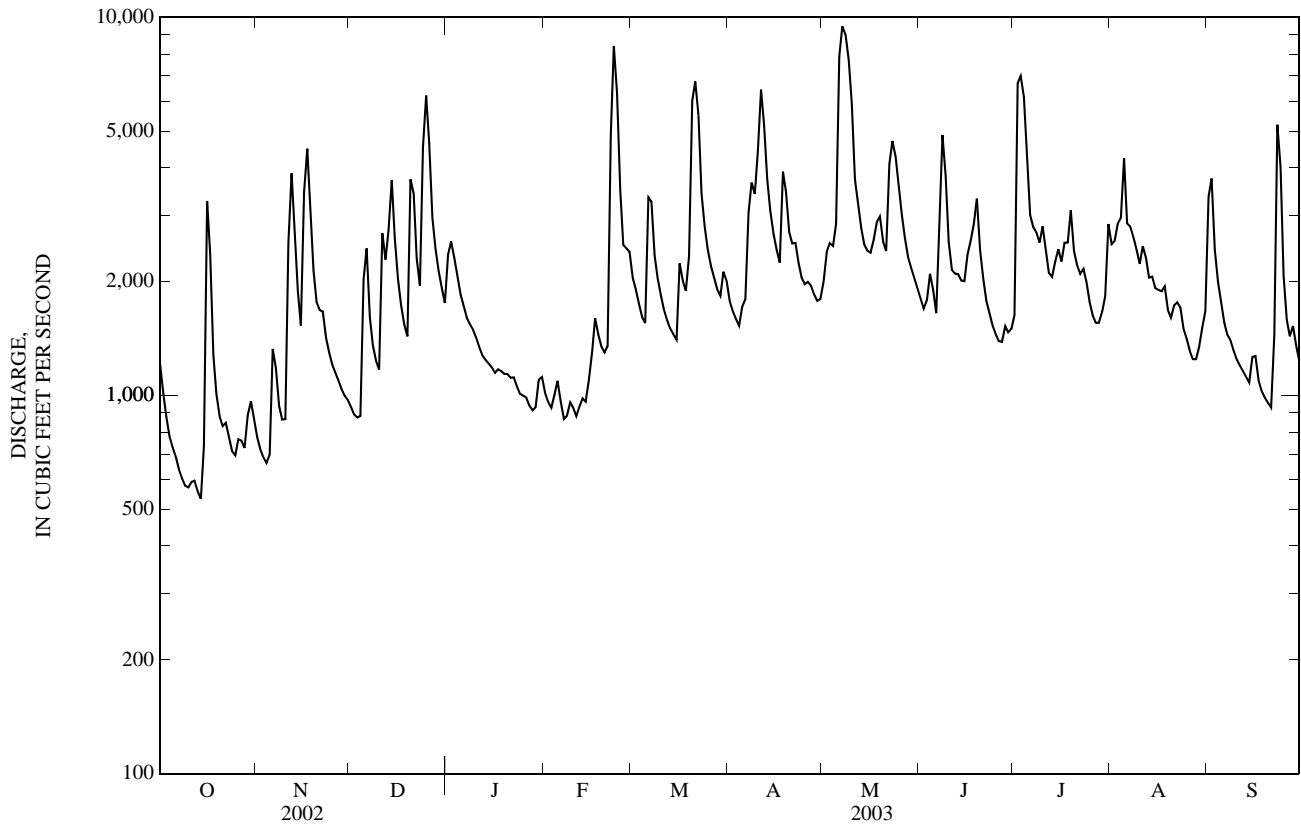
e Estimated.
[®] See PERIOD OF RECORD.
 * See REMARKS.



03447687 FRENCH BROAD RIVER NEAR FLETCHER, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 2001 - 2003	
ANNUAL TOTAL	427,439		782,757		1,534	
ANNUAL MEAN	1,171		2,145		2,145	
HIGHEST ANNUAL MEAN					923	
LOWEST ANNUAL MEAN					202	
HIGHEST DAILY MEAN	6,210	Dec 25	9,470	May 7	9,470	May 7, 2003
LOWEST DAILY MEAN	201	Sep 13	533	Oct 14	201	Sep 13, 2002
ANNUAL SEVEN-DAY MINIMUM	221	Sep 7	576	Oct 8	221	Sep 7, 2002
MAXIMUM PEAK FLOW			10,000	May 7	10,000	May 7, 2003
MAXIMUM PEAK STAGE			12.50	May 7	12.50	May 7, 2003
INSTANTANEOUS LOW FLOW			523	Oct 15	193	Sep 12, 2002
ANNUAL RUNOFF (CFSM)	1.83		3.35		2.40	
ANNUAL RUNOFF (INCHES)	24.84		45.50		32.56	
10 PERCENT EXCEEDS	2,040		3,710		2,800	
50 PERCENT EXCEEDS	981		1,840		1,210	
90 PERCENT EXCEEDS	356		889		439	

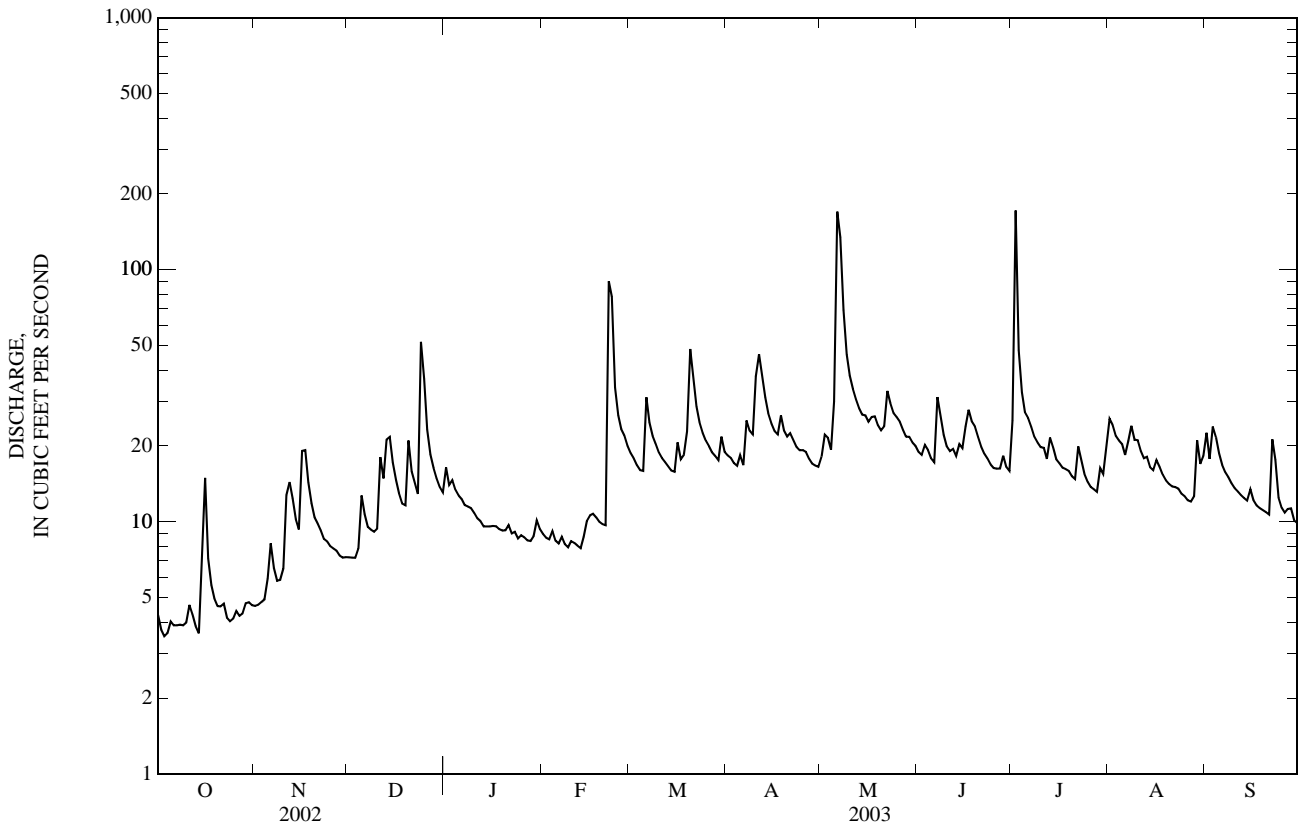
e Estimated.



03447894 BENT CREEK AT BENT CREEK GAP NEAR GLEN BALD, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 2002 - 2003	
ANNUAL TOTAL	2,631.86		6,525.1		17.9	
ANNUAL MEAN	7.21		17.9		17.9	
HIGHEST ANNUAL MEAN					17.9	2003
LOWEST ANNUAL MEAN					17.9	2003
HIGHEST DAILY MEAN	52	Dec 24	172	Jul 2	172	Jul 2, 2003
LOWEST DAILY MEAN	0.75	Sep 12	3.5	Oct 3	0.75	Sep 12, 2002
ANNUAL SEVEN-DAY MINIMUM	0.91	Sep 7	3.8	Oct 2	0.91	Sep 7, 2002
MAXIMUM PEAK FLOW			380	Jul 2	380	Jul 2, 2003
MAXIMUM PEAK STAGE			4.23	Jul 2	4.23	Jul 2, 2003
INSTANTANEOUS LOW FLOW			3.3*	Oct 3	0.71*	Sep 11, 2002
ANNUAL RUNOFF (CFSM)	0.83		2.05		2.05	
ANNUAL RUNOFF (INCHES)	11.20		27.77		27.79	
10 PERCENT EXCEEDS	13		26		26	
50 PERCENT EXCEEDS	6.2		16		16	
90 PERCENT EXCEEDS	2.5		6.5		6.5	

e Estimated.
 * See REMARKS.



0344894205 NORTH FORK SWANNANOVA RIVER NEAR WALKERTOWN, NC

LOCATION.--Lat 35°41'07", long 82°19'57", Buncombe County, Hydrologic Unit 06010105, on left bank 400 ft downstream of Sugar Springs Cove, 0.6 mi upstream from Burnette Reservoir, and 2.3 mi north of Walkertown.

DRAINAGE AREA.--14.5 mi².

PERIOD OF RECORD.--February 1989 to current year.

REVISED RECORDS.--WDR NC-91-1: 1989(M).

GAGE.--Water-stage recorder. Elevation of gage is 2,650 ft above NGVD of 1929, from topographic map. Satellite telemetry at station.

REMARKS.--Records good except those above 2,000 ft³/s which are fair and those for estimated daily discharges, which are poor. Maximum discharge for period of record from rating curve extended above 2,000 ft³/s by logarithmic plotting. Minimum discharge for period of record also occurred Sept. 15, 16, 18, 19, Oct. 3, 4, 1998.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	26	22	66	21	74	35	38	49	29	38	24
2	21	23	21	57	20	70	38	38	44	175	31	20
3	17	21	20	73	21	61	35	36	54	92	43	19
4	15	19	22	60	39	54	33	33	71	120	56	30
5	14	20	58	53	30	50	39	98	55	123	54	22
6	12	36	44	48	27	122	36	361	48	81	43	19
7	11	33	38	42	26	84	38	212	349	75	57	18
8	10	29	35	39	24	70	43	141	185	60	84	18
9	9.6	26	33	37	23	61	82	105	127	53	90	16
10	9.7	27	33	34	23	54	148	85	93	51	89	16
11	10	131	78	31	22	49	143	73	76	45	79	15
12	9.9	102	57	29	21	45	149	63	69	41	63	15
13	9.3	75	70	28	20	42	147	55	60	49	52	14
14	8.7	55	70	27	25	39	116	50	54	49	46	13
15	17	46	56	25	66	37	94	50	51	42	48	18
16	97	93	50	24	89	54	77	49	48	37	43	15
17	40	104	45	e20	90	46	72	45	43	34	38	13
18	28	71	41	e20	65	49	382	50	43	34	34	13
19	23	57	42	e19	55	79	157	47	48	33	31	12
20	19	48	108	e18	51	146	117	43	42	30	32	12
21	17	66	63	23	52	100	99	42	37	27	39	11
22	16	58	53	21	319	77	84	88	34	91	34	81
23	14	48	46	20	185	65	73	79	31	64	30	87
24	13	43	81	e18	113	57	65	68	28	42	27	36
25	13	38	80	e18	89	51	60	60	26	35	25	27
26	14	34	63	e18	80	47	55	59	25	31	23	23
27	13	32	56	e18	90	43	49	52	23	28	22	36
28	21	28	49	e17	84	40	45	46	23	25	20	47
29	28	26	45	e19	---	38	42	53	22	24	20	32
30	37	25	41	23	---	41	40	61	24	25	20	27
31	32	---	39	21	---	35	---	55	---	40	22	---
TOTAL	624.2	1,440	1,559	966	1,770	1,880	2,593	2,335	1,882	1,685	1,333	749
MEAN	20.1	48.0	50.3	31.2	63.2	60.6	86.4	75.3	62.7	54.4	43.0	25.0
MAX	97	131	108	73	319	146	382	361	349	175	90	87
MIN	8.7	19	20	17	20	35	33	33	22	24	20	11
CFSM	1.39	3.31	3.47	2.15	4.36	4.18	5.96	5.19	4.33	3.75	2.97	1.72
IN.	1.60	3.69	4.00	2.48	4.54	4.82	6.65	5.99	4.83	4.32	3.42	1.92

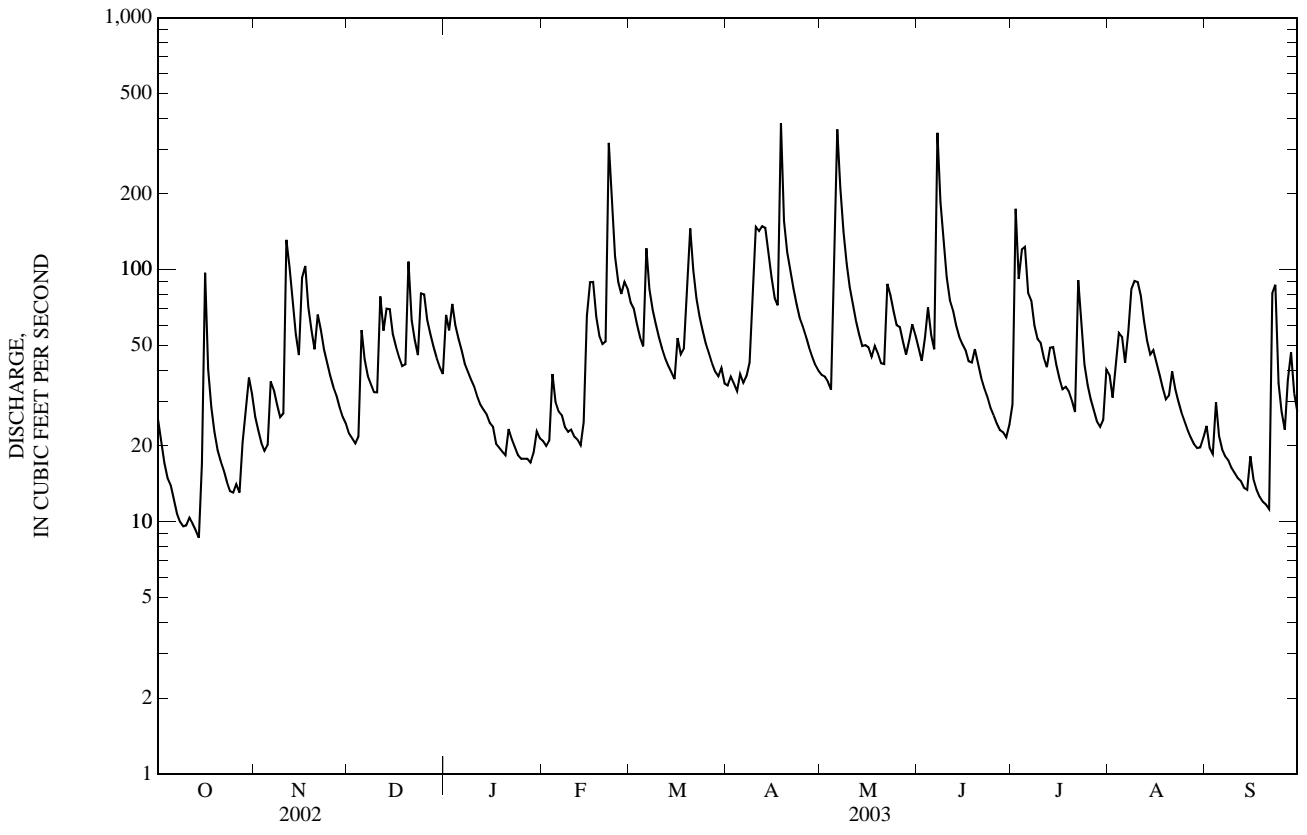
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 2003, BY WATER YEAR (WY)

MEAN	25.9	31.8	40.8	59.7	59.2	69.9	55.6	45.8	35.7	24.2	29.8	18.8
MAX	79.1	84.6	79.8	134	120	111	86.4	75.3	78.0	63.0	123	64.3
(WY)	(1996)	(1993)	(1993)	(1995)	(1990)	(1993)	(2003)	(2003)	(1995)	(1999)	(1994)	(1989)
MIN	2.49	4.88	14.8	28.2	27.7	39.5	18.6	18.9	13.5	5.71	3.96	1.92
(WY)	(1999)	(1999)	(1999)	(2000)	(2002)	(1999)	(1995)	(2001)	(1998)	(1998)	(1998)	(1998)

0344894205 NORTH FORK SWANNANOA RIVER NEAR WALKERTOWN, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1989 - 2003	
ANNUAL TOTAL	10,750.1		18,816.2		40.9	
ANNUAL MEAN	29.5		51.6		51.9	
HIGHEST ANNUAL MEAN					24.1	1995
LOWEST ANNUAL MEAN					24.1	2002
HIGHEST DAILY MEAN	304	Sep 27	382	Apr 18	1,740	Jan 14, 1995
LOWEST DAILY MEAN	1.8	Sep 11	8.7	Oct 14	1.5	Sep 14, 1998
ANNUAL SEVEN-DAY MINIMUM	2.1	Sep 7	9.6	Oct 8	1.6	Sep 12, 1998
MAXIMUM PEAK FLOW			979	Apr 18	4,600*	Jan 14, 1995
MAXIMUM PEAK STAGE			5.63	Apr 18	8.19	Jan 14, 1995
INSTANTANEOUS LOW FLOW			8.0	Oct 15	1.5*	Sep 14, 1998
ANNUAL RUNOFF (CFSM)	2.03		3.56		2.82	
ANNUAL RUNOFF (INCHES)	27.58		48.27		38.37	
10 PERCENT EXCEEDS	58		90		80	
50 PERCENT EXCEEDS	22		42		28	
90 PERCENT EXCEEDS	4.2		18		6.7	

e Estimated.
 * See REMARKS.



03450000 BEETREE CREEK NEAR SWANNANOVA, NC

LOCATION.--Lat 35°39'11", long 82°24'19", Buncombe County, Hydrologic Unit 06010105, on left bank 0.5 mi downstream of Wolfe Branch, 0.8 mi upstream from Beetree Reservoir dam, 3.8 mi north of Swannanoa, and 4.8 mi above mouth.

DRAINAGE AREA.--5.46 mi².

PERIOD OF RECORD.--February 1926 to September 1975, October 1979 to September 1981, October 1985 to September 1986, and May 1987 to current year.

REVISED RECORDS.--WSP 823: Drainage area. WSP 893: 1928, 1936-37 (M). WSP 953: 1929 (M). WSP 1276: 1932.

GAGE.--Water-stage recorder and masonry control. Datum of gage is 2,728.39 ft above NGVD of 1929. 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 240 ft³/s on basis of computation of peak flow over weir. Minimum discharge for current water year also occurred Sept. 22. Minimum discharge for period of record also occurred July 25, 1996.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.1	5.2	5.4	17	5.3	22	11	9.6	13	7.8	4.7	2.6
2	5.0	4.9	5.1	16	5.1	20	12	10	11	33	4.0	2.4
3	4.3	4.7	4.9	23	5.3	18	11	9.1	14	23	7.4	2.2
4	3.7	4.6	6.1	21	8.0	16	10	8.1	17	21	8.7	2.8
5	3.7	4.8	21	18	6.8	14	12	23	14	26	8.7	2.5
6	3.2	6.7	15	16	6.6	26	11	112	12	21	6.5	2.2
7	2.9	6.4	12	13	6.5	22	11	88	52	19	12	2.1
8	2.6	6.0	10	13	5.6	20	11	58	51	16	13	2.1
9	2.4	5.8	9.1	12	5.1	18	19	42	42	14	10	2.0
10	2.5	6.0	8.9	10	5.8	16	39	33	31	13	8.8	1.9
11	2.7	23	17	8.6	5.4	14	42	28	26	11	7.6	1.8
12	2.4	26	13	7.7	5.3	12	42	24	26	10	6.6	1.7
13	2.2	21	17	7.2	5.0	11	42	21	23	9.8	5.8	1.6
14	2.1	16	17	7.0	6.5	10	32	19	21	8.7	5.4	1.6
15	6.1	12	15	6.3	13	9.3	27	19	19	7.7	5.3	3.1
16	27	25	13	6.1	18	14	23	18	17	6.7	4.7	2.0
17	14	32	12	5.9	20	11	21	16	15	5.9	4.2	1.7
18	9.9	23	11	e5.9	17	12	60	16	16	5.3	3.8	1.5
19	7.7	18	10	e5.7	14	13	40	14	16	4.9	3.5	1.4
20	6.3	15	18	e5.7	13	28	32	13	13	4.5	3.7	1.3
21	5.6	19	15	5.6	12	27	29	13	11	4.0	6.2	1.2
22	5.0	16	13	e5.5	54	22	25	25	10	13	5.1	11
23	4.4	13	12	e5.5	53	19	21	27	8.9	11	4.6	13
24	4.1	12	23	e5.3	36	16	19	25	7.8	7.4	3.9	5.4
25	4.0	10	24	e5.3	29	14	18	22	7.1	6.0	3.6	4.2
26	4.1	8.9	20	e5.1	26	13	16	20	6.4	5.4	3.3	3.6
27	3.8	8.2	17	e5.1	27	11	14	17	5.7	4.8	2.9	8.1
28	4.5	7.1	15	e4.9	25	10	12	15	5.6	4.4	2.7	9.4
29	4.8	6.4	13	e4.9	---	9.5	11	16	5.3	4.5	2.5	6.9
30	5.9	6.0	12	5.7	---	11	10	16	5.2	4.2	2.9	5.7
31	5.5	---	11	5.5	---	9.2	---	15	---	5.1	3.0	---
TOTAL	168.5	372.7	415.5	283.5	439.3	488.0	683	791.8	522.0	338.1	175.1	109.0
MEAN	5.44	12.4	13.4	9.15	15.7	15.7	22.8	25.5	17.4	10.9	5.65	3.63
MAX	27	32	24	23	54	28	60	112	52	33	13	13
MIN	2.1	4.6	4.9	4.9	5.0	9.2	10	8.1	5.2	4.0	2.5	1.2
CFSM	1.00	2.28	2.45	1.67	2.87	2.88	4.17	4.68	3.19	2.00	1.03	0.67
IN.	1.15	2.54	2.83	1.93	2.99	3.32	4.65	5.39	3.56	2.30	1.19	0.74

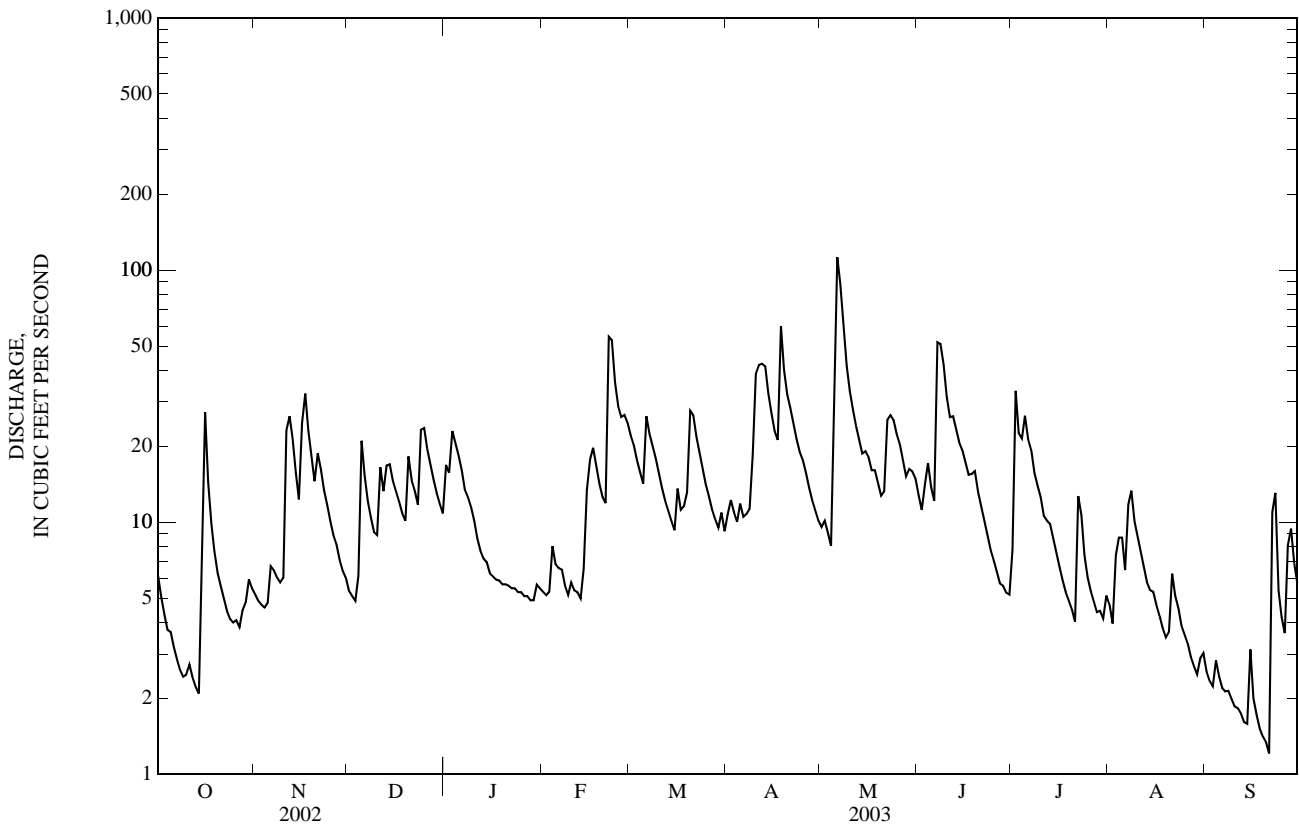
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1926 - 2003,® BY WATER YEAR (WY)

MEAN	6.09	8.21	10.3	13.5	15.5	18.9	16.8	11.9	8.48	6.17	6.47	4.85
MAX	33.9	45.3	25.4	38.5	43.0	43.1	34.2	28.5	27.0	37.9	61.8	21.3
(WY)	(1930)	(1980)	(1933)	(1937)	(1990)	(1975)	(1936)	(1973)	(1949)	(1949)	(1940)	(1928)
MIN	0.65	1.23	1.58	1.99	4.46	5.25	5.21	4.68	1.82	1.18	0.83	0.51
(WY)	(1955)	(1955)	(1940)	(1940)	(1941)	(1988)	(1986)	(1948)	(1988)	(1998)	(1998)	(1954)

03450000 BEETREE CREEK NEAR SWANNANOVA, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1926 - 2003 [®]	
ANNUAL TOTAL	2,617.57		4,786.5		10.6	
ANNUAL MEAN	7.17		13.1		5.37	
HIGHEST ANNUAL MEAN					17.8	1949
LOWEST ANNUAL MEAN					5.37	2002
HIGHEST DAILY MEAN	39	Jan 25	112	May 6	528	Aug 13, 1940
LOWEST DAILY MEAN	0.37	Sep 12	1.2	Sep 21	0.30	Sep 30, 1954
ANNUAL SEVEN-DAY MINIMUM	0.44	Sep 7	1.7	Sep 15	0.40	Sep 24, 1954
MAXIMUM PEAK FLOW			165	May 6	1,370*	Aug 13, 1940
MAXIMUM PEAK STAGE			3.84	May 6	6.20	Aug 13, 1940
INSTANTANEOUS LOW FLOW			1.1*	Sep 21	0.28*	Jul 24, 1996
ANNUAL RUNOFF (CFSM)	1.31		2.40		1.94	
ANNUAL RUNOFF (INCHES)	17.83		32.61		26.40	
10 PERCENT EXCEEDS	16		26		22	
50 PERCENT EXCEEDS	5.2		10		7.2	
90 PERCENT EXCEEDS	1.0		3.4		1.6	

e Estimated.
[®] See PERIOD OF RECORD.
 * See REMARKS.



03451000 SWANNANOA RIVER AT BILTMORE, NC

LOCATION.--Lat 35°34'06", long 82°32'41", Buncombe County, Hydrologic Unit 06010105, on left bank at Biltmore, 100 ft downstream of Biltmore Avenue Bridge, 200 ft upstream from Southern Railway bridge, and 1.6 mi upstream from mouth.

DRAINAGE AREA.--130 mi².

PERIOD OF RECORD.--October 1920 to September 1926, May 1934 to current year. Monthly discharge only for some periods, published in WSP 1306.

REVISED RECORDS.--WSP 803: 1921(M), 1923(M), 1925(M). WSP 823: Drainage area. WSP 1306: 1921(M), 1924(M), 1926(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,976.58 ft above NGVD of 1929 (levels by Tennessee Valley Authority). Dec. 1, 1920, to Sept. 30, 1926, nonrecording gage at site 100 ft upstream at same datum. Satellite and telephone telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Considerable regulation from 1925-50 (reservoir silted) by Lake Craig, 3.6 mi upstream from station. City of Asheville diverted an average of 28.6 ft³/s from Burnett Lake (station 03448959) on North Fork Swannanoa River, 20 mi upstream from station. An average of 35.3 ft³/s was discharged downstream of station into the French Broad River as treated sewage effluent. Maximum discharge for period of record, from rating curve extended above 9,100 ft³/s on basis of computation of peak flow over dam 3.6 mi upstream from station. Minimum discharge for period of record occurred several days in Oct. 1941. Minimum discharge for current water year also occurred Oct. 14, 15.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage observed: 26 ft; discharge: 40,000 ft³/s in April 1791, from studies by Tennessee Valley Authority. Flood of July 1916 reached a stage of 20.7 ft; discharge, 23,000 ft³/s, from flood profile by Tennessee Valley Authority. Flood of Aug. 16, 1928 reached a stage of 18.74 ft, from floodmarks; discharge, 17,800 ft³/s. High stages are subject to backwater from French Broad River.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	36	49	187	69	252	142	171	225	192	202	79
2	29	34	48	174	66	230	139	214	207	700	141	67
3	26	33	47	234	65	208	134	178	224	409	221	69
4	24	31	57	202	88	188	129	147	254	302	344	84
5	25	41	175	181	73	175	191	368	228	376	268	73
6	23	51	118	168	69	446	145	1,800	204	327	179	63
7	21	40	100	150	80	329	177	1,590	536	288	282	61
8	21	37	91	137	72	273	162	914	717	244	237	63
9	21	36	85	125	67	237	256	614	586	214	214	58
10	21	37	89	118	74	209	764	475	409	213	228	55
11	26	186	183	107	75	188	853	397	336	191	226	54
12	24	168	121	98	71	172	635	345	343	183	193	55
13	22	110	202	94	67	159	552	301	283	242	166	52
14	21	85	180	90	86	150	458	272	250	208	149	66
15	90	74	171	86	150	141	369	270	302	182	176	107
16	267	248	160	81	164	234	306	295	325	163	177	67
17	77	232	143	83	202	180	267	258	281	152	131	56
18	54	136	131	e80	191	185	909	280	262	161	119	52
19	45	106	128	e78	168	237	693	242	281	200	107	50
20	41	91	253	e76	150	568	502	225	237	146	99	49
21	41	101	202	76	141	487	440	226	207	137	121	48
22	40	89	172	73	876	363	358	486	190	163	134	152
23	37	76	149	e74	835	286	296	398	177	198	124	242
24	35	72	491	e74	498	240	256	379	165	166	99	82
25	35	66	337	74	362	208	235	340	152	142	90	71
26	38	63	252	e72	309	187	221	341	140	127	84	66
27	35	59	206	e72	311	170	196	287	134	117	79	91
28	36	55	180	e72	283	156	182	259	132	109	74	127
29	45	54	160	e74	---	148	168	262	131	129	71	92
30	41	54	144	84	---	203	155	265	129	118	74	81
31	39	---	134	71	---	160	---	248	---	226	82	---
TOTAL	1,331	2,501	4,958	3,365	5,662	7,369	10,290	12,847	8,047	6,725	4,891	2,332
MEAN	42.9	83.4	160	109	202	238	343	414	268	217	158	77.7
MAX	267	248	491	234	876	568	909	1,800	717	700	344	242
MIN	21	31	47	71	65	141	129	147	129	109	71	48
CFSM	0.33	0.64	1.23	0.83	1.56	1.83	2.64	3.19	2.06	1.67	1.21	0.60
IN.	0.38	0.72	1.42	0.96	1.62	2.11	2.94	3.68	2.30	1.92	1.40	0.67

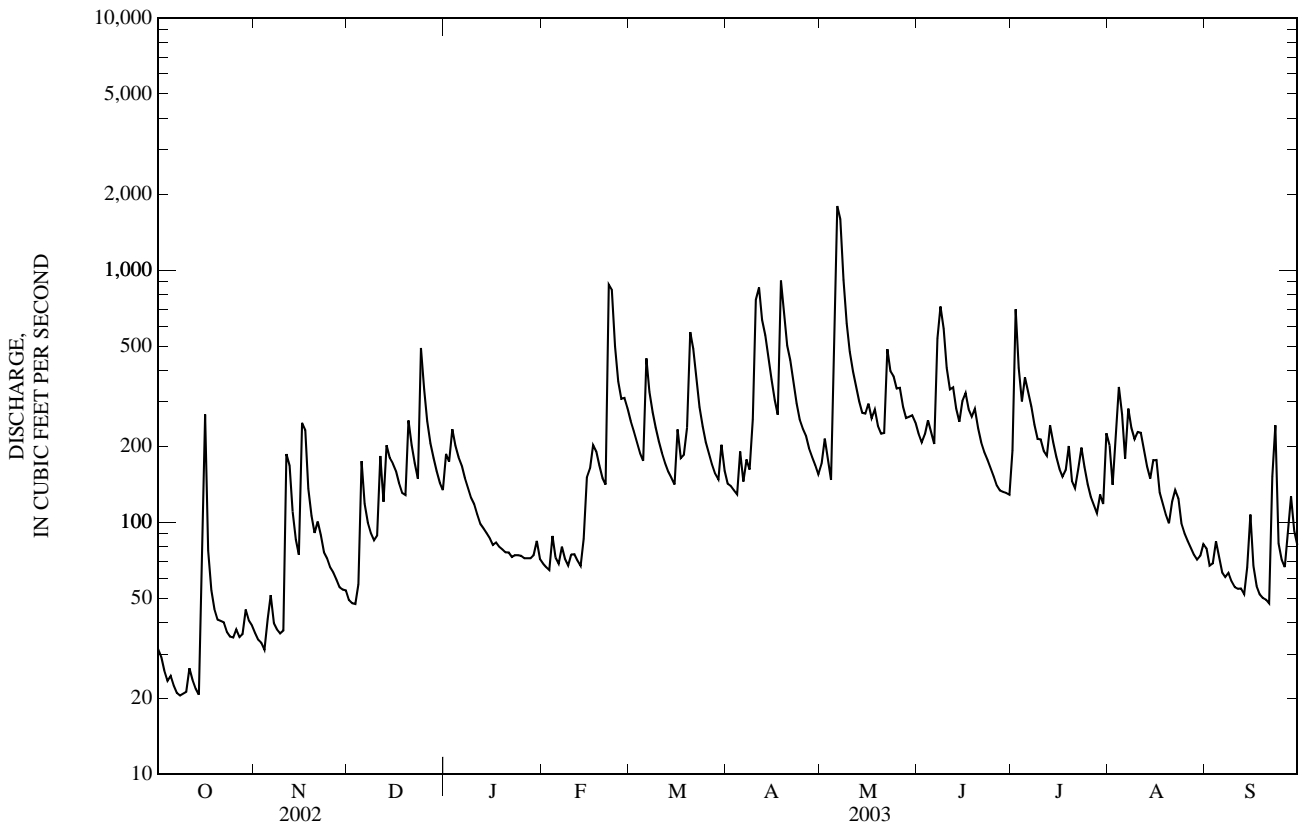
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1921 - 2003,® BY WATER YEAR (WY)

	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932
MEAN	96.5	115	138	191	226	274	249	187	136	101	100	84.4
MAX	569	604	385	610	598	740	560	480	387	503	828	421
(WY)	(1965)	(1980)	(1962)	(1995)	(1990)	(1975)	(1936)	(1973)	(1949)	(1949)	(1940)	(1979)
MIN	13.7	27.0	35.3	32.3	65.7	45.7	55.6	45.5	17.7	18.2	13.3	13.8
(WY)	(1955)	(1982)	(1989)	(1956)	(1988)	(1988)	(1986)	(1988)	(1988)	(1986)	(2002)	(1954)

03451000 SWANNANOA RIVER AT BILTMORE, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1921 - 2003 [®]	
ANNUAL TOTAL	27,781.0		70,318		158	
ANNUAL MEAN	76.1		193		277	
HIGHEST ANNUAL MEAN					277	1949
LOWEST ANNUAL MEAN					55.9	1988
HIGHEST DAILY MEAN	491	Dec 24	1,800	May 6	7,560	Aug 13, 1940
LOWEST DAILY MEAN	4.9	Sep 13	21	Oct 7	1.2	Oct 14, 1941
ANNUAL SEVEN-DAY MINIMUM	6.4	Sep 7	22	Oct 4	6.4	Sep 7, 2002
MAXIMUM PEAK FLOW			2,460	May 6	18,400*	Aug 13, 1940
MAXIMUM PEAK STAGE			7.16	May 6	19.00	Aug 13, 1940
INSTANTANEOUS LOW FLOW			19*	Oct 8	1.1*	Oct 9, 1941
ANNUAL RUNOFF (CFSM)	0.59		1.48		1.21	
ANNUAL RUNOFF (INCHES)	7.95		20.12		16.49	
10 PERCENT EXCEEDS	173		360		308	
50 PERCENT EXCEEDS	54		152		104	
90 PERCENT EXCEEDS	13		46		36	

e Estimated.
[®] See PERIOD OF RECORD.
 * See REMARKS.



03451500 FRENCH BROAD RIVER AT ASHEVILLE, NC

LOCATION.--Lat 35°36'33", long 82°34'42", Buncombe County, Hydrologic Unit 06010105, on right bank 27 ft upstream from Pearson Bridge (Secondary Road 1348) at Asheville, 1.4 mi downstream of bridge on U.S. Highways 19 and 23, 3.2 mi downstream of Swannanoa River, and at mile 145.8.

DRAINAGE AREA.--945 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1895 to current year. Monthly discharge only for some periods, published in WSP 1306.

REVISED RECORDS.--WSP 823: Drainage area. WSP 1306: 1895-1909, 1901(M), 1914-15(M), 1917(M), 1920-22(M),

GAGE.--Water-stage recorder. Datum of gage is 1,950.28 ft above NGVD of 1929. Sept. 17, 1895, to Dec. 31, 1901, nonrecording gage at present site at different datum. Mar. 19, 1903, to July 15, 1916, and Jan. 1, 1917, to Sept. 30, 1922, nonrecording gage at Smith Bridge 1.5 mi upstream at datum 1961.80 ft. Oct. 1, 1922, to Aug. 9, 1930, nonrecording gage at present site and datum. Satellite and telephone telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Many small diversions from tributaries upstream from station for water supply. Diversions by City of Asheville and others from upstream tributaries in the Swannanoa River basin (station 03451000) totaled about 28.6 ft³/s and 35.3 ft³/s was discharged 4 mi downstream from station as treated effluent. Slight diurnal fluctuation and occasional slight regulation at low flow caused by power plant 46 mi upstream and small reservoirs upstream from station. Maximum discharge for period of record, from rating curve extended above 43,000 ft³/s, by logarithmic plotting; maximum gage height, 23.10, from floodmarks. Minimum discharge for period of record also occurred Sept. 14, 2002. Minimum discharge for current water year also occurred Oct. 15.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage observed since at least 1791, that of July 16, 1916, and flood of June 17, 1876, reached a stage of 18 ft, from studies by Tennessee Valley Authority.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,520	910	1,250	2,620	1,430	2,600	2,260	2,430	2,400	2,160	2,970	3,000
2	1,200	835	1,210	2,920	1,360	2,440	2,150	2,970	2,270	7,870	3,040	4,040
3	1,030	785	1,190	2,760	1,310	2,280	2,070	3,210	2,300	7,770	3,030	2,910
4	889	755	1,210	2,570	1,390	2,130	2,000	2,790	2,610	6,790	3,380	2,510
5	800	768	2,050	2,350	1,480	2,040	2,190	2,930	2,490	5,020	4,990	2,280
6	757	1,310	2,850	2,210	1,380	3,670	2,290	11,300	2,230	3,690	3,330	2,030
7	700	1,470	2,100	2,070	1,420	3,840	2,880	13,500	3,280	3,220	3,040	1,890
8	668	1,100	1,760	1,990	1,420	2,910	3,820	11,400	5,780	3,060	3,400	1,830
9	647	963	1,620	1,920	1,340	2,570	3,590	9,250	4,890	2,790	2,990	1,740
10	637	929	1,550	1,850	1,340	2,360	4,690	7,420	3,290	3,090	2,770	1,670
11	659	2,090	2,680	1,750	1,400	2,190	7,890	4,600	2,830	2,810	2,920	1,610
12	661	3,940	2,740	1,680	1,360	2,080	6,510	3,800	2,790	2,450	2,790	1,570
13	636	3,150	2,770	1,640	1,310	1,990	4,600	3,350	2,660	2,410	2,610	1,520
14	602	2,260	3,890	1,610	1,340	1,920	3,750	3,090	2,580	2,680	2,530	1,500
15	775	1,800	3,010	1,580	1,720	1,860	3,260	2,990	2,550	2,680	2,510	1,660
16	3,190	3,100	2,460	1,530	1,920	2,530	2,980	2,990	2,960	2,500	2,440	1,740
17	2,910	4,750	2,180	1,550	2,180	2,520	2,790	3,050	3,120	2,760	2,350	1,530
18	1,620	3,350	1,980	e1,510	2,130	2,330	4,390	3,230	2,900	2,730	2,360	1,440
19	1,200	2,530	1,850	e1,500	1,910	2,580	4,400	3,400	3,940	3,350	2,180	1,390
20	1,020	2,170	3,370	e1,500	1,810	6,170	3,430	3,060	2,970	2,840	2,020	1,350
21	923	2,040	3,710	e1,480	1,720	7,300	3,180	2,890	2,580	2,470	2,100	1,320
22	956	2,030	2,700	e1,470	5,630	6,120	3,110	4,560	2,320	2,480	2,310	1,600
23	875	1,810	2,350	e1,440	8,820	3,950	2,840	5,430	2,160	2,500	2,170	5,330
24	796	1,660	4,650	e1,410	7,160	3,190	2,610	4,720	2,050	2,360	1,950	4,490
25	762	1,570	6,480	e1,390	4,820	2,870	2,510	4,310	1,950	2,080	1,850	2,760
26	804	1,500	5,130	1,380	3,130	2,650	2,500	3,610	1,860	1,920	1,740	2,110
27	851	1,440	3,300	1,320	2,970	2,510	2,430	3,150	1,800	1,830	1,680	1,960
28	780	1,380	2,810	1,290	2,870	2,380	2,280	2,890	1,960	1,800	1,630	2,060
29	933	1,330	2,540	1,310	---	2,290	2,180	2,770	1,910	1,960	1,750	1,860
30	1,100	1,300	2,350	1,460	---	e2,460	2,290	2,680	1,980	2,160	1,830	1,690
31	1,040	---	2,200	1,540	---	2,520	---	2,530	---	3,000	2,200	---
TOTAL	31,941	55,025	81,940	54,600	68,070	91,250	97,870	140,300	81,410	97,230	78,860	64,390
MEAN	1,030	1,834	2,643	1,761	2,431	2,944	3,262	4,526	2,714	3,136	2,544	2,146
MAX	3,190	4,750	6,480	2,920	8,820	7,300	7,890	13,500	5,780	7,870	4,990	5,330
MIN	602	755	1,190	1,290	1,310	1,860	2,000	2,430	1,800	1,800	1,630	1,320
CFSM	1.09	1.94	2.80	1.86	2.57	3.11	3.45	4.79	2.87	3.32	2.69	2.27
IN.	1.26	2.17	3.23	2.15	2.68	3.59	3.85	5.52	3.20	3.83	3.10	2.53

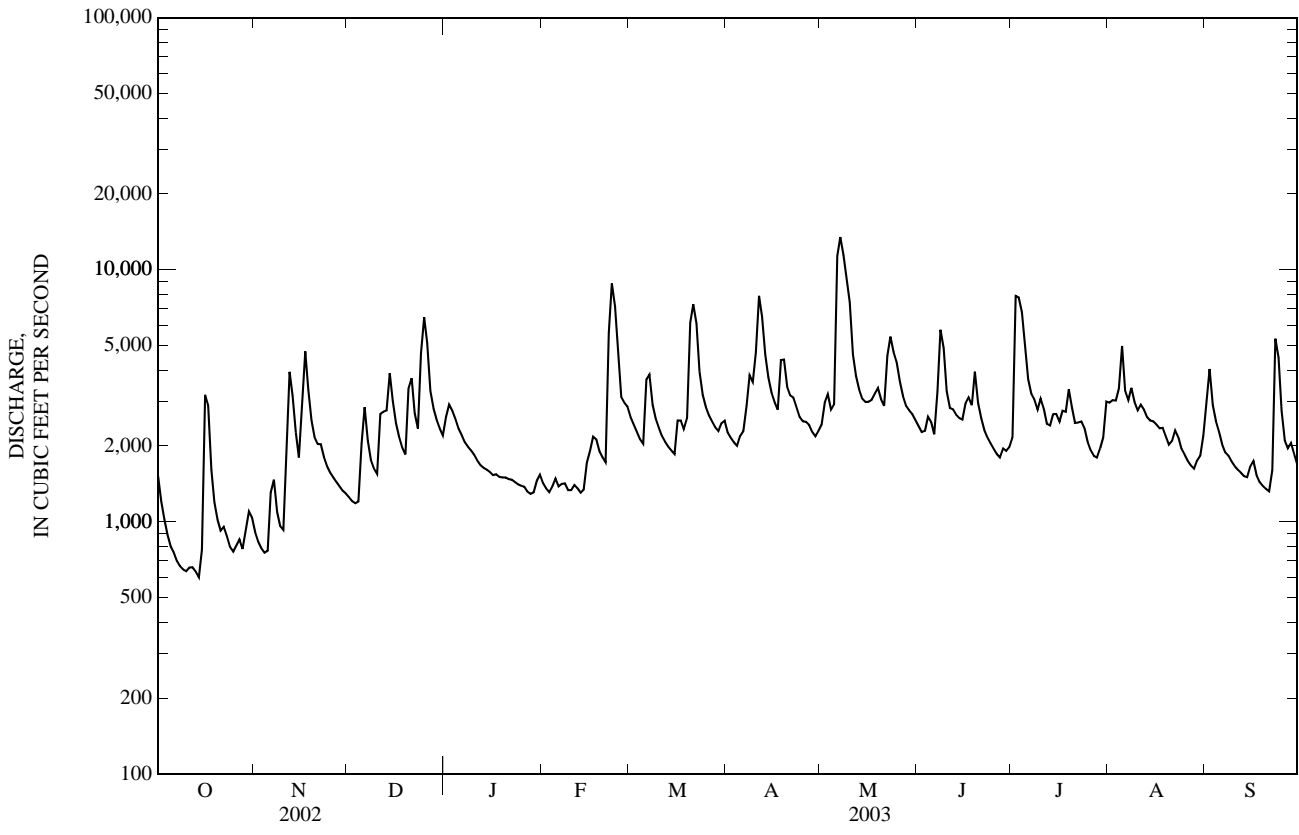
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1896 - 2003, BY WATER YEAR (WY)

MEAN	1,570	1,615	2,085	2,418	2,657	3,007	2,748	2,194	1,873	1,695	1,679	1,455
MAX	7,025	5,121	5,700	6,068	6,364	7,928	5,705	4,961	5,774	11,500	8,362	4,967
(WY)	(1965)	(1980)	(1915)	(1937)	(1998)	(1899)	(1899)	(1973)	(1909)	(1916)	(1901)	(1906)
MIN	353	507	636	548	1,083	1,037	973	852	547	559	328	346
(WY)	(1955)	(1932)	(1956)	(1956)	(1931)	(1988)	(1986)	(2001)	(1988)	(1986)	(1925)	(1954)

03451500 FRENCH BROAD RIVER AT ASHEVILLE, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1896 - 2003	
ANNUAL TOTAL	485,280		942,886			
ANNUAL MEAN	1,330		2,583		2,080	
HIGHEST ANNUAL MEAN					3,671	1901
LOWEST ANNUAL MEAN					1,004	1988
HIGHEST DAILY MEAN	6,480	Dec 25	13,500	May 7	66,000	Jul 16, 1916
LOWEST DAILY MEAN	215	Sep 13	602	Oct 14	215	Sep 13, 2002
ANNUAL SEVEN-DAY MINIMUM	246	Sep 7	644	Oct 8	246	Sep 7, 2002
MAXIMUM PEAK FLOW			14,700	May 6	110,000*	Jul 16, 1916
MAXIMUM PEAK STAGE			7.70	May 6	23.10*	Jul 16, 1916
INSTANTANEOUS LOW FLOW			590*	Oct 14	215*	Sep 13, 2002
ANNUAL RUNOFF (CFSM)	1.41		2.73		2.20	
ANNUAL RUNOFF (INCHES)	19.10		37.12		29.91	
10 PERCENT EXCEEDS	2,350		4,150		3,640	
50 PERCENT EXCEEDS	1,170		2,290		1,620	
90 PERCENT EXCEEDS	441		1,210		765	

e Estimated.
 * See REMARKS.



03451500 FRENCH BROAD RIVER AT ASHEVILLE, NC—Continued

PRECIPITATION RECORDS

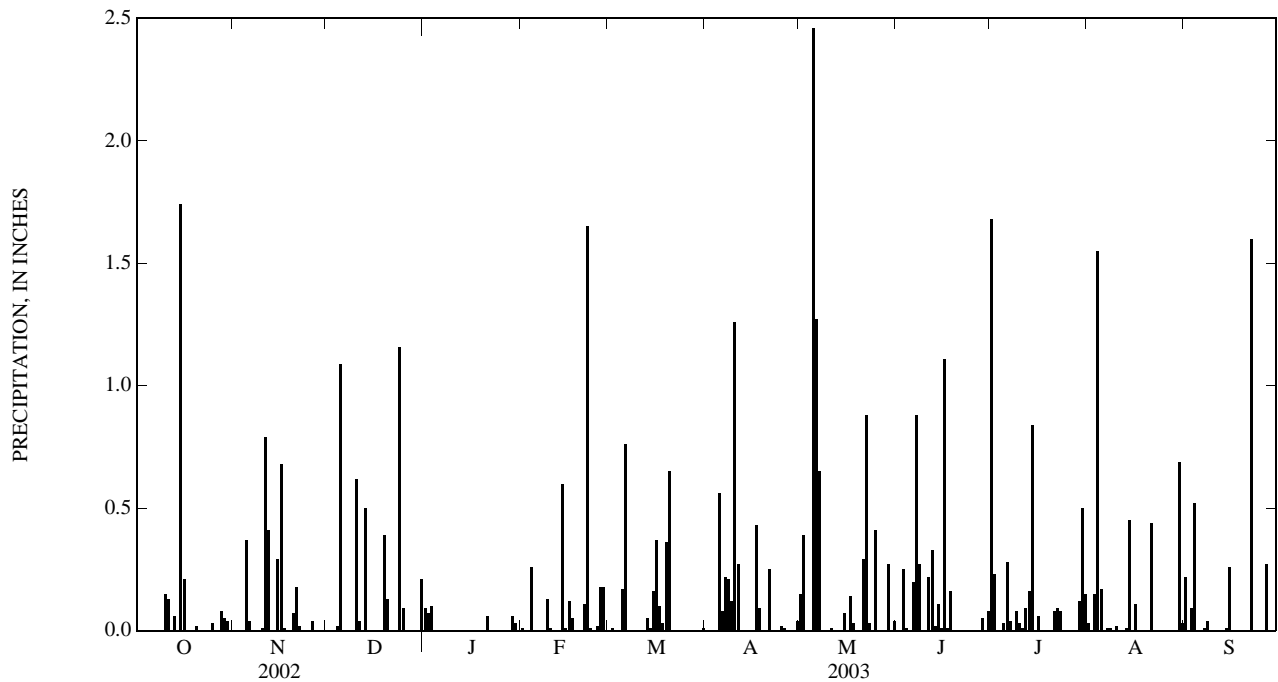
PERIOD OF RECORD.--October 1998 to current year.

GAGE.--Tipping-bucket raingage and electronic datalogger. Satellite telemetry at station.

REMARKS.--Gage is operated in cooperation with Tennessee Valley Authority. Precipitation data collected during freezing periods may not be accurately reflected in daily record; consequently, winter record is poor.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.09	0.01	0.00	0.00	0.15	0.00	1.68	0.03	0.22
2	0.00	0.00	0.00	0.07	0.00	0.01	0.00	0.39	0.00	0.23	0.00	0.00
3	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.25	0.00	0.15	0.09
4	0.00	0.00	0.02	0.00	0.26	0.00	0.00	0.00	0.01	0.00	1.55	0.52
5	0.00	0.37	1.09	0.00	0.00	0.17	0.56	2.46	0.00	0.03	0.17	0.00
6	0.00	0.04	0.00	0.00	0.00	0.76	0.08	1.27	0.20	0.28	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.22	0.65	0.88	0.04	0.01	0.01
8	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.00	0.27	0.00	0.01	0.04
9	0.00	0.00	0.00	0.00	0.13	0.00	0.12	0.00	0.00	0.08	0.00	0.00
10	0.15	0.01	0.62	0.00	0.01	0.00	1.26	0.00	0.00	0.03	0.02	0.00
11	0.13	0.79	0.04	0.00	0.00	0.00	0.27	0.01	0.22	0.01	0.00	0.00
12	0.00	0.41	0.00	0.00	0.00	0.00	0.00	0.00	0.33	0.09	0.00	0.00
13	0.06	0.00	0.50	0.00	0.00	0.05	0.00	0.00	0.02	0.16	0.01	0.00
14	0.00	0.00	0.00	0.00	0.60	0.01	0.00	0.00	0.11	0.84	0.45	0.01
15	1.74	0.29	0.00	0.00	0.01	0.16	0.00	0.07	0.01	0.00	0.00	0.26
16	0.21	0.68	0.00	0.00	0.12	0.37	0.00	0.00	1.11	0.06	0.11	0.00
17	0.00	0.01	0.00	0.00	0.05	0.10	0.43	0.14	0.01	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.03	0.09	0.03	0.16	0.00	0.00	0.00
19	0.00	0.00	0.39	0.00	0.00	0.36	0.00	0.00	0.00	0.00	0.00	0.00
20	0.02	0.07	0.13	0.00	0.00	0.65	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.18	0.00	0.06	0.11	0.00	0.25	0.29	0.00	0.08	0.44	0.00
22	0.00	0.02	0.00	0.00	1.65	0.00	0.00	0.88	0.00	0.09	0.00	1.60
23	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.03	0.00	0.08	0.00	0.00
24	0.00	0.00	1.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.03	0.00	0.09	0.00	0.02	0.00	0.02	0.41	0.00	0.00	0.00	0.00
26	0.00	0.04	0.00	0.00	0.18	0.00	0.01	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.27
28	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00
29	0.05	0.00	0.00	0.06	---	0.00	0.00	0.27	0.00	0.12	0.00	0.00
30	0.04	0.00	0.00	0.03	---	---	0.04	0.00	0.08	0.50	0.69	0.00
31	0.00	---	0.21	0.00	---	0.01	---	0.04	---	0.15	0.03	---
TOTAL	2.51	2.91	4.25	0.41	3.34	---	3.56	7.09	3.71	4.55	3.67	3.02



03451690 NEWFOUND CREEK NEAR ALEXANDER, NC

LOCATION.--Lat 35°39'58", long 82°38'04", Buncombe County, Hydrologic Unit 06010105, on left bank 21 ft downstream from bridge on Secondary Road 1641, 0.9 mi above mouth, and 2.6 mi southwest of Alexander.

DRAINAGE AREA.--34.2 mi².

PERIOD OF RECORD.--December 2000 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,910 ft above NGVD of 1929, from topographic map. Satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Minimum discharge for the current water year also occurred Oct. 7, 9, 15.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.8	6.1	7.7	32	12	27	24	20	19	23	18	15
2	5.5	5.9	7.7	24	12	25	23	23	18	97	22	13
3	5.3	5.9	7.8	24	11	23	22	21	19	31	20	13
4	5.0	6.1	9.6	21	18	21	21	18	19	26	80	24
5	4.9	6.9	47	20	13	20	28	95	18	33	63	17
6	4.7	9.9	27	19	13	111	22	694	17	33	28	14
7	5.9	7.2	18	18	14	47	28	318	41	35	40	13
8	5.1	6.6	15	17	13	36	25	130	26	25	34	13
9	4.7	6.6	13	17	12	30	31	77	20	23	32	12
10	5.0	6.7	13	16	13	26	217	56	18	23	31	12
11	6.9	25	36	15	13	24	160	47	18	20	22	12
12	5.5	26	22	15	12	22	86	39	20	20	18	11
13	5.5	16	41	15	12	21	59	33	18	66	19	11
14	4.9	12	34	14	16	20	46	31	17	33	17	11
15	8.1	11	24	13	28	19	39	30	20	23	18	13
16	39	37	20	14	21	27	34	28	24	20	17	11
17	11	33	17	13	20	21	32	27	21	21	15	11
18	8.5	20	16	e13	18	22	38	27	30	19	15	11
19	7.4	15	15	e13	17	24	30	25	30	22	14	10
20	7.0	13	32	e12	16	134	27	24	20	18	13	10
21	6.9	14	20	e12	16	68	29	25	17	16	18	9.9
22	6.7	12	18	13	296	46	26	57	16	17	15	43
23	6.2	11	16	12	101	37	24	33	16	17	14	35
24	6.0	10	127	e12	47	31	23	27	15	17	13	15
25	6.1	9.5	61	e12	35	28	23	26	15	15	12	14
26	6.4	9.2	37	e12	32	26	23	25	14	14	12	13
27	6.2	9.2	30	e12	34	24	21	23	15	14	12	17
28	6.4	8.6	25	12	30	23	20	21	15	13	12	15
29	6.9	8.4	23	13	---	22	19	22	14	15	13	13
30	8.0	8.4	20	13	---	31	20	21	14	15	36	12
31	6.5	---	19	13	---	26	---	21	---	14	21	---
TOTAL	228.0	376.2	818.8	481	895	1,062	1,220	2,064	584	778	714	443.9
MEAN	7.35	12.5	26.4	15.5	32.0	34.3	40.7	66.6	19.5	25.1	23.0	14.8
MAX	39	37	127	32	296	134	217	694	41	97	80	43
MIN	4.7	5.9	7.7	12	11	19	19	18	14	13	12	9.9
CFSM	0.22	0.37	0.77	0.45	0.93	1.00	1.19	1.95	0.57	0.73	0.67	0.43
IN.	0.25	0.41	0.89	0.52	0.97	1.16	1.33	2.25	0.64	0.85	0.78	0.48

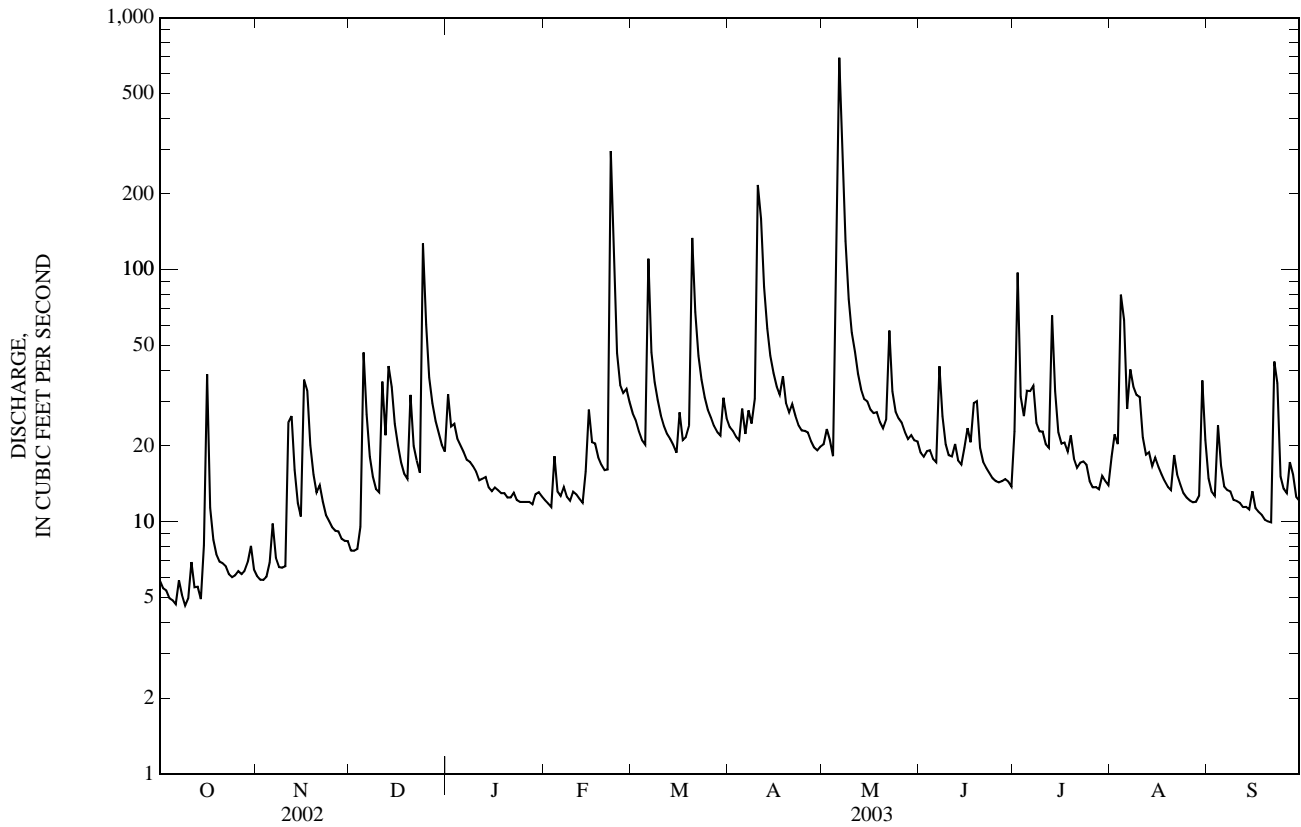
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2003, BY WATER YEAR (WY)

MEAN	6.92	9.46	15.2	15.7	18.3	23.1	23.3	28.8	12.5	13.1	11.7	10.1
MAX	7.35	12.5	26.4	16.6	32.0	34.3	40.7	66.6	19.5	25.1	23.0	14.8
(WY)	(2003)	(2003)	(2003)	(2002)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)
MIN	6.49	6.39	8.60	14.8	9.30	15.7	12.0	8.46	7.87	6.89	3.38	6.44
(WY)	(2002)	(2002)	(2002)	(2001)	(2002)	(2002)	(2002)	(2001)	(2001)	(2001)	(2002)	(2002)

03451690 NEWFOUND CREEK NEAR ALEXANDER, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 2001 - 2003	
ANNUAL TOTAL	4,230.1		9,664.9		18.0	
ANNUAL MEAN	11.6		26.5		26.5	
HIGHEST ANNUAL MEAN					9.50	2003
LOWEST ANNUAL MEAN					2.1	2002
HIGHEST DAILY MEAN	127	Dec 24	694	May 6	694	May 6, 2003
LOWEST DAILY MEAN	1.8	Aug 14	4.7	Oct 6	1.8	Aug 14, 2002
ANNUAL SEVEN-DAY MINIMUM	2.1	Aug 8	5.0	Oct 4	2.1	Aug 8, 2002
MAXIMUM PEAK FLOW			1,380	May 6	1,380	May 6, 2003
MAXIMUM PEAK STAGE			8.13	May 6	8.13	May 6, 2003
INSTANTANEOUS LOW FLOW			4.3*	Oct 6	1.2	Aug 23, 2002
ANNUAL RUNOFF (CFSM)	0.34		0.77		0.53	
ANNUAL RUNOFF (INCHES)	4.60		10.51		7.15	
10 PERCENT EXCEEDS	25		37		31	
50 PERCENT EXCEEDS	8.5		18		12	
90 PERCENT EXCEEDS	3.2		7.7		5.3	

e Estimated.
 * See REMARKS.



03453000 IVY RIVER NEAR MARSHALL, NC

LOCATION.--Lat 35°46'10", long 82°37'15", Madison County, Hydrologic Unit 06010105, on right bank 0.2 mi downstream from bridge on U.S. Highway 25-70, 1.9 mi upstream from mouth, and 4.0 mi southeast of Marshall.

DRAINAGE AREA.--158 mi².

PERIOD OF RECORD.--October 1933 to September 1973. July 1, 1994 to current year. Monthly discharge only for some periods, published in WSP 1306.

GAGE.--Water-stage recorder. Datum of gage is 1,700.41 ft above NGVD of 1929 (levels by Tennessee Valley Authority). Satellite telemetry at station.

REVISED RECORDS.--WSP 803: 1934(M), 1935. WSP 1910: 1936(P), 1937(M), 1940(M), 1946(M), 1957(P).

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Considerable low flow regulation, at times, caused by small power plant at Ivy Dam, 0.4 mi upstream. Minimum discharge for period of record and current water year affected by regulation.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June, 1876, reached a stage of 16.0 ft, from studies by Tennessee Valley Authority (discharge 14,000 ft³/s). An outstanding but lesser flood occurred in July, 1916 (stage and discharge unknown).

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54	89	73	192	145	392	158	170	197	130	249	65
2	47	75	69	194	132	352	174	173	169	391	145	56
3	42	68	68	224	123	305	169	165	162	242	212	55
4	39	63	70	212	228	261	163	148	176	171	179	94
5	38	64	289	193	206	234	203	311	148	178	149	83
6	37	78	272	175	176	563	191	2,610	136	446	111	60
7	39	79	200	158	172	475	190	1,780	507	480	129	57
8	40	68	161	146	145	380	184	941	499	255	106	57
9	34	63	139	138	135	319	362	604	325	273	109	56
10	33	62	125	127	140	268	1,450	444	244	241	90	52
11	46	255	275	113	139	233	1,420	360	205	184	94	51
12	41	348	217	103	135	208	902	297	253	154	84	50
13	37	274	277	e94	123	190	764	249	198	138	77	48
14	37	184	295	e88	162	183	587	219	222	190	74	46
15	37	143	230	e79	1,120	162	455	221	281	137	97	54
16	357	358	193	91	603	190	373	240	198	121	83	59
17	157	460	162	88	463	169	320	185	169	115	94	51
18	98	289	143	e77	339	176	651	183	179	101	74	45
19	76	211	131	e73	273	170	496	166	264	95	69	44
20	65	168	241	e75	235	506	411	152	193	94	67	43
21	61	213	198	103	223	459	394	173	160	129	70	44
22	56	208	168	e99	1,670	353	356	472	140	231	77	93
23	51	166	150	e85	1,400	289	308	404	126	269	71	385
24	49	141	364	81	685	245	271	323	115	154	63	107
25	50	124	429	150	493	213	253	261	107	125	61	76
26	49	110	322	116	439	193	233	238	101	108	59	67
27	48	104	256	e73	463	178	208	202	100	100	57	77
28	64	92	212	e75	448	161	189	180	100	93	62	161
29	102	84	182	109	---	152	173	204	96	87	78	85
30	139	81	161	178	---	170	163	228	91	100	61	73
31	117	---	147	156	---	173	---	231	---	189	82	---
TOTAL	2,140	4,722	6,219	3,865	11,015	8,322	12,171	12,534	5,861	5,721	3,033	2,294
MEAN	69.0	157	201	125	393	268	406	404	195	185	97.8	76.5
MAX	357	460	429	224	1,670	563	1,450	2,610	507	480	249	385
MIN	33	62	68	73	123	152	158	148	91	87	57	43

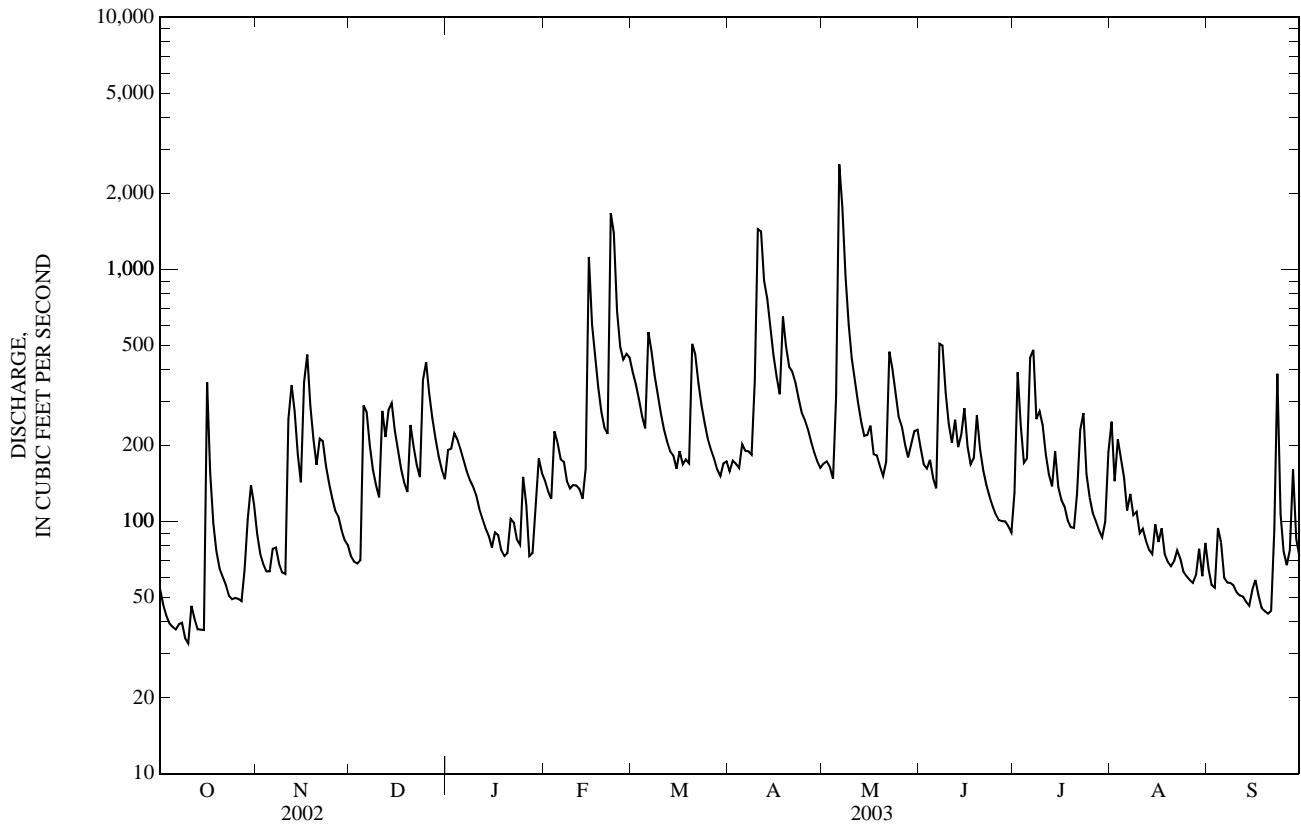
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1934 - 2003, [®] BY WATER YEAR (WY)

MEAN	75.5	91.7	132	211	262	308	242	160	111	98.3	86.7	60.5
MAX	367	229	407	636	563	848	574	404	272	280	444	141
(WY)	(1965)	(1950)	(1962)	(1937)	(1957)	(1963)	(1936)	(2003)	(1950)	(1949)	(1940)	(1949)
MIN	19.3	28.9	39.8	46.4	60.9	129	76.1	58.6	43.3	29.8	22.8	20.5
(WY)	(1953)	(1940)	(1940)	(1940)	(1941)	(1970)	(1942)	(1941)	(1953)	(1952)	(1956)	(1998)

03453000 IVY RIVER NEAR MARSHALL, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1934 - 2003 [@]	
ANNUAL TOTAL	45,269		77,897		152	
ANNUAL MEAN	124		213		232	
HIGHEST ANNUAL MEAN					92.1	1941
LOWEST ANNUAL MEAN					232	1936
HIGHEST DAILY MEAN	1,760	Mar 17	2,610	May 6	8,010	Mar 12, 1963
LOWEST DAILY MEAN	15	Aug 23	33	Oct 10	8.5	Sep 2, 1953
ANNUAL SEVEN-DAY MINIMUM	17	Sep 8	37	Oct 4	9.8	Aug 28, 1953
MAXIMUM PEAK FLOW			4,040	May 6	14,400	Mar 26, 1965
MAXIMUM PEAK STAGE			11.41	May 6	17.21	Jan 14, 1995
INSTANTANEOUS LOW FLOW			18*	Sep 17	3.0*	Jan 20, 1940
10 PERCENT EXCEEDS	247		398		302	
50 PERCENT EXCEEDS	74		161		95	
90 PERCENT EXCEEDS	29		57		35	

e Estimated.
[@] See PERIOD OF RECORD.
 * See REMARKS.



03453500 FRENCH BROAD RIVER AT MARSHALL, NC

LOCATION.--Lat 35°47'10", long 82°39'38", Madison County, Hydrologic Unit 06010105, on right bank 0.7 mi upstream from Hayes Creek, 1.0 mi downstream of Ivy River, 1.5 mi southeast of Marshall, and at mile 126.7.

DRAINAGE AREA.--1,332 mi².

PERIOD OF RECORD.--October 1942 to current year.

REVISED RECORDS.--WSP 1436: 1954(M).

GAGE.--Water-stage recorder. Datum of gage is 1,646.79 ft above NGVD of 1929 (levels by Tennessee Valley Authority). Satellite and telephone telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Small diversions from tributaries for water supply. Slight diurnal fluctuation and occasional slight regulation at low flow caused by small reservoirs upstream from station. Prior to July 1963, some regulation by Weaver plant of Carolina Power and Light Company 15 mi upstream, after November 1986 the same power plant was operated by the Metropolitan Sewage Treatment Plant. Minimum discharge for period of record also occurred Sept. 14, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage observed since at least 1791: 22.0 ft, July 16, 1916; discharge: 115,000 ft³/s. Flood of Aug. 30, 1940, reached a stage of 16.6 ft; discharge, 70,000 ft³/s, from high water marks, flood profiles, and studies by Tennessee Valley Authority.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,890	1,260	1,390	2,930	1,660	3,520	2,750	2,790	2,810	2,350	3,620	2,780
2	1,560	1,180	1,330	3,500	1,560	3,210	2,610	3,390	2,610	8,190	3,560	4,410
3	1,350	1,130	1,310	3,340	1,500	2,960	2,490	3,890	2,570	8,400	3,260	3,280
4	1,220	1,080	1,330	3,120	1,710	2,690	2,390	3,210	2,950	7,380	4,320	2,830
5	1,120	1,050	2,440	2,800	1,790	2,530	2,650	3,890	2,860	5,840	5,980	2,510
6	1,060	1,430	3,680	2,620	1,680	4,780	2,810	17,500	2,570	5,180	3,920	2,170
7	1,020	1,830	2,660	2,440	1,670	5,410	3,170	17,200	3,820	4,500	3,380	2,000
8	958	1,440	2,140	2,310	1,670	4,060	4,630	13,700	6,740	3,740	4,040	1,920
9	911	1,270	1,910	2,230	1,550	3,410	4,650	10,700	5,990	4,080	3,350	1,830
10	890	1,220	1,790	2,120	1,540	3,050	8,070	8,570	4,250	3,980	3,120	1,730
11	944	2,190	3,110	2,020	1,610	2,760	11,200	5,960	3,400	3,450	3,190	1,660
12	937	4,840	3,550	1,910	1,600	2,570	8,770	4,840	3,380	2,910	3,110	1,600
13	909	4,090	3,290	1,840	1,510	2,430	6,600	4,220	3,150	2,930	2,890	1,550
14	857	2,800	4,950	1,810	1,560	2,350	5,380	3,780	3,050	3,230	e2,800	1,520
15	922	2,250	3,940	1,760	3,350	2,230	4,510	3,610	3,140	3,050	e2,750	1,650
16	3,690	3,480	3,060	1,700	2,940	2,860	3,970	3,700	3,390	2,860	2,650	1,840
17	3,690	5,970	2,640	1,710	2,950	3,140	3,630	3,540	3,660	3,050	2,520	1,600
18	2,120	4,390	2,340	e1,660	2,800	2,790	5,520	3,750	3,220	3,060	2,520	1,460
19	1,580	3,120	2,170	e1,660	2,440	2,960	5,910	4,000	4,740	3,670	2,360	1,410
20	1,380	2,560	3,760	e1,670	2,270	7,180	4,740	3,600	3,540	3,270	2,140	1,360
21	1,260	2,420	4,750	e1,700	2,130	8,760	4,180	3,360	2,970	2,710	2,200	1,330
22	1,260	2,420	3,390	1,680	7,820	7,500	4,130	5,310	2,620	2,910	2,460	1,550
23	1,210	2,130	2,830	e1,740	11,900	5,260	3,740	6,570	2,410	3,000	2,280	5,870
24	1,140	1,920	5,240	e1,800	8,910	4,120	3,340	5,640	2,270	2,720	2,090	5,120
25	1,070	1,780	7,920	e1,790	6,550	3,590	3,110	5,220	2,140	2,350	1,960	3,280
26	1,050	1,710	6,460	e1,760	4,380	3,260	3,030	4,480	2,060	2,130	1,830	2,250
27	1,120	1,630	4,360	e1,670	4,090	3,030	2,920	3,800	1,990	2,010	1,740	2,050
28	1,120	1,550	3,510	e1,640	3,970	2,840	2,740	3,410	2,090	1,930	1,710	2,290
29	1,220	1,480	3,080	e1,660	---	2,730	2,580	3,270	2,110	2,010	1,830	2,010
30	1,470	1,440	2,790	e1,700	---	3,060	2,650	3,220	2,130	2,720	1,950	1,780
31	1,420	---	2,580	1,790	---	3,140	---	3,030	---	3,150	2,530	---
TOTAL	42,348	67,060	99,700	64,080	89,110	114,180	128,870	173,150	94,630	112,760	88,060	68,640
MEAN	1,366	2,235	3,216	2,067	3,182	3,683	4,296	5,585	3,154	3,637	2,841	2,288
MAX	3,690	5,970	7,920	3,500	11,900	8,760	11,200	17,500	6,740	8,400	5,980	5,870
MIN	857	1,050	1,310	1,640	1,500	2,230	2,390	2,790	1,990	1,930	1,710	1,330
CFSM	1.03	1.68	2.41	1.55	2.39	2.77	3.22	4.19	2.37	2.73	2.13	1.72
IN.	1.18	1.87	2.78	1.79	2.49	3.19	3.60	4.84	2.64	3.15	2.46	1.92

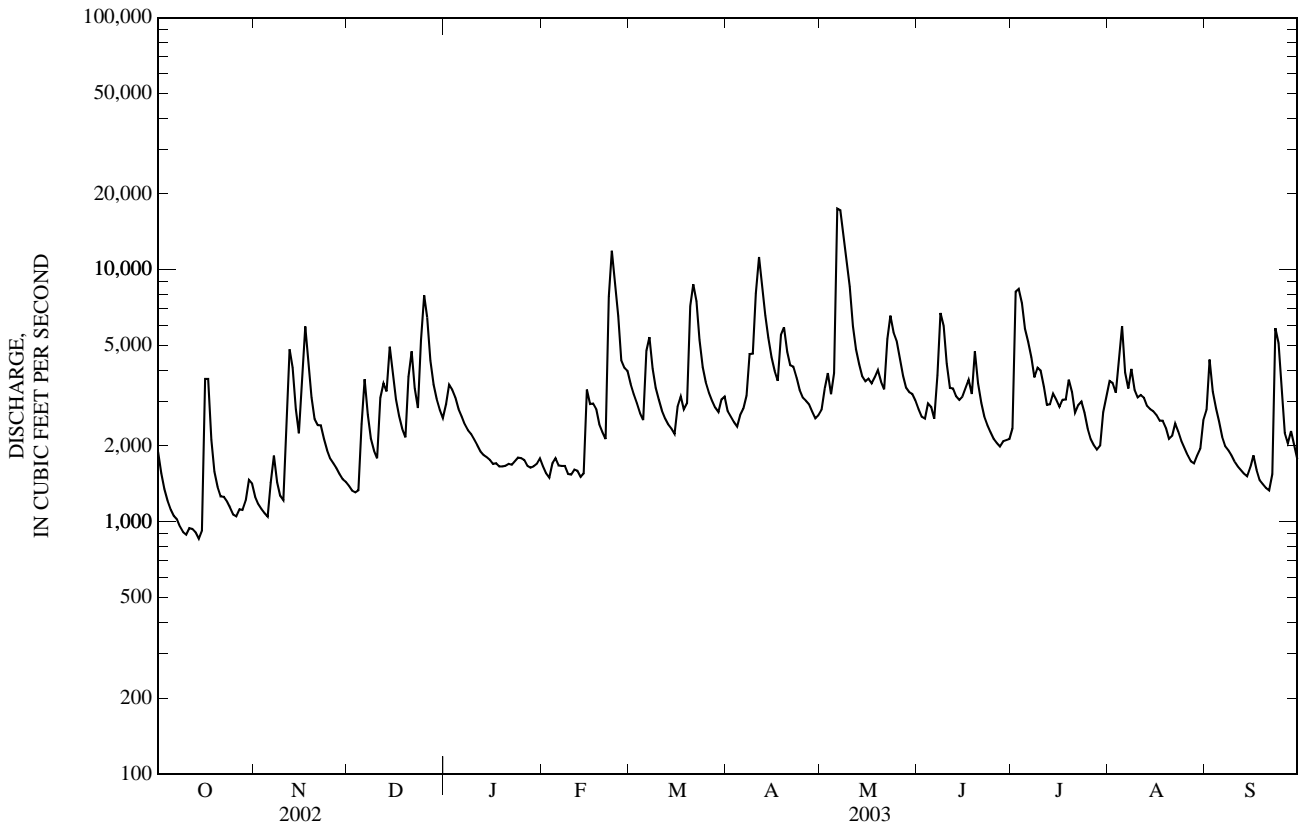
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 2003, BY WATER YEAR (WY)

MEAN	1,743	1,991	2,400	2,888	3,309	3,731	3,395	2,685	2,169	1,761	1,754	1,533
MAX	8,172	5,640	5,465	6,279	7,373	7,170	6,149	5,585	4,191	5,071	4,905	3,857
(WY)	(1965)	(1980)	(1962)	(1998)	(1998)	(1975)	(1983)	(2003)	(1989)	(1949)	(1994)	(1950)
MIN	450	651	778	715	1,547	1,235	1,191	1,066	700	708	577	384
(WY)	(1955)	(1955)	(1956)	(1956)	(2002)	(1988)	(1986)	(1988)	(1988)	(1986)	(2002)	(1954)

03453500 FRENCH BROAD RIVER AT MARSHALL, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1943 - 2003	
ANNUAL TOTAL	613,006		1,142,588		2,442	
ANNUAL MEAN	1,679		3,130		3,573	
HIGHEST ANNUAL MEAN					1,229	1949
LOWEST ANNUAL MEAN					1,229	1988
HIGHEST DAILY MEAN	7,920	Dec 25	17,500	May 6	30,800	Oct 5, 1964
LOWEST DAILY MEAN	356	Sep 13	857	Oct 14	292	Sep 27, 1954
ANNUAL SEVEN-DAY MINIMUM	384	Sep 8	910	Oct 9	313	Sep 24, 1954
MAXIMUM PEAK FLOW			23,700	May 6	54,000	Nov 6, 1977
MAXIMUM PEAK STAGE			8.58	May 6	13.64	Nov 6, 1977
INSTANTANEOUS LOW FLOW			685	Nov 5	193*	Sep 13, 1954
ANNUAL RUNOFF (CFSM)	1.26		2.35		1.83	
ANNUAL RUNOFF (INCHES)	17.12		31.91		24.91	
10 PERCENT EXCEEDS	3,110		5,250		4,370	
50 PERCENT EXCEEDS	1,390		2,750		1,950	
90 PERCENT EXCEEDS	616		1,400		889	

e Estimated.
 * See REMARKS.



03455500 WEST FORK PIGEON RIVER ABOVE LAKE LOGAN NEAR HAZELWOOD, NC

LOCATION.--Lat 35°23'46", long 82°56'16", Haywood County, Hydrologic Unit 06010106, on right bank at upstream side of bridge on Secondary Road 1216, 600 ft upstream from Big Creek, 1.1 mi upstream from Lake Logan, 6.7 mi southeast of Hazelwood, and at mile 9.3.

DRAINAGE AREA.--27.6 mi².

PERIOD OF RECORD.--February 1954 to current year.

REVISED RECORDS.--WDR NC-95-1: 1994(M).

GAGE.--Water-stage recorder. Datum of gage is 2,976.00 ft above NGVD of 1929. Satellite and telephone telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Maximum gage height for period of record, from floodmarks. Minimum discharge for period of record also occurred Sept. 30, 1954. Minimum discharge for current water year also occurred Sept. 21, 22.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	115	64	71	304	72	178	101	152	77	e78	e58	69
2	98	59	69	157	68	165	105	150	72	458	e41	39
3	87	56	67	177	66	148	92	117	93	e130	e56	36
4	79	58	80	138	141	136	87	106	99	95	e70	48
5	76	90	223	126	88	133	123	253	74	82	e88	43
6	67	125	113	117	81	446	97	e1,100	68	94	49	36
7	62	80	96	107	80	210	171	e850	489	90	49	34
8	58	71	88	104	71	179	148	400	186	74	55	36
9	55	66	83	97	70	164	211	306	129	74	e52	33
10	54	71	84	92	75	148	175	253	110	75	e64	32
11	59	290	148	e84	67	137	165	226	102	71	e66	30
12	52	193	96	e78	65	128	215	194	125	61	e52	30
13	48	136	149	e75	63	124	230	172	100	59	e54	30
14	46	113	125	e72	80	118	195	157	97	61	49	29
15	114	106	104	e70	148	114	165	153	95	66	59	55
16	237	297	97	e68	274	150	146	137	82	57	60	34
17	90	198	91	e67	217	119	142	134	82	59	e58	31
18	74	147	87	104	142	122	274	147	89	53	47	29
19	66	129	88	e78	123	186	168	127	91	52	e43	28
20	62	116	242	e67	117	390	149	114	75	49	e41	27
21	60	237	117	78	117	194	182	124	67	54	42	26
22	56	151	107	e65	779	161	154	228	63	70	44	383
23	53	128	97	e53	378	143	137	156	61	58	e43	163
24	50	117	374	93	243	130	126	140	59	48	e38	71
25	51	107	206	e73	205	122	122	126	56	45	e37	57
26	56	100	153	61	225	116	128	119	54	43	e36	51
27	49	95	137	58	248	109	112	106	52	42	35	57
28	93	86	123	53	204	104	105	97	56	41	33	67
29	91	81	114	106	---	99	101	95	e62	40	35	48
30	98	78	105	117	---	104	96	89	e62	e42	42	45
31	72	---	108	82	---	93	---	84	---	e44	34	---
TOTAL	2,328	3,645	3,842	3,021	4,507	4,870	4,422	6,612	2,927	2,365	1,530	1,697
MEAN	75.1	122	124	97.5	161	157	147	213	97.6	76.3	49.4	56.6
MAX	237	297	374	304	779	446	274	1,100	489	458	88	383
MIN	46	56	67	53	63	93	87	84	52	40	33	26
CFSM	2.72	4.40	4.49	3.53	5.83	5.69	5.34	7.73	3.54	2.76	1.79	2.05
IN.	3.14	4.91	5.18	4.07	6.07	6.56	5.96	8.91	3.95	3.19	2.06	2.29

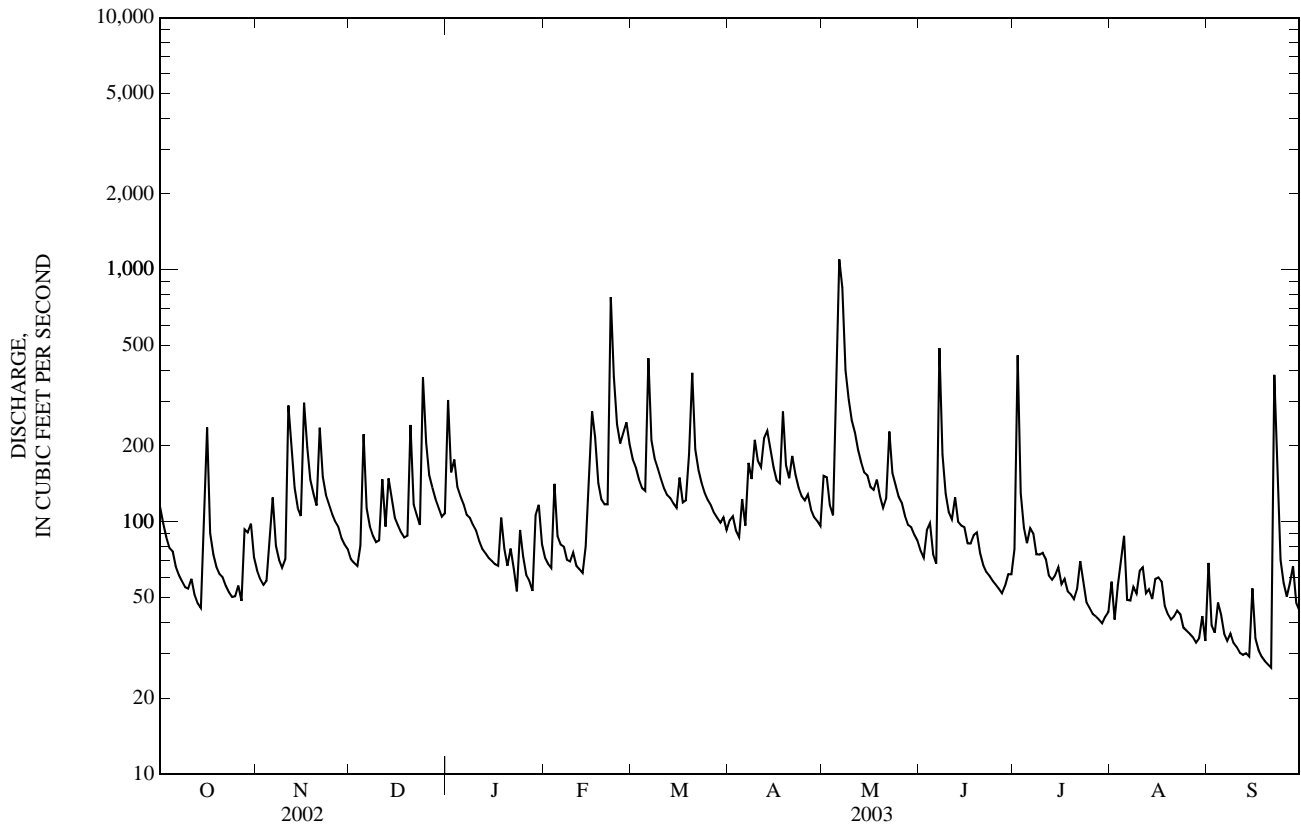
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 2003, BY WATER YEAR (WY)

MEAN	71.5	88.3	109	127	152	164	142	109	82.0	58.2	57.4	56.7
MAX	229	301	234	272	355	312	291	289	213	207	187	260
(WY)	(1965)	(1980)	(1962)	(1998)	(1966)	(1975)	(1983)	(1976)	(1967)	(1967)	(1994)	(1979)
MIN	13.5	26.8	29.7	34.0	68.7	53.8	47.8	49.2	30.8	23.3	16.4	13.0
(WY)	(1955)	(1979)	(1966)	(1981)	(1968)	(1988)	(1986)	(2001)	(1988)	(1993)	(1998)	(1954)

03455500 WEST FORK PIGEON RIVER ABOVE LAKE LOGAN NEAR HAZELWOOD, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1954 - 2003	
ANNUAL TOTAL	30,495		41,766		102	
ANNUAL MEAN	83.5		114		59.6	
HIGHEST ANNUAL MEAN					143	1979
LOWEST ANNUAL MEAN					59.6	1986
HIGHEST DAILY MEAN	1,310	Sep 27	1,100	May 6	4,500	Feb 13, 1966
LOWEST DAILY MEAN	16	Sep 10	26	Sep 21	10	Sep 28, 1954
ANNUAL SEVEN-DAY MINIMUM	17	Sep 7	31	Sep 8	11	Sep 11, 1998
MAXIMUM PEAK FLOW			2,390	May 6	9,740	Feb 13, 1966
MAXIMUM PEAK STAGE			5.31	May 6	9.50*	Feb 13, 1966
INSTANTANEOUS LOW FLOW			26*	Sep 20	9.4*	Sep 29, 1954
ANNUAL RUNOFF (CFSM)	3.03		4.15		3.68	
ANNUAL RUNOFF (INCHES)	41.10		56.29		49.99	
10 PERCENT EXCEEDS	146		200		186	
50 PERCENT EXCEEDS	66		91		70	
90 PERCENT EXCEEDS	25		44		26	

e Estimated.
 * See REMARKS.



03455773 LAKE LOGAN AT DAM NEAR HAZELWOOD, NC

LOCATION.--Lat 35°25'17", long 82°55'27", Haywood County, Hydrologic Unit 06010106, at Lake Logan Dam on West Fork Pigeon River near Hazelwood, and at river mi 7.0.

DRAINAGE AREA.--33.3 mi².

GAGE-HEIGHT RECORDS

PERIOD OF RECORD.--October 1997 to current year. Records for October 1986 to January 1991 and November 1995 to September 1997 are unpublished and available in the USGS District Office, Raleigh, NC.

GAGE.--Water-stage recorder. Datum of gage is 2,856.23 ft above NGVD of 1929. Satellite and telephone telemetry at station.

REMARKS.--Records good. Total capacity is 1,040 ft³/s-day (top of flashboards), all of which is usable. Filling began November 1931. (See station 0345577330).

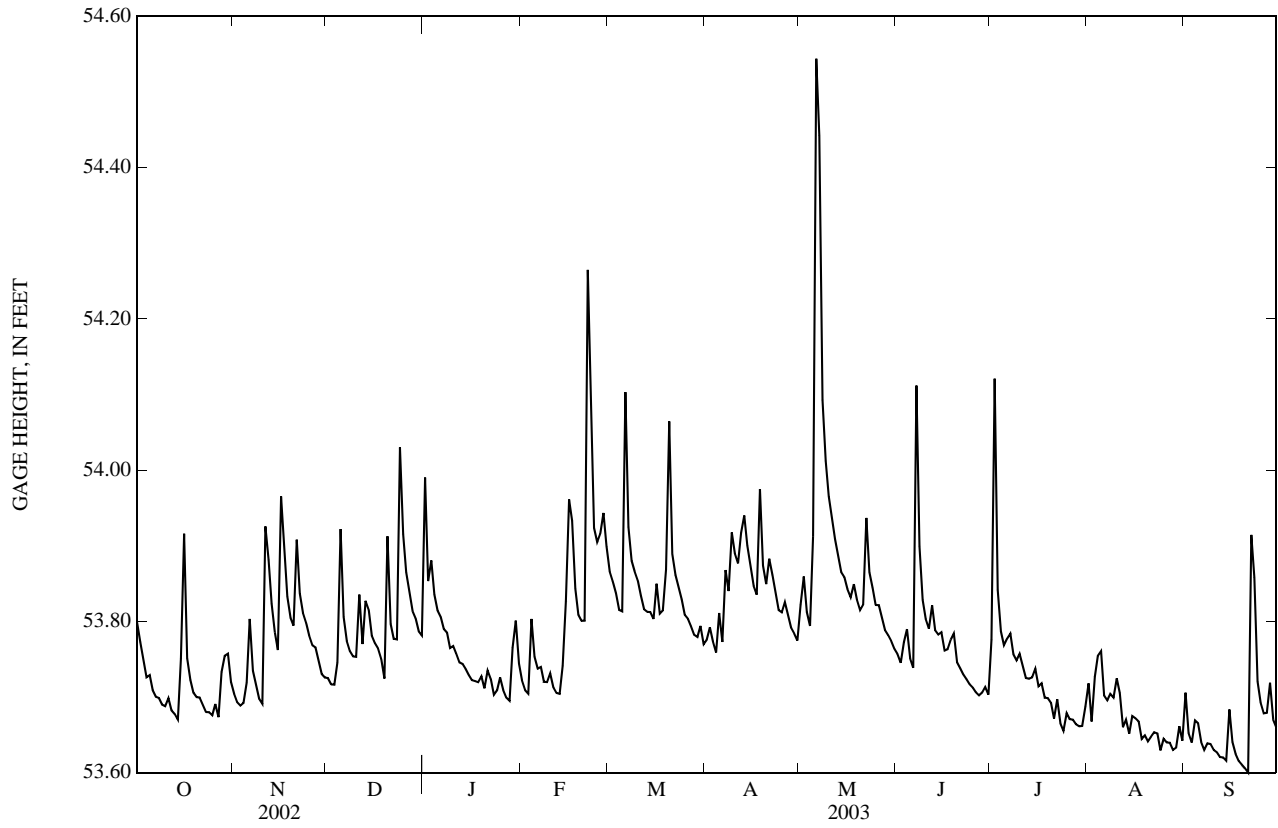
EXTREMES FOR PERIOD OF RECORD.--Maximum, 56.46 ft, Jan. 7, 1998; minimum, 46.42 ft, Sept. 21, 1998.

EXTREMES FOR CURRENT YEAR.--Maximum, 55.16 ft, Feb. 22; minimum, 53.59 ft, Feb. 2.

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53.80	53.70	53.73	53.99	53.72	53.87	53.78	53.82	53.76	53.78	53.72	53.71
2	53.77	53.69	53.72	53.85	53.71	53.85	53.79	53.86	53.75	54.12	53.67	53.65
3	53.75	53.69	53.72	53.88	53.70	53.84	53.77	53.81	53.77	53.84	53.73	53.64
4	53.73	53.69	53.75	53.84	53.80	53.82	53.76	53.79	53.79	53.79	53.75	53.67
5	53.73	53.72	53.92	53.81	53.75	53.81	53.81	53.91	53.75	53.77	53.76	53.67
6	53.71	53.80	53.81	53.81	53.74	54.10	53.77	54.54	53.74	53.78	53.70	53.64
7	53.70	53.73	53.77	53.79	53.74	53.92	53.87	54.44	54.11	53.78	53.70	53.63
8	53.70	53.72	53.76	53.79	53.72	53.88	53.84	54.09	53.90	53.76	53.70	53.64
9	53.69	53.70	53.75	53.76	53.72	53.87	53.92	54.01	53.83	53.75	53.70	53.64
10	53.69	53.69	53.75	53.77	53.73	53.85	53.89	53.97	53.80	53.76	53.72	53.63
11	53.70	53.93	53.84	53.76	53.71	53.83	53.88	53.94	53.79	53.74	53.71	53.63
12	53.68	53.88	53.77	53.75	53.71	53.82	53.92	53.91	53.82	53.73	53.66	53.62
13	53.68	53.82	53.83	53.74	53.70	53.81	53.94	53.89	53.79	53.72	53.67	53.62
14	53.67	53.79	53.82	53.74	53.74	53.81	53.90	53.87	53.78	53.73	53.65	53.62
15	53.75	53.76	53.78	53.73	53.83	53.80	53.87	53.86	53.79	53.74	53.67	53.68
16	53.92	53.97	53.77	53.72	53.96	53.85	53.85	53.84	53.76	53.71	53.67	53.64
17	53.75	53.89	53.76	53.72	53.93	53.81	53.84	53.83	53.76	53.72	53.67	53.62
18	53.72	53.83	53.75	53.72	53.84	53.81	53.97	53.85	53.78	53.70	53.64	53.62
19	53.71	53.81	53.72	53.73	53.81	53.87	53.87	53.83	53.78	53.70	53.65	53.61
20	53.70	53.79	53.91	53.71	53.80	54.06	53.85	53.81	53.75	53.69	53.64	53.61
21	53.70	53.91	53.80	53.74	53.80	53.89	53.88	53.82	53.74	53.67	53.65	53.60
22	53.69	53.84	53.78	53.72	54.26	53.86	53.86	53.94	53.73	53.70	53.65	53.91
23	53.68	53.81	53.78	53.70	54.05	53.85	53.84	53.87	53.72	53.67	53.65	53.86
24	53.68	53.80	54.03	53.71	53.92	53.83	53.81	53.84	53.72	53.66	53.63	53.72
25	53.68	53.78	53.92	53.73	53.90	53.81	53.81	53.82	53.71	53.68	53.64	53.69
26	53.69	53.77	53.86	53.71	53.92	53.80	53.83	53.82	53.71	53.67	53.64	53.68
27	53.67	53.77	53.84	53.70	53.94	53.79	53.81	53.80	53.70	53.67	53.64	53.68
28	53.73	53.75	53.81	53.70	53.90	53.78	53.79	53.79	53.71	53.66	53.63	53.72
29	53.75	53.73	53.80	53.77	---	53.78	53.78	53.78	53.71	53.66	53.63	53.67
30	53.76	53.73	53.79	53.80	---	53.79	53.77	53.77	53.70	53.66	53.66	53.66
31	53.72	---	53.78	53.74	---	53.77	---	53.76	---	53.69	53.64	---
MEAN	53.72	53.78	53.80	53.76	53.82	53.85	53.84	53.90	53.77	53.73	53.67	53.67
MAX	53.92	53.97	54.03	53.99	54.26	54.10	53.97	54.54	54.11	54.12	53.76	53.91
MIN	53.67	53.69	53.72	53.70	53.70	53.77	53.76	53.76	53.70	53.66	53.63	53.60

03455773 LAKE LOGAN AT DAM NEAR HAZELWOOD, NC—Continued



PRECIPITATION RECORDS

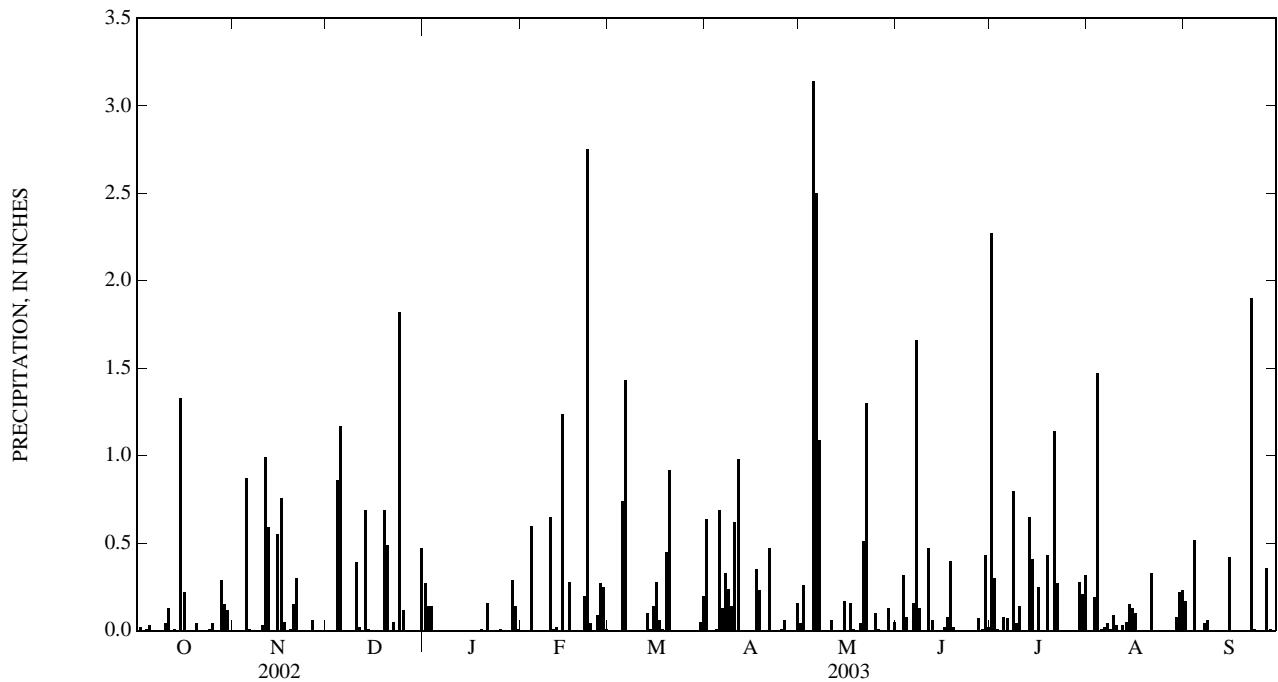
PERIOD OF RECORD.--December 1998 to current year.

GAGE.--Tipping-bucket raingage and electronic datalogger. Satellite and telephone telemetry at station.

REMARKS.--Gage is operated in cooperation with Blue Ridge Paper Products, Inc. Precipitation data collected during freezing periods may not be accurately reflected in daily record; consequently, winter record is poor.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.27	0.00	0.00	0.64	0.04	0.00	2.27	0.00	0.17
2	0.02	0.00	0.00	0.14	0.00	0.00	0.00	0.26	0.00	0.30	0.00	0.00
3	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.32	0.01	0.19	0.00
4	0.01	0.00	0.86	0.00	0.60	0.00	0.01	0.00	0.08	0.00	1.47	0.52
5	0.03	0.87	1.17	0.00	0.00	0.74	0.69	3.14	0.00	0.08	0.01	0.00
6	0.00	0.01	0.00	0.00	0.00	1.43	0.13	2.50	0.16	0.07	0.02	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.33	1.09	1.66	0.00	0.04	0.04
8	0.00	0.00	0.00	0.00	0.00	0.00	0.24	0.00	0.13	0.80	0.01	0.06
9	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.04	0.09	0.00
10	0.04	0.03	0.39	0.00	0.65	0.00	0.62	0.00	0.00	0.14	0.03	0.00
11	0.13	0.99	0.02	0.00	0.01	0.00	0.98	0.06	0.47	0.00	0.00	0.00
12	0.00	0.59	0.00	0.00	0.02	0.00	0.00	0.00	0.06	0.00	0.03	0.00
13	0.01	0.00	0.69	0.00	0.00	0.10	0.00	0.00	0.00	0.65	0.05	0.00
14	0.00	0.00	0.01	0.00	1.24	0.01	0.00	0.00	0.00	0.41	0.15	0.00
15	1.33	0.55	0.00	0.00	0.00	0.14	0.00	0.17	0.00	0.00	0.13	0.42
16	0.22	0.76	0.00	0.00	0.28	0.28	0.00	0.00	0.02	0.25	0.10	0.00
17	0.00	0.05	0.00	0.00	0.00	0.06	0.35	0.16	0.08	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.01	0.23	0.01	0.40	0.00	0.00	0.00
19	0.00	0.01	0.69	0.01	0.00	0.45	0.00	0.00	0.02	0.43	0.00	0.00
20	0.04	0.15	0.49	0.00	0.00	0.92	0.00	0.04	0.00	0.00	0.00	0.00
21	0.00	0.30	0.00	0.16	0.20	0.00	0.47	0.51	0.00	1.14	0.33	0.00
22	0.00	0.00	0.05	0.00	2.75	0.00	0.00	1.30	0.00	0.27	0.00	1.90
23	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.01
24	0.01	0.00	1.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.04	0.00	0.12	0.01	0.09	0.00	0.01	0.10	0.00	0.00	0.00	0.00
26	0.00	0.06	0.00	0.00	0.27	0.00	0.06	0.01	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.07	0.00	0.00	0.36
28	0.29	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.01
29	0.15	0.00	0.00	0.29	---	0.00	0.00	0.13	0.43	0.28	0.08	0.00
30	0.12	0.00	0.00	0.14	---	0.05	0.16	0.00	0.02	0.21	0.22	0.00
31	0.00	---	0.47	0.01	---	0.20	---	0.05	---	0.32	0.23	---
TOTAL	2.44	4.37	6.78	1.17	6.41	4.39	5.06	9.57	3.93	7.67	3.18	3.49



0345577330 WEST FORK PIGEON RIVER NEAR RETREAT, NC

LOCATION.--Lat 35°25'36", long 82°55'11", Haywood County, Hydrologic Unit 06010106, on right bank at upstream side of bridge on State Highway 215, and 1.6 mi southwest of Retreat.

DRAINAGE AREA.--33.5 mi².

PERIOD OF RECORD.--March 1988 to current year.

REVISED RECORDS.--WDR NC-95-1: 1994(M).

GAGE.--Water-stage recorder and crest-stage gages. Elevation of gage is 2,839 ft above NGVD of 1929, from topographic map. Satellite and telephone telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Some low flow regulation, at times, caused by Lake Logan (station 03455773). Maximum discharge for period of record from rating curve extended above 4,000 ft³/s by logarithmic plotting. Minimum discharge for current water year also occurred Sept. 22.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	120	63	72	420	72	261	114	154	84	121	68	75
2	99	57	73	202	67	239	125	182	77	594	40	44
3	87	54	67	231	66	212	107	129	96	172	77	38
4	78	56	88	172	177	192	100	115	106	115	95	51
5	76	84	310	153	96	186	145	277	79	95	97	49
6	64	156	142	139	88	576	113	1,300	73	102	58	38
7	59	81	111	121	86	284	209	883	553	110	55	35
8	55	68	100	118	71	235	183	527	220	89	61	37
9	50	62	90	108	71	213	272	396	141	84	59	34
10	49	71	91	102	85	192	240	320	117	91	85	31
11	56	353	184	90	70	175	221	281	109	83	80	30
12	47	237	107	82	68	161	274	240	134	70	58	29
13	42	161	182	83	64	152	304	205	107	68	62	29
14	40	124	159	78	104	146	258	186	96	69	54	28
15	101	112	120	72	220	139	214	174	100	76	64	59
16	309	382	111	72	404	188	187	154	83	62	63	37
17	92	259	103	67	342	145	177	145	83	62	61	31
18	72	179	96	e71	200	144	344	160	93	53	49	28
19	64	152	100	e56	164	215	210	135	100	53	46	26
20	58	133	327	e59	151	480	184	121	78	49	44	25
21	57	301	142	80	152	250	224	130	69	58	48	25
22	52	183	128	72	1,050	202	191	263	64	81	50	378
23	47	148	112	e71	587	176	164	171	61	66	52	220
24	45	134	500	e71	372	159	150	156	58	48	40	79
25	44	117	292	e54	308	147	144	135	55	47	40	61
26	51	107	202	54	330	137	151	131	53	44	37	54
27	43	101	171	49	374	129	131	112	50	49	37	56
28	91	88	148	50	309	120	118	105	52	48	35	81
29	99	84	136	117	---	113	110	103	57	43	35	51
30	105	78	122	137	---	124	106	97	52	38	47	47
31	73	---	119	86	---	106	---	92	---	51	39	---
TOTAL	2,325	4,185	4,705	3,337	6,148	6,198	5,470	7,579	3,100	2,791	1,736	1,806
MEAN	75.0	140	152	108	220	200	182	244	103	90.0	56.0	60.2
MAX	309	382	500	420	1,050	576	344	1,300	553	594	97	378
MIN	40	54	67	49	64	106	100	92	50	38	35	25

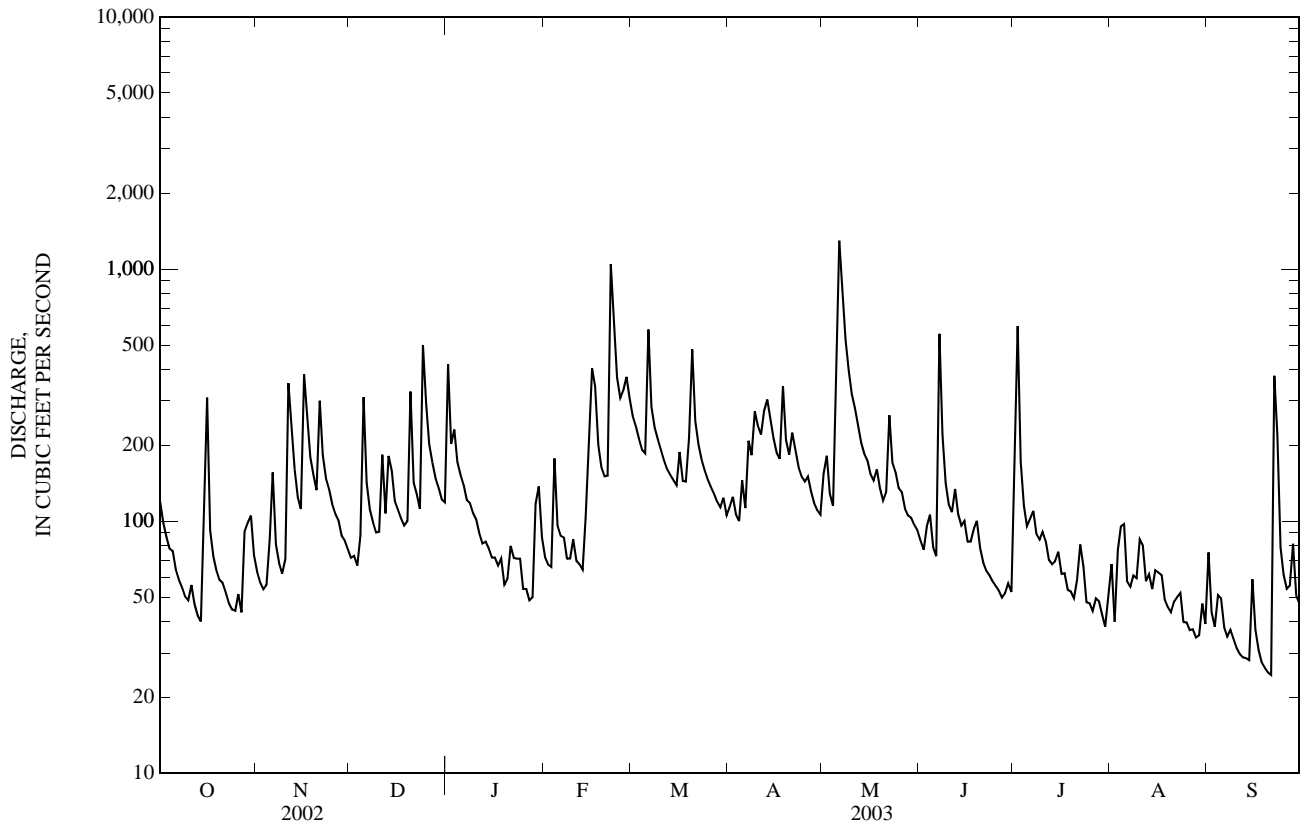
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 2003, BY WATER YEAR (WY)

MEAN	82.5	99.7	117	171	189	196	155	121	96.3	66.0	74.4	65.2
MAX	262	265	239	314	360	309	268	244	210	209	220	170
(WY)	(1996)	(1993)	(1993)	(1996)	(1990)	(1990)	(1994)	(2003)	(1989)	(1989)	(1994)	(2002)
MIN	18.5	34.7	52.1	95.1	81.1	62.6	72.2	48.1	40.0	31.3	24.7	17.3
(WY)	(1999)	(1999)	(1989)	(2000)	(2002)	(1988)	(1995)	(2001)	(1988)	(1993)	(1998)	(1998)

0345577330 WEST FORK PIGEON RIVER NEAR RETREAT, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1988 - 2003	
ANNUAL TOTAL	36,669		49,380		121	
ANNUAL MEAN	100		135		69.4	
HIGHEST ANNUAL MEAN					157	1996
LOWEST ANNUAL MEAN					2001	
HIGHEST DAILY MEAN	1,660	Sep 27	1,300	May 6	2,940	Oct 5, 1995
LOWEST DAILY MEAN	21	Jul 8	25	Sep 20	15	Sep 27, 1998
ANNUAL SEVEN-DAY MINIMUM	23	Aug 19	31	Sep 8	16	Sep 11, 1998
MAXIMUM PEAK FLOW			3,180	Feb 22	7,960*	Aug 17, 1994
MAXIMUM PEAK STAGE			5.71	Feb 22	8.97	Aug 17, 1994
INSTANTANEOUS LOW FLOW			22*	Sep 21	12	Jul 19, 2001
10 PERCENT EXCEEDS	186		262		231	
50 PERCENT EXCEEDS	72		99		84	
90 PERCENT EXCEEDS	26		47		29	

e Estimated.
 * See REMARKS.



03456100 WEST FORK PIGEON RIVER AT BETHEL, NC

LOCATION.--Lat 35°27'48", long 82°53'59", Haywood County, Hydrologic Unit 06010106, on left bank 20 ft downstream of bridge on Secondary Road 1112, 0.6 mi southwest of Bethel, 1.6 mi upstream from confluence with East Fork Pigeon River, and 5.6 mi downstream of Lake Logan.

DRAINAGE AREA.--58.4 mi².

PERIOD OF RECORD.--January 1981 to current year.

REVISED RECORDS.--WDR NC-95-1: 1994(M).

GAGE.--Water-stage recorder. Datum of gage is 2,667.78 ft above NGVD of 1929 (levels by Tennessee Valley Authority). Satellite and telephone telemetry at station.

REMARKS.--No estimated daily discharges. Records good. Considerable regulation, at times, caused by Lake Logan (station 03455773). Minimum discharge for current water year also occurred Sept. 22.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	149	90	110	439	118	305	182	199	149	137	122	102
2	128	85	108	264	111	283	199	257	140	804	86	75
3	115	82	104	286	108	256	180	194	159	271	114	69
4	105	83	118	236	204	237	169	179	171	198	148	82
5	102	97	330	216	144	226	218	347	139	175	185	82
6	92	182	195	201	134	737	187	1,860	130	170	112	69
7	85	110	162	185	136	414	274	1,410	613	184	104	66
8	82	99	147	180	117	342	244	859	315	156	106	69
9	79	94	138	169	117	306	329	622	216	149	104	66
10	76	101	136	161	134	279	327	503	185	153	127	62
11	84	346	225	149	117	257	326	435	172	142	132	60
12	76	263	160	139	114	237	382	377	203	125	103	59
13	70	204	223	139	110	223	433	331	171	143	109	58
14	68	168	221	132	150	211	378	303	156	144	100	57
15	104	151	181	125	287	200	319	289	163	156	106	84
16	327	363	170	124	397	251	283	263	141	128	105	66
17	127	295	158	119	392	206	261	246	139	127	106	59
18	104	223	149	109	259	204	419	262	151	110	89	56
19	94	195	150	116	221	267	300	232	161	107	84	55
20	89	174	379	113	206	610	270	212	134	102	81	54
21	87	294	219	124	198	363	305	222	121	111	83	53
22	82	216	197	121	1,130	299	278	379	114	151	85	384
23	78	185	178	103	755	269	247	278	111	125	84	296
24	75	171	618	112	465	245	231	249	106	102	74	106
25	74	157	416	106	379	227	219	221	103	97	73	85
26	82	146	303	99	376	212	224	216	100	92	70	77
27	74	141	264	95	414	201	205	193	97	89	70	76
28	103	128	233	93	350	190	192	181	100	87	68	101
29	129	123	210	148	---	182	183	177	110	84	68	73
30	126	116	194	176	---	198	177	167	111	90	79	69
31	100	---	182	132	---	175	---	159	---	93	71	---
TOTAL	3,166	5,082	6,578	4,911	7,643	8,612	7,941	11,822	4,881	4,802	3,048	2,670
MEAN	102	169	212	158	273	278	265	381	163	155	98.3	89.0
MAX	327	363	618	439	1,130	737	433	1,860	613	804	185	384
MIN	68	82	104	93	108	175	169	159	97	84	68	53

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 2003, BY WATER YEAR (WY)

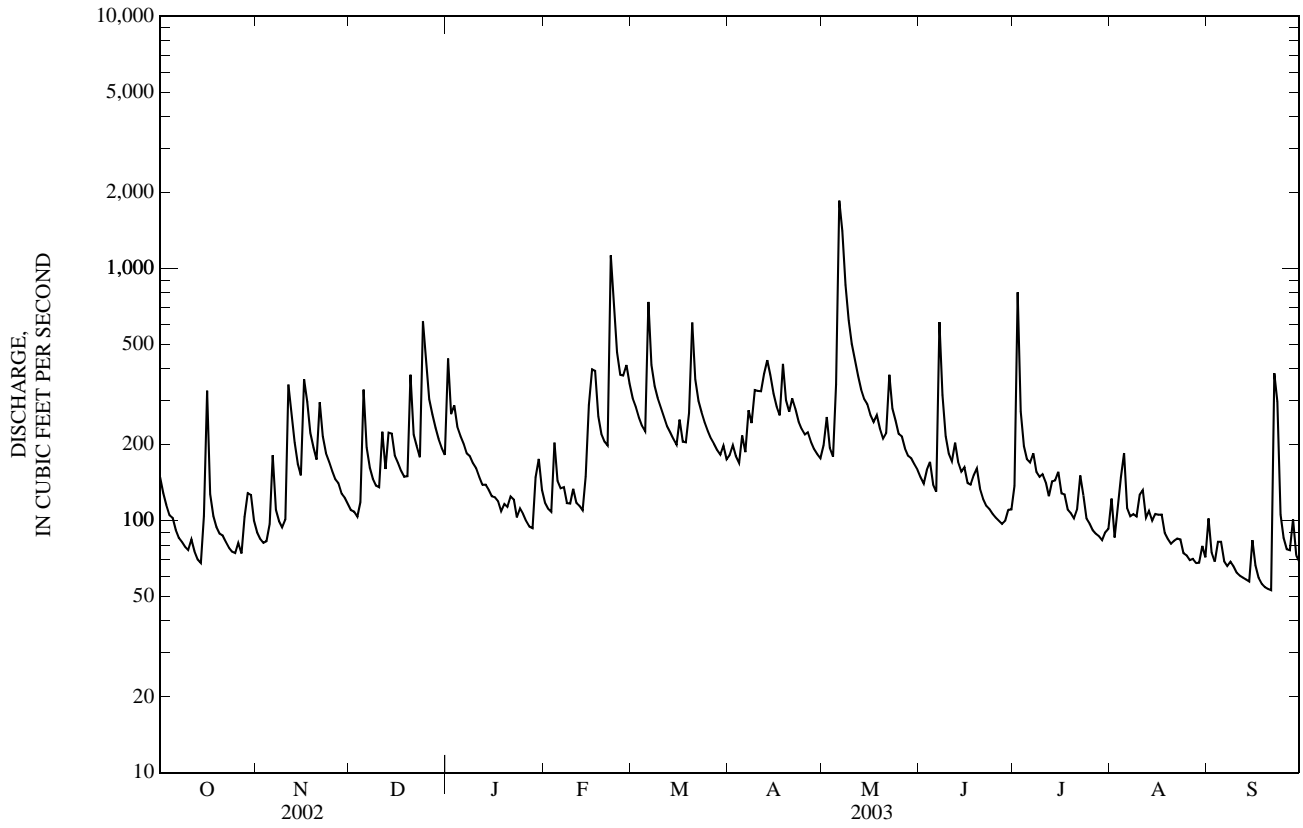
MEAN	92.4	124	165	205	252	265	224	173	117	85.3	88.5	73.4
MAX	336	341	334	450	522	461	481	381	287	281	317	207
(WY)	(1996)	(1993)	(1984)	(1998)	(1998)	(1997)	(1983)	(2003)	(1992)	(1989)	(1994)	(1989)
MIN	30.5	43.0	83.5	53.5	102	83.6	83.5	81.0	53.0	42.0	29.3	27.6
(WY)	(1999)	(1982)	(1989)	(1981)	(1986)	(1988)	(1986)	(2001)	(1988)	(2002)	(1993)	(1998)

SUMMARY STATISTICS

	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1981 - 2003	
ANNUAL TOTAL	44,069		71,156			
ANNUAL MEAN	121		195		157	
HIGHEST ANNUAL MEAN					211	
LOWEST ANNUAL MEAN					87.5	
HIGHEST DAILY MEAN	1,640	Sep 27	1,860	May 6	3,810	Feb 2, 1983
LOWEST DAILY MEAN	27	Aug 5	53	Sep 21	9.2	Sep 2, 1986
ANNUAL SEVEN-DAY MINIMUM	28	Aug 4	61	Sep 15	16	Sep 2, 1986
MAXIMUM PEAK FLOW			3,600	May 6	8,900	Aug 17, 1994
MAXIMUM PEAK STAGE			6.45	May 6	12.63	Aug 17, 1994
INSTANTANEOUS LOW FLOW			52*	Sep 21	4.2	Sep 5, 1986
10 PERCENT EXCEEDS	220		335		304	
50 PERCENT EXCEEDS	99		151		108	
90 PERCENT EXCEEDS	31		79		43	

* See REMARKS.

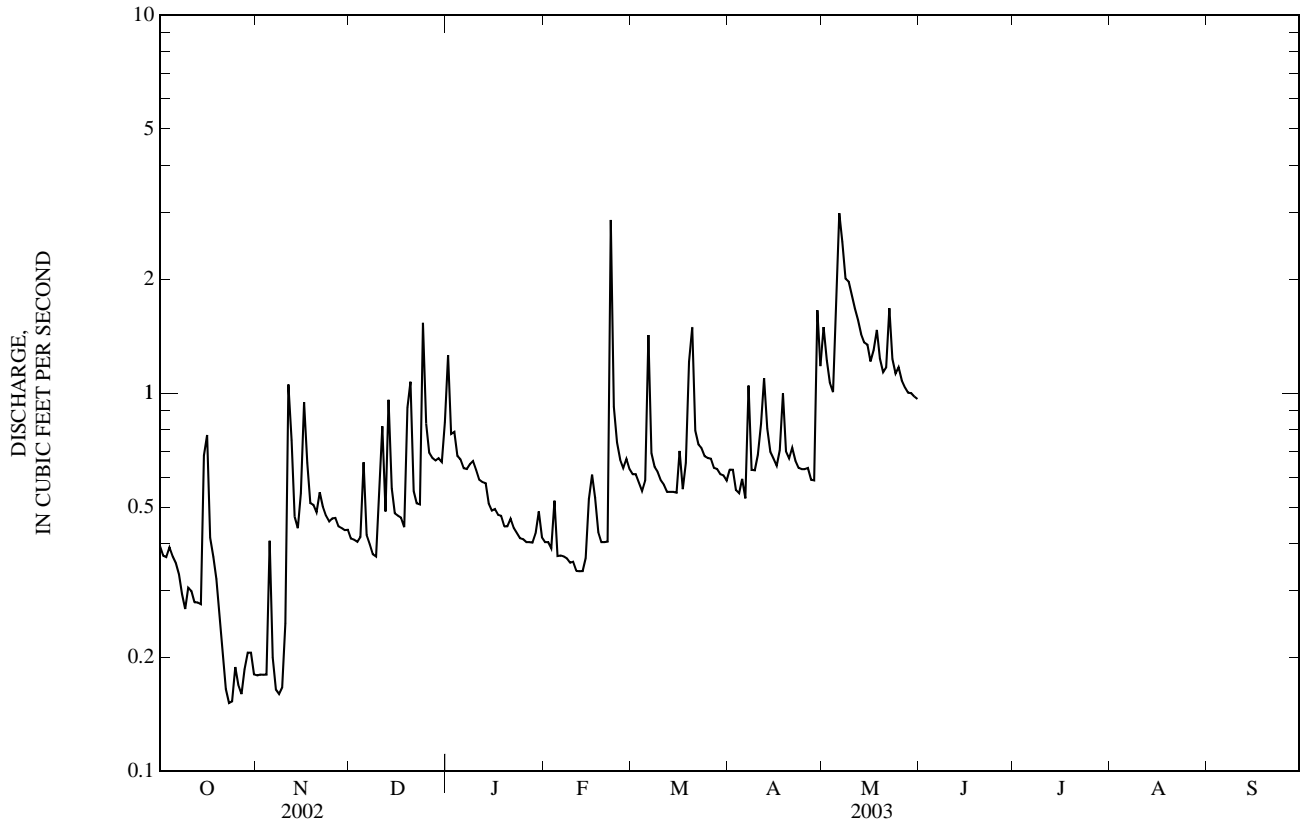
03456100 WEST FORK PIGEON RIVER AT BETHEL, NC—Continued



0345638607 UNNAMED TRIBUTARY TO PISGAH CREEK AT FLAT LAUREL GAP, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR	FOR PERIOD OCTOBER 2002 TO MAY 2003	FOR PERIOD NOVEMBER 2001 TO MAY 2003
ANNUAL TOTAL	27.76		
ANNUAL MEAN	0.35		
HIGHEST DAILY MEAN	3.1 Sep 27		3.1 Sep 27, 2002
LOWEST DAILY MEAN	0.06 Aug 21		0.06 Aug 21, 2002
ANNUAL SEVEN-DAY MINIMUM	0.06 Sep 4		0.06 Sep 4, 2002
MAXIMUM PEAK FLOW		14* Apr 29	14* Apr 29, 2003
MAXIMUM PEAK STAGE		2.02 Apr 29	2.02 Apr 29, 2003
INSTANTANEOUS LOW FLOW		0.14* Oct 22	0.05* Aug 23, 2002
ANNUAL RUNOFF (CFSM)	5.00		
ANNUAL RUNOFF (INCHES)	67.90		
10 PERCENT EXCEEDS	0.59		
50 PERCENT EXCEEDS	0.32		
90 PERCENT EXCEEDS	0.09		

* See REMARKS.



03456500 EAST FORK PIGEON RIVER NEAR CANTON, NC

LOCATION.--Lat 35°27'42", long 82°52'12", Haywood County, Hydrologic Unit 06010106, on right bank 800 ft upstream from bridge on U.S. Highway 276, 0.3 mi downstream of Dix Creek, 1.6 mi upstream from confluence with West Fork Pigeon River, and 5.2 mi southwest of Canton.

DRAINAGE AREA.--51.5 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1954 to current year.

REVISED RECORDS.--WDR NC-73-1: 1966(M), 1972(M).

GAGE.--Water-stage recorder. Datum of gage is 2,674.34 ft above NGVD of 1929 (Tennessee Valley Authority bench mark). Satellite and telephone 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 5,470 ft³/s, on basis of contracted-opening measurement of peak flow. Minimum discharge for period of record also occurred Dec. 11, 1981, result of freezeup, and Oct. 9, 1994. Minimum discharge for current water year also occurred Sept. 22.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	168	73	91	396	84	215	170	171	135	125	105	126
2	144	71	88	282	81	202	173	203	127	1,200	85	96
3	126	69	86	275	79	185	162	175	146	391	100	87
4	111	68	94	239	112	173	154	162	139	278	112	94
5	104	80	206	220	92	166	178	255	120	242	144	88
6	93	124	147	203	88	451	158	1,370	113	224	119	79
7	86	86	128	186	91	301	256	1,180	430	208	106	76
8	81	80	119	177	82	257	221	740	273	180	135	76
9	77	78	112	167	82	231	235	528	202	173	131	72
10	75	82	110	157	92	210	275	420	176	162	147	68
11	79	241	200	146	85	194	300	359	164	149	146	66
12	71	215	155	138	82	180	346	309	176	134	126	64
13	67	186	218	133	79	171	381	271	152	164	151	61
14	63	161	235	127	95	162	339	246	142	160	138	60
15	100	146	197	120	160	156	293	234	139	173	124	85
16	271	254	180	116	214	196	259	212	126	145	121	65
17	142	240	164	113	226	165	237	205	127	152	111	60
18	118	202	151	e96	173	176	323	221	134	133	102	57
19	105	181	148	e94	153	289	256	196	134	124	93	55
20	97	164	357	e94	142	717	234	181	116	117	89	53
21	92	188	236	109	135	462	243	183	107	116	107	52
22	86	160	211	103	810	358	223	310	100	156	101	298
23	81	144	189	e85	665	303	204	258	95	130	95	279
24	78	134	534	e82	400	265	192	227	90	112	84	137
25	77	126	424	e82	317	238	184	209	87	104	81	112
26	86	118	324	e80	280	219	180	198	84	97	77	99
27	75	113	273	e80	270	202	167	181	81	93	74	95
28	79	105	239	e78	237	190	159	169	96	87	77	109
29	91	100	215	97	---	180	160	164	87	86	85	86
30	86	97	196	107	---	186	165	154	87	90	84	81
31	78	---	186	91	---	169	---	145	---	91	90	---
TOTAL	3,087	4,086	6,213	4,473	5,406	7,569	6,827	9,836	4,185	5,796	3,340	2,836
MEAN	99.6	136	200	144	193	244	228	317	140	187	108	94.5
MAX	271	254	534	396	810	717	381	1,370	430	1,200	151	298
MIN	63	68	86	78	79	156	154	145	81	86	74	52
CFSM	1.93	2.64	3.89	2.80	3.75	4.74	4.42	6.16	2.71	3.63	2.09	1.84
IN.	2.23	2.95	4.49	3.23	3.90	5.47	4.93	7.10	3.02	4.19	2.41	2.05

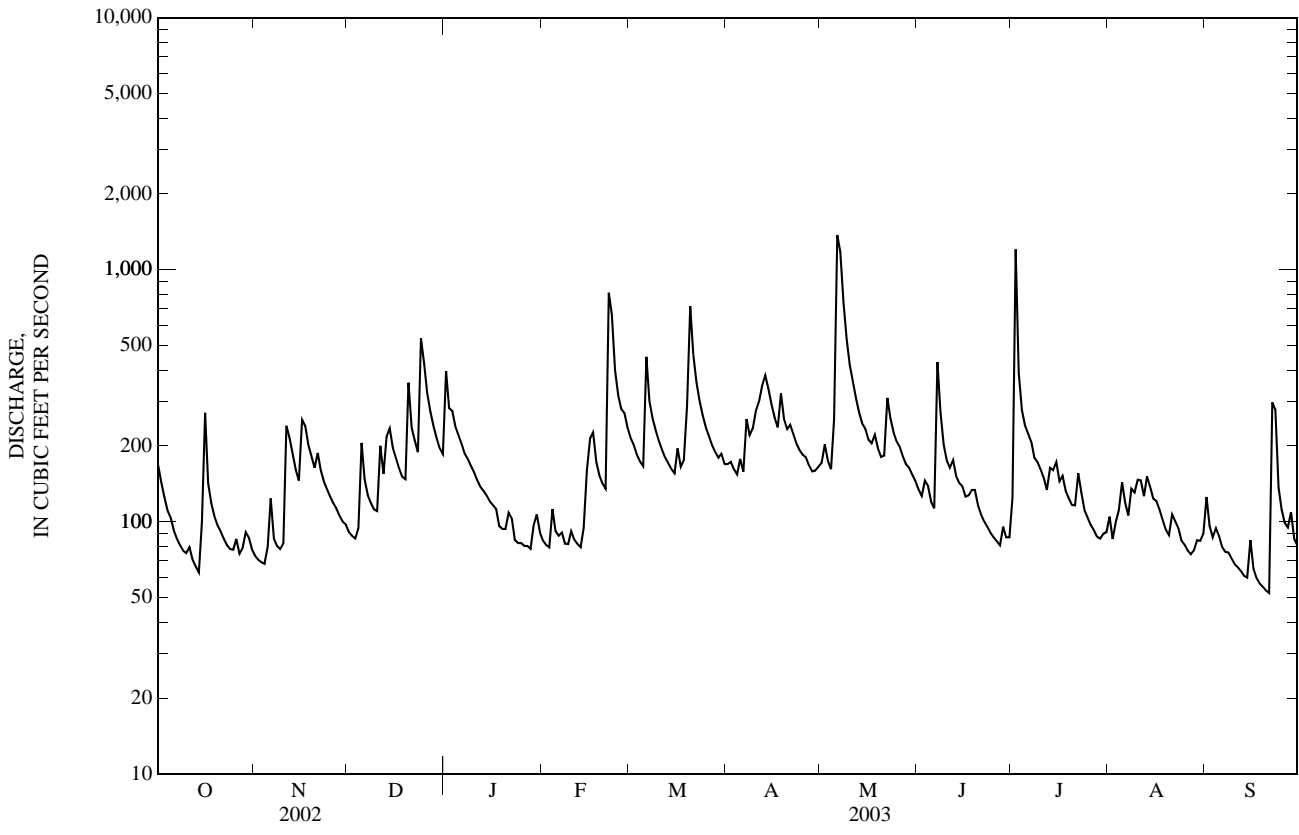
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 2003, BY WATER YEAR (WY)

MEAN	107	130	144	167	203	233	207	156	115	73.8	76.3	80.2
MAX	363	484	337	444	517	541	480	453	339	268	263	436
(WY)	(1965)	(1980)	(1962)	(1998)	(1998)	(1979)	(1957)	(1976)	(1967)	(1989)	(1994)	(1979)
MIN	17.1	27.9	42.4	33.8	71.9	60.9	63.2	59.8	35.7	25.3	25.1	16.0
(WY)	(1955)	(1955)	(1956)	(1956)	(1986)	(1988)	(1986)	(1986)	(1988)	(1986)	(2002)	(1954)

03456500 EAST FORK PIGEON RIVER NEAR CANTON, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1954 - 2003	
ANNUAL TOTAL	37,292		63,654		141	
ANNUAL MEAN	102		174		71.9	
HIGHEST ANNUAL MEAN					204	1979
LOWEST ANNUAL MEAN					71.9	1988
HIGHEST DAILY MEAN	1,710	Sep 27	1,370	May 6	4,390	Feb 13, 1966
LOWEST DAILY MEAN	13	Sep 13	52	Sep 21	13	Sep 13, 1998
ANNUAL SEVEN-DAY MINIMUM	15	Sep 7	61	Sep 15	13	Sep 12, 1998
MAXIMUM PEAK FLOW			2,810	Jul 2	12,000*	May 28, 1973
MAXIMUM PEAK STAGE			5.41	Jul 2	11.19	May 28, 1973
INSTANTANEOUS LOW FLOW			51*	Sep 21	12*	Jan 9, 1956
ANNUAL RUNOFF (CFSM)	1.98		3.39		2.74	
ANNUAL RUNOFF (INCHES)	26.94		45.98		37.29	
10 PERCENT EXCEEDS	187		279		264	
50 PERCENT EXCEEDS	82		144		99	
90 PERCENT EXCEEDS	26		79		35	

e Estimated.
 * See REMARKS.



03456500 EAST FORK PIGEON RIVER NEAR CANTON, NC—Continued

PRECIPITATION RECORDS

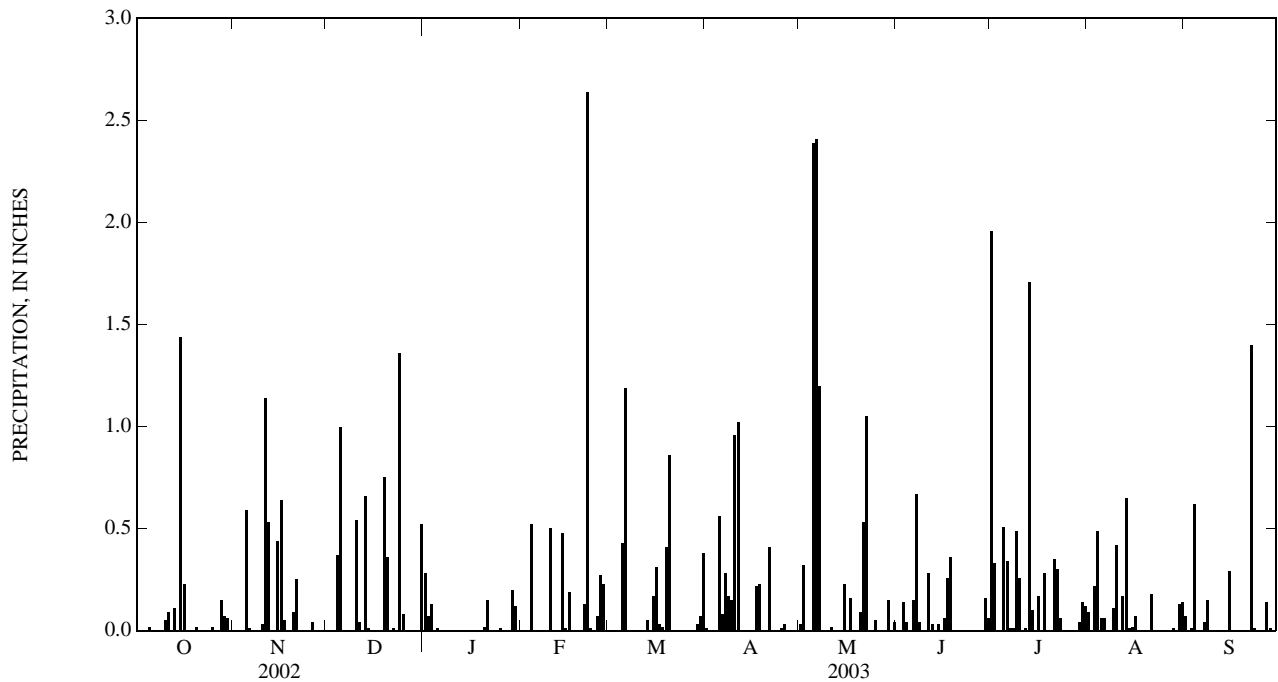
PERIOD OF RECORD.--October 1999 to current year.

GAGE.--Tipping-bucket raingage and electronic datalogger. Satellite and telephone telemetry at station.

REMARKS.--Gage is operated in cooperation with Blue Ridge Paper Products, Inc. Precipitation data collected during freezing periods may not be accurately reflected in daily record; consequently, winter record is poor.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.28	0.00	0.00	0.01	0.03	0.00	1.96	0.09	0.07
2	0.00	0.00	0.00	0.07	0.00	0.00	0.00	0.32	0.00	0.33	0.00	0.00
3	0.00	0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.14	0.00	0.22	0.01
4	0.00	0.00	0.37	0.00	0.52	0.00	0.00	0.00	0.04	0.00	0.49	0.62
5	0.02	0.59	1.00	0.01	0.00	0.43	0.56	2.39	0.00	0.51	0.06	0.00
6	0.00	0.01	0.00	0.00	0.00	1.19	0.08	2.41	0.15	0.34	0.06	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.28	1.20	0.67	0.01	0.00	0.04
8	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.00	0.04	0.01	0.00	0.15
9	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.49	0.11	0.00
10	0.05	0.03	0.54	0.00	0.50	0.00	0.96	0.00	0.00	0.26	0.42	0.00
11	0.09	1.14	0.04	0.00	0.00	0.00	1.02	0.02	0.28	0.00	0.00	0.00
12	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.01	0.17	0.00
13	0.11	0.00	0.66	0.00	0.00	0.05	0.00	0.00	0.00	1.71	0.65	0.00
14	0.00	0.00	0.01	0.00	0.48	0.00	0.00	0.00	0.03	0.10	0.01	0.00
15	1.44	0.44	0.00	0.00	0.01	0.17	0.00	0.23	0.00	0.00	0.02	0.29
16	0.23	0.64	0.00	0.00	0.19	0.31	0.00	0.00	0.06	0.17	0.07	0.00
17	0.00	0.05	0.00	0.00	0.00	0.03	0.22	0.16	0.26	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.02	0.23	0.00	0.36	0.28	0.00	0.00
19	0.00	0.00	0.75	0.00	0.00	0.41	0.00	0.00	0.00	0.00	0.00	0.00
20	0.02	0.09	0.36	0.02	0.00	0.86	0.00	0.09	0.00	0.00	0.00	0.00
21	0.00	0.25	0.00	0.15	0.13	0.00	0.41	0.53	0.00	0.35	0.18	0.00
22	0.00	0.00	0.01	0.00	2.64	0.00	0.00	1.05	0.00	0.30	0.00	1.40
23	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.06	0.00	0.01
24	0.00	0.00	1.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.02	0.00	0.08	0.01	0.07	0.00	0.01	0.05	0.00	0.00	0.00	0.00
26	0.00	0.04	0.00	0.00	0.27	0.00	0.03	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.14
28	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01
29	0.07	0.00	0.00	0.20	---	0.03	0.00	0.15	0.16	0.04	0.00	0.00
30	0.06	0.00	0.00	0.12	---	0.07	0.00	0.00	0.06	0.14	0.13	0.00
31	0.00	---	0.52	0.00	---	0.38	---	0.04	---	0.12	0.14	---
TOTAL	2.26	3.81	5.70	0.99	5.05	3.95	4.13	8.67	2.28	7.19	2.83	2.74



03456991 PIGEON RIVER NEAR CANTON, NC

LOCATION.--Lat 35°31'19", long 82°50'52", Haywood County, Hydrologic Unit 06010106, on right bank 600 ft upstream from State Highway 215 bridge, 1.3 mi upstream from U.S. Highways 19 and 23 at Canton, and at mile 64.9.

DRAINAGE AREA.--130 mi².

PERIOD OF RECORD.--May 1907 to June 1909, October 1928 to current year. Monthly discharge only for some periods published in WSP 1306. Published as Pigeon River at Canton, NC (03457000) May 1907 to June 1909, October 1928 to September 1983.

REVISED RECORDS.--WSP 823: Drainage area. WSP 853: 1929-37(M). WSP 1306: 1903(M). WDR NC-91-1: 1984-89(M).

GAGE.--Water-stage recorder. Datum of gage is 2,581.66 ft above NGVD of 1929 (Tennessee Valley Authority bench mark). Prior to June 1909, nonrecording gage at bridge 1.2 mi downstream at different datum. Dec. 6, 1928, to Jan. 3, 1929, nonrecording gage at site 0.8 mi downstream at different datum. Prior to Oct. 1, 1983, water-stage recorder at site 0.8 mi downstream at different datum. Satellite and telephone telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Occasional diurnal fluctuation and considerable regulation at low flow, since 1932, caused by Lake Logan (station 03455773) on West Fork Pigeon River 11.2 mi upstream. Prior to regulation, maximum discharge: 21,500 ft³/s, Aug. 16, 1928; gage height: 16.40 ft; minimum discharge: 39 ft³/s, Sept. 3, 1930. Maximum discharge and gage height for period of record, at former site from high water mark in gage well; minimum discharge for period of record, at former site, result of freezeup.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of about 1810 is believed to have been approximately equal to that of Aug. 30, 1940, and flood of June 15, 1876, reached a stage of 18.3 ft; discharge, 25,700 ft³/s, at former site, from studies by Tennessee Valley Authority.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	337	165	204	793	211	520	371	385	314	250	263	226
2	289	155	197	554	199	484	400	521	294	2,050	193	176
3	256	149	193	558	195	443	369	416	329	737	215	156
4	228	149	207	481	309	414	349	381	351	538	267	179
5	217	160	526	445	249	396	419	587	286	497	398	179
6	195	310	362	412	228	1,190	379	3,720	265	447	259	149
7	180	205	300	379	237	718	536	2,960	1,020	463	224	141
8	171	185	276	365	207	601	484	1,710	678	381	259	142
9	163	175	258	343	205	540	590	1,190	483	368	e270	137
10	158	181	251	324	231	490	668	961	412	359	e310	129
11	171	546	422	300	212	454	713	833	376	336	e390	124
12	156	476	325	280	204	424	762	722	427	290	247	120
13	143	402	420	278	195	401	848	640	370	369	281	115
14	135	334	471	266	235	386	748	591	334	366	260	112
15	182	299	387	252	437	368	645	569	344	387	245	159
16	602	581	356	245	575	451	580	525	303	319	234	134
17	292	545	327	240	617	386	533	497	298	345	231	114
18	239	428	306	e235	435	391	749	529	325	290	202	108
19	214	380	299	e230	381	526	588	476	350	265	185	103
20	197	343	733	225	355	1,300	530	433	288	254	177	100
21	190	463	467	236	343	e850	567	446	258	237	193	98
22	179	382	416	237	1,900	e680	534	742	246	362	194	529
23	167	333	376	e210	1,490	e600	481	598	232	302	185	713
24	159	309	1,140	e208	853	e530	454	534	222	244	165	268
25	156	288	863	e205	680	e480	438	479	213	225	157	214
26	171	270	633	e202	631	447	437	468	209	212	148	189
27	152	259	543	e200	668	422	408	418	202	204	148	181
28	165	238	481	e200	585	398	385	389	217	196	144	226
29	234	228	436	233	---	383	373	378	218	188	149	171
30	214	218	401	298	---	413	382	358	230	198	170	160
31	183	---	376	237	---	372	---	335	---	199	158	---
TOTAL	6,495	9,156	12,952	9,671	13,067	16,458	15,720	23,791	10,094	11,878	6,921	5,552
MEAN	210	305	418	312	467	531	524	767	336	383	223	185
MAX	602	581	1,140	793	1,900	1,300	848	3,720	1,020	2,050	398	713
MIN	135	149	193	200	195	368	349	335	202	188	144	98

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 2003,* BY WATER YEAR (WY)

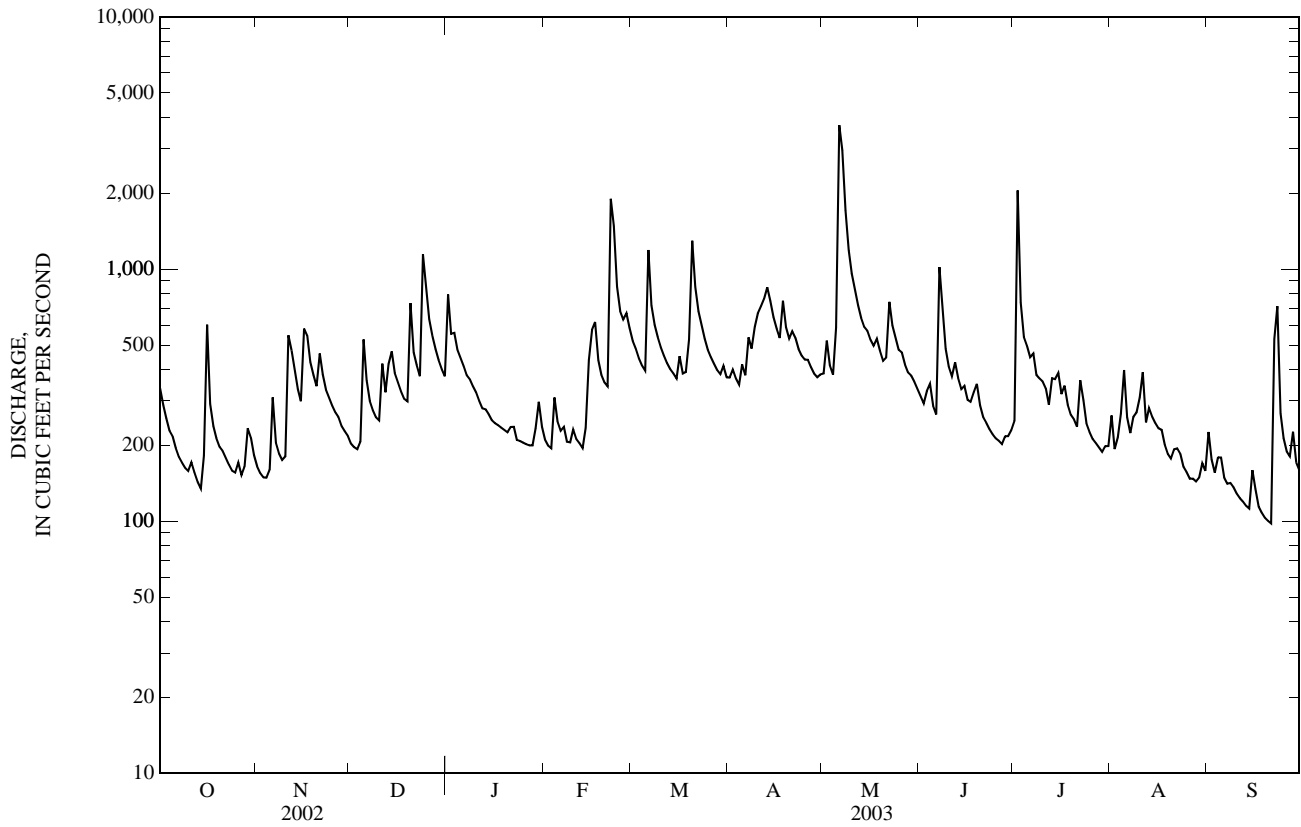
MEAN	220	261	321	420	476	533	466	340	261	191	199	188
MAX	787	964	872	1,017	1,150	1,058	1,005	981	781	583	1,476	818
(WY)	(1965)	(1980)	(1933)	(1937)	(1939)	(1975)	(1983)	(1976)	(1967)	(1989)	(1940)	(1979)
MIN	48.2	59.2	64.5	85.3	150	155	167	132	96.5	88.6	65.9	47.8
(WY)	(1955)	(1955)	(1940)	(1956)	(1941)	(1988)	(1986)	(1941)	(1941)	(2002)	(1954)	(1998)

03456991 PIGEON RIVER NEAR CANTON, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1932 - 2003*	
ANNUAL TOTAL	85,954		141,755		322	
ANNUAL MEAN	235		388		503	
HIGHEST ANNUAL MEAN					170	1988
LOWEST ANNUAL MEAN					12,800	Aug 13, 1940
HIGHEST DAILY MEAN	3,320	Sep 27	3,720	May 6	40	Sep 7, 1954
LOWEST DAILY MEAN	56	Sep 12	98	Sep 21	27	Sep 13, 1998
ANNUAL SEVEN-DAY MINIMUM	59	Sep 7	117	Sep 15	31,600*	Aug 30, 1940
MAXIMUM PEAK FLOW			6,530	May 6	20.75*	Aug 30, 1940
MAXIMUM PEAK STAGE			7.82	May 6	15*	Jan 8, 1956
INSTANTANEOUS LOW FLOW			93	Sep 22	606	
10 PERCENT EXCEEDS	404		632		230	
50 PERCENT EXCEEDS	196		324		86	
90 PERCENT EXCEEDS	70		164			

e Estimated.

* Regulated period only (1932-2003). See REMARKS.



03459500 PIGEON RIVER NEAR HEPKO, NC

LOCATION.--Lat 35°38'05", long 82°59'21", Haywood County, Hydrologic Unit 06010106, on left bank 95 ft east of Interstate Highway 40, 0.8 mi downstream of Jonathan Creek, 2.0 mi south of Hepco, 2.4 mi upstream from Fines Creek, and at mile 45.1.

DRAINAGE AREA.--350 mi².

PERIOD OF RECORD.--July 1927 to current year.

REVISED RECORDS.--WSP 823: Drainage area. WSP 893: 1928-31, 1932(M), 1933-36, 1937-39(M).

GAGE.--Water-stage recorder. Datum of gage is 2,335.95 ft above NGVD of 1929 (levels by Tennessee Valley Authority). Satellite and telephone telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Regulation by Lake Junaluska (station 03458319) on Richland Creek and Lake Logan (station 03455773) on West Fork Pigeon River for periods at low flow, combined capacity of reservoirs, about 2,000 ft³/s-day. Maximum discharge for period of record, from rating curve extended above 12,000 ft³/s on basis of slope-area measurements at gage heights 14.94 and 15.82 ft. Maximum gage height for period of record from high-water mark in gage house. Minimum discharge for current water year also occurred Sept. 22.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of June 1876 and February 1902 reached a stage of about 18 ft, from flood profiles by Tennessee Valley Authority; discharge, about 42,000 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e615	385	454	1,260	506	1,250	795	826	704	585	615	430
2	e535	358	439	1,090	485	1,140	840	1,050	670	2,920	544	430
3	e475	341	454	1,070	471	1,020	795	869	674	1,350	470	396
4	432	336	525	949	678	933	753	723	762	e1,210	556	758
5	415	383	1,260	856	621	890	922	1,370	683	e1,100	681	594
6	383	654	995	774	557	2,470	874	9,600	630	1,010	561	448
7	376	496	833	741	574	1,780	1,050	7,350	1,690	e1,070	504	408
8	348	434	699	697	526	1,550	1,050	4,230	1,530	e860	520	415
9	327	405	656	e678	507	1,350	1,270	3,030	974	e840	532	386
10	319	395	645	e651	542	1,140	1,970	2,430	836	e805	630	364
11	377	1,080	894	626	533	1,000	2,180	2,050	776	e755	662	344
12	349	1,080	755	e593	517	917	1,930	1,760	833	650	534	334
13	319	880	893	e578	516	876	1,880	1,570	746	677	546	324
14	e305	698	1,030	e558	641	861	1,650	1,450	693	825	549	314
15	e400	621	809	e543	1,080	865	1,430	1,390	683	800	508	362
16	946	1,220	737	e528	1,260	1,010	1,290	1,260	655	700	561	381
17	575	1,240	677	e514	1,380	883	1,200	1,100	664	805	544	318
18	457	908	636	e499	1,080	814	1,470	1,020	791	638	494	301
19	409	784	630	489	951	916	1,280	910	761	603	439	289
20	380	736	1,640	e476	885	2,090	1,150	852	641	571	419	280
21	370	904	1,090	e466	848	1,610	1,170	888	586	526	439	273
22	353	848	956	e457	3,530	1,270	1,100	1,590	557	650	508	805
23	e335	742	905	e448	3,260	1,130	981	1,310	530	636	448	1,750
24	e317	700	2,360	e438	2,130	1,020	929	1,100	504	563	409	640
25	317	663	2,190	e429	1,720	909	948	990	485	506	384	513
26	333	635	1,570	e424	1,540	872	941	950	471	480	380	455
27	321	632	1,320	421	1,610	832	873	875	461	466	396	453
28	325	590	1,100	413	1,450	800	847	822	482	450	408	545
29	460	535	969	493	---	783	851	821	478	456	406	429
30	506	476	866	615	---	e885	833	783	495	514	389	393
31	441	---	800	563	---	800	---	754	---	521	470	---
TOTAL	12,820	20,159	29,787	19,337	30,398	34,666	35,252	55,723	21,445	24,542	15,506	14,132
MEAN	414	672	961	624	1,086	1,118	1,175	1,798	715	792	500	471
MAX	946	1,240	2,360	1,260	3,530	2,470	2,180	9,600	1,690	2,920	681	1,750
MIN	305	336	439	413	471	783	753	723	461	450	380	273

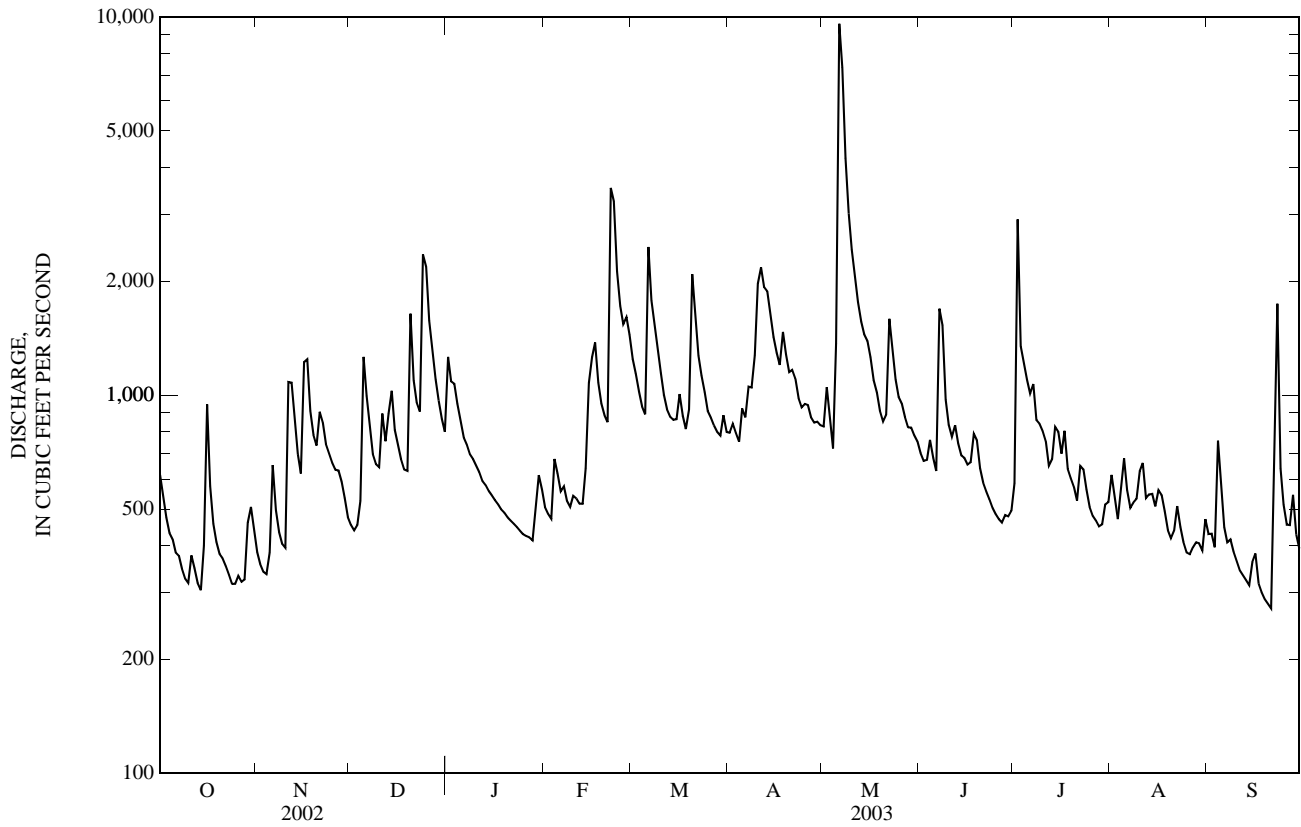
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1927 - 2003, BY WATER YEAR (WY)

MEAN	411	497	665	876	1,023	1,146	987	733	539	423	422	376
MAX	1,353	1,627	2,125	2,275	2,227	2,455	2,010	1,798	1,502	1,141	2,246	1,214
(WY)	(1965)	(1980)	(1933)	(1937)	(1990)	(1929)	(1936)	(2003)	(1967)	(1989)	(1940)	(1928)
MIN	122	133	193	194	319	346	359	283	200	183	163	123
(WY)	(1955)	(1954)	(1940)	(1940)	(1941)	(1988)	(1986)	(1941)	(1988)	(1986)	(1953)	(1999)

03459500 PIGEON RIVER NEAR HEPCO, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1927 - 2003	
ANNUAL TOTAL	181,748		313,767		673	
ANNUAL MEAN	498		860		341	
HIGHEST ANNUAL MEAN					943	1949
LOWEST ANNUAL MEAN					341	1988
HIGHEST DAILY MEAN	3,510	Sep 27	9,600	May 6	17,100	Aug 13, 1940
LOWEST DAILY MEAN	95	Sep 11	273	Sep 21	95	Sep 30, 1941
ANNUAL SEVEN-DAY MINIMUM	103	Aug 8	315	Sep 15	100	Sep 12, 1999
MAXIMUM PEAK FLOW			13,600	May 6	32,700*	Aug 30, 1940
MAXIMUM PEAK STAGE			10.33	May 6	15.82*	Aug 30, 1940
INSTANTANEOUS LOW FLOW			267*	Sep 21	81	Sep 30, 1941
10 PERCENT EXCEEDS	891		1,440		1,250	
50 PERCENT EXCEEDS	410		678		502	
90 PERCENT EXCEEDS	158		385		206	

e Estimated.
 * See REMARKS.



03460000 CATALOOCHEE CREEK NEAR CATALOOCHEE, NC

LOCATION.--Lat 35°40'02", long 83°04'22", Haywood County, Hydrologic Unit 06010106, in Great Smoky Mountains National Park, on left bank 20 ft downstream of bridge on State Highway 284, 500 ft upstream from Little Cataloochee Creek, 2 mi north of Cataloochee, and 3.7 mi upstream from mouth.

DRAINAGE AREA.--49.2 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1933 to September 1952, October 1962 to current year. Monthly discharge only for some periods, published in WSP 1306.

REVISED RECORDS.--WSP 823: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 2,456.88 ft above NGVD of 1929 (levels by Tennessee Valley Authority). Satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Minimum discharge for period of record also occurred Jan. 2, 1940, and Dec. 17, 24, 1943, result of freezeup. Minimum discharge for current water year also occurred Oct. 28.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44	71	71	155	112	270	104	111	93	99	89	51
2	42	62	69	129	105	246	108	119	88	386	83	48
3	39	57	67	150	100	217	102	107	90	180	80	51
4	37	54	92	126	226	195	99	100	93	150	81	155
5	37	75	266	123	177	181	133	247	82	145	90	86
6	36	126	178	117	159	493	121	1,960	78	132	81	69
7	52	95	144	109	145	356	189	1,280	199	135	75	63
8	39	85	126	107	126	281	201	808	137	116	73	66
9	35	77	115	103	117	241	334	537	108	129	89	59
10	35	74	114	99	117	211	415	396	99	127	98	57
11	47	172	148	93	106	189	464	322	94	153	82	54
12	39	191	118	90	100	172	413	258	100	124	77	51
13	40	163	140	e86	95	161	365	219	90	136	94	50
14	36	132	137	e83	183	149	307	194	86	134	90	49
15	37	121	125	e81	478	140	257	183	86	131	79	53
16	67	212	119	e79	448	155	223	168	97	119	80	48
17	45	190	111	e77	387	134	203	150	108	114	83	46
18	40	156	105	104	289	128	215	140	136	113	76	44
19	37	134	108	e84	236	128	179	130	126	108	68	43
20	36	118	444	e83	206	142	164	126	110	97	65	43
21	37	141	253	90	201	128	193	148	100	99	66	41
22	37	124	203	76	838	122	171	193	95	115	67	180
23	33	114	168	e70	633	118	161	152	89	100	63	130
24	33	107	350	e68	419	114	154	136	84	90	58	75
25	33	99	379	e68	328	109	148	127	80	84	56	66
26	35	94	291	e70	298	108	142	120	76	80	55	61
27	33	97	234	e74	304	104	131	112	76	78	54	66
28	52	84	197	e75	298	100	124	106	73	74	55	67
29	71	80	172	136	---	98	117	111	70	87	53	55
30	137	78	152	126	---	106	116	103	74	81	52	53
31	88	---	138	118	---	98	---	104	---	83	69	---
TOTAL	1,409	3,383	5,334	3,049	7,231	5,394	6,053	8,967	2,917	3,799	2,281	1,980
MEAN	45.5	113	172	98.4	258	174	202	289	97.2	123	73.6	66.0
MAX	137	212	444	155	838	493	464	1,960	199	386	98	180
MIN	33	54	67	68	95	98	99	100	70	74	52	41
CFSM	0.92	2.29	3.50	2.00	5.25	3.54	4.10	5.88	1.98	2.49	1.50	1.34
IN.	1.07	2.56	4.03	2.31	5.47	4.08	4.58	6.78	2.21	2.87	1.72	1.50

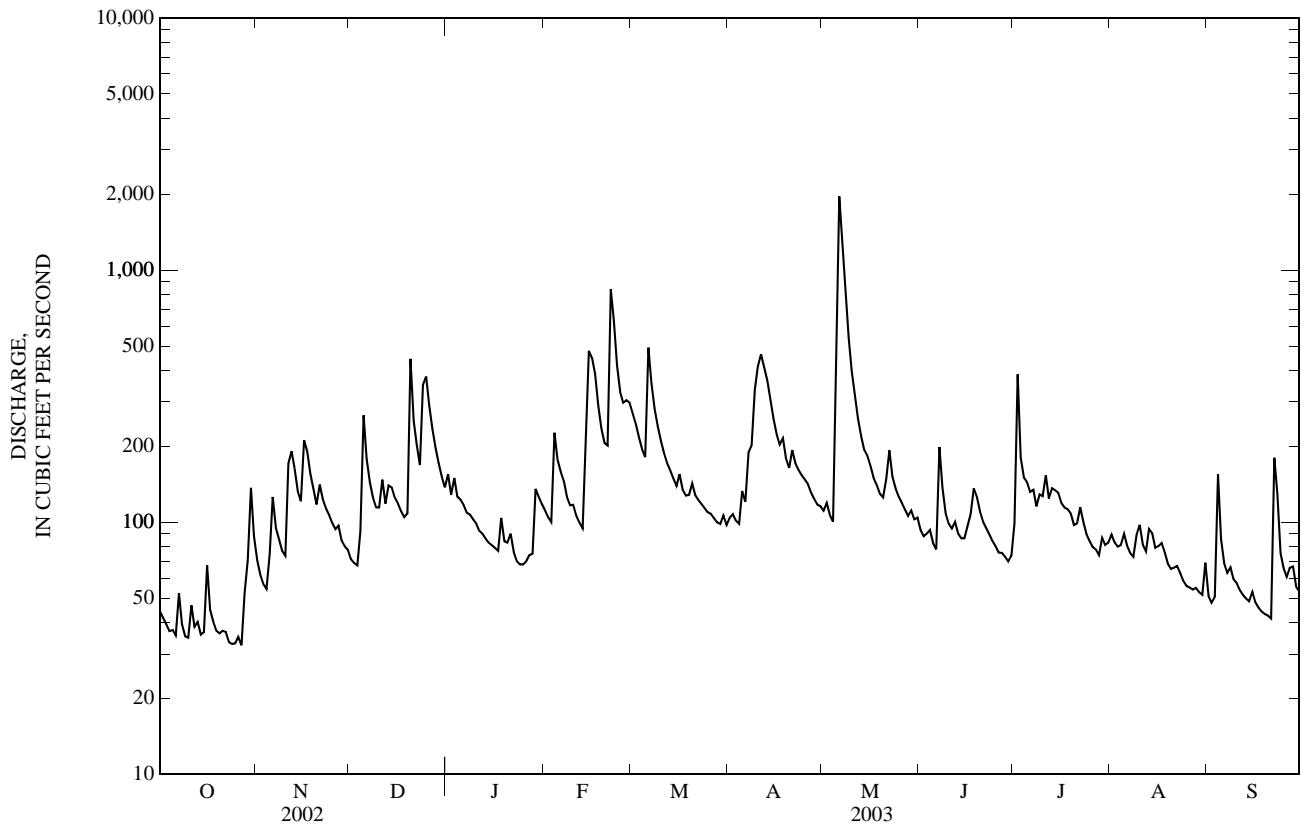
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1934 - 2003,[@] BY WATER YEAR (WY)

MEAN	53.0	70.6	111	164	180	202	157	115	84.4	73.9	71.2	53.2
MAX	146	159	302	392	394	496	305	289	252	182	223	123
(WY)	(1990)	(1980)	(1973)	(1937)	(1990)	(1963)	(1936)	(2003)	(1967)	(1949)	(1940)	(1989)
MIN	21.3	22.3	26.0	35.5	49.5	63.2	58.8	46.2	34.7	29.6	26.9	23.5
(WY)	(1999)	(1940)	(1940)	(1940)	(1941)	(1988)	(1986)	(1986)	(1986)	(1986)	(1987)	(1998)

03460000 CATALOOCHEE CREEK NEAR CATALOOCHEE, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1934 - 2003 [®]	
ANNUAL TOTAL	35,559		51,797		111	
ANNUAL MEAN	97.4		142		171	
HIGHEST ANNUAL MEAN					1986	
LOWEST ANNUAL MEAN					1986	
HIGHEST DAILY MEAN	540	Jan 25	1,960	May 6	2,690	Mar 16, 1973
LOWEST DAILY MEAN	26	Sep 10	33	Oct 23	12	Jan 2, 1940
ANNUAL SEVEN-DAY MINIMUM	27	Sep 7	34	Oct 21	18	Oct 21, 1998
MAXIMUM PEAK FLOW			3,690	May 6	5,080	Mar 6, 1963
MAXIMUM PEAK STAGE			7.14	May 6	8.08	Mar 6, 1963
INSTANTANEOUS LOW FLOW			32*	Oct 27	9.4*	Jan 2, 1940
ANNUAL RUNOFF (CFSM)	1.98		2.88		2.26	
ANNUAL RUNOFF (INCHES)	26.89		39.16		30.68	
10 PERCENT EXCEEDS	184		249		205	
50 PERCENT EXCEEDS	72		107		81	
90 PERCENT EXCEEDS	35		51		34	

e Estimated.
[®] See PERIOD OF RECORD.
 * See REMARKS.



03460000 CATALOOCHEE CREEK NEAR CATALOOCHEE, NC—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963 to 1996, May 1999 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: August 1973 to September 1986.

WATER TEMPERATURE: October 1962 to September 1986.

INSTRUMENTATION.--Temperature recorder from October 1962 to September 1986. Water-quality monitor from May 1974 to September 1986.

REMARKS.--Station operated as part of the Hydrologic Benchmark network from October 1962 to current year. Miscellaneous chemical data published for 1945 water year.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 43 microsiemens, June 13, 1974; minimum, 7 microsiemens, Feb. 28, 1983.

WATER TEMPERATURE: Maximum, 23.5°C, Aug. 5, 1977; minimum, 0.0°C, on several days during winter months of most years.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Instantaneous discharge, cfs (00061)	pH, water, unfltrd lab, std units (00403)	Specif. conductance, wat unfltrd lab, uS/cm 25 degC (90095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unfltrd lab, mg/L as CaCO3 (00417)	Chloride, water, fltrd, mg/L (00940)	Silicon water, fltrd, ug/L (01140)
OCT 21...	1020	36	6.8	14	18.0	13.0	1.14	0.35	0.61	1.19	4	0.5	3,700
DEC 09...	1250	114	6.7	12	4.0	4.0	0.81	0.26	0.47	0.98	3	0.4	3,200
FEB 26...	1045	274	6.7	11	6.5	6.0	0.73	0.25	0.48	0.88	2	0.4	3,100
APR 07...	1150	220	6.4	14	13.0	10.0	0.93	0.29	0.61	1.08	3	0.4	3,000
MAY 20...	1200	122	6.6	13	25.0	14.0	0.86	0.28	0.54	1.03	3	0.3	3,700
JUL 14...	1030	122	6.9	14	18.5	16.0	0.97	0.29	0.55	0.98	4	0.4	3,500

Date	Sulfate water, fltrd, mg/L (00945)	Ammonia water, fltrd, mg/L as N (00608)	Nitrate water, fltrd, mg/L as N (00618)	Organic carbon, water, fltrd, mg/L (00681)	Aluminum, water, fltrd, ug/L (01106)	Mono-meric aluminum, water, unfltrd ug/L (49287)	Organic mono-meric aluminum, wat unfltrd ug/L (49288)
OCT 21...	1.2	<0.030	0.05	1.4	<30	<40	<40
DEC 09...	1.2	<0.030	0.15	1.1	<30	<40	<40
FEB 26...	1.3	<0.030	0.19	1.1	<30	<40	<40
APR 07...	1.5	<0.030	0.13	2.2	36	<40	<40
MAY 20...	1.0	<0.030	0.03	1.9	<30	<40	<40
JUL 14...	1.2	<0.030	0.12	1.5	34	<40	<40

Remark codes used in this table:

< -- Less than

03460795 PIGEON RIVER BELOW POWER PLANT NEAR WATERVILLE, NC

LOCATION.--Lat 35°47'02", long 83°06'44", Coker County Tennessee, Hydrologic Unit 06010105, on left bank, 550 ft upstream of Browns Bridge on Waterville Road, 0.9 mi downstream of North Carolina and Tennessee state lines, 1.0 mi northwest of Waterville, and at mile 25.

DRAINAGE AREA.--538 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1997 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,360 ft above NGVD of 1929, from topographic map. Satellite telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Considerable regulation, caused by Walters Hydroelectric Plant, 1.0 mi upstream. Minimum discharge for period of record and current water year affected by regulation.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	866	483	692	1,120	1,040	2,440	1,080	e1,360	267	1,820	1,020	693
2	447	439	1,040	1,730	732	2,420	683	1,500	1,070	2,810	941	931
3	654	239	985	1,400	993	1,890	1,460	839	1,210	2,620	725	784
4	1,000	398	1,150	2,220	1,270	1,760	1,700	522	1,290	2,160	1,410	1,430
5	147	910	1,430	798	1,520	577	1,260	2,140	1,040	1,100	1,370	1,310
6	146	830	1,550	1,220	1,540	2,830	1,480	17,700	1,230	1,330	1,370	269
7	521	1,310	1,210	1,450	1,580	3,060	1,970	12,600	1,440	1,470	1,240	301
8	175	831	1,220	541	1,570	2,560	1,850	6,960	2,340	1,570	728	558
9	773	311	1,080	940	716	2,380	2,520	4,570	957	1,340	879	902
10	636	429	1,340	824	1,180	2,150	3,230	3,480	1,170	1,560	705	797
11	633	1,370	1,650	813	753	1,960	3,880	2,950	1,120	1,440	1,060	667
12	166	2,070	1,430	1,250	751	1,910	3,690	2,590	1,120	1,030	1,330	234
13	155	1,610	1,510	1,030	1,120	1,630	3,350	2,470	1,480	410	1,430	785
14	281	1,200	1,290	1,610	1,550	1,690	2,890	2,370	1,160	1,480	876	727
15	367	1,440	993	1,220	2,580	1,000	2,630	2,090	1,190	2,190	966	178
16	1,340	1,460	1,170	983	2,310	891	2,290	2,030	674	1,410	844	154
17	663	2,250	1,170	520	2,100	1,880	2,010	1,960	956	1,380	581	152
18	918	1,410	1,360	439	2,230	1,280	1,890	982	1,190	1,280	614	175
19	277	1,120	871	252	2,140	1,630	2,280	1,400	1,600	1,050	680	219
20	213	954	2,490	280	1,100	2,060	1,260	1,450	976	926	639	146
21	1,020	1,410	2,280	760	1,650	2,200	1,790	1,590	1,300	1,330	664	144
22	181	1,740	1,800	955	3,620	1,060	2,100	1,600	234	1,520	226	424
23	210	846	1,250	1,260	4,640	1,290	1,740	2,040	1,040	1,150	675	2,040
24	206	266	2,080	879	3,350	1,870	2,180	1,320	865	1,370	259	1,400
25	435	1,160	3,100	581	2,720	1,270	1,560	1,500	792	1,220	625	670
26	203	1,010	2,670	374	2,540	1,350	806	1,200	811	1,130	844	947
27	212	1,250	2,490	997	2,520	1,220	244	1,130	292	506	886	832
28	871	1,260	2,270	653	2,540	1,430	1,420	1,650	818	732	1,110	282
29	836	484	1,490	1,690	---	885	1,550	1,380	966	661	782	270
30	957	197	1,860	1,650	---	e850	e1,270	1,150	1,090	1,070	791	708
31	692	---	608	1,550	---	1,520	---	1,370	---	792	229	---
TOTAL	16,201	30,687	47,529	31,989	52,355	52,943	58,063	87,893	31,688	41,857	26,499	19,129
MEAN	523	1,023	1,533	1,032	1,870	1,708	1,935	2,835	1,056	1,350	855	638
MAX	1,340	2,250	3,100	2,220	4,640	3,060	3,880	17,700	2,340	2,810	1,430	2,040
MIN	146	197	608	252	716	577	244	522	234	410	226	144
†	-13	+25	-33	-42	+78	-19	-1	-2	0	+2	-24	+42

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2003, BY WATER YEAR (WY)

MEAN	348	559	763	1,227	1,578	1,756	1,613	1,348	835	761	491	385
MAX	540	1,023	1,533	2,187	3,096	3,505	2,540	2,835	1,432	1,350	855	638
(WY)	(1998)	(2003)	(2003)	(1998)	(1998)	(1997)	(1998)	(2003)	(1997)	(2003)	(2003)	(2003)
MIN	153	286	554	810	794	1,063	961	676	471	409	293	176
(WY)	(1999)	(2002)	(2002)	(2000)	(2002)	(2002)	(2002)	(2001)	(2002)	(2002)	(2002)	(1999)

03460795 PIGEON RIVER BELOW POWER PLANT NEAR WATERVILLE, NC—Continued

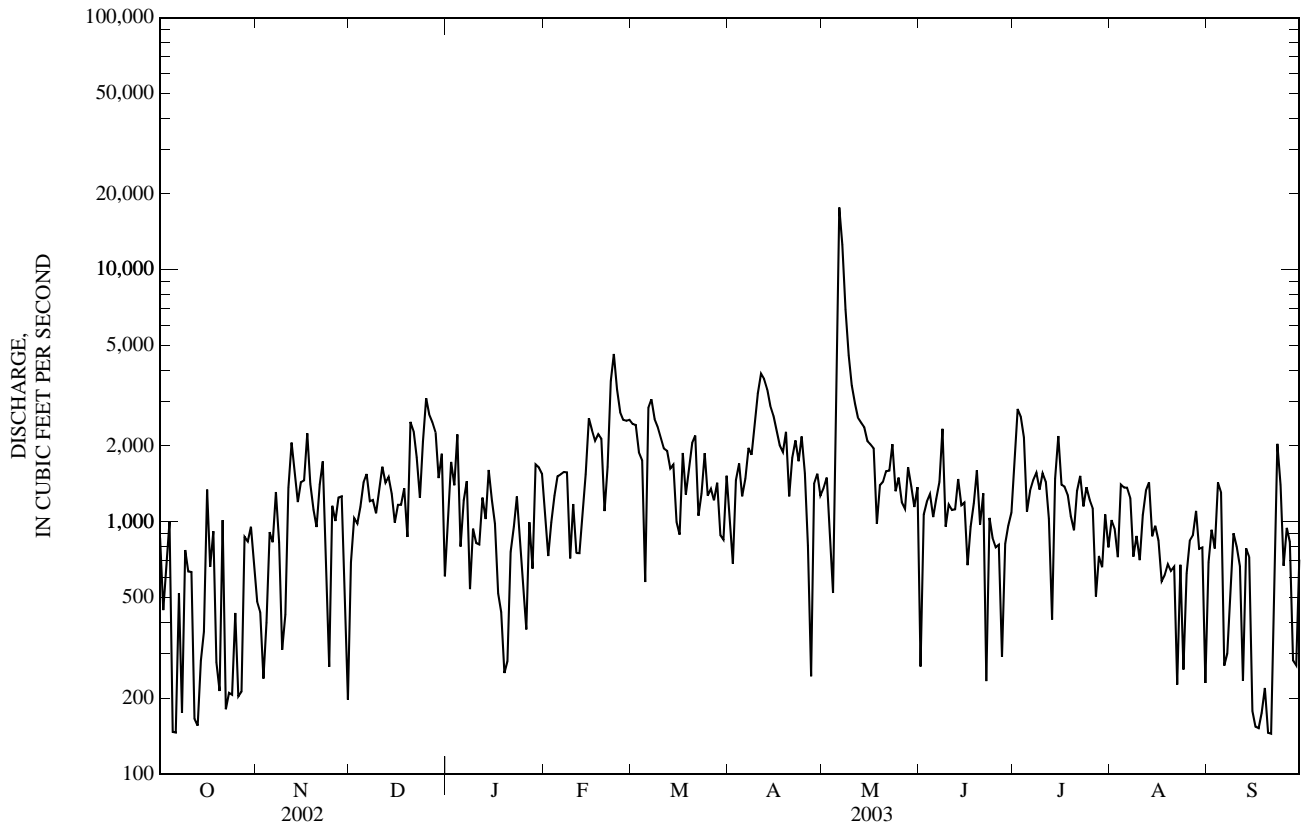
SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1997 - 2003	
ANNUAL TOTAL	293,189		496,833		927 (UNADJUSTED)	
ANNUAL MEAN	803		1,361		1,361 2003	
HIGHEST ANNUAL MEAN			‡1,361		644 2002	
LOWEST ANNUAL MEAN					17,700 May 6, 2003	
HIGHEST DAILY MEAN	3,720	Mar 18	17,700	May 6	74	Nov 19, 2000
LOWEST DAILY MEAN	119	Sep 11	144	Sep 21	117	Oct 2, 1998
ANNUAL SEVEN-DAY MINIMUM	145	Sep 14	167	Sep 15	31,900	May 6, 2003
MAXIMUM PEAK FLOW			31,900 May 6		16.39 May 6, 2003	
MAXIMUM PEAK STAGE			16.39 May 6		24* Jun 23, 2002	
INSTANTANEOUS LOW FLOW			124*			
10 PERCENT EXCEEDS	1,570		2,350		1,980	
50 PERCENT EXCEEDS	608		1,180		687	
90 PERCENT EXCEEDS	156		297		166	

e Estimated.

‡ Change in contents, equivalent in cubic feet per second, in Walters Reservoir, provided by Progress Energy.

‡‡ Adjusted for change in contents.

* See REMARKS.



03460795 PIGEON RIVER BELOW POWER PLANT NEAR WATERVILLE, NC—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	16.0	15.5	15.8
18	---	---	---	---	---	---	---	---	---	16.0	15.6	15.9
19	---	---	---	---	---	---	---	---	---	16.4	15.6	16.1
20	---	---	---	---	---	---	---	---	---	16.5	15.8	16.3
21	---	---	---	---	---	---	---	---	---	16.6	16.3	16.5
22	---	---	---	---	---	---	---	---	---	16.8	16.3	16.5
23	---	---	---	---	---	---	---	---	---	16.6	16.1	16.4
24	---	---	---	---	---	---	---	---	---	16.4	16.0	16.2
25	---	---	---	---	---	---	---	---	---	16.5	15.7	16.2
26	---	---	---	---	---	---	---	---	---	16.5	15.8	16.2
27	---	---	---	---	---	---	---	---	---	16.5	15.9	16.3
28	---	---	---	---	---	---	---	---	---	16.8	15.8	16.5
29	---	---	---	---	---	---	---	---	---	16.8	15.9	16.5
30	---	---	---	---	---	---	---	---	---	16.9	15.7	16.4
31	---	---	---	---	---	---	---	---	---	16.8	16.5	16.7
MONTH	---	---	---	---	---	---	---	---	---	16.9	15.5	16.3
	JUNE			JULY			AUGUST			SEPTEMBER		
1	17.4	16.0	16.6	20.9	20.5	20.8	20.8	19.1	20.0	23.1	21.8	22.4
2	16.9	15.4	16.2	20.9	18.4	19.2	21.0	19.0	20.0	23.2	22.0	22.8
3	16.9	16.4	16.7	18.5	18.1	18.3	20.1	19.0	19.5	23.3	22.5	22.9
4	17.2	16.5	16.8	18.9	18.2	18.5	21.1	18.7	19.8	23.3	22.1	23.1
5	17.4	16.2	17.0	18.9	17.6	18.4	20.4	17.6	19.1	22.9	21.3	22.4
6	17.6	16.4	17.1	19.3	18.7	18.9	21.0	18.1	19.6	22.2	21.1	21.6
7	17.7	17.2	17.6	19.6	18.2	19.1	21.2	18.3	19.8	21.7	21.0	21.5
8	18.2	17.7	18.0	20.0	18.9	19.5	21.2	19.0	20.0	21.8	20.9	21.4
9	18.3	17.4	17.9	20.2	18.9	19.9	21.3	19.2	20.3	21.7	20.5	21.3
10	18.2	17.1	17.8	20.4	19.2	20.0	21.3	19.6	20.3	21.6	20.4	21.2
11	18.6	17.9	18.2	20.3	19.2	19.9	21.5	19.3	20.5	21.4	20.3	20.9
12	18.8	17.9	18.4	20.2	18.7	19.6	21.5	19.6	20.8	21.2	20.2	20.7
13	18.9	18.1	18.7	20.1	19.1	19.5	21.5	20.6	21.0	21.2	19.9	20.7
14	19.1	18.3	18.8	20.2	19.0	19.7	21.5	19.8	20.7	21.3	20.1	20.9
15	19.3	18.2	18.8	20.3	19.6	20.0	---	---	---	21.2	20.1	20.7
16	18.8	17.8	18.2	20.4	18.7	19.7	---	---	---	21.0	19.5	20.2
17	19.5	17.9	18.7	20.5	18.9	19.9	---	---	---	21.1	19.4	20.1
18	19.4	17.4	18.3	20.7	19.1	20.0	---	---	---	20.8	19.1	19.9
19	19.8	17.6	19.1	20.7	19.4	20.0	22.2	20.8	21.6	20.8	19.6	20.1
20	19.6	17.7	18.7	20.9	19.4	20.2	22.5	21.2	21.8	21.0	19.5	20.1
21	19.7	18.0	19.0	21.0	17.8	20.1	22.5	21.4	21.9	20.6	19.4	20.0
22	19.1	16.7	17.8	20.2	17.7	18.8	22.4	21.1	21.7	20.0	19.2	19.7
23	19.6	15.6	17.9	19.9	17.4	18.3	22.4	21.2	21.8	19.9	19.1	19.5
24	19.6	18.1	19.0	20.2	16.9	18.5	22.7	21.4	22.0	19.3	18.9	19.0
25	20.0	18.7	19.4	20.6	17.6	19.0	22.5	21.4	22.0	19.1	17.8	18.6
26	20.3	19.2	19.7	20.9	18.3	19.6	22.6	21.7	22.3	19.1	18.2	18.7
27	19.9	19.3	19.5	20.6	19.2	19.9	22.9	22.0	22.5	19.1	18.3	18.7
28	20.3	18.8	19.6	21.2	19.5	20.3	23.0	22.3	22.7	18.7	17.8	18.3
29	20.6	19.1	19.9	20.9	19.4	20.1	23.1	22.2	22.7	18.0	17.3	17.7
30	20.7	19.8	20.3	21.2	19.3	20.4	23.2	22.4	22.9	18.0	17.0	17.5
31	---	---	---	21.2	19.6	20.3	23.0	21.8	22.4	---	---	---
MONTH	20.7	15.4	18.3	21.2	16.9	19.6	23.2	17.6	21.1	23.3	17.0	20.4

03460795 PIGEON RIVER BELOW POWER PLANT NEAR WATERTVILLE, NC—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	8.3	7.6	8.1	---	---	---	---	---	---	---	---	---
2	8.4	7.5	8.1	---	---	---	---	---	---	---	---	---
3	8.5	7.3	7.9	---	---	---	---	---	---	---	---	---
4	7.9	7.4	7.6	---	---	---	---	---	---	---	---	---
5	8.6	7.6	8.1	---	---	---	---	---	---	---	---	---
6	8.7	7.9	8.2	---	---	---	---	---	---	---	---	---
7	8.7	7.7	8.0	---	---	---	---	---	---	---	---	---
8	8.8	7.9	8.3	---	---	---	---	---	---	---	---	---
9	8.3	7.5	7.9	---	---	---	---	---	---	---	---	---
10	8.1	7.4	7.8	---	---	---	---	---	---	---	---	---
11	7.9	7.5	7.7	---	---	---	---	---	---	---	---	---
12	8.8	7.5	8.2	---	---	---	---	---	---	---	---	---
13	8.6	7.7	8.1	---	---	---	---	---	---	---	---	---
14	8.9	7.5	8.1	---	---	---	---	---	---	---	---	---
15	8.6	7.3	8.0	---	---	---	---	---	---	---	---	---
16	8.0	7.3	7.6	---	---	---	---	---	---	---	---	---
17	8.9	7.4	8.3	---	---	---	---	---	---	---	---	---
18	8.9	7.6	8.1	---	---	---	---	---	---	---	---	---
19	9.1	7.9	8.5	---	---	---	---	---	---	---	---	---
20	8.8	8.2	8.4	---	---	---	---	---	---	---	---	---
21	8.3	7.6	7.9	---	---	---	---	---	---	---	---	---
22	8.7	8.0	8.3	---	---	---	---	---	---	---	---	---
23	8.6	8.1	8.3	---	---	---	---	---	---	---	---	---
24	8.9	7.9	8.4	---	---	---	---	---	---	---	---	---
25	9.0	7.7	8.4	---	---	---	---	---	---	---	---	---
26	9.1	8.3	8.5	---	---	---	---	---	---	---	---	---
27	8.9	8.3	8.5	---	---	---	---	---	---	---	---	---
28	8.5	7.8	8.2	---	---	---	---	---	---	---	---	---
29	8.4	7.7	8.1	---	---	---	---	---	---	---	---	---
30	9.1	8.2	8.5	---	---	---	---	---	---	---	---	---
31	9.8	8.1	9.0	---	---	---	---	---	---	---	---	---
MONTH	9.8	7.3	8.2	---	---	---	---	---	---	---	---	---
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	9.8	9.4	9.6
18	---	---	---	---	---	---	---	---	---	9.8	9.5	9.6
19	---	---	---	---	---	---	---	---	---	9.6	9.3	9.4
20	---	---	---	---	---	---	---	---	---	9.6	9.2	9.4
21	---	---	---	---	---	---	---	---	---	9.5	8.8	9.2
22	---	---	---	---	---	---	---	---	---	9.6	8.9	9.3
23	---	---	---	---	---	---	---	---	---	9.2	8.9	9.0
24	---	---	---	---	---	---	---	---	---	9.5	9.0	9.2
25	---	---	---	---	---	---	---	---	---	9.3	8.9	9.0
26	---	---	---	---	---	---	---	---	---	9.4	8.7	9.1
27	---	---	---	---	---	---	---	---	---	9.2	8.7	9.0
28	---	---	---	---	---	---	---	---	---	9.2	8.6	8.8
29	---	---	---	---	---	---	---	---	---	9.2	8.6	8.8
30	---	---	---	---	---	---	---	---	---	9.3	8.4	8.8
31	---	---	---	---	---	---	---	---	---	8.7	8.5	8.5
MONTH	---	---	---	---	---	---	---	---	---	9.8	8.4	9.1

03460795 PIGEON RIVER BELOW POWER PLANT NEAR WATERTVILLE, NC—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	9.3	8.6	9.0	7.6	7.2	7.4	---	---	---	8.1	6.0	7.0
2	9.5	8.5	9.0	8.3	7.4	8.1	8.3	6.9	7.5	7.1	5.1	6.0
3	9.2	8.4	8.7	8.4	7.7	8.0	8.1	7.4	7.7	7.3	5.1	5.8
4	9.3	8.4	8.7	7.9	7.7	7.8	8.3	6.7	7.4	6.4	5.1	5.5
5	9.3	8.4	8.8	8.6	7.7	8.1	8.5	7.0	7.7	6.9	5.1	5.8
6	9.5	7.7	8.4	8.2	7.8	8.1	8.6	6.7	7.6	7.8	6.4	6.8
7	8.3	7.4	8.0	8.3	7.5	7.9	8.4	6.7	7.6	7.5	6.4	6.8
8	8.1	7.8	7.9	8.1	7.4	7.7	8.5	6.8	7.7	7.5	5.8	6.5
9	8.6	7.9	8.2	8.1	7.4	7.7	8.5	7.0	7.7	7.2	5.8	6.3
10	8.6	7.8	8.3	8.1	7.4	7.7	8.6	7.1	7.8	7.8	5.7	6.4
11	8.7	7.9	8.2	8.2	7.4	7.8	8.5	6.4	7.3	8.3	6.1	6.8
12	8.4	7.7	8.1	8.5	7.6	8.0	7.4	6.4	6.9	8.4	6.3	7.4
13	8.3	7.8	8.1	8.5	7.9	8.2	7.3	6.8	7.0	8.5	6.4	7.0
14	8.5	7.6	8.1	8.3	7.6	7.9	8.1	6.8	7.3	8.6	6.2	6.9
15	8.6	7.9	8.2	7.9	7.6	7.8	---	---	---	8.2	6.0	7.3
16	8.6	8.4	8.5	8.7	7.8	8.1	---	---	---	8.8	7.1	7.8
17	8.9	8.0	8.4	8.9	7.8	8.3	---	---	---	8.7	7.1	7.6
18	9.1	7.9	8.5	8.8	7.1	7.8	---	---	---	8.6	6.4	7.5
19	8.7	7.8	8.1	8.0	7.1	7.6	7.9	6.4	7.0	7.9	6.3	7.1
20	8.9	7.8	8.3	7.9	6.9	7.4	7.7	6.5	7.0	8.1	6.8	7.3
21	8.7	7.7	8.2	8.2	6.9	7.4	7.5	6.7	7.0	8.4	6.9	7.5
22	9.6	8.0	8.9	8.2	7.3	7.9	8.1	6.7	7.4	7.7	6.6	7.1
23	9.6	7.7	8.6	8.5	7.3	8.0	7.8	6.3	7.0	7.4	6.4	7.0
24	8.9	7.8	8.3	8.5	6.9	7.8	7.8	6.2	7.0	7.4	7.1	7.3
25	8.8	7.6	8.1	8.3	6.9	7.6	7.9	5.6	6.8	8.1	7.1	7.5
26	8.5	7.1	7.8	8.2	6.6	7.4	7.7	5.8	6.5	7.8	7.0	7.4
27	8.5	7.5	8.0	7.8	7.0	7.4	7.4	5.1	6.4	7.9	6.9	7.4
28	8.8	7.6	8.1	7.7	6.4	7.2	7.2	5.7	6.4	8.5	7.6	8.0
29	8.8	7.5	8.1	7.7	6.7	7.1	8.0	5.9	6.8	8.6	7.8	8.1
30	8.6	7.3	7.8	7.7	6.4	6.9	7.6	5.7	6.5	8.6	7.5	7.9
31	---	---	---	---	---	---	8.6	6.6	7.4	---	---	---
MONTH	9.6	7.1	8.3	8.9	6.4	7.7	8.6	5.1	7.2	8.8	5.1	7.0

03463300 SOUTH TOE RIVER NEAR CELO, NC

LOCATION.--Lat 35°49'53", long 82°11'03", Yancey County, Hydrologic Unit 06010108, on right bank on Secondary Road 1168, 800 ft upstream from bridge on Secondary Road 1167, 0.3 mi downstream of Whiteoak Creek, 1.9 mi southeast of Celso, and at mile 20.1.

DRAINAGE AREA.--43.3 mi².

PERIOD OF RECORD.--July 1957 to current year.

REVISED RECORDS.--WSP 1910: 1958-59. WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 2,658 ft above NGVD of 1929, from topographic map. 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 5,000 ft³/s on basis of slope-area measurement of peak flow; gage height from outside floodmarks. Minimum discharge for period of record also occurred Sept. 26, 27, 1999, Sept. 11, 12, 13, 2002. Minimum discharge for current water year also occurred Oct. 15.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	115	88	80	345	78	189	138	383	167	99	214	192
2	97	80	78	210	73	179	147	265	149	1,260	145	137
3	84	75	76	231	73	157	138	239	174	355	179	120
4	73	75	81	190	127	143	126	206	190	227	182	218
5	66	86	204	172	92	137	158	465	155	209	157	146
6	60	127	135	159	84	425	133	1,200	141	190	126	126
7	56	103	113	144	84	229	171	677	879	187	171	114
8	52	90	104	137	77	190	154	449	475	157	262	104
9	49	84	99	130	73	171	220	354	310	143	266	95
10	48	82	98	123	77	154	437	299	245	145	305	88
11	49	306	283	113	71	142	443	263	211	123	336	83
12	47	264	186	e108	70	133	448	232	190	113	231	78
13	43	200	277	103	68	128	429	210	172	110	192	73
14	41	156	260	100	94	126	359	193	161	125	168	71
15	114	137	198	e97	289	118	299	183	153	114	234	110
16	424	279	172	e92	230	282	249	178	149	98	213	80
17	158	293	154	90	195	189	241	176	139	92	169	72
18	117	207	143	e86	159	271	1,610	203	136	85	144	68
19	100	174	136	e86	141	603	572	173	145	90	129	61
20	88	152	337	85	134	794	411	160	126	85	122	58
21	82	181	186	92	143	450	353	170	114	77	190	57
22	78	157	162	84	963	321	302	384	107	121	144	488
23	70	135	145	e81	486	263	260	288	101	114	121	453
24	67	125	270	e79	288	228	233	242	93	82	110	169
25	67	116	268	e77	232	203	216	219	89	75	102	132
26	75	108	203	e74	216	184	201	233	85	70	92	114
27	66	103	180	e72	234	168	183	198	83	67	87	132
28	105	94	162	e70	216	157	170	180	84	63	181	155
29	111	89	150	92	---	151	159	183	81	60	150	113
30	121	86	140	98	---	161	440	192	85	74	115	102
31	105	---	135	82	---	141	---	191	---	403	183	---
TOTAL	2,828	4,252	5,215	3,702	5,067	7,187	9,400	8,988	5,389	5,213	5,420	4,009
MEAN	91.2	142	168	119	181	232	313	290	180	168	175	134
MAX	424	306	337	345	963	794	1,610	1,200	879	1,260	336	488
MIN	41	75	76	70	68	118	126	160	81	60	87	57
CFSM	2.11	3.27	3.89	2.76	4.18	5.35	7.24	6.70	4.15	3.88	4.04	3.09
IN.	2.43	3.65	4.48	3.18	4.35	6.17	8.08	7.72	4.63	4.48	4.66	3.44

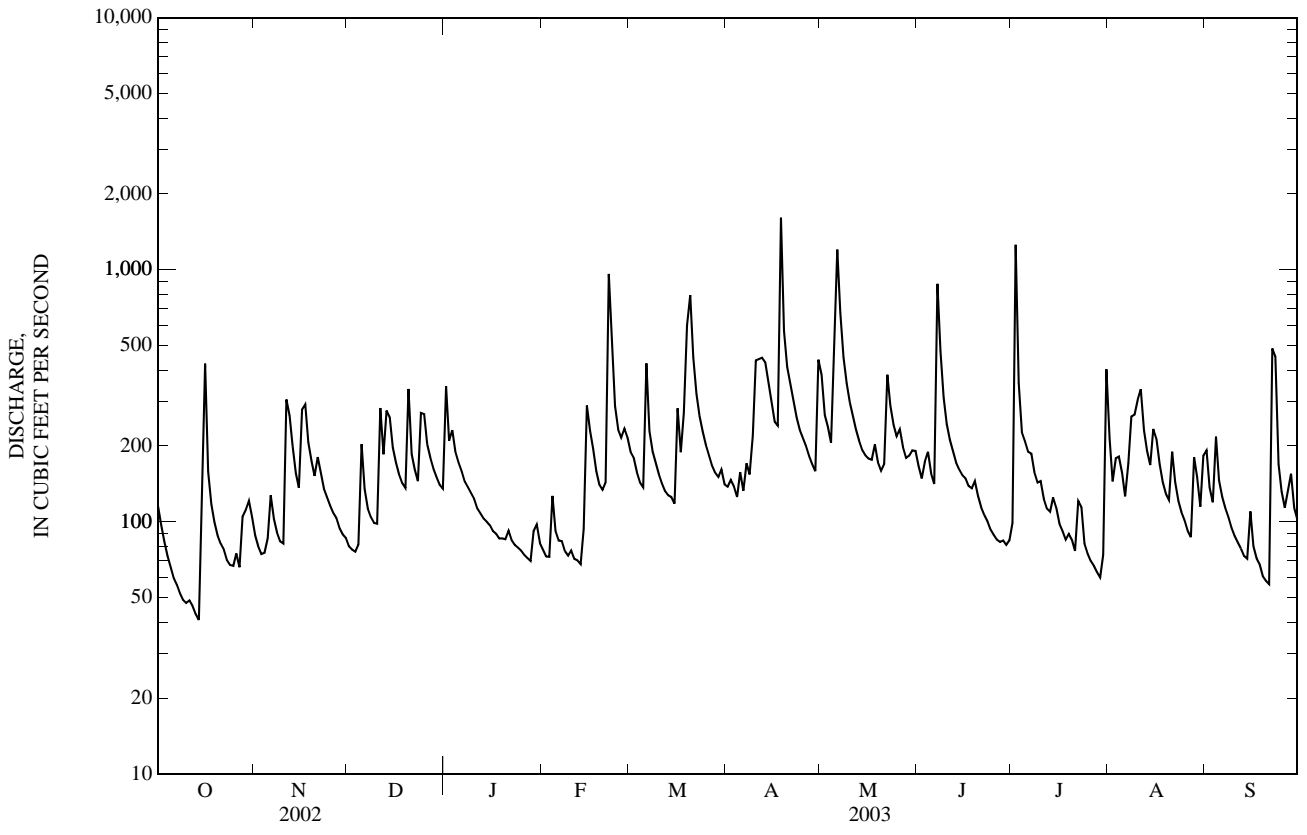
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 2003, BY WATER YEAR (WY)

	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003													
MEAN	121	143	136	162	180	225	190	154	123	82.7	94.1	103	359	714	277	428	466	596	361	373	415	199	323	517	(1996)	(1978)	(1984)	(1995)	(1998)	(1979)	(1983)	(1976)	(1972)	(1967)	(1994)	(1979)	15.8	24.9	41.5	62.2	76.6	69.1	59.7	53.1	34.8	23.3	22.5	14.6	(1994)	(1999)	(1966)	(1966)	(1963)	(1988)	(1986)	(1986)	(1988)	(1986)	(2002)	(1998)

03463300 SOUTH TOE RIVER NEAR CELO, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1957 - 2003	
ANNUAL TOTAL	38,097.1		66,670		143	
ANNUAL MEAN	104		183		79.4	
HIGHEST ANNUAL MEAN					227	1979
LOWEST ANNUAL MEAN					79.4	1988
HIGHEST DAILY MEAN	1,670	Sep 27	1,610	Apr 18	9,960	Nov 6, 1977
LOWEST DAILY MEAN	9.5	Sep 12	41	Oct 14	9.5	Sep 12, 2002
ANNUAL SEVEN-DAY MINIMUM	11	Sep 8	47	Oct 8	11	Sep 20, 1999
MAXIMUM PEAK FLOW			3,730	Apr 18	32,900*	Nov 6, 1977
MAXIMUM PEAK STAGE			4.94	Apr 18	17.41*	Nov 6, 1977
INSTANTANEOUS LOW FLOW			40*	Oct 14	9.4*	Sep 25, 1999
ANNUAL RUNOFF (CFSM)	2.41		4.22		3.29	
ANNUAL RUNOFF (INCHES)	32.73		57.28		44.75	
10 PERCENT EXCEEDS	193		308		259	
50 PERCENT EXCEEDS	79		144		99	
90 PERCENT EXCEEDS	23		75		36	

e Estimated.
 * See REMARKS.



03479000 WATAUGA RIVER NEAR SUGAR GROVE, NC

LOCATION.--Lat 36°14'18", long 81°49'21", Watauga County, Hydrologic Unit 06010103, on right bank 250 ft upstream from bridge on Secondary Road 1121, 300 ft downstream of Cove Creek, 2.3 mi southwest of Sugar Grove, and at mile 64.4.

DRAINAGE AREA.--92.1 mi².

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only for some periods, published in WSP 1306.

REVISED RECORDS.--WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,607.84 ft above NGVD of 1929. Satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Slight diurnal fluctuation at low flow caused by small mills above station. Maximum discharge for period of record from rating curve extended above 4,900 ft³/s on basis of slope-area measurement of peak flow, from profile based on floodmarks. Minimum discharge for period of record, result of freezeup. Minimum discharge for current water year also occurred Oct. 14, 15.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 1916 reached a stage of 22.1 ft, from floodmarks on barn 0.25 mi upstream from station, as witnessed by local resident; discharge, 28,000 ft³/s, from rating curve extended above 4,900 ft³/s, on basis of slope-area measurement.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	85	97	97	342	146	295	212	251	159	172	184	168
2	72	86	95	318	137	280	245	263	140	770	136	143
3	64	80	94	361	133	249	220	228	152	568	297	121
4	57	81	98	319	204	220	204	199	187	331	268	150
5	56	87	265	276	189	207	224	221	150	256	233	133
6	50	184	231	242	168	341	199	276	134	249	190	110
7	47	152	176	211	166	295	216	243	494	282	210	104
8	45	123	153	195	146	255	209	219	495	231	255	100
9	47	110	140	186	e139	231	269	222	398	204	243	92
10	52	104	132	172	139	208	1,290	194	268	190	225	85
11	61	221	374	e160	133	191	1,230	183	226	196	220	80
12	56	347	313	e150	130	179	757	166	212	172	178	76
13	48	299	423	e145	124	175	566	152	211	173	158	73
14	45	204	500	e140	132	170	430	145	314	156	152	71
15	78	168	341	e136	405	157	348	196	374	156	427	80
16	446	301	274	e128	611	585	297	206	432	141	617	74
17	196	485	230	e126	373	428	269	165	527	133	314	67
18	125	312	200	e120	275	348	1,580	164	379	124	226	65
19	103	232	185	e119	228	341	871	154	351	117	180	63
20	90	195	302	e120	212	596	567	144	295	123	154	60
21	89	202	232	e130	215	572	450	147	245	111	136	58
22	84	191	205	e118	1,610	423	370	160	214	124	142	117
23	75	163	185	e112	1,200	334	305	155	191	149	198	349
24	70	149	315	e110	628	282	265	193	173	111	132	115
25	69	138	344	e107	438	245	243	160	160	101	114	88
26	73	129	267	e103	351	225	228	203	151	94	104	79
27	68	123	225	e100	337	204	205	160	159	91	101	183
28	75	112	202	e98	329	190	189	146	148	88	132	243
29	84	106	185	e128	---	184	177	156	135	100	303	125
30	141	103	171	e160	---	218	200	163	146	113	225	102
31	120	---	162	156	---	192	---	181	---	99	153	---
TOTAL	2,771	5,284	7,116	5,288	9,298	8,820	12,835	5,815	7,620	5,925	6,607	3,374
MEAN	89.4	176	230	171	332	285	428	188	254	191	213	112
MAX	446	485	500	361	1,610	596	1,580	276	527	770	617	349
MIN	45	80	94	98	124	157	177	144	134	88	101	58
CFSM	0.97	1.91	2.49	1.85	3.61	3.09	4.65	2.04	2.76	2.08	2.31	1.22
IN.	1.12	2.13	2.87	2.14	3.76	3.56	5.18	2.35	3.08	2.39	2.67	1.36

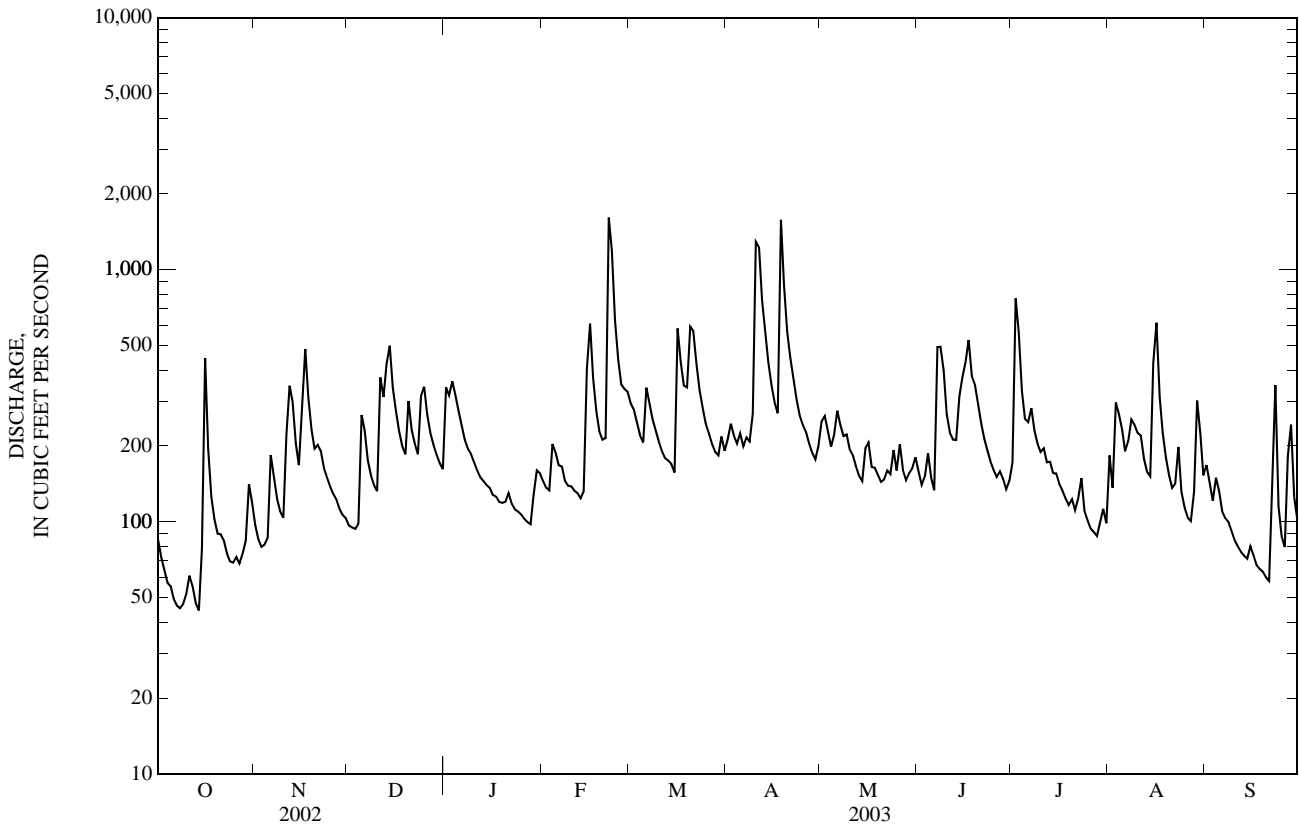
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2003, BY WATER YEAR (WY)

	110	150	171	211	264	305	258	180	145	112	120	108
MEAN	110	150	171	211	264	305	258	180	145	112	120	108
MAX	380	662	434	817	643	858	689	411	583	461	1,169	691
(WY)	(1965)	(1978)	(1951)	(1995)	(1998)	(1979)	(1987)	(1973)	(1992)	(1989)	(1940)	(1979)
MIN	19.2	34.6	45.6	55.5	67.5	77.0	82.1	67.5	41.4	35.0	23.9	18.1
(WY)	(1955)	(1982)	(1964)	(1956)	(1941)	(1988)	(1986)	(1941)	(1988)	(1944)	(2002)	(1954)

03479000 WATAUGA RIVER NEAR SUGAR GROVE, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1940 - 2003	
ANNUAL TOTAL	44,072.4		80,753		176	
ANNUAL MEAN	121		221		84.7	
HIGHEST ANNUAL MEAN					297	1979
LOWEST ANNUAL MEAN					84.7	1988
HIGHEST DAILY MEAN	1,410	Sep 27	1,610	Feb 22	15,900	Aug 13, 1940
LOWEST DAILY MEAN	8.1	Sep 13	45	Oct 8	8.1	Sep 13, 2002
ANNUAL SEVEN-DAY MINIMUM	11	Sep 7	51	Oct 4	11	Sep 7, 2002
MAXIMUM PEAK FLOW			3,630	Feb 22	50,800*	Aug 13, 1940
MAXIMUM PEAK STAGE			8.45	Feb 22	29.60	Aug 13, 1940
INSTANTANEOUS LOW FLOW			42*	Oct 9	6.5*	Jan 1, 1954
ANNUAL RUNOFF (CFSM)	1.31		2.40		1.91	
ANNUAL RUNOFF (INCHES)	17.80		32.62		25.92	
10 PERCENT EXCEEDS	231		373		325	
50 PERCENT EXCEEDS	90		178		115	
90 PERCENT EXCEEDS	25		85		39	

e Estimated.
 * See REMARKS.



0349998425 LITTLE TENNESSEE RIVER AT RIVERSIDE, NC

LOCATION.--Lat 35°05'26", long 83°22'50", Macon County, Hydrologic Unit 06010202, at bridge on Secondary Road 1644, 6 mi south of Franklin.

DRAINAGE AREA.--120 mi²

PERIOD OF RECORD.--June 2000 to September 2003 (discontinued).

REMARKS.--Samples collected for the Upper Little Tennessee Sediment Study.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Bedload sediment discharge, tons/d (80225)	Bedload sediment, sieve diameter <.063mm (80226)	Bedload sediment, sieve diameter <.125mm (80227)	Bedload sediment, sieve diameter <.25mm (80228)	Bedload sediment, sieve diameter <.5 mm (80229)	Bedload sediment, sieve diameter <1 mm (80230)	Bedload sediment, sieve diameter <16 mm (80234)	Bedload sediment, sieve diameter <64 mm (80236)	Bedload sediment, sieve diameter <8 mm (80233)	Bedload sediment, sieve diameter <4 mm (80232)	Bedload sediment, sieve diameter <32 mm (80235)	Bedload sediment, sieve diameter <2 mm (80231)
MAR 20...	1456	6.0	1	2	20	80	90	92	100	92	91	92	91
MAY 06...	1620	7.1	1	2	16	66	96	100	--	100	99	--	99

03500000 LITTLE TENNESSEE RIVER NEAR PRENTISS, NC

LOCATION.--Lat 35°08'59", long 83°22'47", Macon County, Hydrologic Unit 06010202, on left bank 600 ft upstream from Owenby Branch, 0.5 mi upstream from Cartoogechaye Creek, 2 mi north of Prentiss, and at mile 119.5.

DRAINAGE AREA.--140 mi².

PERIOD OF RECORD.--October 1943 to current year. Monthly discharge only for some periods, published in WSP 1306.

REVISED RECORDS.--WSP 1236: 1949(M).

GAGE.--Water-stage recorder. Datum of gage is 2,008.39 ft above NGVD of 1929 (levels by Tennessee Valley Authority). Satellite telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Minimum discharge for period of record also occurred Aug. 30, 31, Sept. 16, 17, 2000. Minimum discharge for current water year also occurred Oct. 15.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in October 1898 reached a stage of about 15 ft, from profiles by Tennessee Valley Authority.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	360	223	274	674	308	547	401	524	446	548	387	811
2	312	214	266	557	294	511	390	480	427	1,730	409	490
3	281	207	262	590	283	470	382	460	466	911	457	422
4	259	207	292	522	395	444	375	433	521	681	434	425
5	265	246	645	484	343	434	479	551	441	594	496	394
6	238	372	439	456	318	860	433	2,050	411	589	404	361
7	221	280	372	430	351	638	639	2,270	1,300	630	406	343
8	209	254	344	418	333	550	556	1,520	1,080	542	389	353
9	201	241	323	404	314	509	543	1,060	735	504	382	333
10	201	284	317	390	346	474	714	889	612	527	369	322
11	263	700	443	373	333	449	730	818	551	518	401	313
12	224	652	369	361	312	432	599	733	542	458	369	304
13	204	509	443	353	298	422	534	660	578	478	386	294
14	191	419	515	347	329	410	493	617	517	482	374	288
15	255	381	429	336	487	408	468	607	489	439	402	307
16	785	682	393	e328	496	469	447	579	457	415	381	287
17	406	648	368	e322	571	422	446	598	503	404	392	279
18	325	495	348	e312	463	432	664	639	617	592	516	273
19	287	431	355	e306	414	512	551	581	620	431	395	265
20	266	396	943	e300	387	923	499	540	514	407	360	261
21	252	470	579	e294	374	736	542	590	456	383	343	256
22	237	430	489	e288	1,290	598	535	1,290	426	444	353	761
23	224	384	438	e285	954	539	483	986	404	453	356	1,190
24	217	362	1,090	e279	663	497	459	805	386	387	323	535
25	214	343	898	e273	563	472	462	691	371	363	308	426
26	227	328	656	e270	552	453	494	635	358	345	298	379
27	210	318	568	e267	674	436	443	583	357	336	290	356
28	225	305	517	266	621	423	425	545	356	330	288	358
29	275	295	479	320	---	415	435	521	349	318	305	326
30	263	287	450	385	---	469	549	495	350	387	465	312
31	239	---	437	330	---	422	---	470	---	395	365	---
TOTAL	8,336	11,363	14,741	11,520	13,066	15,776	15,170	24,220	15,640	16,021	11,803	12,024
MEAN	269	379	476	372	467	509	506	781	521	517	381	401
MAX	785	700	1,090	674	1,290	923	730	2,270	1,300	1,730	516	1,190
MIN	191	207	262	266	283	408	375	433	349	318	288	256
CFSM	1.92	2.71	3.40	2.65	3.33	3.64	3.61	5.58	3.72	3.69	2.72	2.86
IN.	2.21	3.02	3.92	3.06	3.47	4.19	4.03	6.44	4.16	4.26	3.14	3.19

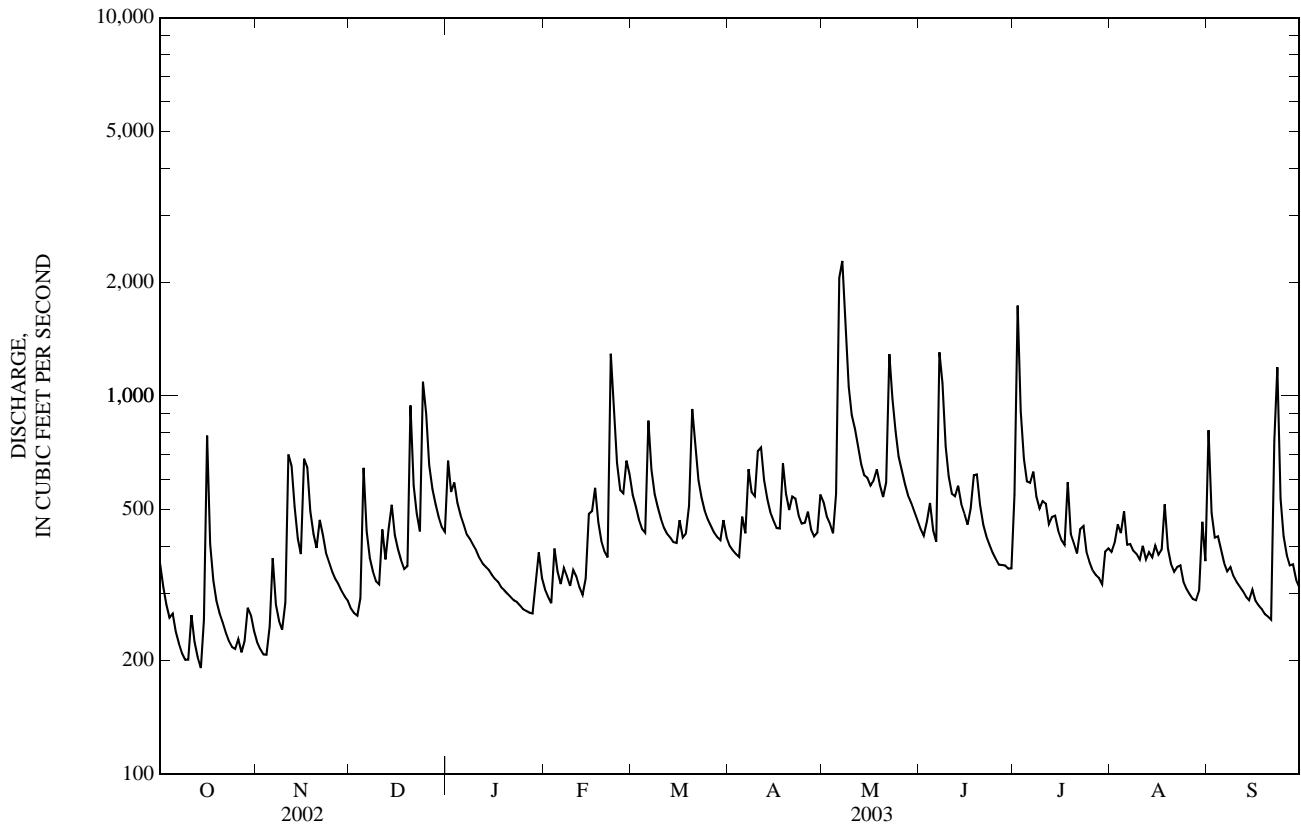
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 2003, BY WATER YEAR (WY)

MEAN	246	298	388	483	558	601	557	429	341	257	238	222
MAX	1,078	815	841	1,008	1,252	1,199	1,014	999	694	772	695	671
(WY)	(1965)	(1980)	(1962)	(1946)	(1990)	(1952)	(1964)	(1976)	(1949)	(1989)	(1974)	(1950)
MIN	70.5	101	153	120	222	244	172	157	110	94.8	78.3	80.2
(WY)	(1955)	(1955)	(2001)	(1981)	(1986)	(1988)	(1986)	(1986)	(1988)	(1986)	(1986)	(1954)

03500000 LITTLE TENNESSEE RIVER NEAR PRENTISS, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1944 - 2003	
ANNUAL TOTAL	107,002		169,680			
ANNUAL MEAN	293		465		384	
HIGHEST ANNUAL MEAN					588 1949	
LOWEST ANNUAL MEAN					173 1986	
HIGHEST DAILY MEAN	1,890	Sep 27	2,270	May 7	7,280	Oct 5, 1964
LOWEST DAILY MEAN	67	Sep 12	191	Oct 14	52	Aug 30, 2000
ANNUAL SEVEN-DAY MINIMUM	73	Sep 7	213	Oct 8	58	Sep 14, 2000
MAXIMUM PEAK FLOW			2,610	May 7	12,200	Oct 4, 1964
MAXIMUM PEAK STAGE			6.77	May 7	17.30	Oct 4, 1964
INSTANTANEOUS LOW FLOW			186*	Oct 14	52*	Sep 17, 1999
ANNUAL RUNOFF (CFSM)	2.09		3.32		2.74	
ANNUAL RUNOFF (INCHES)	28.43		45.09		37.29	
10 PERCENT EXCEEDS	486		663		695	
50 PERCENT EXCEEDS	265		422		305	
90 PERCENT EXCEEDS	111		267		128	

e Estimated.
 * See REMARKS.



03500240 CARTOOGECHAYE CREEK NEAR FRANKLIN, NC

LOCATION.--Lat 35°09'31", long 83°23'40", Macon County, Hydrologic Unit 06010202, on downstream side of center pier of bridge on Secondary Road 1152, 0.1 mi downstream of unnamed creek, 1.8 mi south of Franklin, and 1.9 mi upstream from mouth.

DRAINAGE AREA.--57.1 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1944, 1947, 1953-55, 1958, 1960. June 1961 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,017.18 ft above NGVD of 1929. Satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Minimum discharge for period of record also occurred Oct. 8, 1986. Minimum discharge for current water year also occurred Sept. 21, 22.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in June 1949 reached a stage of 15.6 ft, from studies by Tennessee Valley Authority; discharge, about 7,000 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	104	89	92	281	120	278	134	145	146	322	122	94
2	90	82	90	210	111	246	131	145	145	1,080	119	85
3	81	77	89	239	105	216	126	149	168	440	110	81
4	74	78	119	200	186	199	124	140	172	287	103	92
5	78	125	328	184	144	190	201	263	147	261	98	83
6	69	189	198	168	132	532	157	1,300	140	262	100	78
7	71	134	157	155	142	346	218	1,310	490	234	114	76
8	65	112	138	148	123	276	216	810	313	204	114	75
9	61	100	126	141	117	241	234	543	213	203	120	74
10	62	96	126	134	150	214	350	401	179	182	121	76
11	91	237	169	124	133	199	341	366	162	181	111	71
12	75	285	130	118	123	185	262	294	164	158	101	69
13	65	218	157	e117	116	177	219	251	156	219	115	66
14	60	166	167	113	175	170	194	229	146	218	101	67
15	82	143	143	109	401	167	178	230	137	178	167	79
16	199	260	134	108	337	208	166	215	140	159	222	68
17	103	220	124	107	325	174	165	196	140	149	139	65
18	86	175	116	e101	255	177	192	193	288	140	124	63
19	78	150	123	99	211	192	161	180	241	133	107	61
20	73	135	362	100	187	275	152	168	176	128	100	60
21	72	192	218	110	176	233	191	234	150	122	104	58
22	67	165	181	109	686	201	169	583	136	168	114	313
23	64	144	157	97	565	184	153	416	127	168	110	227
24	62	132	534	e89	375	170	145	305	120	133	94	114
25	61	122	467	e88	298	160	145	251	114	122	89	96
26	62	115	322	90	304	154	152	224	109	114	85	88
27	60	113	252	87	364	148	135	200	122	111	82	86
28	96	104	212	85	325	142	130	183	118	108	81	90
29	112	100	189	149	---	138	175	177	110	104	81	77
30	115	98	171	162	---	169	163	165	119	108	122	74
31	97	---	165	132	---	143	---	156	---	117	90	---
TOTAL	2,535	4,356	5,956	4,154	6,686	6,504	5,479	10,422	5,088	6,513	3,460	2,706
MEAN	81.8	145	192	134	239	210	183	336	170	210	112	90.2
MAX	199	285	534	281	686	532	350	1,310	490	1,080	222	313
MIN	60	77	89	85	105	138	124	140	109	104	81	58
CFM	1.43	2.54	3.36	2.35	4.18	3.67	3.20	5.89	2.97	3.68	1.95	1.58
IN.	1.65	2.84	3.88	2.71	4.36	4.24	3.57	6.79	3.31	4.24	2.25	1.76

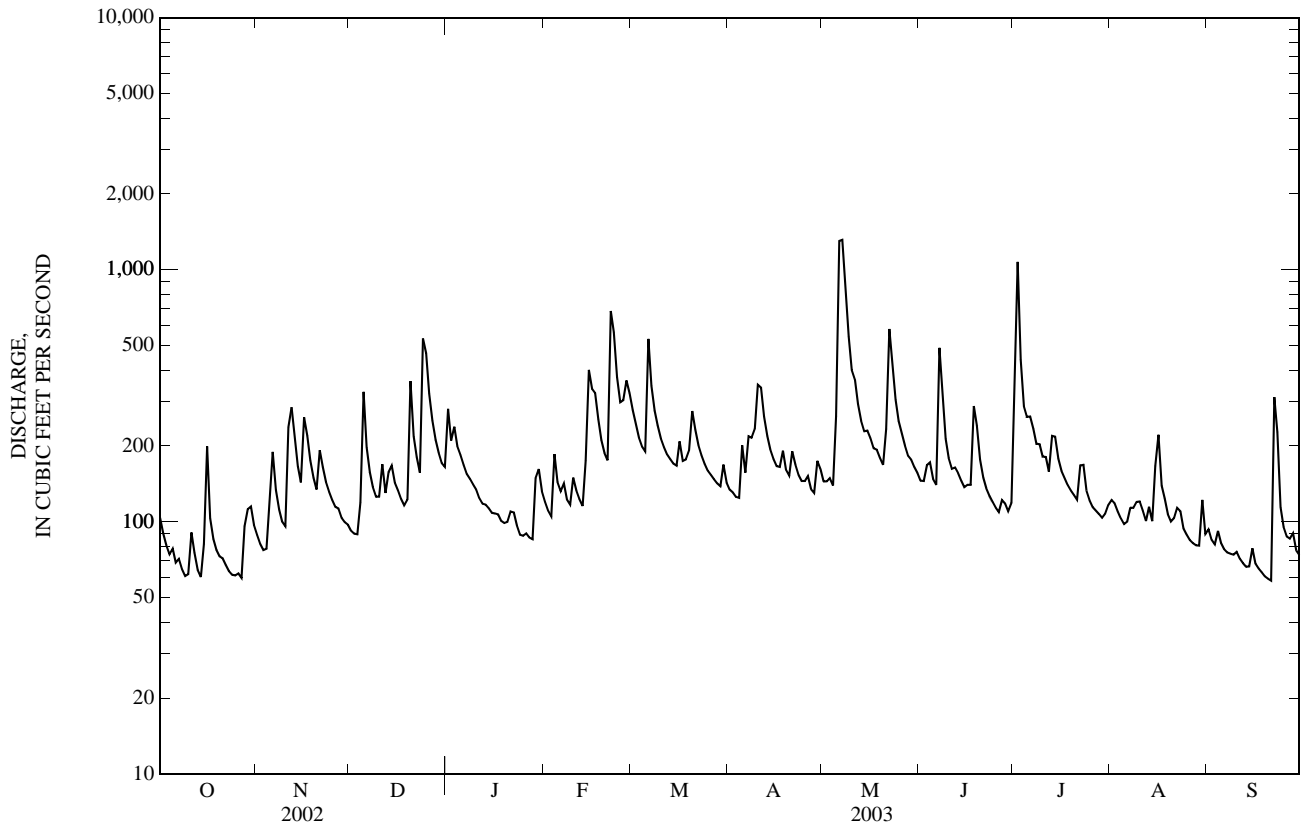
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 2003, BY WATER YEAR (WY)

	82.8	107	147	190	220	240	201	157	119	88.2	81.2	72.5
MEAN	82.8	107	147	190	220	240	201	157	119	88.2	81.2	72.5
MAX	295	266	317	336	460	440	375	339	259	210	185	161
(WY)	(1965)	(1993)	(1962)	(1996)	(1990)	(1980)	(1964)	(1976)	(1989)	(2003)	(1994)	(1989)
MIN	24.7	41.2	52.2	55.2	99.1	84.7	72.9	56.3	42.3	32.7	28.7	25.6
(WY)	(2001)	(2002)	(1966)	(1981)	(2002)	(1988)	(1986)	(2001)	(1988)	(2000)	(2000)	(1999)

03500240 CARTOOGECHAYE CREEK NEAR FRANKLIN, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1961 - 2003	
ANNUAL TOTAL	40,055		63,859		142	
ANNUAL MEAN	110		175		69.9	
HIGHEST ANNUAL MEAN					204	1990
LOWEST ANNUAL MEAN					69.9	1986
HIGHEST DAILY MEAN	924	Sep 27	1,310	May 7	2,710	Oct 4, 1964
LOWEST DAILY MEAN	27	Aug 13	58	Sep 21	18	Oct 7, 1986
ANNUAL SEVEN-DAY MINIMUM	28	Aug 9	64	Oct 21	19	Sep 14, 2000
MAXIMUM PEAK FLOW			1,730	May 7	4,720	Oct 4, 1964
MAXIMUM PEAK STAGE			8.87	May 7	12.96	Oct 4, 1964
INSTANTANEOUS LOW FLOW			57*	Sep 20	16*	Oct 7, 1986
ANNUAL RUNOFF (CFSM)	1.92		3.06		2.48	
ANNUAL RUNOFF (INCHES)	26.10		41.60		33.71	
10 PERCENT EXCEEDS	190		287		260	
50 PERCENT EXCEEDS	87		143		106	
90 PERCENT EXCEEDS	38		78		47	

e Estimated.
 * See REMARKS.



03500240 CARTOOGECWAYE CREEK NEAR FRANKLIN, NC—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--June 2000 to September 2003 (discontinued).

REMARKS.--Samples collected for the Upper Little Tennessee Sediment Study. Samples are collected in the City Park from the pedestrian bridge about 0.3 mi downstream of the gage.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Instantaneous discharge, cfs (00061)	Bedload sediment discharge, tons/d (80225)	Bedload sediment, sieve diameter percent <.063mm (80226)	Bedload sediment, sieve diameter percent <.125mm (80227)	Bedload sediment, sieve diameter percent <.25mm (80228)	Bedload sediment, sieve diameter percent <.5 mm (80229)	Bedload sediment, sieve diameter percent <1 mm (80230)	Bedload sediment, sieve diameter percent <16 mm (80234)	Bedload sediment, sieve diameter percent <8 mm (80233)	Bedload sediment, sieve diameter percent <4 mm (80232)	Bedload sediment, sieve diameter percent <2 mm (80231)
MAR 20...	1106	346	2.0	1	2	16	68	90	100	99	98	95
MAY 06...	1425	1,180	22	1	2	16	72	94	100	98	98	97

0350056050 CULLASAJA RIVER AT SR 1620 NEAR HIGHLANDS, NC

LOCATION.--Lat 35°04'14", long 83°13'57", Macon County, Hydrologic Unit 06010202, at bridge on Secondary Road 1620, downstream from Long Branch and approximately 3.4 mi northwest of Highlands.

DRAINAGE AREA.--18.8 mi².

PERIOD OF RECORD.--July 2001 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 3,230 ft above NGVD of 1929, from topographic map. Satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Minimum discharge for period of record also occurred Sept. 12, 2002.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	98	53	56	174	55	101	68	75	61	163	69	405
2	84	49	55	122	52	95	65	77	58	449	119	121
3	75	48	54	134	51	87	61	76	70	173	218	95
4	71	51	63	112	80	83	59	67	79	155	122	124
5	69	68	167	104	61	81	102	119	61	138	92	93
6	62	97	91	98	58	164	74	475	56	127	82	78
7	59	63	75	93	63	106	218	385	420	124	72	73
8	54	58	69	89	53	93	124	225	183	101	68	69
9	52	56	65	86	51	88	119	170	122	91	64	65
10	54	110	65	83	57	81	144	145	100	87	89	62
11	58	192	108	78	52	77	133	136	93	83	105	59
12	50	143	69	75	51	74	109	118	108	73	102	56
13	47	107	110	74	49	72	97	112	103	76	90	53
14	45	91	109	72	57	70	89	100	90	80	74	51
15	89	88	83	68	95	70	84	96	83	69	76	55
16	185	223	77	e66	147	98	80	85	81	63	66	50
17	79	147	72	e65	120	77	87	104	87	70	62	48
18	67	114	68	e65	79	80	206	133	93	90	58	45
19	60	100	77	e61	69	135	120	104	88	61	54	44
20	56	93	275	59	61	263	101	92	72	66	54	42
21	54	118	134	64	57	147	117	113	64	61	62	41
22	51	95	118	64	380	117	104	215	59	94	58	383
23	48	85	107	e56	222	104	92	137	55	81	58	243
24	47	79	297	e54	141	95	76	120	51	62	50	99
25	50	75	183	52	119	89	79	103	48	54	47	80
26	57	71	147	51	117	83	82	94	45	51	45	70
27	48	68	132	49	135	78	73	85	62	48	43	66
28	60	64	120	49	113	75	69	79	58	47	45	65
29	69	62	110	66	---	72	66	77	47	42	47	59
30	71	60	104	73	---	82	73	71	57	77	89	55
31	58	---	103	60	---	71	---	67	---	71	93	---
TOTAL	2,027	2,728	3,363	2,416	2,645	3,008	2,971	4,055	2,654	3,027	2,373	2,849
MEAN	65.4	90.9	108	77.9	94.5	97.0	99.0	131	88.5	97.6	76.5	95.0
MAX	185	223	297	174	380	263	218	475	420	449	218	405
MIN	45	48	54	49	49	70	59	67	45	42	43	41
CFSM	3.49	4.85	5.78	4.15	5.04	5.17	5.28	6.97	4.72	5.20	4.08	5.06
IN.	4.02	5.41	6.67	4.79	5.24	5.96	5.89	8.04	5.26	6.00	4.71	5.65

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2003, BY WATER YEAR (WY)

MEAN	61.1	65.5	82.5	76.3	78.9	90.5	87.2	97.4	59.5	53.1	46.5	83.3
MAX	65.4	90.9	108	77.9	94.5	97.0	99.0	131	88.5	97.6	76.5	106
(WY)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2002)
MIN	56.7	40.1	56.6	74.7	63.4	84.0	75.3	63.9	30.5	22.2	15.3	48.9
(WY)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2001)

SUMMARY STATISTICS

FOR 2002 CALENDAR YEAR

FOR 2003 WATER YEAR

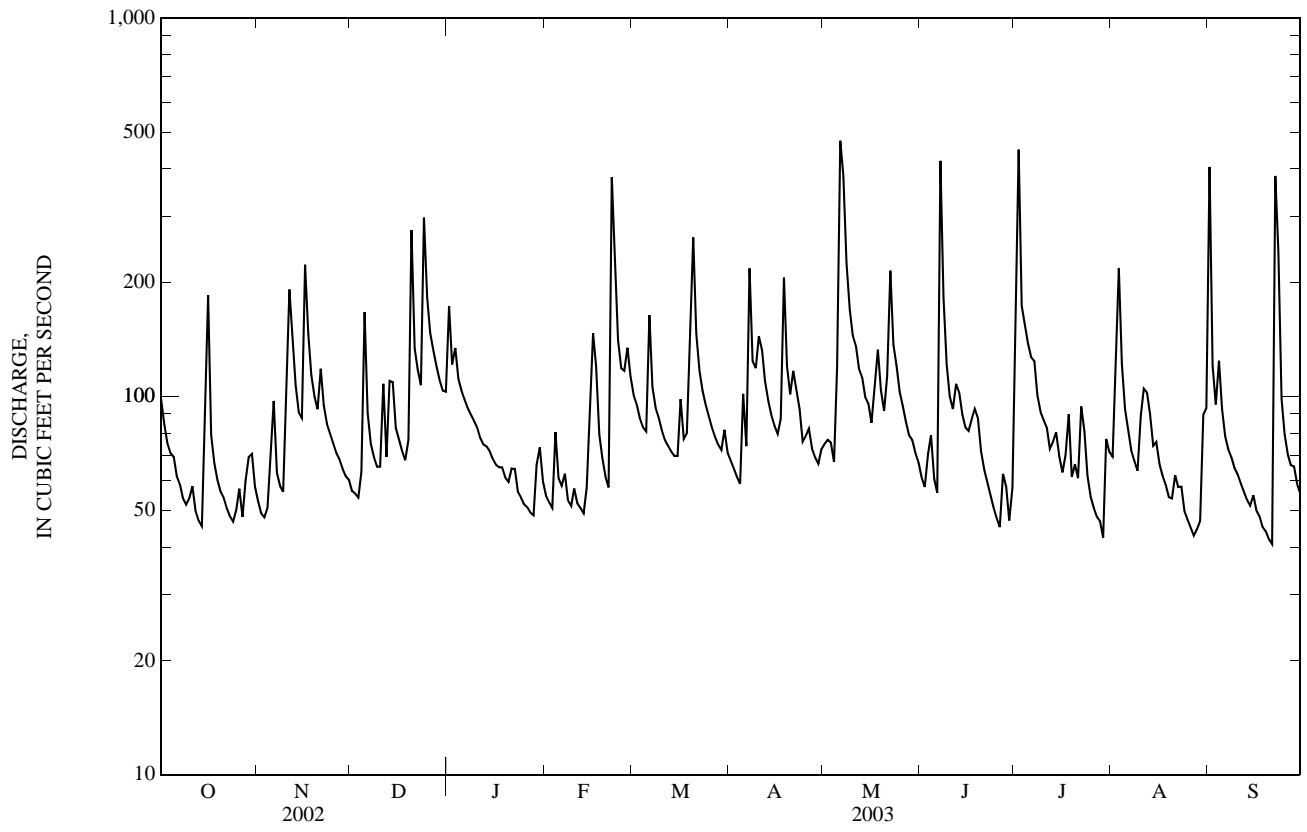
WATER YEARS 2001 - 2003

ANNUAL TOTAL	24,319.5	34,116	
ANNUAL MEAN	66.6	93.5	75.4
HIGHEST ANNUAL MEAN			93.5
LOWEST ANNUAL MEAN			57.3
HIGHEST DAILY MEAN	921	Sep 27	475
LOWEST DAILY MEAN	7.9	Aug 22	41
ANNUAL SEVEN-DAY MINIMUM	8.5	Aug 9	46
MAXIMUM PEAK FLOW			1,210
MAXIMUM PEAK STAGE			9.26
INSTANTANEOUS LOW FLOW			38
ANNUAL RUNOFF (CFSM)	3.55	4.98	6.7*
ANNUAL RUNOFF (INCHES)	48.22	67.65	54.60
10 PERCENT EXCEEDS	119	142	124
50 PERCENT EXCEEDS	58	77	65
90 PERCENT EXCEEDS	14	51	22

e Estimated.

* See REMARKS.

0350056050 CULLASAJA RIVER AT SR 1620 NEAR HIGHLANDS, NC—Continued



0350116510 CULLASAJA RIVER AT SECONDARY ROAD 1653 NEAR FRANKLIN, NC

LOCATION.--Lat 35°09'52", long 83°21'37", Macon County, Hydrologic Unit 06010202, at bridge on Secondary Road 1653, 1.8 mi southeast of Franklin.

DRAINAGE AREA.--91.1 mi²

PERIOD OF RECORD.--June 2000 to September 2003 (discontinued).

REMARKS.--Samples collected for the Upper Little Tennessee Sediment Study.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Bedload sediment discharge, tons/d (80225)	Bedload sediment, sieve diameter <.063mm percent (80226)	Bedload sediment, sieve diameter <.125mm percent (80227)	Bedload sediment, sieve diameter <.25mm percent (80228)	Bedload sediment, sieve diameter <.5 mm percent (80229)	Bedload sediment, sieve diameter <1 mm percent (80230)	Bedload sediment, sieve diameter <16 mm percent (80234)	Bedload sediment, sieve diameter <8 mm percent (80233)	Bedload sediment, sieve diameter <4 mm percent (80232)	Bedload sediment, sieve diameter <2 mm percent (80231)
MAR 20...	1309	4.8	0.0	2	24	73	90	100	98	96	94
MAY 06...	1156	8.0	0.0	2	24	78	89	100	97	94	92

03503000 LITTLE TENNESSEE RIVER AT NEEDMORE, NC

LOCATION.--Lat 35°20'11", long 83°31'37", Swain County, Hydrologic Unit 06010202, on left bank on Secondary Road 1113, 0.8 mi downstream of DeHart Creek, 0.8 mi north of Needmore, 2.4 mi downstream of Brush Creek, 6.3 mi downstream of Tellico Creek, and at mile 92.9.

DRAINAGE AREA.--436 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1943 to December 1981, October 1983 to current year. Monthly discharge only for some periods, published in WSP 1306.

GAGE.--Water-stage recorder. Datum of gage is 1,761.19 ft above NGVD of 1929 (levels by Tennessee Valley Authority). Satellite telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Considerable diurnal fluctuation caused by Porters Bend power plant at Lake Emory, 20 mi upstream. Minimum discharge for period of record also occurred Nov. 8, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of October 1898 and Aug. 30, 1940, reached stages of about 13 and 11.5 ft, respectively, from flood profiles by Tennessee Valley Authority.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	852	589	768	1,480	846	1,530	1,030	1,350	1,290	1,490	1,060	1,560
2	736	559	735	1,340	817	1,400	1,000	1,210	1,230	5,880	1,150	1,140
3	654	547	732	1,350	809	1,310	966	1,230	1,240	3,000	1,120	865
4	617	540	785	1,260	1,030	1,200	932	1,140	1,420	2,220	1,350	876
5	600	593	1,950	1,150	990	1,170	1,210	1,790	1,300	1,830	1,120	896
6	574	1,040	1,370	1,070	902	2,420	1,300	8,860	1,200	1,890	1,020	770
7	543	848	1,060	983	932	1,970	1,720	9,070	2,900	1,980	953	667
8	526	731	977	1,010	901	1,540	1,700	6,240	3,410	1,710	951	706
9	482	694	933	909	868	1,390	1,720	3,780	1,980	1,550	974	674
10	472	708	913	918	917	1,320	2,100	2,940	1,650	1,610	913	668
11	613	1,640	1,140	878	932	1,250	2,530	2,550	1,520	1,600	1,020	633
12	567	2,050	1,010	854	893	1,200	1,940	2,270	1,540	1,370	931	621
13	535	1,540	1,070	844	871	1,150	1,610	1,960	1,550	1,290	915	594
14	479	1,140	1,330	833	939	1,140	1,430	1,820	1,410	1,550	884	581
15	475	1,020	1,140	820	2,050	1,120	1,300	1,800	1,390	1,480	890	616
16	1,560	1,750	1,050	793	1,680	1,330	1,230	1,730	1,320	1,280	1,080	590
17	920	2,060	980	812	1,990	1,180	1,140	1,600	1,460	1,220	918	563
18	720	1,360	929	e800	1,470	1,150	1,560	1,750	1,560	1,390	967	549
19	640	1,130	886	781	1,270	1,200	1,450	1,650	2,210	1,200	841	526
20	594	1,030	2,410	759	1,160	2,110	1,250	1,510	1,540	1,140	795	516
21	578	1,170	1,540	784	1,120	2,000	1,370	1,590	1,380	1,100	745	511
22	561	1,180	1,230	794	3,460	1,580	1,480	3,270	1,290	1,130	765	1,160
23	531	1,020	1,080	778	3,290	1,400	1,270	3,010	1,260	1,460	782	3,530
24	522	968	2,700	e770	2,010	1,310	1,200	2,230	1,190	1,120	699	1,200
25	507	924	2,870	e763	1,620	1,220	1,170	1,920	1,170	1,020	671	917
26	522	891	1,770	755	1,480	1,160	1,250	1,760	1,150	980	632	840
27	519	879	1,440	742	1,850	1,110	1,150	1,600	1,140	949	617	771
28	527	828	1,270	739	1,820	1,070	1,080	1,500	1,180	937	624	823
29	747	821	1,150	822	---	1,050	1,040	1,440	1,170	915	642	718
30	707	796	1,050	1,030	---	1,180	1,280	1,390	1,170	910	893	666
31	651	---	1,000	913	---	1,140	---	1,340	---	1,120	838	---
TOTAL	19,531	31,046	39,268	28,534	38,917	42,300	41,408	77,300	45,220	48,321	27,760	25,747
MEAN	630	1,035	1,267	920	1,390	1,365	1,380	2,494	1,507	1,559	895	858
MAX	1,560	2,060	2,870	1,480	3,460	2,420	2,530	9,070	3,410	5,880	1,350	3,530
MIN	472	540	732	739	809	1,050	932	1,140	1,140	910	617	511
CFSM	1.45	2.37	2.91	2.11	3.19	3.13	3.17	5.72	3.46	3.58	2.05	1.97
IN.	1.67	2.65	3.35	2.43	3.32	3.61	3.53	6.60	3.86	4.12	2.37	2.20

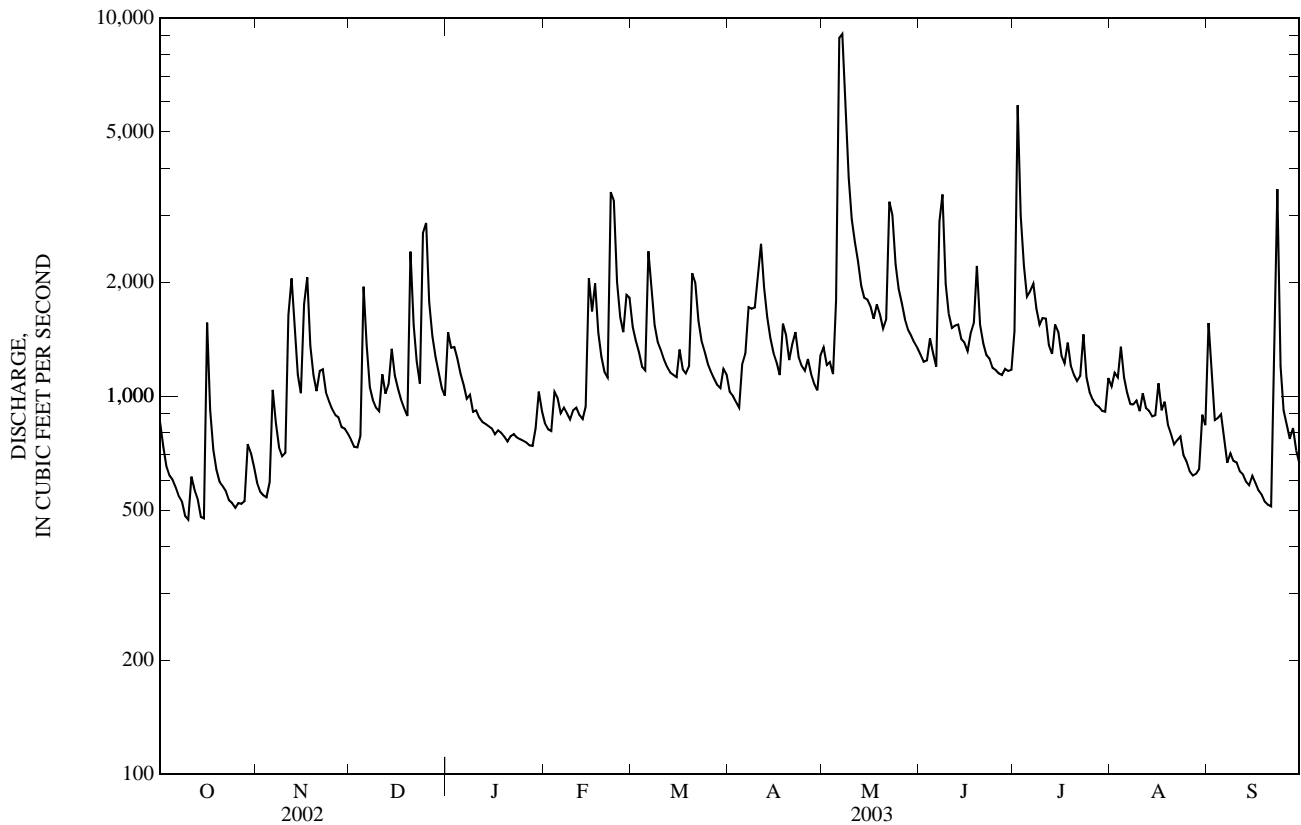
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 2003,® BY WATER YEAR (WY)

MEAN	639	794	1,030	1,347	1,563	1,718	1,520	1,186	923	700	636	580
MAX	2,557	2,169	2,231	2,570	3,718	3,372	2,746	2,573	2,061	2,136	1,670	1,605
(WY)	(1965)	(1980)	(1962)	(1946)	(1990)	(1990)	(1964)	(1976)	(1949)	(1989)	(1967)	(1950)
MIN	192	282	368	349	660	596	553	458	351	238	213	201
(WY)	(1955)	(1955)	(1966)	(1981)	(1986)	(1988)	(1986)	(2001)	(1988)	(1986)	(1986)	(1999)

03503000 LITTLE TENNESSEE RIVER AT NEEDMORE, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1944 - 2003 [®]	
ANNUAL TOTAL	291,950		465,352		1,053	
ANNUAL MEAN	800		1,275		1,565	
HIGHEST ANNUAL MEAN					495	1973
LOWEST ANNUAL MEAN					1986	
HIGHEST DAILY MEAN	5,190	Sep 27	9,070	May 7	17,200	Oct 5, 1964
LOWEST DAILY MEAN	143	Sep 12	472	Oct 10	71	Nov 7, 1954
ANNUAL SEVEN-DAY MINIMUM	165	Sep 8	518	Oct 9	142	Oct 2, 1986
MAXIMUM PEAK FLOW			10,500	May 6	22,100	Oct 5, 1964
MAXIMUM PEAK STAGE			8.06	May 6	12.87	Oct 5, 1964
INSTANTANEOUS LOW FLOW			394	Sep 7	52*	Nov 7, 1954
ANNUAL RUNOFF (CFSM)	1.83		2.92		2.42	
ANNUAL RUNOFF (INCHES)	24.91		39.70		32.83	
10 PERCENT EXCEEDS	1,360		1,950		1,910	
50 PERCENT EXCEEDS	712		1,130		810	
90 PERCENT EXCEEDS	262		619		359	

e Estimated.
[®] See PERIOD OF RECORD.
 * See REMARKS.



PRECIPITATION RECORDS

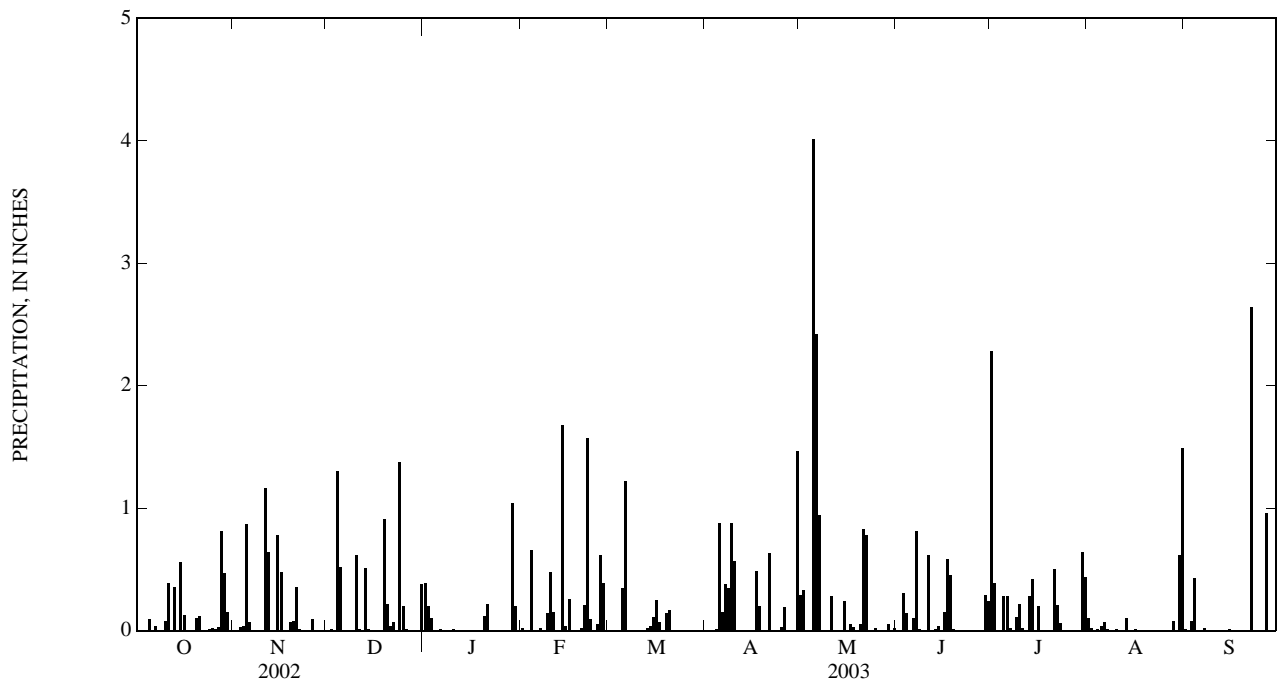
PERIOD OF RECORD.--October 1998 to current year.

GAGE.--Tipping-bucket raingage and electronic datalogger. Satellite telemetry at station.

REMARKS.--Gage is operated in cooperation with Tennessee Valley Authority. Precipitation data collected during freezing periods may not be accurately reflected in daily record; consequently, winter record is poor.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

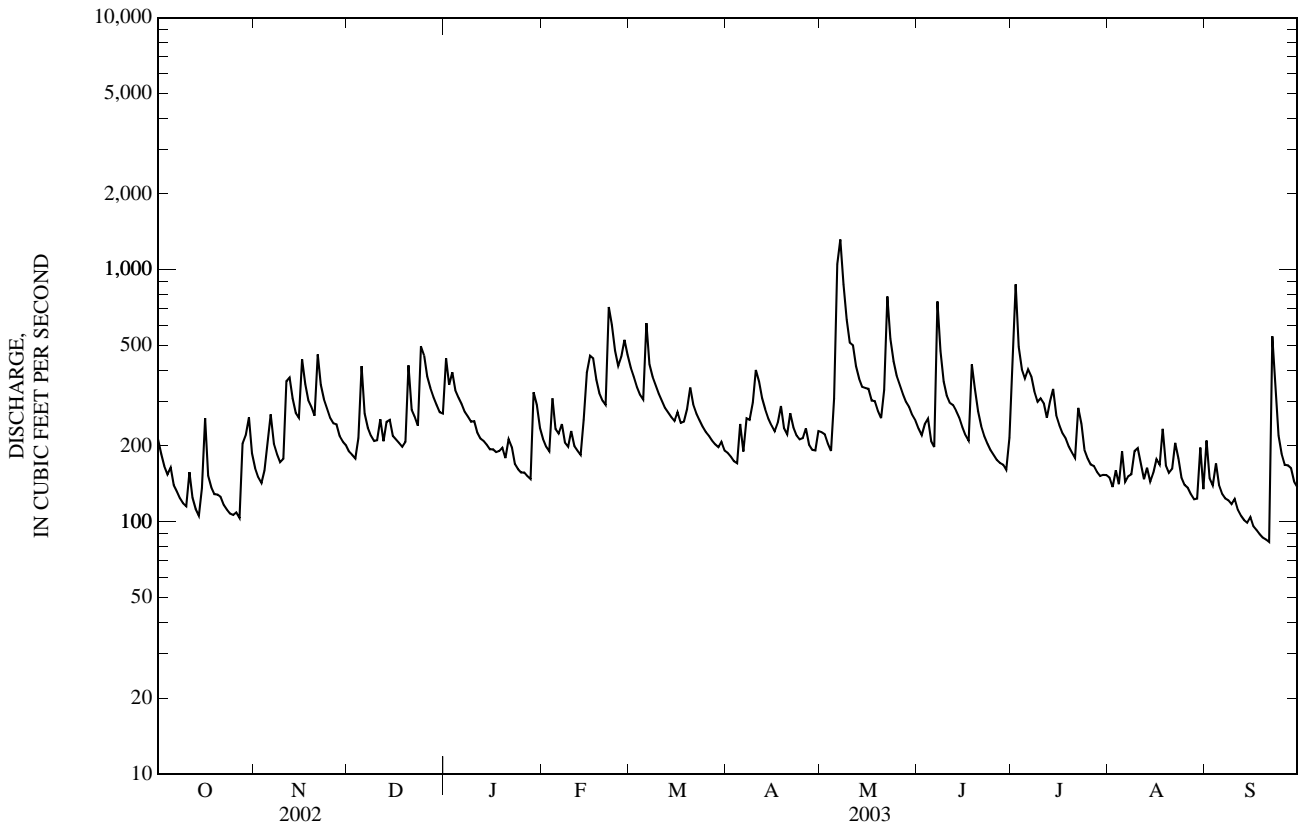
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.39	0.02	0.00	0.00	0.29	0.00	2.28	0.10	0.01
2	0.00	0.00	0.01	0.20	0.00	0.00	0.00	0.33	0.00	0.39	0.02	0.00
3	0.00	0.03	0.00	0.10	0.00	0.00	0.00	0.00	0.31	0.00	0.00	0.08
4	0.00	0.04	1.30	0.00	0.66	0.00	0.01	0.00	0.14	0.00	0.01	0.43
5	0.09	0.87	0.52	0.00	0.00	0.35	0.88	4.01	0.00	0.28	0.04	0.00
6	0.00	0.07	0.00	0.01	0.00	1.22	0.15	2.42	0.10	0.28	0.07	0.00
7	0.04	0.00	0.00	0.00	0.02	0.00	0.38	0.94	0.81	0.02	0.01	0.02
8	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.00	0.01	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.14	0.00	0.88	0.00	0.00	0.11	0.00	0.00
10	0.08	0.00	0.62	0.01	0.48	0.00	0.57	0.00	0.00	0.22	0.01	0.00
11	0.39	1.16	0.01	0.00	0.15	0.00	0.00	0.28	0.62	0.02	0.00	0.00
12	0.00	0.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	0.36	0.00	0.51	0.00	0.00	0.02	0.00	0.00	0.01	0.28	0.10	0.00
14	0.00	0.00	0.01	0.00	1.68	0.04	0.00	0.00	0.04	0.42	0.00	0.00
15	0.56	0.78	0.00	0.00	0.04	0.11	0.00	0.24	0.00	0.00	0.00	0.01
16	0.13	0.48	0.00	0.00	0.26	0.25	0.00	0.00	0.15	0.20	0.01	0.00
17	0.00	0.00	0.00	0.00	0.00	0.07	0.49	0.05	0.58	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.03	0.45	0.00	0.00	0.00
19	0.00	0.07	0.91	0.00	0.00	0.14	0.00	0.00	0.01	0.00	0.00	0.00
20	0.10	0.08	0.22	0.12	0.02	0.17	0.00	0.05	0.00	0.00	0.00	0.00
21	0.12	0.36	0.04	0.22	0.21	0.00	0.63	0.83	0.00	0.50	0.00	0.00
22	0.00	0.01	0.07	0.00	1.57	0.00	0.00	0.78	0.00	0.21	0.00	2.64
23	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.06	0.00	0.00
24	0.01	0.00	1.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.02	0.00	0.20	0.00	0.05	0.00	0.03	0.02	0.00	0.00	0.00	0.00
26	0.01	0.09	0.01	0.00	0.62	0.00	0.19	0.00	0.00	0.00	0.00	0.00
27	0.03	0.00	0.00	0.00	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.96
28	0.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00
29	0.47	0.00	0.00	1.04	---	---	0.00	0.05	0.29	0.00	0.00	0.00
30	0.15	0.00	0.00	0.20	---	---	1.47	0.00	0.24	0.64	0.62	0.00
31	0.00	---	0.38	0.00	---	0.00	---	0.02	---	0.44	1.49	---
TOTAL	3.37	4.68	6.19	2.29	6.40	---	6.23	10.34	3.76	6.35	2.56	4.15



03504000 NANTAHALA RIVER NEAR RAINBOW SPRINGS, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1941 - 2003	
ANNUAL TOTAL	66,376		93,480		203	
ANNUAL MEAN	182		256		109	
HIGHEST ANNUAL MEAN					280	1949
LOWEST ANNUAL MEAN					109	1986
HIGHEST DAILY MEAN	1,170	Sep 27	1,320	May 7	3,060	Jun 16, 1949
LOWEST DAILY MEAN	39	Sep 12	83	Sep 21	29	Nov 1, 1998
ANNUAL SEVEN-DAY MINIMUM	41	Sep 7	91	Sep 15	30	Oct 26, 1998
MAXIMUM PEAK FLOW			2,150	May 7	6,300*	Jun 16, 1949
MAXIMUM PEAK STAGE			4.87	May 7	9.70	Jun 16, 1949
INSTANTANEOUS LOW FLOW			81*	Sep 21	29*	Oct 28, 1998
ANNUAL RUNOFF (CFSM)	3.50		4.93		3.92	
ANNUAL RUNOFF (INCHES)	47.58		67.00		53.27	
10 PERCENT EXCEEDS	310		406		371	
50 PERCENT EXCEEDS	164		223		162	
90 PERCENT EXCEEDS	62		136		68	

e Estimated.
 * See REMARKS.



03512000 OCONALUFTEE RIVER AT BIRDTOWN, NC

LOCATION.--Lat 35°27'41", long 83°21'13", Swain County, Hydrologic Unit 06010203, in Cherokee Indian Reservation on left bank 1500 ft upstream from bridge on Secondary Road 1359, 0.5 mi south of Birdtown, 0.6 mi downstream of Adams Creek, 0.6 mi upstream from Goose Creek, 2.2 mi southwest of Cherokee, and at mile 3.1.

DRAINAGE AREA.--184 mi².

PERIOD OF RECORD.--July 1945 to September 1946, July 1948 to current year.

GAGE.--Water-stage recorder and crest-stage gages. Datum of gage is 1,843.30 ft above NGVD of 1929. Prior to Oct. 1, 1946, nonrecording gage at same site and datum. Satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Maximum gage height for period of record from floodmarks. Minimum discharge for period of record also occurred Nov. 9, 1987. Minimum discharge for current water year also occurred Sept. 22.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of Nov. 19, 1906, and Mar. 27, 1913, reached stages of 18 and 14.5 ft, respectively, from studies by Tennessee Valley Authority; discharge not determined.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	319	510	358	746	507	1,110	398	560	431	423	474	251
2	277	422	343	654	461	1,020	425	581	407	1,230	417	214
3	246	369	332	714	441	908	422	529	432	664	413	209
4	224	346	396	609	1,090	811	403	485	459	499	450	750
5	228	421	1,020	576	724	759	596	1,080	402	471	708	462
6	203	938	707	543	628	1,850	524	7,150	378	510	479	316
7	232	649	585	503	587	1,220	792	4,590	834	739	427	274
8	209	541	528	486	506	1,030	782	2,910	726	599	387	265
9	187	473	488	470	474	919	1,730	2,000	535	555	364	243
10	181	452	474	455	488	826	1,720	1,500	473	564	349	232
11	273	1,010	649	420	440	753	1,530	1,260	454	677	345	215
12	238	1,070	551	391	423	692	1,330	1,080	561	544	316	206
13	237	893	603	e386	401	653	1,180	950	475	515	302	197
14	209	704	645	378	517	629	1,010	861	449	535	298	190
15	209	621	563	359	1,150	589	878	800	470	638	283	210
16	350	975	530	355	1,770	644	777	783	528	500	343	186
17	312	858	499	355	1,670	580	733	694	914	497	305	177
18	255	705	472	331	1,190	546	1,020	657	1,200	447	277	170
19	232	622	473	e323	971	549	811	619	792	446	247	165
20	222	555	2,250	e328	862	620	725	583	645	390	235	161
21	220	753	1,050	400	913	577	877	647	549	562	232	156
22	211	685	860	374	3,870	532	800	792	490	923	243	748
23	194	596	725	e337	2,490	504	726	665	444	617	230	788
24	185	546	1,330	e323	1,650	481	676	594	406	483	211	356
25	186	508	1,340	e314	1,290	462	648	552	377	418	203	288
26	217	474	1,060	e300	1,180	448	627	526	354	388	198	254
27	198	486	900	e291	1,300	434	575	497	349	360	207	281
28	303	428	780	288	1,270	417	535	473	335	331	200	311
29	567	400	692	552	---	413	515	491	315	367	208	238
30	1,240	385	624	706	---	452	551	482	316	413	201	221
31	697	---	577	585	---	411	---	467	---	514	423	---
TOTAL	9,061	18,395	22,404	13,852	29,263	21,839	24,316	35,858	15,500	16,819	9,975	8,734
MEAN	292	613	723	447	1,045	704	811	1,157	517	543	322	291
MAX	1,240	1,070	2,250	746	3,870	1,850	1,730	7,150	1,200	1,230	708	788
MIN	181	346	332	288	401	411	398	467	315	331	198	156
CFSM	1.59	3.33	3.93	2.43	5.68	3.83	4.41	6.29	2.81	2.95	1.75	1.58
IN.	1.83	3.72	4.53	2.80	5.92	4.42	4.92	7.25	3.13	3.40	2.02	1.77

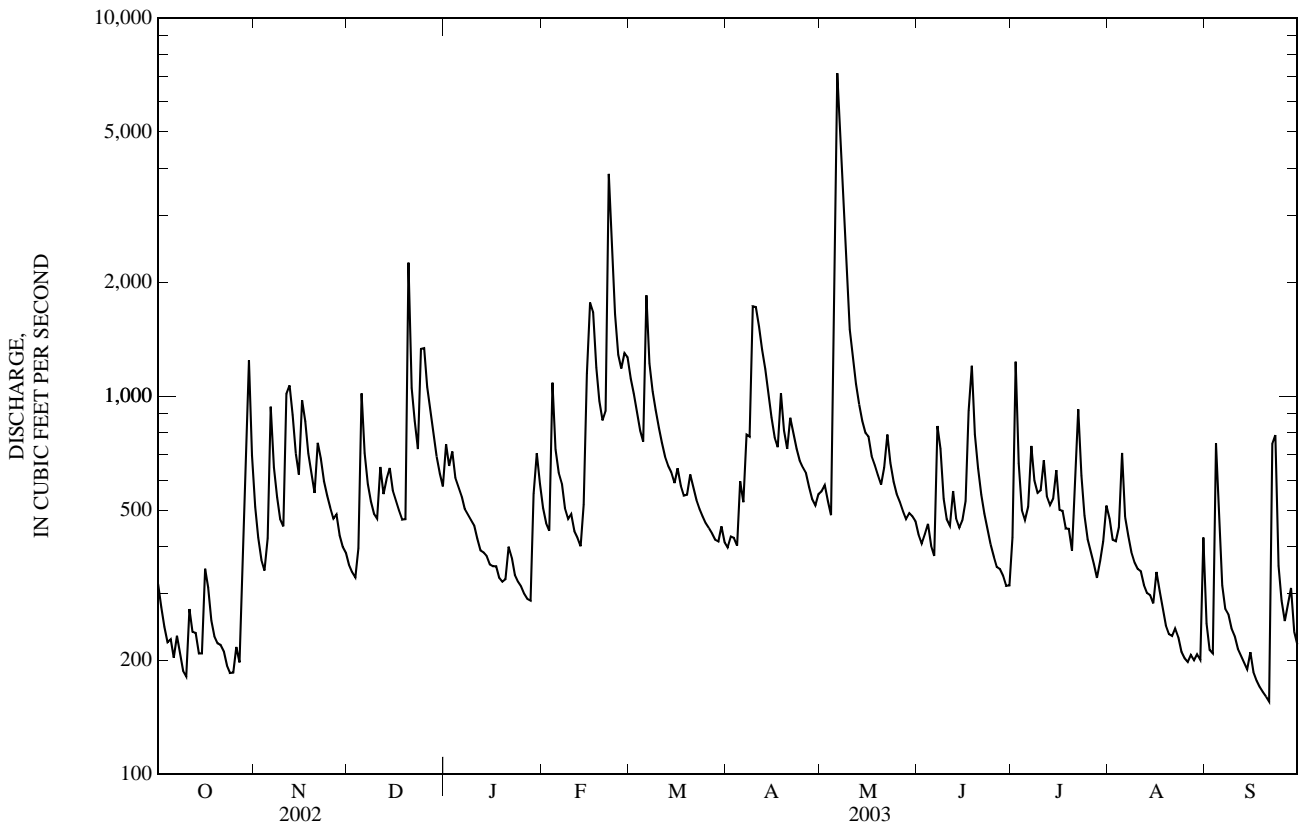
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 2003, @ BY WATER YEAR (WY)

MEAN	261	380	572	713	804	872	720	547	425	382	327	258
MAX	645	777	1,266	1,428	1,700	1,714	1,315	1,202	1,136	938	733	584
(WY)	(1990)	(1958)	(1962)	(1974)	(1990)	(1963)	(1994)	(1984)	(1989)	(1989)	(1994)	(1989)
MIN	94.5	125	162	170	392	330	277	239	175	169	152	121
(WY)	(1955)	(1988)	(1966)	(1981)	(1978)	(1988)	(1986)	(1986)	(1988)	(1952)	(2002)	(1954)

03512000 OCONALUFTEE RIVER AT BIRDTOWN, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1945 - 2003 [®]	
ANNUAL TOTAL	160,594		226,016		520	
ANNUAL MEAN	440		619		274	
HIGHEST ANNUAL MEAN					771	1994
LOWEST ANNUAL MEAN					274	1986
HIGHEST DAILY MEAN	2,380	Jan 24	7,150	May 6	8,470	Mar 12, 1963
LOWEST DAILY MEAN	88	Sep 12	156	Sep 21	80	Nov 8, 1987
ANNUAL SEVEN-DAY MINIMUM	94	Sep 7	175	Sep 15	82	Oct 16, 1954
MAXIMUM PEAK FLOW			12,300	May 6	15,900	Dec 30, 1969
MAXIMUM PEAK STAGE			10.38	May 6	12.46*	Dec 30, 1969
INSTANTANEOUS LOW FLOW			152*	Sep 21	79*	Nov 8, 1987
ANNUAL RUNOFF (CFSM)	2.39		3.37		2.83	
ANNUAL RUNOFF (INCHES)	32.47		45.69		38.41	
10 PERCENT EXCEEDS	830		1,050		945	
50 PERCENT EXCEEDS	350		497		394	
90 PERCENT EXCEEDS	147		226		167	

e Estimated.
[®] See PERIOD OF RECORD.
 * See REMARKS.



03513000 TUCKASEGEE RIVER AT BRYSON CITY, NC

LOCATION.--Lat 35°25'40", long 83°26'51", Swain County, Hydrologic Unit 06010203, on left bank 400 ft downstream of bridge on Secondary Road 1364, Everett Street, in Bryson City, 0.6 mi downstream of Deep Creek, and at mile 12.6.

DRAINAGE AREA.--655 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1897 to December 1981, October 1983 to January 1995, April 1996 to current year. Monthly discharge only for some periods, published in WSP 1306.

REVISED RECORDS.--WSP 523: 1916, 1918-20. WSP 823: Drainage area. WSP 1306: 1898-1913. WSP 1336: 1907, 1915(M), 1916-20, 1921-29(M), 1933-34(M).

GAGE.--Water-stage recorder. Datum of gage is 1,714.54 ft above NGVD of 1929 (levels by Tennessee Valley Authority). Nov. 7, 1897, to Feb. 2, 1914, and May 18, 1920, to June 27, 1927, nonrecording gage at bridge 400 ft upstream at datum of 1,716.54 ft. Feb. 3, 1914, to May 17, 1920, water-stage recorder at site 200 ft upstream at datum of 1,716.54 ft. June 28, 1927, to Sept. 30, 1960, water-stage recorder at present site at datum of 1,716.54 ft. Satellite telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Considerable diurnal fluctuation caused by power plants upstream from station. Flow regulated by Thorpe Reservoir, Cedar Cliff Lake, Bear Creek Lake, Tennessee Creek project lakes (stations 03507111, 03507131), and two small reservoirs with a combined capacity of 250 ft³/s-day. Maximum discharge for period of record, from rating curve extended above 28,000 ft³/s on basis of slope-area measurement of peak flow. Minimum discharge for period of record and minimum daily discharge for period of record also occurred Sept. 10, 1925, caused by filling reservoir on Oconaluftee River. Minimum daily discharge during normal regulation: 186 ft³/s, Oct. 13, 1925.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 1840, Mar. 6, 1867, and June 1876 reached stages of 22, 19, and 19 ft, respectively, present site and datum, from studies by Tennessee Valley Authority; discharge not determined. The flood in May 1840 exceeded all other observed floods at this location.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,620	1,700	1,130	2,260	1,280	3,220	1,460	1,750	1,660	1,960	1,620	1,230
2	1,520	1,400	1,120	2,290	1,150	2,930	1,550	1,750	1,960	4,240	1,560	1,410
3	1,450	1,100	1,170	2,140	1,100	2,520	1,520	1,690	1,720	2,660	1,220	1,080
4	1,160	1,050	1,340	1,910	2,180	2,460	1,430	1,470	1,790	2,210	1,250	1,890
5	1,110	1,050	3,070	2,170	1,800	2,310	1,930	2,980	1,580	2,040	1,480	1,560
6	841	2,090	e2,270	2,020	1,750	5,000	1,960	19,500	1,580	2,260	1,230	1,530
7	885	1,430	1,970	1,690	1,750	3,990	2,510	16,200	3,340	2,560	1,180	1,380
8	1,130	1,170	1,860	1,660	1,420	3,430	2,440	10,100	2,960	2,250	1,170	1,330
9	1,030	1,170	1,800	1,830	1,270	3,110	4,110	6,620	1,970	2,060	1,240	1,390
10	1,040	1,090	1,740	1,310	1,570	2,800	3,840	5,330	1,770	1,870	1,280	1,400
11	1,050	2,340	2,190	1,120	1,540	2,390	3,860	4,680	1,740	1,900	1,260	1,340
12	869	2,950	1,800	1,520	1,470	2,210	3,400	4,110	1,930	1,690	1,170	1,230
13	867	2,800	2,130	1,740	1,410	2,140	2,900	3,430	1,740	1,780	1,190	1,300
14	800	2,260	1,970	1,170	1,670	2,110	2,650	3,110	1,700	1,740	1,130	888
15	1,130	1,810	1,980	1,120	3,190	2,000	2,640	3,010	1,850	2,290	1,110	808
16	1,900	2,820	1,920	1,180	3,580	2,460	2,690	2,900	1,720	1,750	1,280	751
17	1,300	2,600	1,690	1,390	3,660	2,240	2,540	2,740	1,850	1,730	1,480	707
18	1,180	2,080	1,740	1,230	3,030	2,290	2,980	2,620	2,750	1,630	1,210	685
19	1,050	1,850	1,810	1,400	2,780	2,140	2,090	2,370	2,390	1,880	1,020	672
20	1,050	1,700	4,930	1,590	2,190	2,560	1,830	1,900	1,920	1,590	1,180	617
21	1,060	2,200	2,980	1,070	2,280	2,130	2,190	2,370	1,850	1,470	1,130	629
22	670	2,060	2,630	1,040	8,140	1,780	2,540	3,300	1,700	2,170	1,320	1,570
23	866	1,830	2,300	1,050	6,110	1,750	2,340	2,860	1,200	1,670	1,180	2,270
24	829	1,710	4,290	1,490	4,300	1,800	2,250	2,650	1,270	1,430	1,140	1,010
25	774	1,610	4,090	1,580	3,520	1,670	2,200	2,400	1,130	1,330	1,170	915
26	973	1,390	3,190	1,010	3,380	1,630	1,700	2,360	1,210	1,420	843	871
27	1,100	1,430	2,630	962	3,730	1,550	1,550	2,280	1,170	1,390	877	1,250
28	1,470	1,340	2,600	960	3,580	1,560	1,480	1,860	1,170	1,400	813	1,520
29	1,600	1,200	2,280	1,560	---	1,500	1,640	1,820	1,020	1,330	849	1,150
30	2,840	1,220	1,790	1,930	---	1,610	1,710	1,770	1,190	1,190	949	846
31	2,140	---	1,840	1,560	---	1,540	---	1,700	---	1,370	1,470	---
TOTAL	37,304	52,450	70,250	46,952	74,830	72,830	69,930	123,630	52,830	58,260	37,001	35,229
MEAN	1,203	1,748	2,266	1,515	2,672	2,349	2,331	3,988	1,761	1,879	1,194	1,174
MAX	2,840	2,950	4,930	2,290	8,140	5,000	4,110	19,500	3,340	4,240	1,620	2,270
MIN	670	1,050	1,120	960	1,100	1,500	1,430	1,470	1,020	1,190	813	617

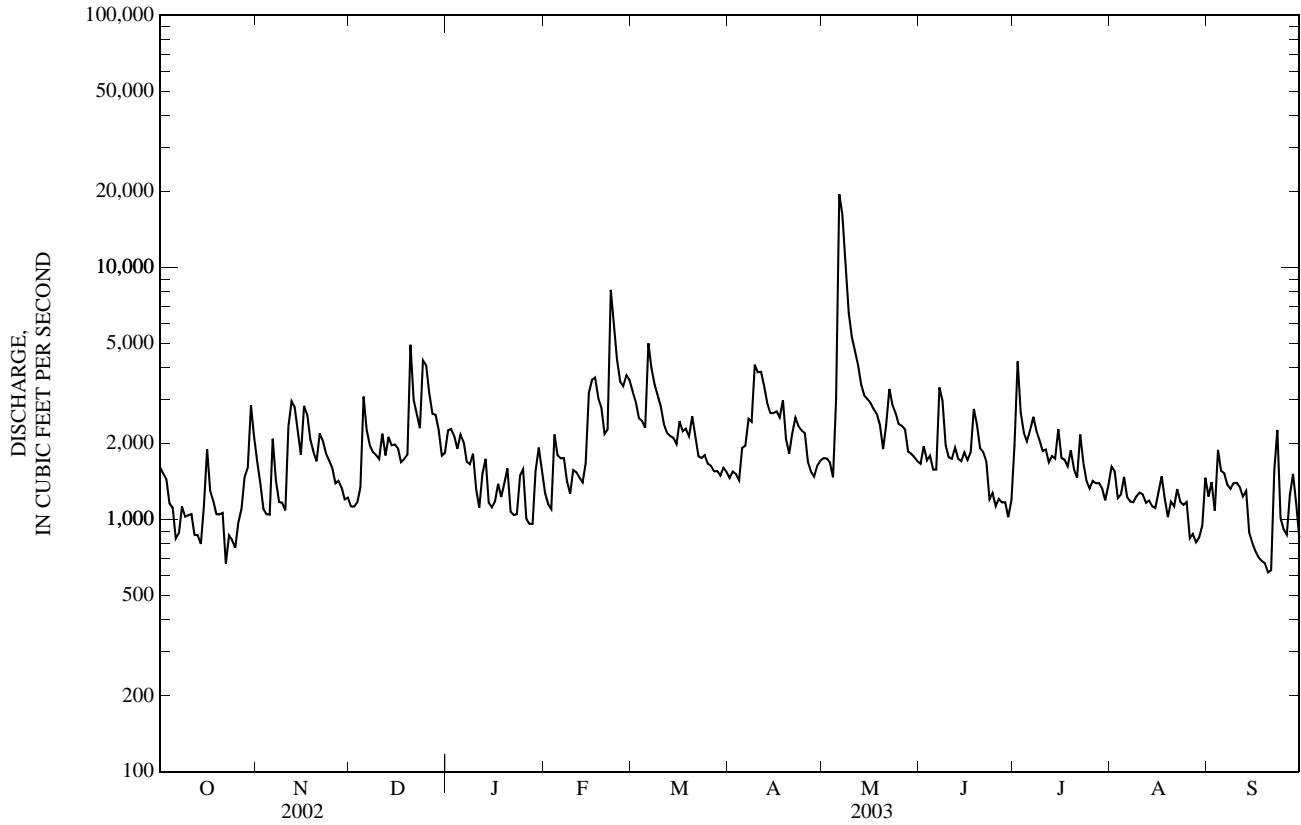
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1898 - 2003, @ BY WATER YEAR (WY)

MEAN	923	1,058	1,587	2,006	2,275	2,570	2,229	1,761	1,401	1,244	1,150	955
MAX	3,654	2,899	3,704	4,819	5,847	6,504	4,843	3,988	3,199	3,379	4,251	3,589
(WY)	(1899)	(1907)	(1933)	(1937)	(1899)	(1899)	(1920)	(2003)	(1909)	(1916)	(1901)	(1898)
MIN	347	378	457	599	736	926	841	602	531	503	220	195
(WY)	(1932)	(1932)	(1940)	(1940)	(1941)	(1988)	(1986)	(1941)	(1941)	(1925)	(1925)	(1925)

03513000 TUCKASEGEE RIVER AT BRYSON CITY, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1898 - 2003 [@]	
ANNUAL TOTAL	498,262		731,496			
ANNUAL MEAN	1,365		2,004		1,592	
HIGHEST ANNUAL MEAN					2,576	1899
LOWEST ANNUAL MEAN					879	1986
HIGHEST DAILY MEAN	5,340	Jan 25	19,500	May 6	28,000	Mar 4, 1917
LOWEST DAILY MEAN	388	Sep 6	617	Sep 20	31*	Sep 9, 1925
ANNUAL SEVEN-DAY MINIMUM	468	Sep 6	696	Sep 15	97	Sep 4, 1925
MAXIMUM PEAK FLOW			30,800	May 6	61,600*	Aug 30, 1940
MAXIMUM PEAK STAGE			13.62	May 6	15.96	Aug 30, 1940
INSTANTANEOUS LOW FLOW			492	Sep 18	27*	Sep 10, 1925
10 PERCENT EXCEEDS	2,320		3,050		2,840	
50 PERCENT EXCEEDS	1,170		1,700		1,260	
90 PERCENT EXCEEDS	582		1,050		605	

e Estimated.
[@] See PERIOD OF RECORD.
 * See REMARKS.



03513000 TUCKASEGEE RIVER AT BRYSON CITY, NC—Continued

PRECIPITATION RECORDS

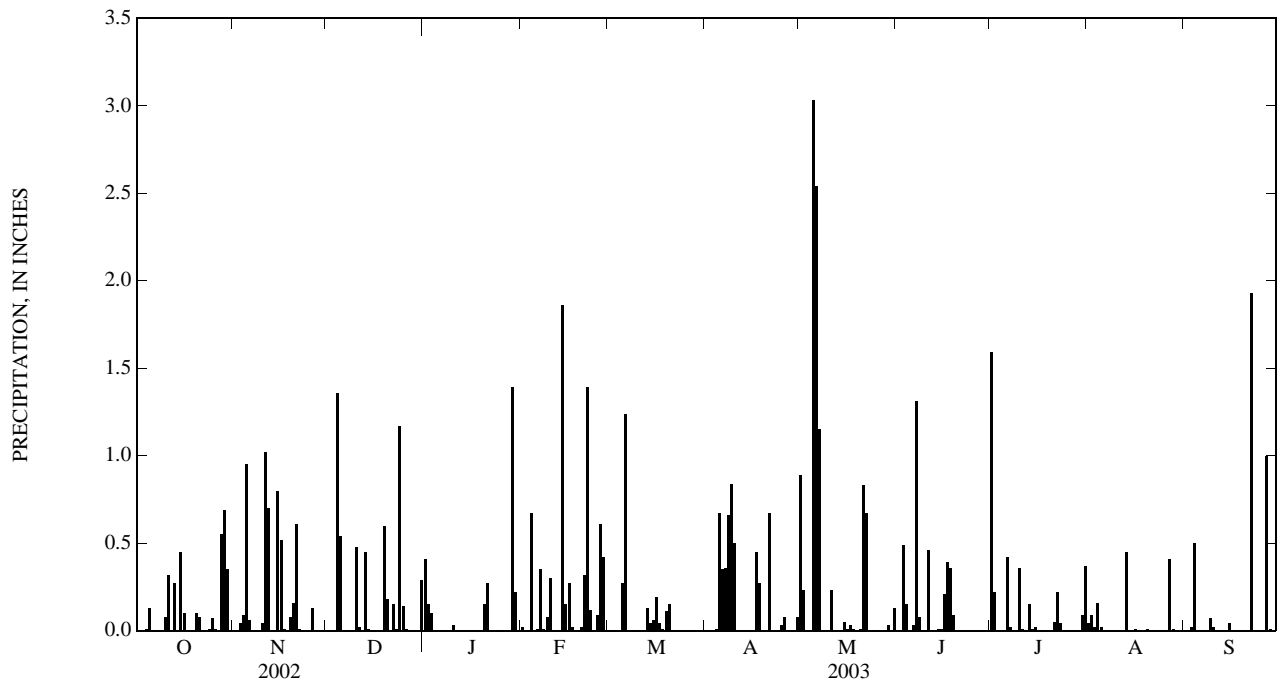
PERIOD OF RECORD.--October 1999 to current year.

GAGE.--Tipping-bucket raingage and electronic datalogger. Satellite telemetry at station.

REMARKS.--Gage is operated in cooperation with Tennessee Valley Authority and the North Carolina Department of Environment and Natural Resources. Precipitation data collected during freezing periods may not be accurately reflected in daily record; consequently, winter record is poor.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.41	0.02	0.00	0.00	0.89	0.00	1.59	0.04	0.00
2	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.23	0.00	0.22	0.09	0.00
3	0.00	0.04	0.00	0.10	0.00	0.00	0.00	0.00	0.49	0.00	0.02	0.02
4	0.01	0.09	1.36	0.00	0.67	0.00	0.01	0.00	0.15	0.00	0.16	0.50
5	0.13	0.95	0.54	0.00	0.00	0.27	0.67	3.03	0.00	0.00	0.02	0.00
6	0.00	0.06	0.00	0.00	0.01	1.24	0.35	2.54	0.03	0.42	0.00	0.00
7	0.00	0.00	0.00	0.00	0.35	0.00	0.36	1.15	1.31	0.02	0.00	0.00
8	0.00	0.00	0.00	0.00	0.01	0.00	0.66	0.00	0.08	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.08	0.00	0.84	0.00	0.00	0.00	0.00	0.07
10	0.08	0.04	0.48	0.03	0.30	0.00	0.50	0.00	0.00	0.36	0.00	0.02
11	0.32	1.02	0.02	0.00	0.00	0.00	0.00	0.23	0.46	0.01	0.00	0.00
12	0.00	0.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	0.27	0.00	0.45	0.00	0.00	0.13	0.00	0.00	0.00	0.15	0.45	0.00
14	0.00	0.00	0.01	0.00	1.86	0.04	0.00	0.00	0.01	0.01	0.00	0.00
15	0.45	0.80	0.00	0.00	0.15	0.06	0.00	0.05	0.01	0.02	0.00	0.04
16	0.10	0.52	0.00	0.00	0.27	0.19	0.00	0.01	0.21	0.00	0.01	0.00
17	0.00	0.01	0.00	0.00	0.02	0.04	0.45	0.03	0.39	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.01	0.27	0.01	0.36	0.00	0.00	0.00
19	0.00	0.08	0.60	0.00	0.00	0.11	0.00	0.00	0.09	0.00	0.00	0.00
20	0.10	0.16	0.18	0.15	0.02	0.15	0.00	0.01	0.00	0.00	0.01	0.00
21	0.08	0.61	0.00	0.27	0.32	0.00	0.67	0.83	0.00	0.05	0.00	0.00
22	0.00	0.01	0.15	0.00	1.39	0.00	0.00	0.67	0.00	0.22	0.00	1.93
23	0.00	0.00	0.01	0.00	0.12	0.00	0.00	0.00	0.00	0.04	0.00	0.00
24	0.01	0.00	1.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.07	0.00	0.14	0.00	0.09	0.00	0.03	0.00	0.00	0.00	0.00	0.00
26	0.01	0.13	0.01	0.00	0.61	0.00	0.08	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.42	0.00	0.00	0.00	0.00	0.00	0.41	1.00
28	0.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01
29	0.69	0.00	0.00	1.39	---	---	0.00	0.03	0.00	0.00	0.00	0.00
30	0.35	0.00	0.00	0.22	---	---	0.08	0.00	0.00	0.09	0.00	0.00
31	0.00	---	0.29	0.00	---	0.00	---	0.13	---	0.37	0.00	---
TOTAL	3.22	5.22	5.41	2.72	6.71	---	4.97	9.84	3.59	3.57	1.22	3.59



0351706800 CHEOAH RIVER NEAR BEAR PEN GAP NEAR TAPOCO, NC

LOCATION.--Lat 35°26'18", long 83°55'08", Graham County, Hydrologic Unit 06010204, on right bank, 93 ft downstream of U.S. Forest Service bridge number 62 on Slickrock Road, 1.7 mi upstream of mouth, and 1.2 mi east southeast of Tapoco.

DRAINAGE AREA.--206 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1999 to current year.

REVISED RECORD.--WDR NC-03-1B: 2002(M).

GAGE.--Water-stage recorder. Elevation of gage is 1,260 ft above NGVD of 1929, from topographic map. Satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Considerable regulation at times caused by Santeetlah Dam, 10.3 mi upstream. Water from Santeetlah Lake, 10.3 mi upstream, is diverted to hydro powerplant on the Little Tennessee River, which bypasses gage. Maximum discharge for period of record, from rating curve extended above 1,000 ft³/s on basis of step-backwater computation of peak flow. Minimum discharge for period of record also occurred Sept. 17, 20, 2000. Minimum discharge for current water year also occurred Oct. 5, 7, 25.

REVISIONS.--The maximum discharge for the water year 2002 has been revised to 5,800 ft³/s, Jan. 23, 2002, gage height 8.58 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	62	50	169	111	211	86	114	125	183	119	57
2	31	51	49	131	97	190	84	147	120	505	97	51
3	29	45	50	145	89	167	81	128	125	214	114	50
4	26	45	166	123	254	152	80	106	128	146	142	88
5	35	59	356	112	164	145	147	592	115	139	149	62
6	29	135	162	102	134	331	109	8,350	111	132	120	53
7	36	92	113	92	126	226	153	6,930	241	118	114	52
8	33	70	92	89	105	189	152	2,410	163	109	97	56
9	27	59	81	85	97	169	316	2,130	130	104	85	50
10	26	59	78	83	109	152	267	1,860	118	122	80	47
11	42	172	105	75	98	141	223	647	104	177	77	45
12	36	197	81	70	94	132	181	445	123	127	72	44
13	31	140	105	69	88	126	152	243	93	129	79	43
14	28	97	119	68	210	120	133	225	89	177	80	42
15	27	86	97	65	451	115	122	216	86	128	69	44
16	69	129	88	65	334	113	114	225	106	113	99	41
17	47	109	80	65	275	110	127	199	188	104	73	39
18	38	91	73	e60	209	108	185	202	179	93	67	38
19	33	86	92	e59	173	116	137	189	137	87	64	37
20	31	78	308	61	152	116	124	178	112	81	61	36
21	32	113	166	96	164	105	147	207	97	78	64	36
22	30	97	139	86	810	98	129	310	88	177	64	205
23	27	82	112	72	441	94	117	230	83	145	57	126
24	26	73	326	e67	287	91	110	195	78	105	55	68
25	26	67	257	e64	232	88	109	179	75	91	53	57
26	30	64	180	e62	232	86	107	168	72	84	52	52
27	27	71	145	60	275	84	97	156	79	82	52	61
28	45	60	123	59	247	86	92	147	74	76	73	74
29	66	57	109	182	---	94	88	146	71	74	57	54
30	151	55	99	184	---	99	105	139	76	74	60	50
31	86	---	95	133	---	90	---	132	---	82	82	---
TOTAL	1,236	2,601	4,096	2,853	6,058	4,144	4,074	27,545	3,386	4,056	2,527	1,758
MEAN	39.9	86.7	132	92.0	216	134	136	889	113	131	81.5	58.6
MAX	151	197	356	184	810	331	316	8,350	241	505	149	205
MIN	26	45	49	59	88	84	80	106	71	74	52	36

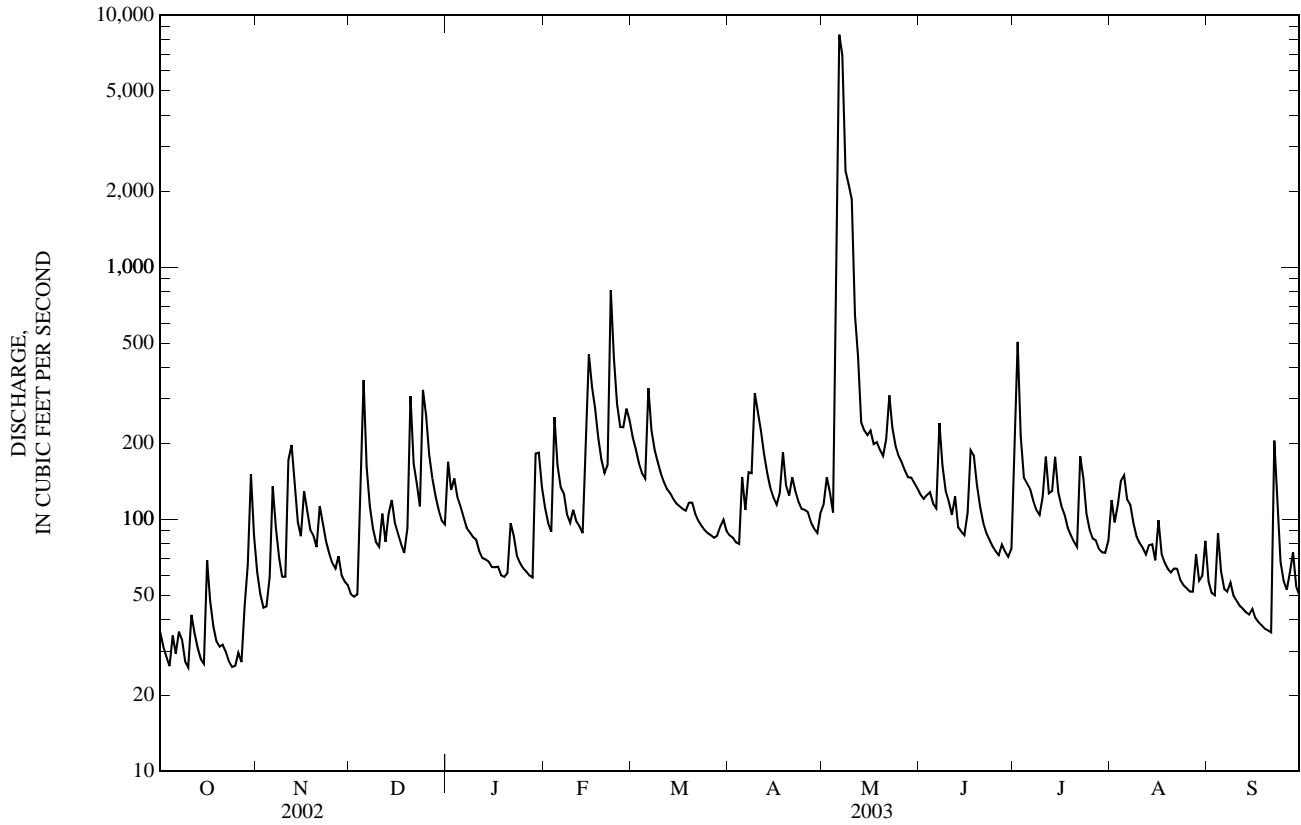
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2003, BY WATER YEAR (WY)

MEAN	24.7	44.5	67.8	203	125	111	143	317	72.8	77.0	43.7	39.6
MAX	39.9	86.7	132	589	216	149	229	889	113	131	81.5	58.6
(WY)	(2003)	(2003)	(2003)	(2002)	(2003)	(2002)	(2002)	(2003)	(2003)	(2003)	(2003)	(2003)
MIN	12.1	26.7	31.5	65.8	77.3	79.7	64.3	53.2	52.5	41.0	22.7	19.9
(WY)	(2001)	(2000)	(2000)	(2000)	(2000)	(2000)	(2001)	(2001)	(2002)	(2002)	(2002)	(2000)

0351706800 CHEOAH RIVER NEAR BEAR PEN GAP NEAR TAPOCO, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 2000 - 2003	
ANNUAL TOTAL	53,955		64,334		106	
ANNUAL MEAN	148		176		176	
HIGHEST ANNUAL MEAN					54.9	
LOWEST ANNUAL MEAN					2001	
HIGHEST DAILY MEAN	4,220	Jan 23	8,350	May 6	8,350	May 6, 2003
LOWEST DAILY MEAN	11	Sep 11	26	Oct 4	9.1	Sep 17, 2000
ANNUAL SEVEN-DAY MINIMUM	12	Sep 7	28	Oct 21	9.8	Sep 14, 2000
MAXIMUM PEAK FLOW			15,000	May 6	15,000*	May 6, 2003
MAXIMUM PEAK STAGE			13.30	May 6	13.30	May 6, 2003
INSTANTANEOUS LOW FLOW			25*	Oct 4	8.8*	Sep 16, 2000
10 PERCENT EXCEEDS	260		215		162	
50 PERCENT EXCEEDS	61		97		55	
90 PERCENT EXCEEDS	22		45		20	

* See REMARKS.
e Estimated



0351706800 CHEOAH RIVER NEAR BEAR PEN GAP NEAR TAPOCO, NC—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1999 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: October 1999 to current year.

INSTRUMENTATION.--Temperature probe since October 1999. Satellite telemetry at station.

REMARKS.--Records good. Station operated in cooperation with Tapoco, Inc.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum recorded, 30.0°C, July 30, 2002; minimum recorded, 0°C, periodically in winter months.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum recorded, 27.0°C, Aug. 26; minimum recorded, .1°C, Jan. 18, 23, 24, 27.

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	22.2	18.9	20.3	11.7	10.2	10.9	4.8	2.4	3.3	9.7	8.4	9.1
2	22.9	19.3	20.9	10.5	8.7	9.7	4.2	1.7	2.9	9.9	9.2	9.5
3	23.0	19.7	21.1	10.6	9.0	9.8	6.5	4.2	5.4	9.4	5.4	7.5
4	22.5	19.9	21.0	11.9	10.3	11.0	7.1	6.2	6.8	5.4	4.5	4.9
5	22.8	19.8	20.9	12.3	11.1	11.7	8.0	7.0	7.5	6.4	4.7	5.6
6	22.8	19.1	20.7	12.4	10.2	11.6	7.0	4.9	6.0	6.2	4.5	5.6
7	20.3	18.7	19.6	10.4	9.1	9.8	4.9	3.6	4.3	4.5	3.6	4.0
8	20.4	17.4	18.8	10.0	8.0	9.2	5.0	3.3	4.2	5.3	3.3	4.3
9	19.9	18.2	19.0	12.1	9.1	10.6	5.9	4.2	5.1	7.4	4.9	6.0
10	19.3	18.5	18.9	14.5	12.1	13.5	7.2	5.6	6.3	7.4	4.5	6.2
11	20.6	18.5	19.4	14.9	14.1	14.5	8.2	7.2	7.7	4.5	2.1	3.1
12	20.8	18.5	19.5	14.1	12.6	13.5	7.7	7.0	7.3	2.1	0.7	1.5
13	20.6	18.7	19.5	12.6	9.7	11.2	7.9	6.9	7.4	2.3	0.9	1.6
14	19.3	17.0	18.1	9.7	8.2	9.1	7.6	5.7	6.5	3.5	1.3	2.4
15	17.6	16.6	17.1	10.4	8.5	9.4	5.7	4.8	5.4	3.1	1.4	2.0
16	16.6	14.5	15.5	10.9	10.0	10.7	6.9	4.8	5.9	2.1	1.2	1.5
17	15.3	12.9	13.9	10.0	7.2	8.6	8.5	6.7	7.5	1.8	0.2	1.1
18	14.5	11.4	12.7	7.6	6.0	7.0	8.3	6.9	7.7	0.2	0.1	0.2
19	14.4	11.6	12.9	8.7	7.3	8.1	10.0	7.7	8.7	0.6	0.2	0.3
20	14.7	13.5	14.1	10.1	8.4	9.2	10.0	7.4	9.1	3.3	0.3	1.8
21	16.4	14.6	15.3	10.9	10.1	10.4	7.4	6.0	6.7	5.0	3.3	4.4
22	17.3	14.5	15.6	10.2	7.2	8.6	8.2	6.0	7.2	5.4	3.8	4.7
23	16.7	13.9	15.3	7.2	5.9	6.7	7.2	5.6	6.5	3.8	0.1	1.2
24	16.1	15.1	15.6	7.2	5.6	6.6	8.9	7.1	7.9	0.3	0.1	0.2
25	16.1	14.8	15.4	8.0	6.5	7.2	9.0	5.2	7.1	0.3	0.2	0.2
26	16.7	15.4	15.9	8.8	7.0	7.9	5.2	4.4	4.9	0.9	0.2	0.5
27	17.8	15.9	16.8	8.8	5.8	7.3	4.5	3.5	4.2	1.2	0.1	0.8
28	17.0	16.4	16.7	5.8	4.1	5.0	4.6	3.4	4.1	2.3	0.6	1.3
29	18.0	16.4	17.1	4.8	3.0	4.0	5.2	3.7	4.5	4.9	2.3	3.6
30	17.1	13.8	15.8	6.4	4.8	5.4	6.4	4.2	5.3	5.5	4.9	5.2
31	13.8	11.7	12.9	---	---	---	8.4	6.3	7.3	6.4	4.9	5.6
MONTH	23.0	11.4	17.3	14.9	3.0	9.3	10.0	1.7	6.2	9.9	0.1	3.4

0351706800 CHEOAH RIVER NEAR BEAR PEN GAP NEAR TAPOCO, NC—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	6.4	5.1	5.7	11.2	8.0	9.6	12.5	6.3	9.4	18.9	14.6	16.5
2	6.2	3.9	5.2	10.5	8.2	9.8	14.8	9.2	11.9	17.1	15.2	16.1
3	8.3	5.3	6.8	9.2	6.5	7.8	16.1	10.4	13.2	18.4	14.5	16.1
4	8.9	5.9	7.6	9.4	5.9	7.8	14.3	12.4	13.4	18.8	14.3	16.4
5	5.9	4.1	5.0	11.7	9.0	10.3	16.5	13.2	14.5	16.6	14.3	15.3
6	5.2	4.2	4.7	11.5	9.7	10.8	14.5	11.2	12.9	15.9	13.7	14.9
7	4.2	3.5	4.0	11.5	8.4	9.8	14.0	12.5	13.3	16.7	15.1	15.8
8	3.5	2.0	2.8	11.1	7.3	9.3	13.7	12.8	13.3	17.9	16.1	16.9
9	4.2	1.9	3.0	13.1	9.4	10.9	13.0	10.9	12.2	18.4	16.5	17.4
10	4.5	3.8	4.1	10.5	7.8	9.2	10.9	9.7	10.2	20.0	17.0	18.2
11	5.5	3.0	4.3	10.7	6.9	8.7	10.3	9.3	9.7	19.6	17.5	18.3
12	6.3	4.0	4.9	11.7	7.4	9.6	13.8	8.6	11.0	18.8	15.5	17.1
13	5.2	2.6	4.1	12.8	9.1	11.1	15.0	10.0	12.4	17.8	13.2	15.4
14	5.7	4.0	4.6	12.4	10.9	11.8	15.6	10.1	12.9	16.5	13.7	15.2
15	8.3	5.7	7.2	12.6	10.8	11.7	16.0	11.9	14.0	17.7	14.7	16.0
16	9.1	8.3	8.7	13.3	11.3	12.2	16.4	12.6	14.5	19.3	15.2	17.0
17	8.4	6.2	7.3	13.0	11.2	12.3	14.9	13.3	13.9	19.0	16.0	17.3
18	6.2	5.3	5.7	13.6	12.0	12.8	15.3	12.8	14.0	19.6	16.4	17.7
19	7.9	5.2	6.5	13.9	12.5	13.1	18.2	13.1	15.5	19.5	16.3	17.6
20	8.5	7.5	8.0	14.2	12.2	13.0	17.2	14.7	15.9	17.9	16.5	17.2
21	8.8	8.0	8.4	13.6	11.1	12.4	17.2	15.0	15.8	17.1	16.1	16.5
22	10.7	8.8	9.7	13.2	11.6	12.4	15.6	13.1	14.3	17.6	15.3	16.3
23	10.1	7.0	7.9	14.1	9.8	11.7	15.8	10.9	13.2	19.9	15.2	17.2
24	9.6	6.8	8.1	14.1	9.2	11.7	13.7	10.9	12.5	20.2	15.6	17.6
25	7.9	6.4	6.8	14.7	9.8	12.3	15.0	12.4	13.5	17.3	14.8	16.1
26	7.8	6.3	7.0	13.1	11.5	12.3	16.0	13.1	14.4	20.4	15.5	17.5
27	9.0	7.8	8.4	15.5	10.7	12.9	18.1	12.9	15.3	18.9	15.4	17.0
28	10.3	8.5	9.2	15.7	12.1	13.6	18.4	13.5	15.9	19.3	14.5	16.9
29	---	---	---	14.3	10.7	12.7	19.8	14.3	16.9	17.4	15.7	16.5
30	---	---	---	10.7	7.5	8.9	18.1	15.5	16.5	19.1	14.7	16.8
31	---	---	---	10.1	6.1	8.0	---	---	---	20.1	15.7	17.5
MONTH	10.7	1.9	6.3	15.7	5.9	11.0	19.8	6.3	13.5	20.4	13.2	16.7
	JUNE			JULY			AUGUST			SEPTEMBER		
1	20.3	15.6	17.6	20.0	17.4	19.0	23.3	20.2	21.5	26.4	22.0	23.9
2	19.4	14.3	16.8	18.2	16.9	17.4	23.3	19.9	21.3	24.6	21.6	23.2
3	17.7	16.3	17.0	21.7	16.8	18.9	22.6	19.8	21.0	23.9	21.4	22.7
4	19.5	16.3	17.6	23.1	18.0	20.3	23.4	19.1	21.2	23.2	21.4	22.2
5	21.0	15.7	18.1	21.9	19.1	20.3	23.0	19.0	21.1	24.4	20.0	21.8
6	20.0	16.0	18.0	20.9	18.9	19.8	22.0	19.7	20.8	23.0	20.1	21.6
7	18.7	17.4	17.9	22.1	19.1	20.3	22.2	19.1	20.4	21.6	20.1	20.8
8	21.7	16.9	18.9	24.4	19.3	21.5	23.6	18.7	20.9	21.7	18.6	20.1
9	23.0	17.4	19.8	25.0	20.2	22.2	24.3	19.3	21.6	22.5	18.2	20.2
10	22.6	16.9	19.6	22.4	19.9	21.4	22.7	19.8	21.3	23.7	19.5	21.2
11	23.0	18.3	20.4	21.5	19.0	20.0	23.0	19.5	21.2	22.4	18.9	20.5
12	21.6	18.5	19.8	23.0	18.1	20.3	23.3	19.8	21.5	23.2	19.1	21.0
13	21.3	19.0	19.9	22.7	18.8	20.4	23.3	20.4	21.7	23.6	19.0	21.1
14	21.6	18.5	19.8	22.3	18.4	20.1	25.9	20.5	22.9	21.1	19.3	19.9
15	22.6	19.1	20.7	23.2	18.7	20.7	26.3	21.8	23.9	22.7	19.0	20.5
16	21.4	19.2	20.2	22.0	19.6	20.7	25.2	20.7	22.8	22.3	17.9	20.0
17	21.9	18.3	19.6	25.0	19.8	22.0	25.8	21.2	23.3	22.8	18.1	20.2
18	18.8	17.7	18.2	24.3	20.2	22.2	26.1	21.5	23.6	22.4	18.1	20.0
19	21.7	17.8	19.4	25.3	20.7	22.7	25.7	21.0	23.3	21.8	17.2	19.4
20	23.0	18.3	20.2	25.7	20.6	23.0	25.7	21.7	23.5	22.3	17.8	20.0
21	21.7	16.0	18.7	24.3	20.6	22.4	25.1	22.1	23.4	21.6	18.7	20.1
22	22.1	15.7	18.8	21.9	19.4	20.6	26.1	21.4	23.5	20.1	17.9	19.1
23	23.4	16.9	19.9	22.5	18.7	20.3	26.9	22.0	24.2	20.4	17.1	18.4
24	23.9	17.6	20.6	22.9	17.6	20.0	26.8	22.1	24.3	19.7	16.0	17.7
25	24.6	18.9	21.6	23.6	18.1	20.7	26.8	22.1	24.3	20.3	16.5	18.3
26	23.4	19.8	21.6	23.7	19.1	21.3	27.0	22.4	24.4	20.5	17.2	18.7
27	21.7	19.8	20.5	25.2	20.1	22.3	26.2	22.3	24.2	20.0	17.7	18.6
28	22.0	18.6	20.2	25.4	20.7	22.7	24.2	21.4	22.6	18.3	15.5	17.2
29	23.8	18.7	21.1	23.7	21.0	22.2	24.2	20.9	22.4	16.6	13.4	14.8
30	21.8	19.9	20.5	24.5	20.5	22.2	24.8	22.1	23.2	16.2	12.2	14.0
31	---	---	---	22.4	20.8	21.5	24.1	21.2	22.7	---	---	---
MONTH	24.6	14.3	19.4	25.7	16.8	20.9	27.0	18.7	22.5	26.4	12.2	19.9

0351751500 CHEOAH RIVER NEAR TAPOCO, NC

LOCATION.--Lat 35°26'51", long 83°56'22", Graham County, Hydrologic Unit 06010204, on left bank, 15 ft downstream from Cheoah Power House Bridge, 12 ft east of Highway 129, 300 ft upstream of mouth, and 0.2 mi north northeast of Tapoco.

DRAINAGE AREA.--215 mi².

PERIOD OF RECORD.--October 1999 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,120 ft above NGVD of 1929, from topographic map. Satellite telemetry at station.

REMARKS.--Records good.

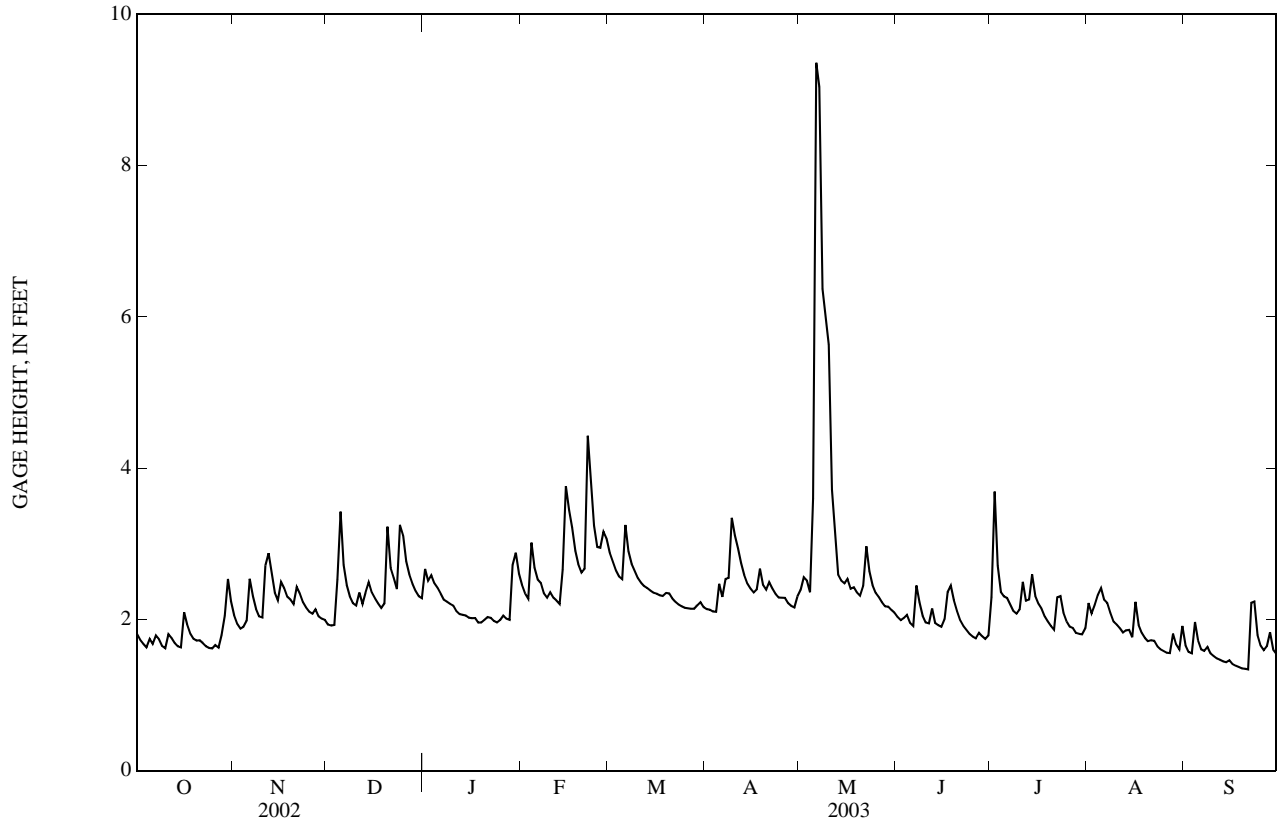
EXTREMES FOR PERIOD OF RECORD--Maximum, 12.09 ft, May 6, 2003; minimum, 1.03 ft, Sept. 16, 17, 2000.

EXTREMES FOR CURRENT YEAR.--Maximum 12.09 ft, May 6; minimum 1.32 ft, Sept. 21, 22.

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.81	2.05	1.93	2.67	2.46	2.88	2.14	2.39	2.03	2.29	2.21	1.66
2	1.73	1.94	1.92	2.51	2.34	2.77	2.13	2.56	1.99	3.69	2.08	1.57
3	1.68	1.88	1.93	2.58	2.27	2.65	2.10	2.52	2.02	2.71	2.19	1.55
4	1.63	1.90	2.53	2.48	3.02	2.57	2.10	2.36	2.06	2.36	2.32	1.97
5	1.74	1.98	3.42	2.42	2.68	2.53	2.47	3.60	1.95	2.30	2.41	1.72
6	1.68	2.54	2.72	2.34	2.53	3.25	2.30	9.36	1.91	2.28	2.26	1.60
7	1.79	2.31	2.45	2.26	2.48	2.90	2.54	9.04	2.45	2.19	2.22	1.58
8	1.74	2.14	2.30	2.23	2.34	2.73	2.55	6.37	2.23	2.11	2.09	1.63
9	1.65	2.04	2.21	2.21	2.29	2.64	3.34	5.97	2.05	2.08	1.97	1.55
10	1.62	2.03	2.18	2.18	2.36	2.55	3.11	5.63	1.96	2.13	1.93	1.52
11	1.80	2.71	2.35	2.11	2.29	2.49	2.94	3.72	1.95	2.50	1.89	1.48
12	1.76	2.88	2.21	2.07	2.25	2.44	2.75	3.18	2.15	2.25	1.83	1.47
13	1.69	2.62	2.35	2.06	2.20	2.41	2.59	2.59	1.95	2.26	1.85	1.44
14	1.64	2.35	2.49	2.05	2.66	2.38	2.47	2.51	1.92	2.59	1.86	1.43
15	1.63	2.25	2.36	2.02	3.76	2.35	2.41	2.48	1.90	2.31	1.76	1.46
16	2.10	2.50	2.28	2.02	3.45	2.34	2.36	2.54	2.00	2.21	2.23	1.41
17	1.93	2.41	2.21	2.02	3.21	2.32	2.40	2.40	2.36	2.14	1.92	1.39
18	1.81	2.30	2.15	1.96	2.91	2.31	2.67	2.42	2.44	2.04	1.82	1.37
19	1.74	2.26	2.21	1.96	2.73	2.35	2.46	2.36	2.25	1.97	1.76	1.35
20	1.72	2.20	3.23	1.99	2.62	2.34	2.39	2.31	2.11	1.91	1.71	1.35
21	1.72	2.43	2.68	2.03	2.67	2.28	2.49	2.44	1.99	1.86	1.72	1.34
22	1.69	2.34	2.55	2.02	4.43	2.23	2.41	2.97	1.91	2.29	1.72	2.22
23	1.64	2.23	2.40	1.98	3.80	2.20	2.33	2.64	1.86	2.31	1.64	2.24
24	1.62	2.16	3.25	1.96	3.24	2.17	2.29	2.45	1.81	2.09	1.61	1.79
25	1.62	2.10	3.11	1.99	2.96	2.15	2.29	2.35	1.77	1.97	1.58	1.65
26	1.66	2.08	2.77	2.05	2.95	2.15	2.28	2.30	1.75	1.90	1.56	1.59
27	1.63	2.14	2.59	2.01	3.16	2.14	2.22	2.23	1.82	1.89	1.55	1.64
28	1.79	2.04	2.47	1.99	3.07	2.14	2.18	2.17	1.78	1.82	1.81	1.83
29	2.05	2.01	2.38	2.72	---	2.19	2.16	2.17	1.74	1.81	1.67	1.60
30	2.53	1.99	2.31	2.88	---	2.23	2.30	2.13	1.79	1.80	1.60	1.54
31	2.24	---	2.28	2.60	---	2.16	---	2.09	---	1.88	1.91	---
MEAN	1.78	2.23	2.46	2.21	2.83	2.43	2.44	3.30	2.00	2.19	1.89	1.60
MAX	2.53	2.88	3.42	2.88	4.43	3.25	3.34	9.36	2.45	3.69	2.41	2.24
MIN	1.62	1.88	1.92	1.96	2.20	2.14	2.10	2.09	1.74	1.80	1.55	1.34

0351751500 CHEOAH RIVER NEAR TAPOCO, NC—Continued



03548330 BRASSTOWN CREEK NEAR BRASSTOWN, NC

LOCATION.--Lat 35°02'24", long 83°57'33", Clay County, Hydrologic Unit 06020002, on right bank 20 ft upstream from bridge on Secondary Road 1134, 0.1 mi northwest of Brasstown, and 0.8 mi above mouth.

DRAINAGE AREA.--83.1 mi².

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1944, 1947, 1953-55, 1960-64, 1988. July 2000 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,581.70 ft above NGVD of 1929. Satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Minimum discharge for current water year also occurred Oct. 15. Minimum discharge for period of record also occurred Sept. 20, 2000.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	59	65	71	152	154	253	109	237	144	342	137	100
2	55	60	69	136	135	217	107	344	138	506	110	88
3	52	58	69	151	124	191	105	196	146	226	108	84
4	49	62	76	133	190	175	105	164	147	165	106	103
5	52	82	211	125	152	167	189	275	132	146	121	91
6	48	108	127	117	141	485	150	1,690	128	158	111	82
7	50	81	106	110	201	272	167	2,540	235	201	104	81
8	48	72	96	107	164	220	164	814	182	159	98	83
9	45	67	89	105	146	196	199	442	146	136	93	79
10	45	65	90	111	157	179	251	329	133	140	101	78
11	58	140	116	100	141	168	233	335	129	162	100	83
12	51	154	96	96	131	159	189	265	134	128	92	76
13	46	122	112	94	123	152	165	225	140	181	97	72
14	44	98	119	92	159	148	149	207	131	227	93	72
15	45	91	106	90	218	145	139	203	125	170	95	76
16	103	200	99	90	183	141	134	189	121	344	160	71
17	65	159	92	90	186	144	139	175	121	288	101	69
18	56	119	87	90	194	142	177	173	231	164	93	67
19	52	108	89	86	181	141	141	163	192	140	89	64
20	51	98	184	85	156	153	132	155	144	127	90	63
21	53	197	128	94	144	142	187	219	126	118	89	62
22	50	153	115	95	587	133	164	1,170	117	201	100	262
23	47	121	104	88	340	129	145	436	112	154	87	220
24	46	105	514	e85	235	125	139	282	107	123	83	111
25	46	95	280	83	199	121	144	231	104	113	80	94
26	47	89	187	83	226	120	157	206	102	107	77	87
27	46	87	156	79	388	117	134	187	102	105	76	97
28	60	80	138	78	329	114	126	173	102	102	90	102
29	83	77	126	260	---	115	120	168	98	99	86	84
30	107	75	117	279	---	122	201	159	118	97	107	81
31	74	---	112	185	---	112	---	152	---	115	125	---
TOTAL	1,733	3,088	4,081	3,569	5,684	5,198	4,661	12,504	4,087	5,444	3,099	2,782
MEAN	55.9	103	132	115	203	168	155	403	136	176	100	92.7
MAX	107	200	514	279	587	485	251	2,540	235	506	160	262
MIN	44	58	69	78	123	112	105	152	98	97	76	62
CFSM	0.67	1.24	1.58	1.39	2.44	2.02	1.87	4.85	1.64	2.11	1.20	1.12
IN.	0.78	1.38	1.83	1.60	2.54	2.33	2.09	5.60	1.83	2.44	1.39	1.25

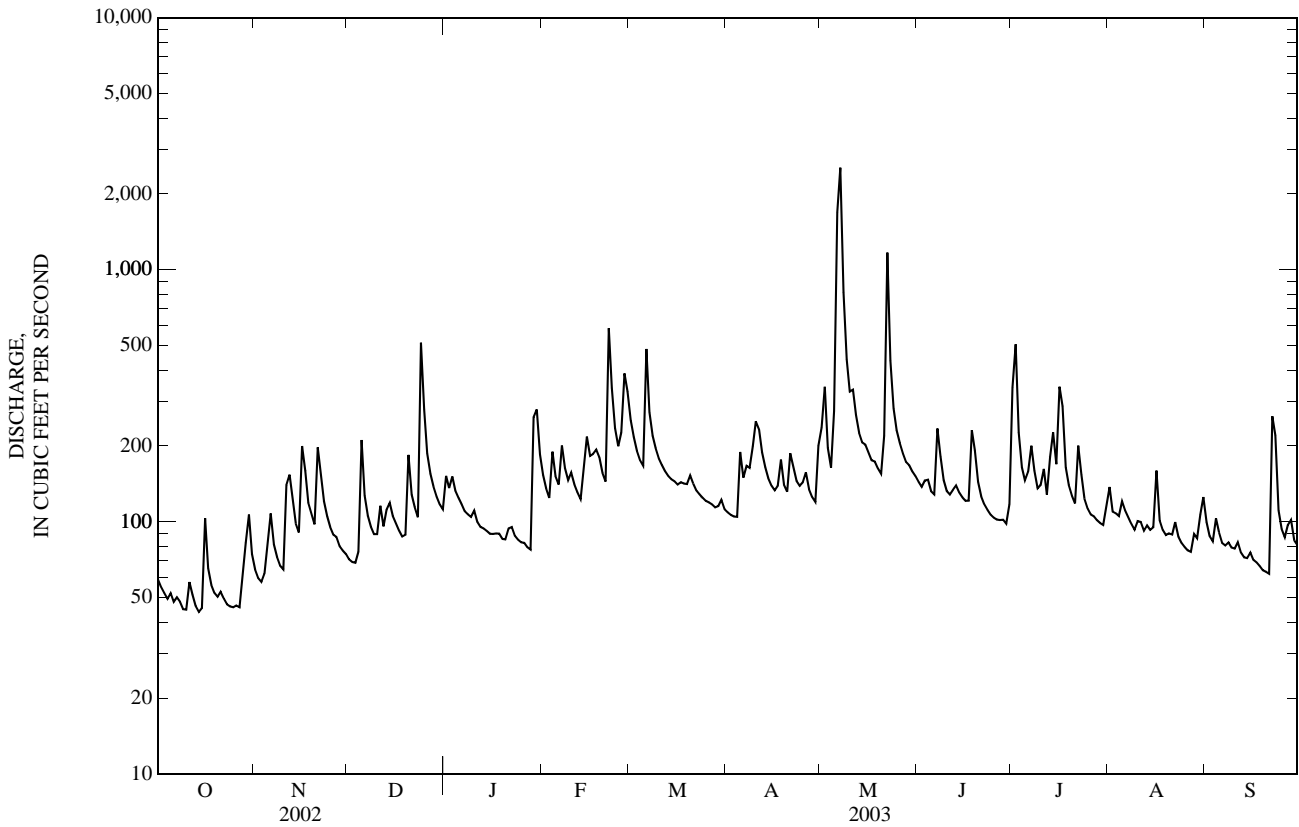
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2003, BY WATER YEAR (WY)

MEAN	43.2	65.8	78.0	120	134	138	121	204	95.5	87.9	56.4	65.1
MAX	55.9	103	132	150	203	168	155	403	136	176	100	92.7
(WY)	(2003)	(2003)	(2003)	(2002)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)
MIN	27.2	41.2	46.8	94.5	98.2	121	88.1	60.3	61.2	47.9	33.1	30.7
(WY)	(2001)	(2002)	(2001)	(2001)	(2002)	(2002)	(2001)	(2001)	(2002)	(2000)	(2000)	(2000)

03548330 BRASSTOWN CREEK NEAR BRASSTOWN, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1999 - 2003	
ANNUAL TOTAL	35,275		55,930		103	
ANNUAL MEAN	96.6		153		72.5	
HIGHEST ANNUAL MEAN					153	2003
LOWEST ANNUAL MEAN					72.5	2001
HIGHEST DAILY MEAN	943	May 4	2,540	May 7	2,540	May 7, 2003
LOWEST DAILY MEAN	23	Aug 14	44	Oct 14	18	Sep 16, 2000
ANNUAL SEVEN-DAY MINIMUM	25	Aug 9	48	Oct 9	19	Sep 14, 2000
MAXIMUM PEAK FLOW			4,570	May 7	4,570	May 7, 2003
MAXIMUM PEAK STAGE			14.94	May 7	14.94	May 7, 2003
INSTANTANEOUS LOW FLOW			43*	Oct 14	17*	Sep 16, 2000
ANNUAL RUNOFF (CFSM)	1.16		1.84		1.24	
ANNUAL RUNOFF (INCHES)	15.79		25.04		16.90	
10 PERCENT EXCEEDS	157		226		180	
50 PERCENT EXCEEDS	79		121		80	
90 PERCENT EXCEEDS	38		67		39	

e Estimated.
 * See REMARKS.



03548500 HIWASSEE RIVER ABOVE MURPHY, NC

LOCATION.--Lat 35°04'49", long 84°00'10", Cherokee County, Hydrologic Unit 06020002, on right bank on U.S. Highway 64, 600 ft upstream from Will Scott Creek, 2.0 mi southeast of Murphy, and at mile 99.1.

DRAINAGE AREA.--406 mi².

PERIOD OF RECORD.--June 1896 to August 1897 (gage heights only), October 1897 to current year. Published as "Hiwassee River at Murphy" 1897-1940. Records published for both sites August 1939 to April 1940. Monthly discharge only for some periods, published in WSP 1306.

REVISED RECORD.--WSP 583: 1899(M). WSP 973: Drainage area. WSP 1003: 1943. WSP 1306: 1901-2, 1904-17, 1919(M), 1922(M), 1924-26(M). WSP 1706: 1899, 1907.

GAGE.--Water-stage recorder. Datum of gage is 1,538.23 ft above NGVD of 1929 (levels by Tennessee Valley Authority). Prior to Jan. 30, 1921, nonrecording gage at bridge 2.8 mi downstream at 1,507.83 ft. Jan. 30, 1921, to Nov. 8, 1926, nonrecording gage 2.8 mi downstream at 1,509.83 ft. Nov. 9, 1926, to Apr. 30, 1940, water-stage recorder 2.8 mi downstream at 1,510.03 ft. Satellite telemetry at station.

REMARKS.--No estimated daily discharges. Records fair. Considerable diurnal fluctuation since 1924 caused by Mission power plant at Andrews Dam 7 mi upstream, normal regulated storage, about 75 ft³/s-day. Flow regulated since 1942 by Chatuge Lake (station 03546500) 22 mi upstream. Prior to regulation, maximum discharge: 23,100 ft³/s, Mar. 19, 1899, from rating curve extended above 5,000 ft³/s; gage height: 18.4 ft, from graph based on gage readings, site and datum then in use; minimum daily discharge: 10 ft³/s, Dec. 3, 1924, result of freezeup and filling of Lake Andrews, site and datum then in use. Minimum discharge for period of record also occurred Oct. 1, 2, 2000.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage observed is that of Mar. 19, 1899.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	868	541	1,080	1,340	798	1,260	510	769	797	1,980	1,000	653
2	736	452	1,320	1,400	685	1,080	448	867	952	3,650	862	920
3	655	422	1,090	1,600	616	1,090	439	613	941	2,320	783	1,090
4	529	432	913	1,420	1,100	1,320	437	577	1,060	1,790	1,140	938
5	502	495	1,750	1,000	1,680	1,110	620	831	929	1,640	1,220	1,180
6	497	653	1,480	948	1,870	2,380	538	5,910	899	1,670	1,340	703
7	774	597	1,270	1,230	1,970	2,120	608	7,270	1,410	2,010	1,310	327
8	811	522	1,180	1,190	1,120	1,370	629	3,140	1,850	1,670	1,270	728
9	474	467	1,240	1,310	692	1,100	875	2,240	1,700	1,590	1,070	882
10	660	483	1,180	1,290	723	1,400	1,090	2,310	1,760	1,790	723	717
11	1,300	719	1,290	1,270	892	1,100	1,090	2,240	1,740	1,840	1,100	824
12	885	802	1,270	1,060	862	1,180	872	1,810	1,400	1,410	1,090	773
13	444	788	1,220	1,100	1,380	923	736	1,800	1,590	1,450	1,210	320
14	854	916	1,380	1,130	1,310	984	672	1,780	1,220	1,830	1,110	278
15	1,170	683	1,020	1,220	1,490	813	603	1,820	1,040	1,710	1,250	559
16	943	1,170	1,340	1,170	1,220	644	580	1,940	1,220	1,690	991	1,090
17	385	1,120	1,230	1,030	1,220	775	594	1,350	1,510	1,790	833	1,000
18	328	1,120	1,180	1,420	1,010	951	818	1,040	1,710	1,590	911	1,090
19	308	877	1,350	766	872	947	655	1,290	1,700	981	1,150	1,210
20	314	759	1,510	943	777	952	610	1,060	2,150	511	1,150	790
21	849	1,260	1,430	1,060	739	930	800	1,420	1,090	897	1,160	265
22	1,100	1,440	1,380	1,140	2,110	585	752	4,160	454	1,590	1,150	1,250
23	1,150	1,370	1,280	1,240	1,710	550	678	2,910	669	964	1,080	1,720
24	1,420	1,040	2,370	1,480	1,280	796	626	2,780	1,120	901	1,090	1,470
25	1,180	941	2,110	831	1,060	799	594	2,600	1,080	916	1,120	1,240
26	477	1,310	1,530	426	1,090	515	619	2,490	1,190	800	1,230	1,420
27	296	1,220	1,570	448	1,800	1,030	546	1,740	1,250	743	1,120	1,790
28	926	1,190	1,480	440	1,730	1,340	517	1,380	736	1,080	1,240	1,650
29	1,140	1,090	1,200	1,010	---	830	499	1,100	379	1,230	1,160	1,590
30	1,130	901	1,550	1,340	---	555	594	1,040	985	1,210	941	1,120
31	682	---	1,160	974	---	694	---	1,000	---	990	628	---
TOTAL	23,787	25,780	42,353	34,226	33,806	32,123	19,649	63,277	36,531	46,233	33,432	29,587
MEAN	767	859	1,366	1,104	1,207	1,036	655	2,041	1,218	1,491	1,078	986
MAX	1,420	1,440	2,370	1,600	2,110	2,380	1,090	7,270	2,150	3,650	1,340	1,790
MIN	296	422	913	426	616	515	437	577	379	511	628	265

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 2003, [@] BY WATER YEAR (WY)

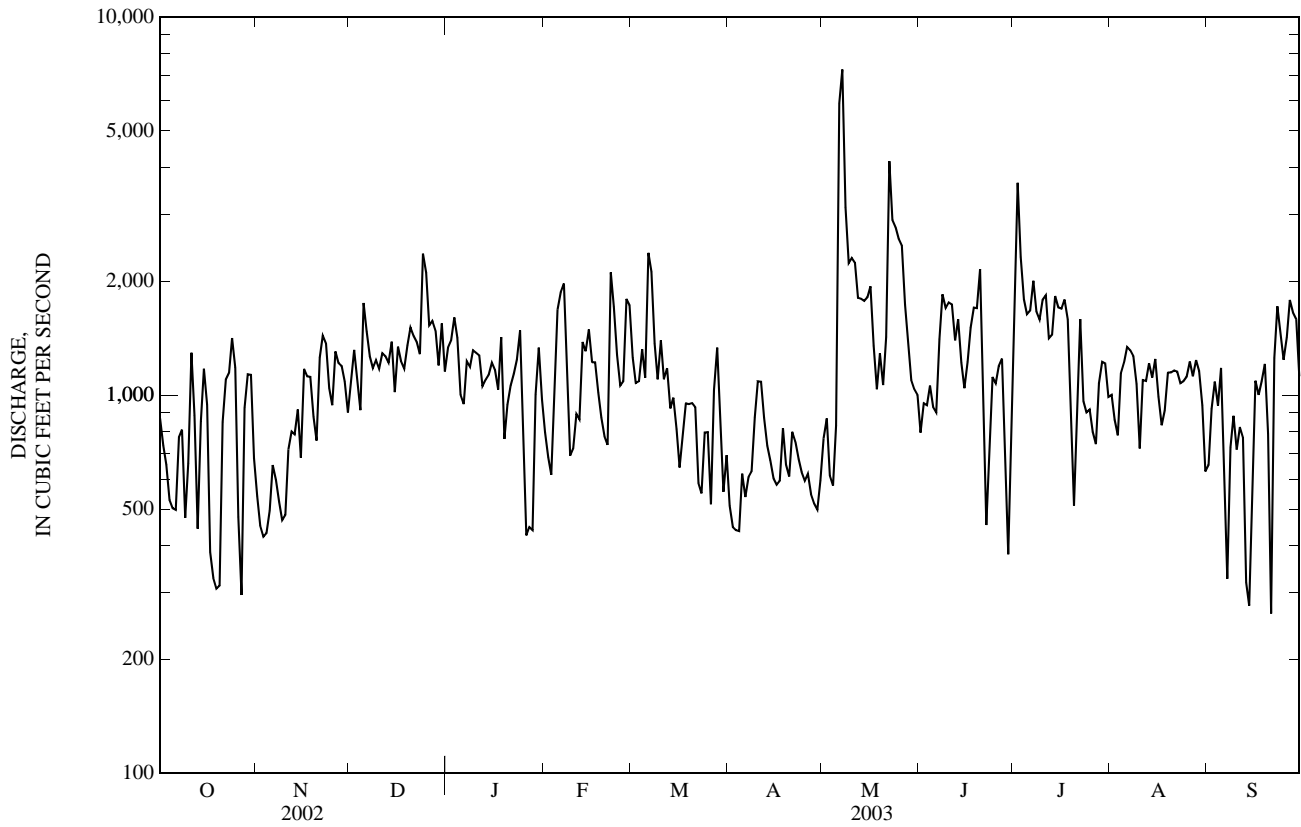
MEAN	530	589	934	1,122	1,198	1,091	1,021	937	889	885	865	722
MAX	1,530	1,654	2,532	2,462	3,076	2,784	2,155	2,041	1,852	1,517	1,674	1,628
(WY)	(1990)	(1990)	(1993)	(1974)	(1990)	(1990)	(1953)	(2003)	(1989)	(1989)	(1994)	(1943)
MIN	98.8	106	214	223	408	373	219	212	238	228	120	141
(WY)	(1953)	(1954)	(1948)	(1948)	(1954)	(1988)	(1986)	(1988)	(1953)	(1953)	(1953)	(1953)

03548500 HIWASSEE RIVER ABOVE MURPHY, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1942 - 2003 [@]	
ANNUAL TOTAL	271,573		420,784			
ANNUAL MEAN	744		1,153		897	
HIGHEST ANNUAL MEAN					1,414	1990
LOWEST ANNUAL MEAN					397	1988
HIGHEST DAILY MEAN	3,630	Jan 25	7,270	May 7	11,600	Feb 16, 1990
LOWEST DAILY MEAN	248	Sep 14	265	Sep 21	62	Oct 19, 1952
ANNUAL SEVEN-DAY MINIMUM	274	Jan 8	510	Nov 2	80	Oct 18, 1952
MAXIMUM PEAK FLOW			12,000	May 7	18,600	May 28, 1973
MAXIMUM PEAK STAGE			11.11	May 7	13.88	May 28, 1973
INSTANTANEOUS LOW FLOW			185	Oct 27	106*	Oct 2, 1993
10 PERCENT EXCEEDS	1,310		1,770		1,620	
50 PERCENT EXCEEDS	597		1,090		789	
90 PERCENT EXCEEDS	329		540		230	

[@] Regulated period only (1942-2003). See REMARKS.

* See REMARKS.



03550000 VALLEY RIVER AT TOMOTLA, NC

LOCATION.--Lat 35°08'20", long 83°58'50", Cherokee County, Hydrologic Unit 06020002, on right bank at site of former bridge on Secondary Road 1473 at Tomotla, 600 ft upstream from bridge on U.S. Highways 19 and 74, 0.2 mi upstream from Rogers Creek, 4.7 mi northeast of Murphy, and at mile 6.6.

DRAINAGE AREA.--104 mi².

PERIOD OF RECORD.--June 1904 to December 1909, January 1914 to April 1917, October 1918 to current year.

REVISED RECORDS.--WSP 503: 1905-9, 1915-17. WSP 823: Drainage area. WSP 1306: 1917(M), 1920(M), 1922(M), 1925(M), 1930(M), 1933(M). WSP 1626: 1907(M). WDR NC-97-1: 1979-1994(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,556.46 ft above NGVD of 1929 (levels by Tennessee Valley Authority). Prior to May 11, 1934, 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 flood profile by Tennessee Valley Authority, from rating curve extended above 5,800 ft³/s on basis of slope-conveyance study. Minimum discharge for period of record occurred several days in Aug. and Sept. 1925. Minimum discharge for current water year also occurred Sept. 21, 22.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of September 1898 reached a stage of 21.2 ft, from floodmark by Tennessee Valley Authority; discharge, about 20,000 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	219	328	244	523	375	683	205	260	245	681	388	150
2	186	263	231	450	323	590	199	285	230	1,580	262	126
3	165	227	220	515	292	506	194	265	250	777	242	127
4	153	240	266	451	471	451	195	237	281	488	219	240
5	156	282	882	406	399	421	273	623	227	374	212	159
6	137	418	596	363	362	1,040	236	4,650	211	441	225	134
7	141	340	453	324	433	735	306	3,460	428	474	279	128
8	128	288	383	305	365	595	301	1,730	383	374	222	126
9	117	255	337	282	330	518	502	1,060	288	322	199	120
10	112	236	320	264	353	457	595	766	247	385	187	119
11	158	605	381	241	319	417	569	673	259	439	178	112
12	136	695	320	226	298	384	443	548	328	345	198	109
13	161	598	381	219	280	359	370	467	276	318	177	105
14	132	451	425	212	463	341	323	420	263	461	183	102
15	126	430	374	203	1,100	327	296	431	246	353	215	101
16	248	951	344	201	803	326	277	525	242	517	493	95
17	176	818	314	198	700	312	293	396	294	544	246	93
18	152	585	288	e183	568	303	463	367	306	360	207	90
19	136	490	304	e177	480	303	368	338	294	310	183	87
20	130	415	855	180	425	318	327	314	259	282	172	85
21	130	866	578	223	413	295	417	423	227	258	163	84
22	123	801	469	221	1,340	278	383	799	209	318	162	412
23	115	588	397	194	1,130	266	342	622	195	357	167	323
24	109	472	1,050	e180	806	254	314	474	183	280	148	175
25	106	402	1,000	e172	651	245	303	405	173	249	140	144
26	108	358	734	e166	676	238	295	363	165	232	136	131
27	104	351	564	e164	872	231	266	327	166	219	138	152
28	323	299	468	162	826	223	249	302	161	207	133	186
29	544	277	409	539	---	224	241	291	156	198	130	135
30	856	263	366	571	---	225	254	275	283	196	135	124
31	482	---	338	446	---	211	---	260	---	366	140	---
TOTAL	6,069	13,592	14,291	8,961	15,853	12,076	9,799	22,356	7,475	12,705	6,279	4,274
MEAN	196	453	461	289	566	390	327	721	249	410	203	142
MAX	856	951	1,050	571	1,340	1,040	595	4,650	428	1,580	493	412
MIN	104	227	220	162	280	211	194	237	156	196	130	84
CFSM	1.88	4.36	4.43	2.78	5.44	3.75	3.14	6.93	2.40	3.94	1.95	1.37
IN.	2.17	4.86	5.11	3.21	5.67	4.32	3.51	8.00	2.67	4.54	2.25	1.53

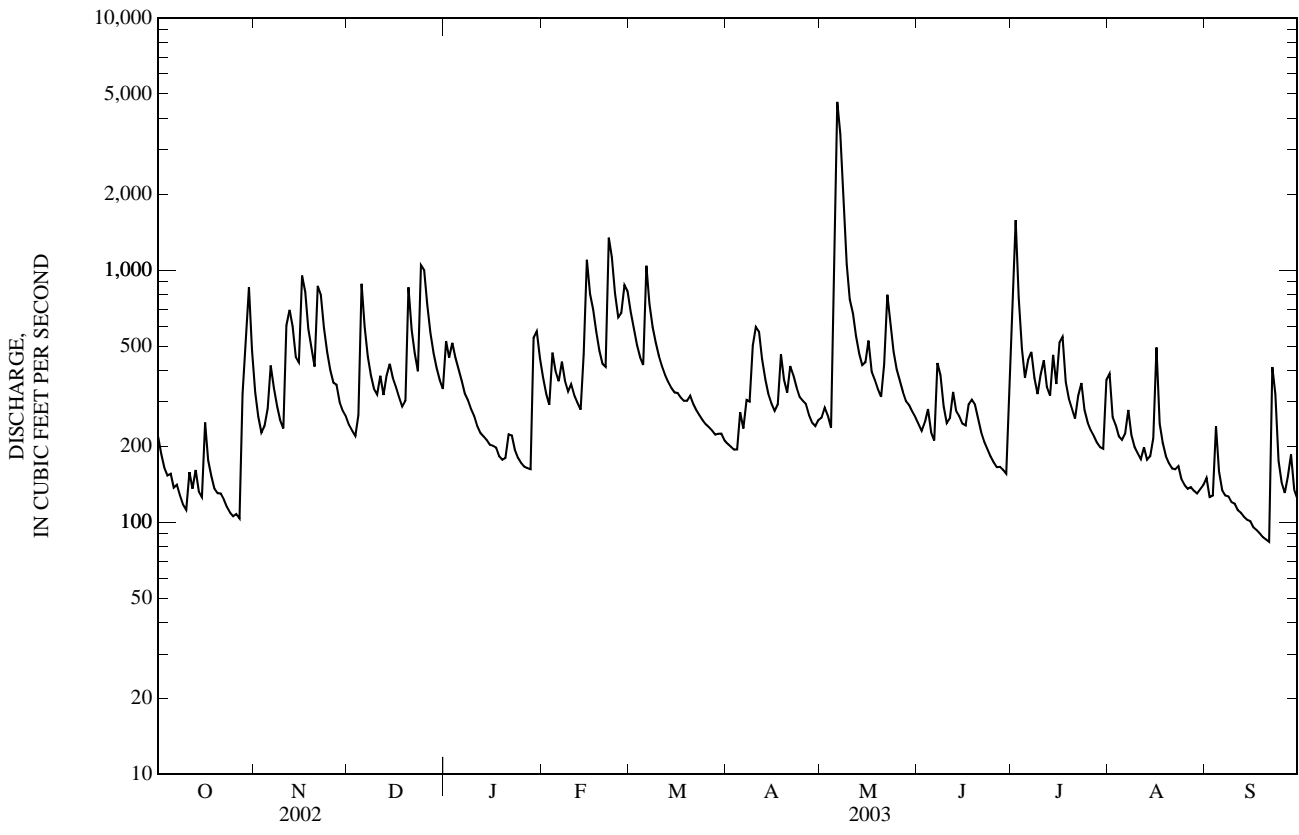
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1904 - 2003, BY WATER YEAR (WY)@

MEAN	98.9	159	288	396	453	457	366	266	192	170	136	103
MAX	442	685	1,045	936	1,022	1,379	835	755	607	443	563	434
(WY)	(1907)	(1930)	(1933)	(1974)	(1957)	(1917)	(1936)	(1929)	(1989)	(1949)	(1920)	(1928)
MIN	25.2	38.6	57.4	69.9	92.7	155	135	88.9	44.8	42.4	24.6	21.3
(WY)	(1955)	(1934)	(1934)	(1981)	(1941)	(1988)	(1986)	(1941)	(1988)	(1988)	(1925)	(1925)

03550000 VALLEY RIVER AT TOMOTLA, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1904 - 2003@	
ANNUAL TOTAL	97,005		133,730			
ANNUAL MEAN	266		366		256	
HIGHEST ANNUAL MEAN					379	1922
LOWEST ANNUAL MEAN					111	1988
HIGHEST DAILY MEAN	1,760	Jan 25	4,650	May 6	8,190	Feb 16, 1995
LOWEST DAILY MEAN	45	Aug 14	84	Sep 21	12	Aug 27, 1925
ANNUAL SEVEN-DAY MINIMUM	50	Aug 8	91	Sep 15	13	Aug 24, 1925
MAXIMUM PEAK FLOW			6,010	May 6	18,000*	Nov 19, 1906
MAXIMUM PEAK STAGE			13.06	May 6	20.50	Nov 19, 1906
INSTANTANEOUS LOW FLOW			83*	Sep 20	12*	Aug 27, 1925
ANNUAL RUNOFF (CFSM)	2.56		3.52		2.46	
ANNUAL RUNOFF (INCHES)	34.70		47.83		33.47	
10 PERCENT EXCEEDS	562		612		500	
50 PERCENT EXCEEDS	188		294		178	
90 PERCENT EXCEEDS	78		135		59	

e Estimated.
 @ See PERIOD OF RECORD.
 * See REMARKS.



LAKES AND RESERVOIRS IN OHIO RIVER BASIN

03460242 WATERVILLE LAKE

LOCATION.--Lat 35°41'41", long 83°03'02", Haywood County, Hydrologic Unit 06010206, at Waterville Dam on Pigeon River, 0.1 mi downstream from Cataloochee Creek, 5.5 mi southeast of Mount Sterling, and at river mile 38.0.

DRAINAGE AREA.--455 mi².

PERIOD OF RECORD.--October 1961 to current year. Prior to October 1979, published as Lake Walters.

GAGE.--Nonrecording gage read once daily. Datum of gage is sea level.

REMARKS.--Reservoir is formed by a single-arch, variable-radius, concrete dam with 14 taintor gates 10 ft high by 24 ft wide. Dam was completed in 1929 and filling began October 1929; water in reservoir first reached minimum pool elevation November 1929. Total capacity is 12,800 ft³/s-day at 2,258.60 ft (top of gate), of which 10,400 ft³/s-day is controlled storage above 2,175 ft, normal minimum pool elevation. Reservoir is used for power. Prior to Jan. 1, 1971, records furnished by Carolina Power and Light Co. New capacity table was put into use Jan. 1, 1971.

COOPERATION.--Gage-height record furnished by Carolina Power and Light Co.; water-level storage records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD.--Maximum content observed: 12,950 ft³/s-day, Mar. 27, 1994; elevation, 2,259.20 ft. Minimum content observed: 1,030 ft³/s-day, Sept. 16, 1980; elevation, 2,141.50 ft.

EXTREMES FOR CURRENT YEAR.--Maximum content observed: 12,850 ft³/s-day, Feb. 23, March 6, 18, April 12, and May 8; elevation, 2,258.60 ft. Minimum content observed: 9,230 ft³/s-day, Feb. 14; elevation, 2,235.50 ft.

03514500 FONTANA LAKE

LOCATION.--Lat 35°27'07", long 83°48'18", Graham County, Hydrologic Unit 06010202, at Fontana Dam on Little Tennessee River, 9.6 mi upstream from Cheoah Dam, 5.7 mi upstream from Twenty Mile Creek, 9.0 mi north of Robbinsville, and at river mile 61.0.

DRAINAGE AREA.--1,571 mi².

PERIOD OF RECORD.--October 1944 to current year. Prior to November 1944, monthend content only, published in WSP 1306.

GAGE.--Water-stage recorder. Datum of gage is sea level.

REMARKS.--Reservoir is formed by gravity, nonoverflow-type concrete dam. Spillway is equipped with four radial gates 35 ft high by 35 ft wide. Filling began Nov. 7, 1944; dam completed March 1945; water in reservoir first reached minimum pool elevation Jan. 16, 1945. Total capacity (based on 1967 resurvey) is 727,500 ft³/s-day, at 1,710.0 ft (top of gate) of which 476,900 ft³/s-day is controlled storage above 1,580.0 ft, normal minimum pool elevation. Reservoir is used for navigation, flood control, and power. New capacity table put into use Jan. 1, 1971.

COOPERATION.--Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD.--Maximum content observed: 728,600 ft³/s-day, May 28, 1973; elevation, 1,710.20 ft. Minimum content observed (after first filling): 78,300 ft³/s-day, Jan. 29, 1955; elevation, 1,472.0 ft.

EXTREMES FOR CURRENT YEAR.--Maximum content observed: 728,300 ft³/s-day, May 8; elevation, 1,710.15 ft. Minimum content observed: 393,900 ft³/s-day, Jan. 30; elevation, 1,632.01 ft.

03546500 CHATUGE LAKE

LOCATION.--Lat 35°01'01", long 83°47'28", Clay County, Hydrologic Unit 06020002, at Chatuge Dam on Hiwassee River, 2.0 mi upstream from Hyatt Mill Creek, 2.5 mi downstream from Georgia-North Carolina Stateline, 2.4 mi southeast of Hayesville, and at river mile 121.0.

DRAINAGE AREA.--189 mi².

PERIOD OF RECORD.--February 1942 to current year.

GAGE.--Water-stage recorder. Datum of gage is sea level. Prior to Aug. 4, 1942, nonrecording gage at same site and datum.

REMARKS.--Reservoir is formed by a rolled, earthfill dam with side-channel spillway equipped with flashboards. Dam completed and filling began Feb. 12, 1942; water in reservoir first reached minimum pool elevation Feb. 26, 1942. Total capacity (based on 1965 resurvey) is 121,200 ft³/s-day, at 1,928.0 ft (top of flashboard), of which 61,700 ft³/s-day is controlled storage above 1,905.0 ft, normal minimum pool elevation. Reservoir is used for navigation, flood control, and power. New capacity table put into use Jan. 1, 1971.

COOPERATION.--Records furnished by Tennessee Valley Authority. (See station 03548500.)

EXTREMES FOR PERIOD OF RECORD.--Maximum content observed: 124,200 ft³/s-day, Apr. 20, 1943; elevation, 1,927.80 ft. Minimum content observed (after first filling): 9,400 ft³/s-day, Sept. 5, 1947, and Jan. 27, 1956; elevation, 1,860.11 ft, Sept. 5, 1947.

EXTREMES FOR CURRENT YEAR.--Maximum content observed: 118,700 ft³/s-day, May 23; elevation, 1,927.28 ft. Minimum content observed: 74,400 ft³/s-day, Jan. 25; elevation, 1,911.99 ft.

03554500 HIWASSEE LAKE

LOCATION.--Lat 35°09'01", long 84°10'40", Cherokee County, Hydrologic Unit 06020002, at Hiwassee Dam on Hiwassee River, 3.9 mi upstream from Shoal Creek, 0.3 mi northwest of village of Hiwassee Dam, and at river mile 75.8.

DRAINAGE AREA.--968 mi².

PERIOD OF RECORD.--September 1939 to current year.

GAGE.--Water-stage recorder. Datum of gage is 0.63 ft below sea level.

LAKES AND RESERVOIRS IN OHIO RIVER BASIN

REMARKS--Reservoir is formed by gravity overflow concrete dam with seven taintor gates 23 ft high by 32 ft wide. Slight filling began Apr. 13, 1939, during construction; systematic filling operation began Jan. 14, 1940; dam completed February 1940; water in reservoir and first reached minimum pool elevation Feb. 23, 1940. Total capacity (based on 1965 resurvey) is 218,800 ft³/s-day at 1,526.5 ft (top of gate), of which 154,300 ft³/s-day is controlled storage above 1,450.0 ft, normal minimum pool elevation. Reservoir is used for navigation, floodcontrol, and power. New capacity table put into use Jan. 1, 1971.

COOPERATION.--Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD.--Maximum content observed: 223,400 ft³/s-day, May 28, 1973; elevation, 1,528.02 ft. Minimum content observed (after first filling): 35,800 ft³/s-day, Jan. 28, 1948; elevation, 1,413.41 ft.

EXTREMES FOR CURRENT YEAR.--Maximum content observed: 217,800 ft³/s-day, May 7; elevation, 1,526.20 ft. Minimum content observed: 95,100 ft³/s-day, Dec. 4; elevation, 1,473.39 ft.

OTHER RESERVOIRS

The following smaller reservoirs in the Tennessee River basin are described below. Records of content are not published herein.

03447832 LAKE JULIAN

LOCATION.--Lat 35°28'37", long 82°32'51", Buncombe County, Hydrologic Unit 06010105, on Pollees Creek near Skyland.

DRAINAGE AREA.--4.78 mi².

PERIOD OF RECORD.--Prior to November 1967 published as Asheville Steam-Electric Generating Plant Lake.

REMARKS.--Total capacity is 4,540 ft³/s-day, of which 2,120 ft³/s-day is controlled storage. Filling began Mar. 27, 1963, and lake reached spillway elevation, 2,160 ft, June 3, 1963. Most of initial storage and occasional, supplemental storage provided by pumped diversion from French Broad River. Lake is a cooling-water reservoir for Carolina Power and Light Co. plant.

03448959 BURNETT LAKE

LOCATION.--Lat 35°39'44", long 82°20'43", Buncombe County, Hydrologic Unit 06010105, on North Fork Swannanoa River near Black Mountain.

DRAINAGE AREA.--21.9 mi².

REMARKS.--Total capacity at crest of spillway is 11,600 ft³/s-day, of which 8,900 ft³/s-day is controlled storage. Filling began Jan. 28, 1954. Lake is part of Asheville's municipal water supply. (See station 03451000.)

03450134 BEETREE RESERVOIR

LOCATION.--Lat 35°38'27", long 82°24'04", Buncombe County, Hydrologic Unit 06010105, on Beetree Creek near Swannanoa.

DRAINAGE AREA.--7.62 mi².

REMARKS.--Total capacity is 844 ft³/s-day, of which 823 ft³/s-day is controlled storage. Dam completed December 1926, and filling began Jan. 11, 1927; water in reservoir first reached maximum pool elevation Mar. 8, 1927. Lake is part of Asheville's municipal water supply. (See station 03451000.)

03455773 LAKE LOGAN

LOCATION.--Lat 35°25'15", long 82°55'30", Haywood County, Hydrologic Unit 06010106, on West Fork Pigeon River near Canton and at river mile 7.0.

DRAINAGE AREA.--33.3 mi².

REMARKS.--Total capacity is 1,040 ft³/s-day (top of flashboards), all of which is usable. Filling began November 1931. (See station 0345577330.)

03458319 LAKE JUNALUSKA

LOCATION.--Lat 35°31'38", long 82°57'48", Haywood County, Hydrologic Unit 06010106, on Richland Creek at Lake Junaluska and at river mile 2.4.

DRAINAGE AREA.--63.6 mi².

REMARKS.--Total surface area is about 195 acres. The lake reached spillway elevation in the spring of 1913.

03500466 SEQUOYAH LAKE

LOCATION.--Lat 35°04'02", long 83°13'31", Macon County, Hydrologic Unit 06010202, on Cullasaja River near Highlands, and at river mile 18.4.

DRAINAGE AREA.--14.4 mi².

REMARKS.--Total capacity is 233 ft³/s-day (at crest of spillway), of which approximately 116 ft³/s-day is usable. Filling began in 1926.

LAKES AND RESERVOIRS IN OHIO RIVER BASIN

03504500 NANTAHALA LAKE

LOCATION.--Lat 35°11'56", long 83°39'17", Macon County, Hydrologic Unit 06010202, at Nantahala Dam on Nantahala River, 5.5 mi upstream from Whiteoak Creek, 4.2 mi southeast of Topton, and at river mile 22.8.

DRAINAGE AREA.--91.0 mi².

PERIOD OF RECORD.--January 1942 to September 1995. Prior to October 1944 monthend content only, published in WSP 1306.

REMARKS.--Reservoir is formed by rockfill dam with side-channel, gate-controlled spillway supplemented by fuse-plug dam. Dam completed and filling began Jan. 30, 1942; water in reservoir first reached minimum pool elevation Feb. 16, 1942. Total capacity (based on 1969 resurvey) is 69,200 ft³/s-day at 2,890.0 ft (top of gates), of which 63,500 ft³/s-day is controlled storage above 2,758.84 ft, normal minimum pool elevations. Reservoir is used for flood control and power. New capacity table put into use Jan. 1, 1971.

03507111; 03507131 EAST FORK LAKE AND WOLF CREEK LAKE

These two reservoirs are operated as a unit for storage of water for the Tennessee Creek Project.

EAST FORK DAM

LOCATION.--Lat 35°12'48", long 83°00'08", Jackson County, Hydrologic Unit 06010203, on Tuckasee River near Tuckasee.

DRAINAGE AREA.--24.9 mi².

REMARKS.--Total capacity of East Fork Lake is 671 ft³/s-day, of which 625 ft³/s-day is controlled storage. Filling began April 18, 1955.

WOLF CREEK DAM

LOCATION.--Lat 35°13'18", long 83°00'00", on Wolf Creek near Tuckasee.

DRAINAGE AREA.--15.2 mi².

REMARKS.--Total capacity of Wolf Creek Lake is 5,070 ft³/s-day, of which 3,850 ft³/s-day is controlled storage. Filling began Mar. 22, 1955.

03507216 BEAR CREEK LAKE

LOCATION.--Lat 35°14'29", long 83°04'22", Jackson County, Hydrologic Unit 06010203, on Tuckasee River near Tuckasee.

DRAINAGE AREA.--74.8 mi².

REMARKS.--Total capacity is 17,500 ft³/s-day, of which 2,290 ft³/s-day is controlled storage. Filling began Oct. 9, 1953.

03507289 CEDAR CLIFF LAKE

LOCATION.--Lat 35°15'12", long 83°05'58", Jackson County, Hydrologic Unit 06010203, on Tuckasee River near Tuckasee and at river mile 51.9.

DRAINAGE AREA.--80.3 mi².

REMARKS.--Total capacity is 3,200 ft³/s-day, of which 350 ft³/s-day is controlled storage. Filling began Apr. 26, 1952.

03507500 THORPE RESERVOIR

LOCATION.--Lat 35°11'46", long 83°09'09", Jackson County, Hydrologic Unit 06010203, at Thorpe Dam on West Fork Tuckasee River, 3.0 mi upstream from Shoal Creek, and 2.3 mi northwest of Glenville, and at river mile 9.7.

DRAINAGE AREA.--36.7 mi².

PERIOD OF RECORD.--February 1941 to September 1995. Prior to October 1944 monthend content only, published in WSP 1306. Prior to October 1948, published as Glenville Reservoir.

REMARKS.--Reservoir is formed by earth and rock dam and six 40 ft fuse-plug dams with side-channel spillway equipped with two taintor gates 12 ft high by 25 ft wide. Dam completed and storage began Feb. 12, 1941. Water in reservoir first reached minimum pool elevation Mar. 15, 1941. Total capacity (based on 1969 resurvey) is 35,500 ft³/s-day, at 3,100.0 ft (top of gate), of which 33,700 ft³/s-day is controlled storage above 3,023.25 ft, normal minimum pool elevation. Reservoir is used for flood control and power. New capacity table put into use Jan. 1, 1971.

03515152 CHEOAH LAKE

LOCATION.--Lat 35°26'54", long 83°56'11", Graham County, Hydrologic Unit 06010202, on Little Tennessee River at Cheoah and at river mile 51.4.

DRAINAGE AREA.--1,608 mi².

REMARKS.--Total capacity is 17,700 ft³/s-day, of which 920 ft³/s-day is controlled storage. Filling began Dec. 8, 1918.

03516500 SANTEETLAH LAKE

LOCATION.--Lat 35°22'38", long 83°52'33", Graham County, Hydrologic Unit 06010204, at Santeetlah Dam on Cheoah River, 1.0 mi downstream from Santeetlah Creek, 5.5 mi northwest of Robbinsville, and at river mile 9.3.

DRAINAGE AREA.--176 mi².

PERIOD OF RECORD.--December 1927 to September 1995. Prior to October 1946 monthend content only, published in WSP 1306.

REMARKS.--Reservoir is formed by concrete gravity and arch dam with concrete spillway controlled by six taintor gates 12 ft high by 25 ft wide. Dam completed and filling began Dec. 7, 1927. Water in reservoir first reached minimum pool elevation December 1927. Total capacity (new capacity table put into use Jan. 1, 1971) is 78,800 ft³/s-day (top of gate) at elevation 1,817.0 ft, of which 66,600 ft³/s-day is controlled storage above 1,740.08 ft, normal minimum pool elevation. Reservoir is used for power.

LAKES AND RESERVOIRS IN OHIO RIVER BASIN

03555500 APPALACHIA LAKE

LOCATION.--Lat 35°10'04", long 84°17'49", Cherokee County, Hydrologic Unit 06020002, at Appalachia Dam on Hiwassee River, 9.8 mi downstream from Hiwassee Dam, 0.1 mi upstream from North Carolina-Tennessee State line, 1.5 mi northeast of Farner, Tennessee, and at river mile 66.0.

DRAINAGE AREA.--1,018 mi².

PERIOD OF RECORD.--February 1943 to September 1995.

REMARKS.--Reservoir is formed by concrete gravity dam. Spillway is equipped with 10 radial gates. Dam completed and filling began Feb. 14, 1943; water in reservoir first reached minimum pool elevation Feb. 21, 1943. Total capacity (based on 1965 resurvey) is 29,100 ft³/s-day at 1,280.0 ft (top of gate), of which 4,400 ft³/s-day is controlled storage above 1,272.0 ft, normal minimum pool elevation. Reservoir is used for navigation, flood control, and power. New capacity table put into use Jan. 1, 1971.

LAKES AND RESERVOIRS IN OHIO RIVER BASIN

MONTHEND ELEVATION AND CONTENTS AT 2400 HOURS, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Elevation (feet)	Contents (cfs- days)	Change in contents (cfs- days)	Gage height (feet)	Contents (cfs- days)	Change in contents (cfs- days)
		03460242 Waterville Lake				03514500 Fontana Lake
Sept. 30	2,254.30	12,150	---	1,680.07	580,100	---
Oct. 31	2,251.80	11,740	-410	1,667.17	524,600	-55,500
Nov. 30	2,256.40	12,490	750	1,658.60	490,100	-34,500
Dec. 31	2,250.10	11,480	-1,010	1,646.76	445,100	-45,000
CAL YR 2002		---	-620		---	8,200
Jan. 31	2,241.70	10,170	-1,310	1,633.39	398,500	-46,600
Feb. 28	2,255.60	12,360	2,190	1,654.74	475,000	76,500
Mar. 31	2,251.90	11,760	-600	1,658.84	491,000	16,000
Apr. 30	2,251.80	11,740	-20	1,691.46	632,800	141,800
May 31	2,251.40	11,680	-60	1,704.86	700,200	67,400
June 30	2,251.40	11,680	0	1,702.47	687,800	-12,400
July 31	2,251.80	11,740	60	1,700.85	679,400	-8,400
Aug. 31	2,247.00	10,990	-750	1,688.20	617,400	-62,000
Sept. 30	2,254.90	12,240	1,250	1,679.43	577,200	-40,200
WTR YR 2003		---	90		---	-2,900
Date	Gage height (feet)	Contents (cfs- days)	Change in contents (cfs- days)	Elevation (feet)	Contents (cfs- days)	Change in contents (cfs- days)
		03546500 Chatuge Lake				03554500 Hiwasee Lake
Sep. 30	1,917.69	88,800	---	1,502.09	151,200	---
Oct. 31	1,915.07	81,900	-6,900	1,481.80	109,500	-41,700
Nov. 30	1,915.96	84,200	2,300	1,474.30	96,600	-12,900
Dec. 31	1,914.44	80,300	-3,900	1,481.82	109,500	12,900
CAL YR 2002		---	3,100		---	17,900
Jan. 31	1,912.97	76,700	-3,600	1,479.58	105,700	-3,800
Feb. 28	1,916.86	86,600	9,900	1,487.08	119,000	13,300
Mar. 31	1,919.25	93,200	6,600	1,492.08	128,700	9,700
Apr. 30	1,923.44	105,800	12,600	1,512.00	176,100	47,400
May 31	1,926.48	115,900	10,100	1,522.68	206,400	30,300
June 30	1,925.53	112,700	-3,200	1,522.08	204,500	-1,900
July 31	1,925.23	111,600	-1,100	1,520.66	200,100	-4,400
Aug. 31	1,921.88	101,000	-10,600	1,514.76	183,300	-16,800
Sept. 30	1,919.37	93,500	-7,500	1,506.74	162,600	-20,700
WTR YR 2003		---	4,700		---	11,400

MEASUREMENTS AT MISCELLANEOUS SITES

These measurements and others collected for special reasons are called measurements at miscellaneous sites. Measurements of streamflow at points other than gaging stations or partial-record stations are given in the following table.

Station Number and Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft ³ /s)
DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 2003, IN ATLANTIC SLOPE BASINS						
CAPE FEAR RIVER BASIN						
02093250 Haw River	Cape Fear River	Lat 36°12'47", long 79°57'24", Guilford County, Hydrologic Unit 03030002, on Secondary Road 2109, 0.2 mi downstream of Rocky Branch, and 3.3 mi northeast of Oak Ridge.	14.1	1971, 1973, 1984, 1986-2002	2-11-03 4-9-03 5-20-03 7-17-03	15.6 167 15.2 17.3
02093423 Little Troublesome Creek	Haw River	Lat 36°16'53", long 79°36'37", Rockingham County, Hydrologic Unit 03030002, at bridge on Secondary Road 2600, 0.8 mi west of Thompsonville, and 1 mi upstream from mouth.	13.0 ^a	1970-73, 1976-77, 1996-2002	11-27-02 2-24-03 4-23-03 7-18-03	4.73 18.4 9.56 8.76
02095091 South Buffalo Creek	Buffalo Creek	Lat 36°06'45", long 79°40'19", Guilford County, Hydrologic Unit 03030002, at bridge on Secondary Road 2821, 0.8 mi northwest of McLeansville, and 1.4 mi upstream from mouth.	43.5	1969-70, 1973, 1976-81, 1983-89, 1991-2002	2-14-03 4-14-03 7-18-03 9-11-03	42.3 80.8 45.0 44.8
02095681 Reedy Fork	Haw River	Lat 36°10'23", long 79°30'38", Alamance County, Hydrologic Unit 03030002, at bridge on State Highway 87 at Ossipee, and 0.5 mi upstream from mouth.	256	1969-70, 1973, 1976-2002	12-3-02 5-19-03 9-11-03	106 866 119
02096230 Jordan Creek	Stony Creek	Lat 36°11'20", long 79°23'43", Alamance County, Hydrologic Unit 03030002, at bridge on Secondary Road 1754, 1.0 mi south of Union Ridge, and 2.0 mi above mouth.	24.1	1949-57, 1959-62, 1966, 1997-2002	12-9-02 2-25-03 4-23-03 7-18-03	43.2 34.8 12.6 28.5
02096879 Haw River	Cape Fear River	Lat 35°53'43", long 79°15'31", Alamance County, Hydrologic Unit 03030002, at bridge on Secondary Road 1005, 0.7 mi upstream from Cane Creek, and 5.8 mi north of Terrells.	1082	1974-75, 1979-86, 1989-91, 1993, 1996-2002	11-22-02 3-14-03 5-27-03 9-8-03	1420 1130 9340 1200
02097521 Morgan Creek	New Hope River	Lat 35°51'48", long 79°00'35", Chatham County, Hydrologic Unit 03030002, at bridge on Secondary Road 1726, 2 mi upstream from Cub Creek, and 4 mi north of Farrington.	45.6	1970, 1973, 1976, 1978, 1980-2002	11-22-02 3-17-03 5-27-03 9-8-03	29.6 257 87.2 20.1
02099484 Richland Creek	Deep River	Lat 35°56'26", long 79°54'08", Guilford County, Hydrologic Unit 03030003, at bridge on Secondary Road 1147, 0.2 mi upstream from mouth, and 4 mi southwest of Groomtown.	16.2	1971, 1973-76, 1978-2002	2-19-03 7-15-03	47.1 46.5

^a Approximately.

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 2003--Continued

Station Number and Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft ³ /s)
CAPE FEAR RIVER BASIN--Continued						
02101001 Bear Creek	Deep River	Lat 35°26'26", long 79°35'20", Moore County, Hydrologic Unit 03030003, at bridge on State Highway 705, 0.5 mi north of Robbins, and 1 mi downstream of Cabin Creek.	139	1973-74, 1985-2002	11-20-02	102
					3-13-03	126
					4-23-03	107
					9-10-03	55.0
02102634 Upper Little River	Cape Fear River	Lat 35°19'33", long 78°43'26", Harnett County, Hydrologic Unit 03030004, at bridge on Secondary Road 2021, 1.5 mi upstream from mouth, and 2.8 mi west of Erwin.	217	1968, 1974-76, 1979, 1985-2002	11-26-02	207
					1-31-03	218
					4-15-03	1510
					7-18-03	707
02104279 Rockfish Creek	Cape Fear River	Lat 34°58'10", long 79°06'40", Hoke County, Hydrologic Unit 03030004, at bridge on Secondary Road 1432, 0.2 mi downstream of Puppy Creek, and 1.2 mi northeast or Arabia.	150 ^a	1973-74, 1978, 1980-91, 1997-2002	11-26-02	128
					1-31-03	163
					4-15-03	336
					7-18-03	326
PEE DEE RIVER BASIN						
02115860 Muddy Creek	Yadkin River	Lat 36°00'01", long 80°20'25", Forsyth County, Hydrologic Unit 03040101, 100 ft upstream from bridge on Secondary Road 2995, 0.2 mi downstream of Salem Creek and 1.8 mi east of Muddy Creek.	186	1964-87, 1988-93, 1996-2002	2-3-03	126
					4-7-03	1950
					6-2-03	203
02120521 Third Creek	South Yadkin River	Lat 35°46'13", long 80°37'34", Rowan County, Hydrologic Unit 03040102, at bridge on Secondary Road 1970, and 2.2 mi west of Woodleaf.	96.6	1985-2002	2-21-03	94.5
					6-24-03	104
					8-6-03	227
					9-19-03	59.5
02123500 Uwharrie River	Pee Dee River	Lat 35°25'47", long 80°01'05", Montgomery County, Hydrologic Unit 03040103, at State Highway 109, 1 mi upstream from McLeans Creek, and 3 mi south of Eldorado.	342	1938-71 [†] , 1981-2002	4-29-03	311
					8-21-03	268
					9-16-03	83.7
02123881 Rocky River	Pee Dee River	Lat 35°28'29", long 80°46'48", Mecklenburg County, Hydrologic Unit 03040105, at bridge on Secondary Road 1608, 1.3 mi upstream from West Branch, and 4.2 mi southeast of Davidson	13.4	1970-2002	12-10-02	11.1
					7-11-03	12.4
					8-27-03	17.3
					9-11-03	12.5
02124374 Irish Buffalo Creek	Rocky River	Lat 35°20'50", long 80°32'52", Cabarrus County, Hydrologic Unit 03040105, at bridge on Secondary Road 1132, 1 mi south of Faggarts Crossroads, and 1 mi upstream from mouth.	45.4	1974-84, 1986-2002	3-27-03	36.7
					6-30-03	25.1
					8-27-03	17.1

^a Approximately.[†] Operated as a continuous-record gaging station.

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 2003--Continued

Station Number and Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft ³ /s)
PEE DEE RIVER BASIN--Continued						
02124401 Rocky River	Pee Dee River	Lat 35°19'26", long 80°30'59", Cabarrus County, Hydrologic Unit 03040105, at bridge on U.S. Highway 601, 1 mi upstream from Hamby Branch, and 3 mi southeast of Faggarts Crossroads.	393	1970-71, 1973-2002	3-27-03 8-22-03 8-27-03	385 220 146
02125126 Long Creek	Rocky River	Lat 35°13'05", long 80°15'28", Stanly County, Hydrologic Unit 03040105, at bridge on Secondary Road 1917, 1 mi upstream from mouth, and 4 mi east of Oakboro.	198	1970-71, 1973-2002	3-27-03 4-29-03 5-20-03 9-5-03	196 191 141 35.6
02125482 Richardson Creek	Rocky River	Lat 35°04'16", long 80°24'25", Union County, Hydrologic Unit 03040105, at bridge on Secondary Road 1649, 1.2 mi downstream of Watson Creek, and 1.5 mi northwest of Fairfield.	153	1961-62, 1981-84, 1986-2002	2-26-03 5-8-03 8-7-03 9-25-03	78.6 130 115 34.2
02129341 Hitchcock Creek	Pee Dee River	Lat 34°55'05", long 79°47'50", Richmond County, Hydrologic Unit 03040201, downstream of dam at Cordova, and 1.2 mi upstream from mouth.	134	1970-71, 1974, 1979-84, 1986-2002	2-26-03 6-5-03 8-14-03 9-10-03	240 265 257 463
02129527 Jones Creek	Pee Dee River	Lat 34°54'15", long 79°55'51", Anson County, Hydrologic Unit 03040201, at bridge on State Highway 145, 2.9 mi downstream of Hale Creek, and 3.1 mi southwest of Pee Dee.	92.8	1985-2002	1-15-03 2-26-03 6-5-03 9-10-03	55.0 130 60.3 21.7
02129558 Marks Creek	Pee Dee River	Lat 34°51'45", long 79°43'09", Richmond County, Hydrologic Unit 03040201, at bridge on Secondary Road 1812, 1.3 mi downstream of City Lake spillway, and 2.4 mi southwest of Hamlet.	12.9	1970-71, 1979-84 1986-2001	6-5-03 8-14-03 9-10-03	18.7 27.2 31.8
02132269 Leith Creek	Little Pee Dee River	Lat 34°44'37", long 79°25'13", Scotland County, Hydrologic Unit 03040204 at bridge on Secondary Road 1609, 4 mi west of Maxton, and 5.4 mi upstream from mouth.	21.8	1973-75, 1979-92, 1995-2002	11-15-02 3-10-03 4-21-03 9-9-03	21.4 26.7 19.8 19.3

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 2003--Continued

Station Number and Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft ³ /s)
SANTEE RIVER BASIN						
02141245 Lower Creek	Catawba River	Lat 35°49'31", long 81°38'10", Burke County, Hydrologic Unit 03050102, at bridge on Secondary Road 1501, 0.8 mi downstream of Husband Creek, and 7 mi northeast of Morganton.	89.5	1949-50, ^b 1964-69, ^b 1972-73, 1975-84, 1986-92, 1993-94, [†] 1995-2002	10-23-02 4-15-03 9-25-03	48.9 172 96.6
02142722 Dutchmans Creek	Catawba River	Lat 35°20'10", long 81°00'50", Gaston County, Hydrologic Unit 03050102, at bridge on Secondary Road 1918, and 0.7 mi west of Mountain Island.	116	1986-2002	12-3-02 4-23-03 7-18-03	33.5 209 132
02143027 Henry Fork	South Fork Catawba River	Lat 35°39'27", long 81°18'33", Catawba County, Hydrologic Unit 03050102, at bridge on Secondary Road 1143, 1.7 mi upstream from mouth and 2.5 mi northwest of Startown.	110	1970-71, 1973-74, 1978-80, 1996-2002	10-25-02 9-26-03	56.6 118
02143069 South Fork Catawba River	Catawba River	Lat 35°37'58", long 81°18'20", Catawba County, bridge on State Highway 10, 1 mile downstream from Henry Fork, and 2.2 miles west of Startown.	210	1974-77, 1979-88, 1991-93, 1997-2002	10-25-02 9-26-03	118 234
02143260 Clark Creek	South Fork Catawba River	Lat 35°28'30", long 81°16'00", Lincoln County, Hydrologic Unit 03050102, at bridge on Secondary Road 1008 at Lincolnton, and 0.2 mi upstream from mouth.	91.2	1947, 1949-57, 1962-64, 1970-72, 1975, 1978-2002	10-24-02 2-13-03 3-31-03 7-10-03 9-17-03	31.3 66.7 326 232 70.3
02145640 Crowders Creek	Catawba River	Lat 35°08'15", long 81°08'15", York County, South Carolina, Hydrologic Unit 03050101, at bridge on Ridge Road, 3.4 mi upstream from Beaver Dam Creek, and 3.2 mi east-southeast of Bowling Green, South Carolina.	89	1970-77, 1979-91, 1996-2002	11-13-02 3-5-03 5-9-03 8-5-03	97.1 92.5 120 608
02146800 Sugar Creek	Catawba River	Lat 35°00'21", long 80°54'09", York County, Hydrologic Unit 03050103, at bridge on State Highway 160, 0.7 mi downstream from Clems Branch, and 2.6 mi east of Fort Mill, S.C.	262	1969, 1974-78 [†] , 1982-2002	4-17-03 5-8-03 8-5-03 9-16-03	118 620 3240 237

^b Baseflow.[†] Operated as a continuous-record gaging station.

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 2003--Continued

Station Number and Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft ³ /s)
SANTEE RIVER BASIN--Continued						
02152596 First Broad River	Broad River	Lat 35°13'03", long 81°36'28", Cleveland County, Hydrologic Unit 03050105, at bridge on Secondary Road 1140, 3 mi upstream from mouth, and 4.8 mi northwest of Earl.	296	1968-77, 1980-2002	11-17-02 9-30-03	165 360
02153456 Buffalo Creek	Broad River	Lat 35°10'20", long 81°31'02", Cleveland County, Hydrologic Unit 03050105, at bridge on State Highway 198, 0.1 mi upstream from North Carolina-South Carolina State line, and 4 mi west of Grover.	161	1968-77, 1979-2002	11-7-02 4-16-03 9-30-03	47.8 292 146
SAVANNAH RIVER BASIN						
02184242 Horse- pasture River	Toxaway River	Lat 35°05'33", long 82°58'04", Transylvania County, Hydrologic Unit 03060101, at bridge on State Highway 281, and 4 mi southwest of Lake Toxaway.	24.1	1985-2002	10-23-02 3-10-03 7-1-03 9-10-03	59.3 96.4 87.2 74.3
KANAWA RIVER BASIN						
03160271 South Fork New River	New River	Lat 36°13'14", long 81°38'25", Watauga County, Hydrologic Unit 05050001, at bridge on U.S. Highway 421, and 2 mi east of Boone.	34.8	1925, 1955-56, 1960, 1962, 1974-2002	10-22-02 2-24-03 6-2-03 8-14-03	58.6 243 77.7 139
03162500 North Fork New River	New River	Lat 36°30'14", long 81°23'25", Ashe County, Hydrologic Unit 05050001, 0.2 mi downstream of bridge on State Highway 16 at Crumpler, and 6 mi upstream from South Fork.	277	1930-58 [†] , 1977, 1981-2002	12-03-02 4-23-03 7-16-03 9-10-03	278 837 514 247
TENNESSEE RIVER BASIN						
03441440 Little River	French Broad River	Lat 35°11'32", long 82°36'49", Transylvania County, Hydrologic Unit 06010105, above High Falls, 0.2 mi upstream from Grassy Creek, 1.0 mi downstream from Reasonover Creek, 3.8 mi northeast of Cedar Mountain.	26.8	1963-1990 [†] , 1995-99 2001-2002	10-31-02 3-11-03 7-1-03 9-11-03	65.2 93.6 75.7 76.7

[†] Operated as a continuous-record gaging station.

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 2003--Continued

Station Number and Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft ³ /s)
TENNESSEE RIVER BASIN--Continued						
03446569 Mud Creek	French Broad River	Lat 35°21'10", long 82°27'51", Henderson County, Hydrologic Unit 06010105, at bridge on Secondary Road 1508, 0.2 mi downstream of Clear Creek, and 0.6 mi northeast of Balfour.	97.4	1968-74, 1977, 1992-2002	10-28-02	75.0
					11-22-02	139
					11-26-02	105
					3-3-03	166
0344776625 French Broad River	Tennessee River	Lat 35°27'11", long 82°33'00", Buncombe County, Hydrologic Unit 06010105, at Secondary Road 3495 and 2.1 mi southwest of Arden.	652	1993-2002	10-30-02	1120
					11-26-02	1240
					3-13-03	1710
03457124 Pigeon River	French Broad River	Lat 35°32'05", long 82°54'41", Haywood County, Hydrologic Unit 06010106, at bridge on Secondary Road 1818 at Clyde, and 0.2 mi down- stream of Chambers Branch.	162	1969-78, 1980-2002	10-17-02	287
					11-21-02	510
					3-12-03	477
					6-19-03	396
03458121 Richland Creek	Pigeon River	Lat 35°30'30", long 82°58'19", Haywood County, Hydrologic Unit 06010106, at bridge on Secondary Road 1184, 0.8 mi upstream from Raccoon Creek, and 1.5 mi northeast of Waynesville.	48.0	1981-2002	10-17-02	53.0
					11-21-02	193
					3-12-03	157
					6-19-03	102
03461976 North Toe River	Nolichucky River	Lat 35°58'51", long 82°00'59", Avery County, Hydrologic Unit 06010108, at bridge on U.S. Highway 19E, 0.1 mi downstream of Jones Creek, 0.7 mi north of Ingalls, and at mile 50.9.	74.1	1969-71, 1973-74, 1976-2002	10-22-02	80.2
					11-25-02	142
					3-10-03	212
					8-14-03	141
03463021 North Toe River	Nolichucky River	Lat 35°55'46", long 82°06'57", Mitchell County, Hydrologic Unit 06010108, at bridge on Secondary Road 1162 at Penland, 0.4 mi down- stream of Bear Creek, and at mile 27.6	145	1969-70, 1972-75, 1978, 1982-2002	10-23-02	122
					11-25-02	210
					3-10-03	362
					9-10-03	146
03464000 Cane River	Nolichucky River	Lat 36°00'52", long 82°19'40", Yancey County, Hydrologic Unit 06010108, 1.3 mi upstream from North Toe River, and 1.5 mi east of Sioux.	157	1933-71 [†] , 1974-78, 1980-2002	10-23-02	93.8
					3-14-03	331
					6-17-03	256
					9-10-03	108
03478819 Watauga River	South Fork Holston River	Lat 36°11'39", long 81°44'45", Watauga County, Hydrologic Unit 06010103, at bridge on State Highway 105, 300 ft upstream from Laurel Fork, and 1.4 mi north of Shulls Mills.	26.6	1971-73, 1975, 1986-2002	10-22-02	45.2
					2-24-03	183
					6-2-03	58.1
					8-14-03	65.8

[†] Operated as a continuous-record gaging station.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 2003--Continued

Station Number and Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements Date	Discharge (ft ³ /s)
TENNESSEE RIVER BASIN--Continued						
03500466 Cullasaja River	Little Tennessee River	Lat 35°04'02", long 83°13'31", Macon County, Hydrologic Unit 06010202, at Dam, and 2.0 mi northwest of Highlands.	14.4	1999-2002	10-18-02 3-10-03 7-25-03 9-10-03	47.5 56.6 43.0 42.2
03502000 Little Tennessee River	Tennessee River	Lat 35°14'01", long 83°23'35", Macon County, Hydrologic Unit 06010202, 0.2 mi upstream from State Highway 28 at Iotla, and 0.2 mi upstream from Iotla Creek.	323	1929-45 [†] , 1972-79, 1982-2002	10-23-02 3-13-03 7-29-03 9-11-03	410 878 648 525
03515633 Cheoah River	Little Tennessee River	Lat 35°20'04", long 83°48'21", Graham County, Hydrologic Unit 06010204, 0.1 mi upstream from Long Creek, and 0.9 mi north of Robbinsville.	55.3	1968-71, 1973-2002	10-22-02 3-11-03 7-24-03 9-8-03	50.2 163 58.2 31.7

[†] Operated as a continuous-record gaging station.

MISCELLANEOUS STATION ANALYSES

The following table includes data collected at ten sites in the Newfound Creek watershed, near Asheville, NC. The data were collected at low flow, in May 2003, and during a storm event, in November 2003, to examine indicator-bacteria concentrations in the Newfound Creek watershed. Samples of streambed sediment also were collected from 5 sites during low flow for analysis of *Escherichia coli* bacteria. Record of continuous streamflow data for Newfound Creek near Alexander can be found in the streamflow section of this report.

Date	Time	Medium code	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	E coli, m-TEC MF, bed sed col/g (50466)	E coli, m-TEC MF, water, col/100 mL (31633)	Fecal coliform, M-FC col/100 mL (31616)
0345165540 NEWFOUND CR AT HAYLANDY DR NR NEWFOUND GAP, NC (LAT 35 35 13N LONG 082 45 20W)												
MAY 2003												
28...	1345	9	2.7	--	10.1	--	7.0	54	15.0	--	670	1,300
28...	1240	H	--	--	--	--	--	--	--	590	--	--
NOV 19...	0955	9	14	693	9.2	96	6.4	80	13.1	--	4,700	E2900K
0345165570 MORGAN BRANCH AT SR1220 AT NEWFOUND, NC (LAT 35 36 15N LONG 082 44 11W)												
MAY 2003												
28...	1325	9	1.3	--	9.5	--	7.2	82	16.7	--	1,800	--
NOV 19...	1020	9	9.8	698	8.8	92	6.7	116	13.7	--	16,000	--
0345165593 BROOKS BRANCH ABOVE MOUTH NR NEWFOUND, NC (LAT 35 36 46N LONG 082 44 01W)												
MAY 2003												
28...	1315	9	0.16	--	9.5	--	7.2	103	16.3	--	92	--
NOV 19...	1040	9	2.8	698	8.7	92	6.7	94	13.8	--	4,500	--
03451656 NEWFOUND CREEK AT SR1297 NEAR NEWFOUND, NC (LAT 35 36 50N LONG 082 43 09W)												
MAY 2003												
28...	1240	9	9.2	--	10.1	--	7.1	66	15.8	--	2,400	8,700
28...	1345	H	--	--	--	--	--	--	--	390	--	--
NOV 19...	1102	9	51	699	8.6	91	6.8	85	13.9	--	18,000	E11000K
0345165645 ROUND HILL BRANCH AT SR1382 NEAR LEICESTER, NC (LAT 35 38 15N LONG 082 42 57W)												
MAY 2003												
28...	1215	9	1.2	--	10.2	--	7.6	153	18.1	--	130	140
NOV 19...	1230	9	15	700	8.4	91	6.8	135	14.8	--	20,000	>6000
03451658 NEWFOUND CREEK AT SR1378 NEAR LEICESTER, NC (LAT 35 38 30N LONG 082 41 38W)												
MAY 2003												
28...	1145	9	14	--	10.3	--	7.4	86	15.7	--	1,100	1,400
28...	1145	H	--	--	--	--	--	--	--	E580K	--	--
NOV 19...	1152	9	88	701	8.5	90	6.6	111	14.4	--	22,000	E29000
03451661 SLUDER BRANCH AT MOUTH NEAR LEICESTER, NC (LAT 35 39 10N LONG 082 40 15W)												
MAY 2003												
28...	1100	9	1.8	--	10.1	--	7.4	114	15.2	--	400	--
NOV 19...	1252	9	21	703	8.1	87	6.5	117	15.0	--	E9100K	--

WATER QUALITY DATA

MISCELLANEOUS STATION ANALYSES—Continued

MISCELLANEOUS STATION ANALYSES

Date	Time	Medium code	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	E coli, m-TEC MF, bed sed col/g (50466)	E coli, m-TEC MF, water, col/ 100 mL (31633)	Fecal coliform, M-FC 0.45uMF col/ 100 mL (31616)
03451662 NEWFOUND CR AT SR1617 NEAR LEICESTER, NC (LAT 35 38 58N LONG 082 39 46W)												
MAY 2003												
28...	1035	9	20	--	10.5	--	7.4	98	15.3	--	820	--
28...	1035	H	--	--	--	--	--	--	--	E12000K	--	--
NOV 19...	1320	9	118	703	8.2	89	6.2	110	15.0	--	E14000K	--
0345168045 DIX CREEK AT SR1622 NEAR JUNO, NC (LAT 35 39 16N LONG 082 38 39W)												
MAY 2003												
28...	0945	9	6.2	--	10.0	--	7.2	68	13.8	--	3,100	--
NOV 19...	1355	9	36	703	8.6	92	8.6	66	14.9	--	11,000	--
03451690 NEWFOUND CREEK NEAR ALEXANDER, NC (LAT 35 39 58N LONG 082 38 04W)												
MAY 2003												
28...	0840	9	--	--	9.7	--	7.2	77	14.3	--	1,300	930
28...	0840	H	--	--	--	--	--	--	--	2,200	--	--
NOV 19...	1410	9	195	705	8.2	87	7.9	105	14.8	--	27,000	24,000

Remark codes used in this table:

< -- Less than

E -- Estimated value

K -- Counts outside the acceptable range

Medium codes used in this table:

9 -- Surface water

H -- Bottom material

	Page		Page
A			
Abbotts Creek at Lexington	395	Broad River near Boiling Springs	603
Access to USGS water data	33	Brooks Creek at Eddie Perry Road near Bynum	164
Accuracy of the Records	24	Brush Creek at Fleming Road at Greensboro.....	68
Alexander, Newfound Creek near.....	686	Bryson City, Tuckasegee River at.....	739
All Healing Springs, Lower Little River near.....	473	Buckhorn Creek near Corinth	300
Appalachia Lake	757	Buckhorn Reservoir.....	304, 655
Ararat River at Ararat	369	Buffalo Creek at SR2819 near McLeansville	104
Ararat, Ararat River at	369	Bull Run at NC 29-70 near Jamestown	254
Archdale, Richland Creek near	262	Burgaw, Northeast Cape Fear River near.....	340
Arneys Store, Johns River at.....	471	Burlington, Dry Creek above Service Creek at	115
Asheboro, Hasketts Creek below Penwood Branch near	271	Burlington, Lake.....	655
Asheboro, Vestal Creek near	281	Burlington, Service Creek above Dry Creek at	107
Asheville, French Broad River at.....	683	Burnett Lake	681, 755
B			
B. Everett Jordan Lake.....	247, 304, 317, 652	Bynum, Brooks Creek at Eddie Perry Road near	164
B. Everett Jordan Lake, change in contents	657	Bynum, Haw River near.....	172
B. Everett Jordan Lake at Dam near Moncure.....	247	C	
Badin Lake	652	Calvin, Catawba River	469
Badin Lake, change in contents	658	Campbell Creek near Charlotte.....	575
Barber, Second Creek near.....	392	Cane Creek near Orange Grove	157
Bear Creek Lake.....	739, 756	Cane Creek Reservoir near White Cross.....	161
Beaverdam Creek above Windy Gap Road near Shopton	495	Canton, East Fork Pigeon River near	703
Bee Tree Lake	681	Canton, Pigeon River near	706
Beetree Creek	681	Cape Fear River at Fayetteville.....	313
Beetree Creek near Swannanoa.....	679	Cape Fear River at Lillington.....	302
Beetree Reservoir.....	755	Cape Fear River at Lock 1 near Kelly.....	331
Bent Creek at Bent Creek Gap near Glen Bald.....	675	Cape Fear River at State Highway 42 near Brickhaven.....	298
Bessemer City, Long Creek near	504	Cape Fear River at William O. Huske Lock near Tarheel	317
Bethel, West Fork Pigeon River at.....	699	Cartoogechaye Creek near Franklin	726
Big Bear Creek near Richfield	426	Casar, First Broad River near.....	606
Big Shoe Heel Creek near Laurinburg.....	434	Cataloochee Creek near Cataloochee	710
Big Swamp near Tarheel.....	442	Cataloochee, Cataloochee Creek near	710
Biltmore, Swannanoa River at	681	Catawba River at Calvin	469
Birdtown, Oconaluftee River at	737	Catawba River near Pleasant Gardens	464
Black River near Tomahawk.....	336	Catheys Creek near Brevard.....	665
Blands, New Hope Creek near	189	Cedar Cliff Lake.....	739, 756
Blantyre, French Broad River at	669	Celo, South Toe River.....	719
Blewett Falls Lake	432, 653	Chapel Hill, Bolin Creek above Franklin Street near	191
Blewett Falls Lake, change in contents.....	658	Chapel Hill, Bolin Creek at US 15-501 near	198
Boardman, Lumber River at.....	444	Chapel Hill, Morgan Creek near	232
Boiling Springs, Broad River near.....	603	Chapel Hill, University Lake near.....	221
Bolin Creek above Franklin Street near Chapel Hill	191	Chapel Hill, Wilson Creek at Mouth near.....	224
Bolin Creek at US 15-501 near Chapel Hill	198	Charlotte, Briar Creek above Colony Road at.....	555
Bowen Branch near Mouth at Winston-Salem.....	377	Charlotte, Briar Creek below Edwards Branch near	553
Branch Creek below NC 54 near Graham	125	Charlotte, Briar Creek near	536
Brandt, Lake	73, 655	Charlotte, Campbell Creek near	575
Brasstown, Brasstown Creek near	748	Charlotte, Coffey Creek near	524
Brasstown Creek near Brasstown	748	Charlotte, Irvins Creek at SR1368 near	577
Brevard, Catheys Creek near	665	Charlotte, Irwin Creek near	518
Brevard, Davidson River at.....	667	Charlotte, Little Hope Creek at Seneca Place at	562
Briar Creek above Colony Road at Charlotte	555	Charlotte, Little Sugar Creek at Medical Center Drive at.....	529
Briar Creek below Edwards Branch near Charlotte.....	553	Charlotte, Little Sugar Creek at Archdale Drive at.....	564
Briar Creek near Charlotte	536	Charlotte, McAlpine Creek at Sardis Road near	579
Brickhaven, Cape Fear River at State Highway 42 near.....	298	Charlotte McDowell Creek near	479
		Charlotte, McMullen Creek at Sharon View Road near	584
		Charlotte, Paw Creek at Wilkinson Boulevard near	493
		Charlotte, Reedy Creek at SR2803 near.....	405

	Page		Page
Charlotte, Stewart Creek at State Street at	510	CRN48.....	633
Charlotte, Stewart Creek at West Morehead Street at	512	CRN49.....	634
Charlotte, Taggart Creek at West Boulevard near	522	CRN50.....	635
Chatuge Lake	750, 754	CRN51.....	636
Chatuge Lake, change in contents.....	758	CRN52.....	637
Cheoah Lake	756	CRN53.....	638
Cheoah River near Bear Pen Gap near Tapoco.....	742	CRN54.....	639
Cheoah River near Tapoco.....	746	CRN55.....	640
Chinquapin, Northeast Cape Fear River near	338	CRN56.....	641
Clear Creek at Secondary Road 3181 near Mint Hill	409	CRN57.....	642
Coddle Creek at Secondary Road 1612 near Davidson	403	CRN58.....	643
Coffey Creek near Charlotte	524	CRN59.....	644
Copeland, Fisher River near.....	366	CRN60.....	645
Corinth, Buckhorn Creek near	300	CRN61.....	646
Cove Creek near Lake Lure	598	CRN62.....	647
CRN01	446	CRN63.....	458
CRN02	607	CRN64.....	648
CRN03	509	CRN65.....	459
CRN04	608	CRN66.....	649
CRN05	609	CRN68	460
CRN07	610	CRN68.....	461
CRN08	611	CRN69.....	650
CRN09	612	CRN70.....	651
CRN11	613	Crutchfield Crossroads, Rocky River near.....	289
CRN12	614	Cullasaja River at Secondary Road 1653 near Franklin	731
CRN13	615	Cullasaja River at SR 1620 near Highlands	729
CRN14	616		
CRN15	617	D	
CRN16	447	Dalton, Little Yadkin River at.....	372
CRN17	618	Davidson, Coddle Creek at Secondary Road 1612 near	403
CRN19	619	Davidson River near Brevard.....	667
CRN20	620	Deep River at Moncure	291
CRN21	621	Deep River at Ramseur	279
CRN22	622	Deep River near Randleman	269
CRN23	448	Definition of terms	34
CRN24	478	Downstream Order System	13
CRN25	484	Drowning Creek near Hoffman.....	436
CRN26	449	Dry Creek above Service Creek at Burlington	115
CRN27	623	Dutchmans Creek near Uwharrie	399
CRN28	526		
CRN29	450	E	
CRN30	451	East Fork Deep River near High Point.....	252
CRN31	624	East Fork Lake	756
CRN32	452	East Fork Pigeon River near Canton	703
CRN33	453	Elk Creek at Elkville	348
CRN34	625	Elkin, Yadkin River at.....	362
CRN35	485	Elkville, Elk Creek at	348
CRN36	454	Enon, Yadkin River at.....	374
CRN37	626	Explanation of ground water records	30
CRN38	627	Explanation of precipitation records	22
CRN39	455	Explanation of stage and water-discharge records.....	16
CRN40	628	Explanation of water-quality records	23
CRN42	629		
CRN43	630	F	
CRN44	456	Fairview, Goose Creek at	411
CRN45	631		
CRN46	457		
CRN47	632		

	Page		Page
Farrington, Jordan Lake at Buoy 12 at.....	234	High Point Lake	269
Fayetteville, Cape Fear River at.....	313	High Point Municipal Lake	279, 655
First Broad River near Casar.....	606	High Rock Lake	652
Fisher River near Copeland.....	366	High Rock Lake, change in contents.....	657
Flat Creek near Inverness.....	306	High Rock Lake Precipitation	397
Flat Laurel Gap, Unnamed Tributary to Pisgah Creek at	701	Hiwassee Lake.....	754
Fletcher, French Broad River near	673	Hiwassee Lake, change in contents.....	758
Fontana Lake.....	754	Hiwassee River above Murphy	750
Fontana Lake, change in contents	758	Hoffman, Drowning Creek near.....	436
Four Mile Creek near Pineville.....	582	Hood Creek near Leland	334
Franklin, Cartoogechaye Creek near.....	726	Horsepen Creek at US 220 near Greensboro	70
Franklin, Cullasaja River at Secondary Road 1653 near	729	Hunting Creek near Harmony	390
Freeland, Waccamaw River at.....	342		
French Broad River at Asheville.....	683	I	
French Broad River at Blantyre	669	Identifying Estimated Daily Discharge	21
French Broad River at Marshall.....	690	Idlewild, McAlpine Creek at State Road 3150 near.....	573
French Broad River at Rosman.....	663	Indian Creek near Laboratory	502
French Broad River near Fletcher.....	673	Inverness, Flat Creek near.....	306
		Irvins Creek at SR 3168 near Charlotte	577
G		Irwin Creek near Charlotte	518
Genlee, Northeast Creek near	204	Ivy River near Marshall	688
Gibsonville, Reedy Fork near	73		
Glen Bald, Bent Creek at Bent Creek Gap near.....	675	J	
Goose Creek at Fairview.....	411	Jackson, Waxhaw Creek at Secondary Road 1103 near	594
Graham, Branch Creek below NC 54 near	125	Jacob Fork at Ramsey	499
Graham, Little Alamance Creek at Secondary Road 2309 near	149	James, Lake	653
Green Level, White Oak Creek at.....	237	Jamestown, Bull Run at NC 29-70 near	254
Greensboro, Brush Creek at Fleming Road at	68	Jefferson, South Fork New River near	661
Greensboro, Horsepen Creek at US 220 near	70	Johns River at Arneys Store	471
Greensboro, North Buffalo Creek at	87	Jordan Lake at Bells Landing near Griffins Crossroads	244
Greensboro, North Buffalo Creek at Church St at.....	98	Jordan Lake at Buoy 12 at Farrington.....	234
Greensboro, North Buffalo Creek at Westover Terrace at.....	95	Jordan Lake, B. Everett.....	247, 304, 317, 331, 652
Greensboro, North Buffalo Creek near	101	Jordan Lake near Wilsonville.....	241
Greensboro, Ryan Creek below US220 at	81	Jordan Lake, Haw River Arm, above B. Everett Jordan Dam ...	186
Greensboro, South Buffalo Creek at US220 at.....	78	Julian, Lake	755
Greensboro, South Buffalo Creek near	84	Junaluska, Lake	708, 755
Griffins Crossroads, Jordan Lake at Bells Landing near	244		
		K	
H		Kelly, Cape Fear River at Lock 1 near.....	331
Harmony, Hunting Creek near.....	390	Killian Creek near Mariposa	486
Harris Lake.....	300		
Harrisburg, Mallard Creek near	401	L	
Haw River at Haw River.....	123	Laboratory, Indian Creek near	502
Haw River below B. Everett Jordan Dam near Moncure	249	Lake Brandt	73, 655
Haw River near Bynum.....	172	Lake Burlington.....	655
Haw River, Haw River at.....	123	Lake Hickory.....	654
Hasketts Creek below Penwood Branch near Asheboro.....	271	Lake Hickory, change in contents	659
Hazelwood, Lake Logan at Dam near.....	694	Lake Higgins	73, 655
Hazelwood, West Fork Pigeon River near.....	692	Lake James	653
Henry Fork near Henry River	497	Lake James, change in contents	658
Henry River, Henry Fork near	497	Lake Julian	755
Hepco, Pigeon River near	708	Lake Junaluska	708, 755
Hickory, Lake.....	654		
Higgins, Lake	73, 655		
Highlands, Cullasaja River at SR 1620 near.....	729		
High Point, East Fork Deep River near.....	252		

Page	Page
Lake Logan 697, 755	Long Creek near Rhyne.....491
Lake Logan at Dam near Hazelwood..... 694	Lookout Shoals Lake..... 654
Lake Lure, Cove Creek near 598	Lookout Shoals Lake, change in contents..... 659
Lake Norman..... 654	Lowell, South Fork Catawba River at..... 507
Lake Norman, change in contents..... 659	Lower Little River at Secondary Road 2023 near Lobelia..... 304
Lake Tillery..... 653	Lower Little River near All Healing Springs 473
Lake Tillery, change in contents 658	Lumber River at Boardman..... 444
Lake Townsend..... 73, 655	Lumber River at Lumberton..... 440
Lake Toxaway..... 656	Lumber River near Maxton 436
Lake, Appalachia 757	Lumberton, Lumber River at..... 440
Lake, B. Everett Jordan..... 217, 302, 317, 331, 652	
Lake, Badin..... 652	M
Lake, Bear Creek..... 739, 756	Mallard Creek nr Harrisburg 401
Lake, Bee Tree..... 681	Manchester, Little River at 309
Lake, Blewett Falls 432, 653	Mariposa, Killian Creek near 486
Lake, Burnett..... 681, 755	Marshall, French Broad River at 690
Lake, Cedar Cliff..... 739, 756	Marshall, Ivy River near..... 688
Lake, Chatuge 681, 754	Maxton, Lumber River near 436
Lake, Cheoah 756	McAlpine Creek at Sardis Road near Charlotte 579
Lake, East Fork 756	McAlpine Creek at State Road 3150 near Idlewild..... 573
Lake, Fontana..... 754	McAlpine Creek below McMullen Creek near Pineville..... 586
Lake, Harris..... 300	McDowell Creek near Charlotte 479
Lake, High Point 269	McLeansville, Buffalo Creek at SR 2819 near 104
Lake, High Point Municipal..... 279, 655	McMullen Creek at Sharon View Road near Charlotte 584
Lake, High Rock 652	Measurements at miscellaneous sites..... 759
Lake, Hiwassee 754	Mills River near Mills River 671
Lake, Junaluska..... 708, 755	Mills River, Mills River near 671
Lake, Lookout Shoals 654	Mint Hill, Clear Creek at Secondary Road 3181 near..... 409
Lake, Mountain Island 654	Mitchell River near State Road 364
Lake, Nantahala 756	Mocksville, South Yadkin River near 387
Lake, Rhodhiss..... 653	Moncure, B. Everett Jordan Lake at Dam near 247
Lake, Richland 73	Moncure, Deep River at 293
Lake, Santeetlah..... 756	Moncure, Haw River below B. Everett Jordan Dam near..... 249
Lake, Sequoyah..... 755	Morgan Creek near Chapel Hill 232
Lake, Waterville..... 754	Morgan Creek near White Cross 207
Lake, Wolf Creek..... 756	Mount Vernon Springs, Tick Creek near 291
Laurinburg, Big Shoe Heel Creek near 434	Mountain Island Lake..... 654
Leland, Hood Creek near 334	Mountain Island Lake, change in contents..... 660
Lexington, Abbotts Creek at 395	Murphy, Hiwassee River above 750
Lexington-Thomasville Reservoir 656	
Lillington, Cape Fear River at..... 302	N
Linville River near Nebo..... 467	NC-193 Precipitation..... 463
Little Alamance Creek at Secondary Road 2309 near Graham .. 149	Nantahala Lake..... 756
Little Hope Creek at Seneca Place at Charlotte 562	Nantahala River near Rainbow Springs 735
Little River at Manchester..... 309	Nebo, Linville River near..... 467
Little River near Star..... 430	Needmore, Little Tennessee River at 732
Little Sugar Creek at Archdale Drive at Charlotte..... 564	New Hope Creek near Blands 189
Little Sugar Creek at Highway 51 at Pineville 571	Newfound Creek near Alexander 686
Little Sugar Creek at Medical Center Drive at Charlotte..... 529	Norman, Lake..... 654
Little Tennessee River at Needmore..... 732	North Buffalo Creek at Church Street at Greensboro 98
Little Tennessee River near Prentiss..... 724	North Buffalo Creek at Greensboro 87
Little Tennessee River at Riverside 723	North Buffalo Creek at Westover Terrace at Greensboro..... 95
Little Yadkin River at Dalton..... 372	North Buffalo Creek near Greensboro 101
Lobelia, Lower Little River at Secondary Road 2023 near 304	North Fork Swannanoa River near Walkertown 677
Logan, Lake 697, 755	North Wilkesboro, Reddies River at 355
Logan, Second Broad River near 600	Northeast Cape Fear River near Burgaw..... 340
Long Creek near Bessemer City 504	
Long Creek near Paw Creek 488	

	Page		Page
Northeast Cape Fear River near Chinquapin	338	Richland Creek near Archdale	262
Northeast Creek near Genlee	204	Richland Lake	73
Norwood Creek near Troutman	476	Riverside, Little Tennessee River at	723
Norwood, Rocky River near	428	Roaring River near Roaring River	359
Numbering System for Wells and Miscellaneous Sites	13	Roaring River, Roaring River near	359
O			
Oak Hollow Reservoir	269, 279, 655	Rock Creek above Rock Creek Tributary near Whitsett	141
Oak Ridge, Reedy Fork near	65	Rock Creek Tributary at Stoney Creek Golf Course near Sedalia	133
Oconaluftee River at Birdtown	737	Rockfish Creek at Raeford	315
Orange Grove, Cane Creek near	157	Rockingham, Pee Dee River near	432
P			
Patterson, Yadkin River at	344	Rocky River above Irish Buffalo Creek near Rocky River	407
Paw Creek, Long Creek near	488	Rocky River near Crutchfield Crossroads	289
Paw Creek at Wilkinson Boulevard near Charlotte	493	Rocky River near Norwood	428
Pee Dee River near Rockingham	432	Rocky River, Rocky River above Irish Buffalo Creek near	407
Pigeon River below power plant near Waterville	713	Rocky River near Stanfield	424
Pigeon River near Canton	706	Rosman, French Broad River at	663
Pigeon River near Hepco	708	Ryan Creek below US220 at Greensboro	81
Pineville, Four Mile Creek near	582	S	
Pineville, Little Sugar Creek at Highway 51 at	571	Santeetlah Lake	756
Pineville, McAlpine Creek below McMullen Creek near	586	Second Broad River near Logan	600
Pineville, Steele Creek at SR1441 near	589	Second Creek near Barber	392
Pineville, Sugar Creek at NC 51 near	527	Sedalia, Rock Creek Tributary at Stoney Creek Golf Course near	133
Pittsboro, Pokeberry Creek near	178	Sequoyah Lake	755
Pleasant Gardens, Catawba River near	464	Service Creek above Dry Creek at Burlington	107
Pokeberry Creek near Pittsboro	178	Shearon Harris Main Reservoir	300, 655
Pomona, South Buffalo Creek near	75	Shopton, Beaverdam Creek above Windy Gap Road near	495
Prentiss, Little Tennessee River near	724	South Buffalo Creek at US220 at Greensboro	78
R			
Raeford, Rockfish Creek at	315	South Buffalo Creek near Greensboro	84
Rainbow Springs, Nantahala River near	735	South Buffalo Creek near Pomona	75
Ramseur, Deep River at	279	South Fork Catawba River at Lowell	507
Ramsey, Jacob Fork at	499	South Fork New River near Jefferson	661
Randleman, Deep River near	269	South Toe River near Celso	719
Reddies River at North Wilkesboro	355	South Yadkin River near Mocksville	387
Reedy Creek at Secondary Road 2803 near Charlotte	405	Special networks and programs	15
Reedy Fork near Gibsonville	73	Stanfield, Rocky River near	424
Reedy Fork near Oak Ridge	65	Star, Little River near	430
Reservoir, Beetree	755	State Road, Mitchell River near	364
Reservoir, Buckhorn	304, 655	Statesville Precipitation	462
Reservoir, Lexington-Thomasville	656	Steele Creek at SR 1441 near Pineville	589
Reservoir, Oak Hollow	269, 279, 655	Stewart Creek at State Street at Charlotte	510
Reservoir, Shearon Harris Main	300, 655	Stewart Creek at West Morehead Street near Charlotte	512
Reservoir, Stony Creek	655	Stony Creek Reservoir	655
Reservoir, Thorpe	739, 756	Sugar Creek at NC 51 near Pineville	527
Reservoir, Tuckertown	398, 652	Sugar Grove, Watauga River near	721
Reservoir, W. Kerr Scott	362, 374, 384, 652	Swannanoa River at Biltmore	681
Retreat, West Fork Pigeon River near	697	Swannanoa, Beetree Creek near	679
Rhodhiss Lake	653	T	
Rhodhiss Lake, change in contents	659	Taggart Creek at West Boulevard near Charlotte	522
Rhyne, Long Creek near	491	Tapoco, Cheoah River near	746
Richfield, Big Bear Creek near	426	Tapoco, Cheoah River near Bear Pen Gap near	742
		Tarheel, Big Swamp near	442
		Tarheel, Cape Fear River at William O. Huske Lock near	317
		Thorpe Reservoir	739, 756
		Tick Creek near Mount Vernon Springs	291
		Tillery, Lake	653

	Page		Page
Tomahawk, Black River near.....	336	Watauga River near Sugar Grove.....	721
Tomotla, Valley River at.....	752	Waterville, Pigeon River below power plant near	713
Townsend, Lake	73, 655	Waterville Lake	754
Toxaway, Lake.....	656	Waterville Lake, change in contents	758
Triplett Raingage.....	347	Waxhaw Creek at Secondary Road 1103 near Jackson.....	594
Troutman, Norwood Creek near	476	Waxhaw, Twelve Mile Creek near.....	591
Tuckasegee River at Bryson City.....	739	West Fork Pigeon River at Bethel	699
Tuckertown Reservoir.....	398, 652	West Fork Pigeon River near Hazelwood	692
Tuckertown Reservoir, change in contents	657	West Fork Pigeon River near Retreat	697
Tuckertown Reservoir Precipitation	398	White Cross, Cane Creek Reservoir near.....	161
Twelve Mile Creek near Waxhaw	591	White Cross, Morgan Creek near	207
U			
Unnamed Tributary to Pisgah Creek at Flat Laurel Gap	701	White Oak Creek at Green Level	237
University Lake near Chapel Hill	221	Whitsett, Rock Creek above Rock Creek Tributary near	141
Uwharrie, Dutchmans Creek near.....	399	Wilbar Raingage.....	354
V			
Valley River at Tomotla.....	752	Wilkesboro, W. Kerr Scott Reservoir at Dam near.....	351
Vestal Creek near Asheboro.....	281	Wilkesboro, Yadkin River at.....	357
W			
W. Kerr Scott at Dam near Wilkesboro	351	Wilson Creek at Mouth near Chapel Hill.....	224
W. Kerr Scott Reservoir.....	362, 374, 384, 652	Wilsonville, Jordan Lake near.....	241
W. Kerr Scott Reservoir, change in contents	657	Winston-Salem, Bowen Branch near Mouth at	377
Waccamaw River at Freeland	342	Wolf Creek Lake	756
Walkertown, North Fork Swannanoa River near.....	677	Y	
		Yadkin College, Yadkin River at	384
		Yadkin River at Elkin.....	362
		Yadkin River at Enon.....	374
		Yadkin River at Patterson	344
		Yadkin River at Wilkesboro	357
		Yadkin River at Yadkin College	384

Conversion Factors

Multiply	By	To obtain
Length		
inch (in.)	2.54×10^1	millimeter (mm)
	2.54×10^{-2}	meter
foot (ft)	3.048×10^{-1}	meter (m)
mile (mi)	1.609×10^0	kilometer (km)
Area		
acre	4.047×10^3	square meter (m ²)
	4.047×10^{-1}	square hectometer (hm ²)
	4.047×10^{-3}	square kilometer (km ²)
square mile (mi ²)	2.590×10^0	square kilometer (km ²)
Volume		
gallon (gal)	3.785×10^0	liter (L)
	3.785×10^{-3}	cubic meter (m ³)
	3.785×10^0	cubic decimeter (dm ³)
million gallons (Mgal)	3.785×10^3	cubic meter (m ³)
	3.785×10^{-3}	cubic hectometer (hm ³)
cubic foot (ft ³)	2.832×10^{-2}	cubic meter (m ³)
	2.832×10^1	cubic decimeter (dm ³)
cubic-foot-per-second-per-day [(ft ³ /s/d)]	2.447×10^3	cubic meter (m ³)
	2.447×10^{-3}	cubic hectometer (hm ³)
acre-foot (acre-ft)	1.223×10^3	cubic meter (m ³)
	1.223×10^{-3}	cubic hectometer (hm ³)
	1.223×10^{-6}	cubic kilometer (km ³)
Flow rate		
cubic foot per second (ft ³ /s)	2.832×10^1	liter (L/s)
	2.832×10^{-2}	cubic meter per second (m ³ /s)
	2.832×10^1	cubic decimeter per second (dm ³ /s)
gallon per minute (gal/min)	6.309×10^{-2}	liter per second (L/s)
	6.309×10^{-5}	cubic meter per second (m ³ /s)
	6.309×10^{-2}	cubic decimeter per second (dm ³ /s)
million gallons per day (Mgal/d)	4.381×10^{-2}	cubic meter per second
	4.381×10^1	cubic decimeter per second (dm ³ /s)
Mass		
ton, short (2,000 lb)	9.072×10^{-1}	megagram (Mg) or metric ton

Temperature in degrees Celsius (°C) may be converted to degrees Fahrenheit (°F) as follows:

$$^{\circ}\text{F} = (1.8 \times ^{\circ}\text{C}) + 32$$



1879–2004