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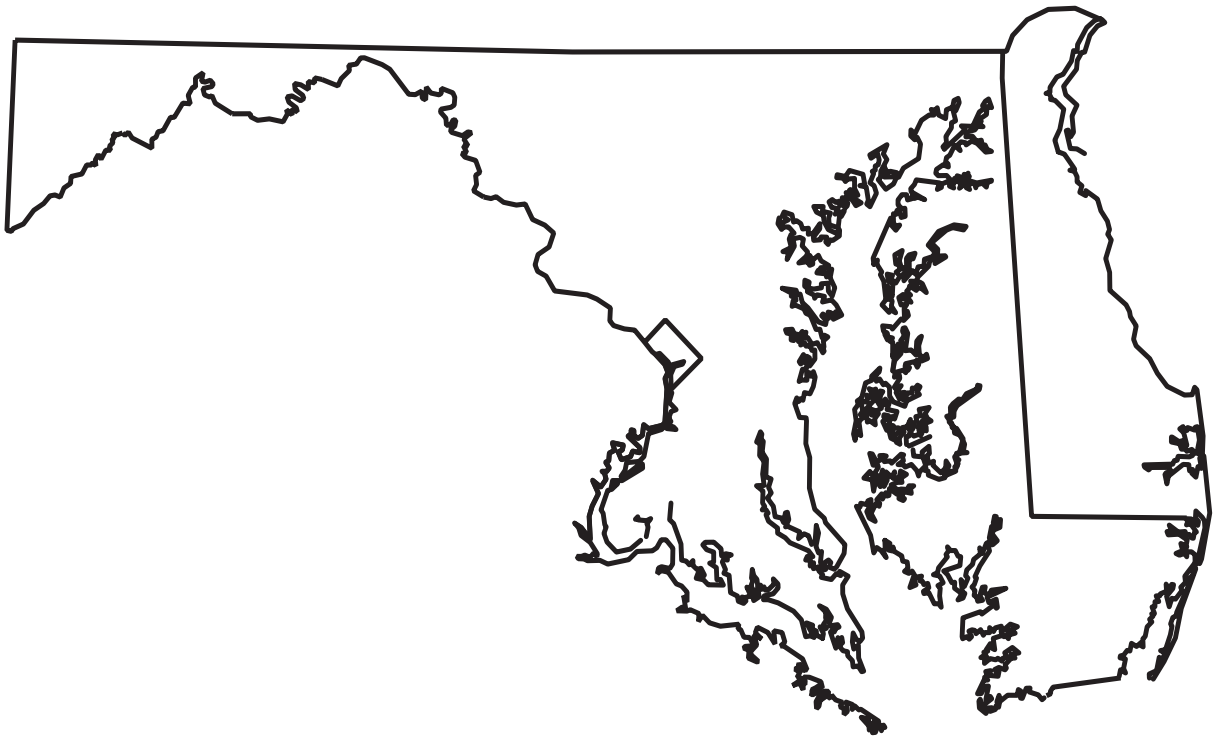
Washington, D.C. and with other agencies

Water Resources Data Maryland, Delaware, and Washington, D.C. Water Year 2004

Volume 1
Surface-Water Data



Water-Data Report MD-DE-DC-04-1

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

Calendar for Water Year 2004

2003

October

S	M	T	W	T	F	S
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2004

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August

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September

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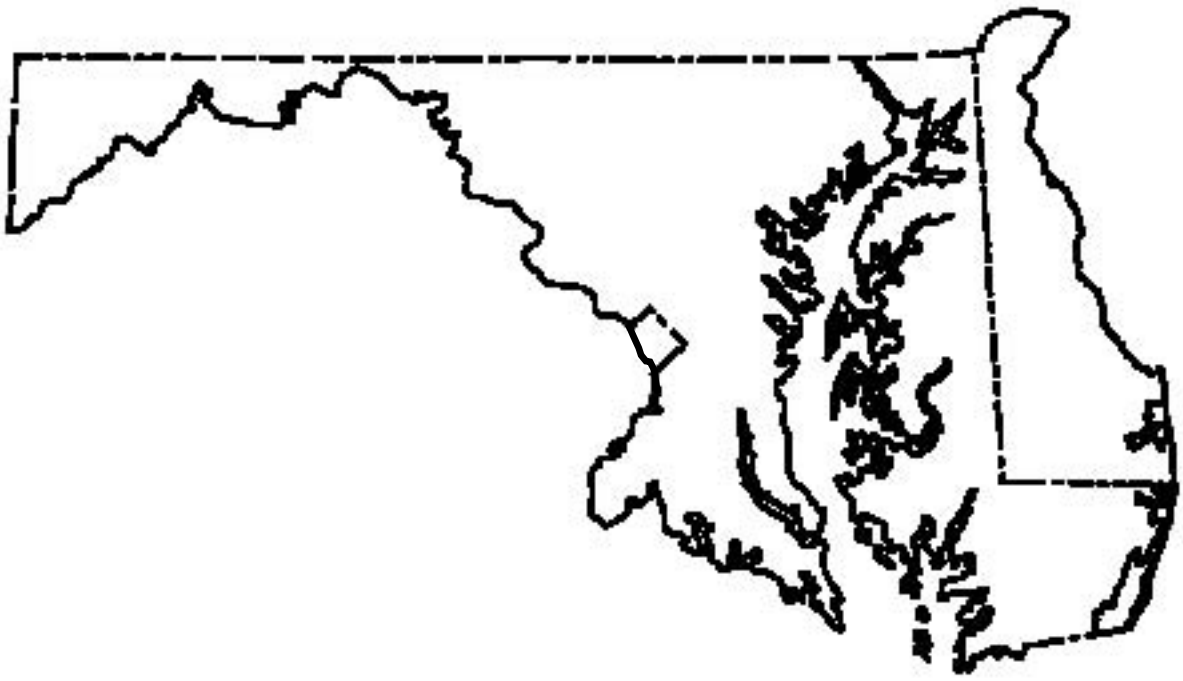
26	27	28	29	30		

Water Resources Data
Maryland, Delaware, and Washington, D.C.
Water Year 2004

Volume 1. Surface-Water Data

By Richard W. Saffer, Robert H. Pentz and Anthony J. Tallman

Water-Data Report MD-DE-DC-04-1



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U.S. Geological Survey
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2005

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PREFACE

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

Volume 1. Surface-Water Data

Volume 2. Ground-Water Data

This report (Volume 1) is the culmination of a concerted effort by dedicated personnel of the U.S. Geological Survey, Maryland Geological Survey, and Delaware Geological Survey, who collected, compiled, analyzed, verified, and organized the data, and who typed, edited, and assembled the report. In addition to the authors, who had primary responsibility for assuring that the information contained herein is accurate, complete, and adheres to Geological Survey policy and established guidelines, the following individuals contributed significantly to the collection, processing, and tabulation of the data:

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Valerie M. Gaine provided technical and editorial reviews for the Introduction section of this report and Betzaida Reyes produced figures 3 and 4, using a Geographic Information System mapping program.

Our many thanks to Robert W. James, Jr., who retired in July 2004, for his many contributions over the years to the U.S. Geological Survey.

This report was prepared under the general supervision of J. M. Gerhart, Director, MD-DE-DC Water Science Center, and Cathrine A. Hill, Northeastern Regional Hydrologist, and in cooperation with the States of Maryland and Delaware, Washington, D.C., and with other agencies.

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13. ABSTRACT *(Maximum 200 words)*

Water resources data for the 2004 water year for Maryland, Delaware, and Washington, D.C. consist of records of stage, discharge, and water quality of streams; stage and contents of lakes and reservoirs. This volume (Volume 1. Surface-Water Data) contains records for water discharge at 147 gaging stations; stage and contents of 1 reservoir; stage only for 1 tidal gaging station; and water quality at 17 gaging stations. Also included are stage and discharge for 1 partial-record stations and stage only for 10 tidal crest-stage partial-record stations. Additional water data were collected at various sites not involved in the systematic data-collection program and are published as miscellaneous measurements. These data represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State, local, and Federal agencies in Maryland, Delaware, and Washington, D.C.

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*Maryland, *Delaware, *Washington, D.C., *District of Columbia, * Hydrologic data, *Surface water, *Water quality, Flow rate, Gaging stations, Lakes, Reservoirs, Chemical analyses, Sediments, Water temperatures, Sampling sites, Water analyses.

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[Letters after station name designate type of data collected: (d) discharge, (c) chemical, (b) biological, (m) microbiological, (t) water temperature, (s) sediment, (e) elevation and contents or gage height]

NORTH ATLANTIC SLOPE BASINS	Station number	Page
DELAWARE RIVER BASIN		
Delaware River:		
Shellpot Creek at Wilmington, DE (d)	01477800	50
Christina River at Coochs Bridge, DE (d)	01478000	52
White Clay Creek at Newark, DE (d)	01478650	54
White Clay Creek near Newark, DE (d)	01479000	56
Red Clay Creek at Wooddale, DE (d)	01480000	58
Red Clay Creek near Stanton, DE (d)	01480015	60
Brandywine Creek at Wilmington, DE (d)	01481500	62
Noxontown Lake Outlet near Middletown, DE (d)	01483153	64
Silver Lake Tributary at Middletown, DE (d)	01483155	66
Spring Mill Branch near Armstrong, DE (d)	01483165	76
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Blackbird Creek at Blackbird, DE (d)	01483200	86
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St. Jones River at Dover, DE (d)	01483700	88
MISPILLION RIVER BASIN		
Beaverdam Branch (head of Mispillion River) at Houston, DE (d)	01484100	90
BROADKILL RIVER BASIN		
Broadkill River:		
Beaverdam Creek near Milton, DE (d)	01484270	92
INDIAN RIVER BASIN		
Cow Bridge Branch (head of Indian River):		
Stockley Branch at Stockley, DE (d)	01484500	94
Millsboro Pond Outlet at Millsboro, DE (d)	01484525	96
MILLER CREEK BASIN		
Beaverdam Ditch (head of Miller Creek) near Millville, DE (d)	01484695	98
ST. MARTIN RIVER BASIN		
Church Branch (head of St. Martin River):		
Birch Branch at Showell, MD (d)	0148471320	100
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Bassett Creek near Ironshire, MD (d,c,t)	01484719	102
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Manokin Branch (head of Manokin River) near Princess Anne, MD (d)	01486000	118
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Andrews Branch (head of Wicomico River):		
Beaverdam Creek near Salisbury, MD (d)	01486500	120
NANTICOKE RIVER BASIN		
Nanticoke River near Bridgeville, DE (d)	01487000	122
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Herring Run Tributary at Seaford, DE (d)	01487195	128
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Trap Pond Outlet (head of Hitch Pond Branch) near Laurel, DE (d)	01487500	136
Dukes and Jobs Ditch near Laurel, DE (d)	01487698	138
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Choptank River near Greensboro, MD (d,c,s)	01491000	140
Tuckahoe Creek near Ruthsburg, MD (d)	01491500	148
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Wye River:		
Wye East River:		
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Chester River:		
Unicorn Branch near Millington, MD (d)	01493000	152
Morgan Creek near Kennedyville, MD (d,c,s)	01493500	154
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Big Elk Creek (head of Elk River) at Elk Mills, MD (d)	01495000	168
SUSQUEHANNA RIVER BASIN		
Susquehanna River at Conowingo, MD (d,c,s)	01578310	170
Deer Creek at Rocks, MD (d)	01580000	184

[Letters after station name designate type of data collected: (d) discharge, (c) chemical, (b) biological, (m) microbiological, (t) water temperature, (s) sediment, (e) elevation and contents or gage height]

NORTH ATLANTIC SLOPE BASINS--Continued	Station number	Page
BUSH RIVER BASIN		
Bynum Run (head of Bush River):		
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Gunpowder Falls near Parkton, MD (d)	01581920	198
Mingo Branch near Hereford, MD (d)	01581940	200
Little Falls:		
Beetree Run at Bently Springs, MD (d)	01581960	202
Little Falls at Blue Mount, MD (d)	01582000	204
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Gunpowder Falls (head of Gunpowder River):		
Western Run at Western Run, MD (d)	01583500	210
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Baisman Run:		
Pond Branch at Oregon Ridge, MD (d)	01583570	212
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Whitemarsh Run (head of Bird River) near Fullerton, MD (d)	01585090	228
North Fork Whitemarsh Run near White Marsh, MD (d)	01585095	230
Whitemarsh Run at White Marsh, MD (d)	01585100	232
Honeygo Run near White Marsh, MD (d)	01585104	234
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West Branch Herring Run at Idlewylde, MD (d)	01585200	236
Moores Run:		
Moores Run tributary near Todd Avenue at Baltimore, MD (d)	01585225	238
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East Branch of North Branch Patapsco River:		
West Branch of North Branch Patapsco River:		
Cranberry Branch near Westminster, MD (d)	01585500	242
North Branch Patapsco River at Cedarhurst, MD (d)	01586000	244
Beaver Run near Finksburg, MD (d)	01586210	246
Morgan Run near Louisville, MD (d)	01586610	248
Patapsco River at Hollofield, MD (d)	01589000	250
West Branch Herbert Run:		
East Branch Herbert Run at Arbutus, MD (d)	01589100	252
Gwynns Falls near Delight, MD (d)	01589197	254
Gwynns Falls tributary at McDonogh, MD (d)	01589238	256
Gwynns Falls at Villa Nova, MD (d)	01589300	258
Dead Run at Franklintown, MD (d)	01589330	260
Rognel Heights Storm Sewer Outfall at Baltimore, MD (d)	01589340	262
Gwynns Run at Baltimore, MD (d)	0158935180	264
Gwynns Falls at Washington Boulevard at Baltimore, MD (d)	01589352	266
Jones Falls at Sorrento, MD (d)	01589440	268
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Curtis Creek:		
Sawmill Creek (head of Furnace Creek) at Glen Burnie, MD (d)	01589500	272
Sawmill Creek tributary at BWI near Ferndale, MD (d)	01589501	274
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Patuxent River below Brighton Dam near Brighton, MD (d)	01591610	282
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Patuxent River near Laurel, MD (d)	01592500	286
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Little Patuxent River at Savage, MD (d)	01594000	290
Patuxent River near Bowie, MD (d,c,s)	01594440	292
Western Branch at Upper Marlboro, MD (d)	01594526	300

[Letters after station name designate type of data collected: (d) discharge, (c) chemical, (b) biological, (m) microbiological, (t) water temperature, (s) sediment, (e) elevation and contents or gage height]

NORTH ATLANTIC SLOPE BASINS--Continued	Station number	Page
POTOMAC RIVER BASIN		
North Branch Potomac River:		
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North Fork Sand Run near Wilson, MD (d)	01594936	304
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North Branch Potomac River at Luke, MD (d)	01598500	320
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North Branch Potomac River near Cumberland, MD (d)	01603000	328
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South Branch Potomac River near Petersburg, WV (d)	01606500	332
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South Branch Potomac River near Springfield, WV (d)	01608500	336
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Sideling Hill Creek at Bellegrove, MD (d)	01610155	342
Cacapon River:		
Waites Run near Wardensville, WV (d,c,s,t)	01610400	344
Cacapon River near Great Cacapon, WV (d)	01611500	352
Potomac River at Hancock, MD (d)	01613000	354
Conococheague Creek at Fairview, MD (d,c,s)	01614500	356
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Potomac River at Shepherdstown, WV (d)	01618000	364
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Dry River:		
Muddy Creek at Mount Clinton, VA (d,c,s)	01621050	368
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Monocacy River at Bridgeport, MD (d)	01639000	380
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Monocacy River at Jug Bridge, near Frederick, MD (d)	01643000	384
Bennett Creek at Park Mills, MD (d)	01643500	386
Seneca Creek:		
Great Seneca Creek near Quince Orchard, MD (d)	01644600	388
Seneca Creek at Dawsonville, MD (d)	01645000	390
Potomac River near Washington, DC (d,t)	01646500	392
Potomac River at Chain Bridge at Washington, DC (c,s)	01646580	400
Rock Creek at Sherrill Drive, Washington, DC (d)	01648000	410
Northeast Branch Anacostia River (head of Anacostia River)		
at Riverdale, MD (d,c,s,t)	01649500	412
Northwest Branch Anacostia River near Colesville, MD (d)	01650500	428
Northwest Branch Anacostia River near Hyattsville, MD (d,c,s,t)	01651000	430
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Watts Branch at Washington, DC (d)	01651800	448
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Accotink Creek near Annandale, VA (d,c,s,t)	01654000	452
Mattawoman Creek near Pomonkey, MD (d,c,s,t)	01658000	462
Zekiah Swamp Run (head of Wicomico River) near Newtown, MD (d)	01660920	482
St. Clement Creek (head of St. Clement Bay) near Clements, MD (d)	01661050	484
St. Marys River at Great Mills, MD (d)	01661500	486
OHIO RIVER BASIN		
MONONGAHELA RIVER BASIN		
Monongahela River:		
Youghiogheny River near Oakland, MD (d)	03075500	488
Deep Creek Reservoir near Oakland, MD (e)	03076000	490
Youghiogheny River at Friendsville, MD (d)	03076500	492
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The following continuous-record surface-water discharge (gaging stations) in Maryland, Delaware, and the District of Columbia have been discontinued. Daily streamflow records (discharge) were collected and published for the period of record, expressed in water years, shown for each station.

NORTH ATLANTIC SLOPE BASINS	Station number	Drainage area (mi^2)	Period of record
DELAWARE RIVER BASIN			
Delaware River:			
Christina River near Bear, DE	01478040	40.6	1977-82
White Clay Creek above Newark, DE	01478500	66.7	1952-59, 1962-80
Mill Creek at Mill Creek Road at Hockessin, DE	01479197	3.66	1990-95
Mill Creek at Stanton, DE	01479500	12.4	1931-33
Little Mill Creek near Newport, DE	01480095	5.24	1991-95, 1997-98
Little Mill Creek at Elsmere, DE	01480100	6.70	1964-80
Army Creek at State Road, DE	01482200	2.42	1978-81
Red Lion Creek near Red Lion, DE	01482298	3.08	1978-81
LEIPSIC RIVER BASIN			
Leipsic River near Cheswold, DE	01483500	9.35	1931-33, 1943-57
ST. JONES RIVER BASIN			
Fork Branch (head of St. Jones River)			
Mudstone Branch at Chestnut Grove, DE	01483670	8.96	1993-94
MURDERKILL RIVER BASIN			
Murderkill River near Felton, DE	01484000	13.6	1931-34, 1960-85, 1997-99
BROADKILL RIVER BASIN			
Broadkill River:			
Sowbridge Branch (head of Primehook Creek) near Milton, DE	01484300	7.08	1957-78
INDIAN RIVER BASIN			
Cow Bridge Branch (head of Indian River):			
Swan Creek near Millsboro, DE	01484534	5.20	1998-2000
Vines Creek at Omar, DE	01484548	13.6	1985-88
Blackwater Creek near Clarkesville, DE	01484600	3.47	1998-2000
Bundicks Branch at Robinsville, DE	01484654	6.90	1998-2000
Munchy Branch near Rehoboth Beach, DE	01484668	0.52	1998-2000
NANTICOKE RIVER BASIN			
Nanticoke River:			
Broad Creek:			
Holly Ditch near Laurel, DE	01488000	2.19	1951-56
Marshyhope Creek near Adamsville, DE	01488500	43.9	1943-69, 1972-2002
Marshyhope Creek at Adamsville, DE	01488600	60.4	1969-71
Faulkner Branch at Federalsburg, MD	01489000	7.10	1950-92
Rewastico Creek near Hebron, MD	01489500	12.2	1950-56
CHOPTANK RIVER BASIN			
Tappahanna Ditch (head of Choptank River):			
Tidy Island Creek (continuation of Tappahanna Ditch):			
Culbreth Marsh Ditch near Chapeltown, DE	01490500	11.6	1951-56
Choptank River:			
Kings Creek:			
Beaverdam Branch at Matthews, MD	01492000	5.85	1950-81
CHESTER RIVER BASIN			
Chester River:			
Southeast Creek at Church Hill, MD	01494000	12.5	1951-56
Chesterville Branch near Crumpton, MD	01493112	6.12	1996-2002
SASSAFRAS RIVER BASIN			
Sassafras River:			
Jacobs Creek near Sassafras, MD	01494500	5.39	1951-56

NORTH ATLANTIC SLOPE BASINS--Continued	Station number	Drainage area (mi^2)	Period of record
ELK RIVER BASIN			
Big Elk Creek (head of Elk River):			
Little Elk Creek at Childs, MD	01495500	26.8	1949-58
Long Creek near Chesapeake City, MD	01495800	4.36	1978-81
NORTHEAST RIVER BASIN			
Northeast Creek (head of Northeast River) at Leslie, MD	01496000	24.3	1949-84
PRINCIPIO CREEK BASIN			
Principio Creek near Principio Furnace, MD	01496200	9.03	1967-92
SUSQUEHANNA RIVER BASIN			
Susquehanna River:			
Broad Creek at Mill Green, MD	01578000	16.4	1905-09
Octoraro Creek near Rising Sun, MD	01578500	193	1932-58, 1969-77
Basin Run at Liberty Grove, MD	01579000	5.31	1949-58
Octoraro Creek at Rowlandsville, MD	01579500	210	1896-99
Deer Creek near Kalmia, MD	01580200	125	1967-77
Deer Creek near Churchville, MD	01580500	141	1905-09
BUSH RIVER BASIN			
Bynum Run near Bel Air, MD (head of Bush River)	01581000	7.7	1950-55
Church Creek:			
Cranberry Run at Aberdeen, MD	01581657	4.16	1988-89
Cranberry Run at Perryman, MD	01581658	5.22	1987-89
GUNPOWDER RIVER BASIN			
Gunpowder Falls (head of Gunpowder River):			
Western Run:			
Delaware Run:			
Slade Run near Glyndon, MD	01583000	2.09	1947-81
Gunpowder Falls near Carney, MD	01584000	314	1949-64
Little Gunpowder Falls near Bel Air, MD	01585000	43	1904-09
Bird River:			
Whitemarsh Run (head of Bird River):			
Honeygo Run at White Marsh, MD	01585105	2.65	1990-93
Windlass Run near White Marsh, MD	01585107	2.03	1992-93
BACK RIVER BASIN			
Herring Run (head of Back River):			
Stemmers Run (head of Northeast Creek) at Rossville, MD	01585300	4.46	1959-72, 1974-89
Brien Run at Stemmers Run, MD	01585400	1.97	1958-87
PATAPSCO RIVER BASIN			
North Branch Patapsco River near Reistertown, MD	01586500	91.0	1927-54
North Branch Patapsco River near Marriottsville, MD	01587000	165	1930-60
South Branch Patapsco River at Henryton, MD	01587500	64.4	1948-80
Piney Run near Sykesville, MD	01588000	11.4	1931-58
Patapsco River at Woodstock, MD	01588500	251	1896-1909
Gwynns Falls near Owings Mills, MD	01589200	4.90	1958-75
Jones Falls near mouth at Baltimore, MD	01589480	60.4	1981-82
Curtis Creek:			
Furnace Creek:			
Sawmill Creek at Crain Highway at Glen Burnie, MD	01589512	8.24	1984-85, 1990-94
Marley Creek at Harundale, MD	01589522	4.79	1984-85
SOUTH RIVER BASIN			
North River (head of South River) near Annapolis, MD	01590000	8.50	1932-74
Bacon Ridge Branch at Chesterfield, MD	01590500	6.92	1943-52, 1975-90
RHODE RIVER BASIN			
Rhode River:			
Muddy Creek:			
North Fork Muddy Creek at South River, MD	01590700	0.88	1972-76

NORTH ATLANTIC SLOPE BASINS--Continued	Station number	Drainage area (mi^2)	Period of record
PATUXENT RIVER BASIN			
Patuxent River:			
Cattail Creek near Cookesville, MD	01591350	8.37	1977-81
Cattail Creek at Roxbury Mills, MD	01591500	27.7	1944-56
Patuxent River near Burtonsville, MD	01592000	127	1911-45
Little Patuxent River:			
Middle Patuxent River near Simpsonville, MD	01593710	48.4	1987-95
Dorsey Run near Jessup, MD	01594400	11.6	1948-58
Western Branch near Largo, MD	01594500	30.2	1950-75
Cocktown Creek near Huntingtown, MD	01594600	3.85	1957-76
Hunting Creek near Huntingtown, MD	01594670	9.38	1989-98
Killpeck Creek at Huntersville, MD	01594710	3.26	1986-98
St. Leonard Creek near St. Leonard, MD	01594800	6.73	1957-68, 2001-03
POTOMAC RIVER BASIN			
North Branch Potomac River:			
South Fork Sand Run near Wilson, MD	01594934	1.55	1980-86
North Branch Potomac River at Bloomington, MD	01596000	287	1925-27, 1929-50
Savage River:			
Crabtree Creek near Swanton, MD	01597000	16.7	1948-81
Savage River at Bloomington, MD	01598000	115	1906-07, 1925-27, 1929-50
Wills Creek below Hyndman, PA	01601000	146	1951-67
North Branch Potomac River at Cumberland, MD	01602500	873	1894-97
Evitts Creek near Centerville, PA	01603500	30.2	1932-82
Evitts Creek near Cumberland, MD	01604000	89.0	1929-32
Sawpit Run near Oldtown, MD	01609500	5.08	1948-58
Little Tonoloway Creek near Hancock, MD	01612500	16.9	1947-63
Antietam Creek near Waynesboro, PA	01619000	93.5	1948-51, 1966-81
Beaver Creek:			
Albert Powell Fish Hatchery Spring at Beaver Creek, MD	01619320		1987-98
Catoctin Creek:			
Little Catoctin Creek at Harmony, MD	01637000	8.83	1947-59, 1968
Catoctin Creek near Jefferson, MD	01638000	111	1928-31
Monocacy River:			
Piney Creek near Taneytown, MD	01639140	31.3	1990-2002
Toms Creek at Emmitsburg, MD	01639375	41.3	1986-90
Big Pipe Creek (head of Double Pipe Creek):			
Little Pipe Creek at Avondale, MD	01640000	8.10	1947-56
Owens Creek near Foxville, MD	01640456	1.01	1986-87
Owens Creek at Lantz, MD	01640500	5.93	1932-84
Hunting Creek near Foxville, MD	01640965	2.14	1982-94
Hunting Creek tributary near Foxville, MD	01640970	4.01	1982-91
Hunting Creek near Thurmont, MD	01640975	7.08	1982-86
Bear Branch near Thurmont, MD	01640980	0.38	1990-95
Hunting Creek at Jimtown, MD	01641000	18.4	1950-92
Fishing Creek near Lewistown, MD	01641500	7.29	1948-84
Fishing Creek Tributary near Lewistown, MD	01641510	0.40	1988-95
Monocacy River near Frederick, MD	01642000	665	1896-1930
Linganore Creek near Frederick, MD	01642500	82.3	1932, 1934-82
Bennett Creek:			
Bennett Creek tributary at Park Mills, MD	01643495	0.15	1992-93
Broad Run at Elmer, MD	01643615	14	1978-80 [b]
Seneca Creek:			
Great Seneca Creek near Gaithersburg, MD	01644500	41.0	1925-31
Watts Branch at Rockville, MD	01645200	3.70	1957-87
Little Falls Branch near Bethesda, MD	01646550	4.10	1944-59, 1962-79
Rock Creek:			
North Branch Rock Creek:			
Williamsburg Run near Olney, MD	01647685	2.25	1967-74
North Branch Rock Creek near Norbeck, MD	01647720	9.73	1967-77
Manor Run near Norbeck, MD	01647725	1.01	1967-74
North Branch Rock Creek near Rockville, MD	01647740	12.5	1967-77

a Estimated daily discharges October 1953 to June 1964.
b Daily values data unpublished, available at Baltimore, MD office.

NORTH ATLANTIC SLOPE BASINS--Continued	Station number	Drainage area (mi^2)		Period of record
POTOMAC RIVER BASIN--Continued				
Potomac River--Continued				
Rock Creek--Continued:				
Rock Creek near Beech Drive at Kensington, MD	01647970	46.7	[b]	2001
Rock Creek at Beech Drive near Kensington, MD	01647975	49.0	[b]	2001
Rock Creek at Cedar Lane near Kensington, MD	01647976	51.3	[b]	2001
Rock Creek at Q Street, Washington, DC	01649000	75.8		1892-94, 1929-33
Northeast Branch Anacostia River:				
Northwest Branch Anacostia River at Norwood, MD	01650050	2.45		1967-74
Browns Creek:				
Nursery Run at Cloverly, MD	01650085	0.35		1967-74
North Creek:				
Batchellors Run at Oakdale, MD	01650190	0.47	[a]	1967-70
Bel Pre Creek at Lay Hill, MD	01650450	1.69		1967-74
Lutes Run at Lutes, MD	01650470	0.47	[a]	1967-70
Anacostia River:				
Beaverdam Branch Anacostia River at Kenilworth Avenue, Washington, DC	01652000	14		1911-12
Henson Creek (head of Broad Creek) at Oxon Hill, MD	01653500	16.7		1948-78
Wicomico River:				
Chaptico Creek at Chaptico, MD	01661000	10.4		1947-72
OHIO RIVER BASIN				
MONONGAHELA RIVER BASIN				
Monongahela River:				
Youghiogheny River:				
South Branch Casselman River near Bittenger, MD	03077940	3.22		1976-81
Casselman River:				
Big Piney Run near Salisbury, PA	03078500	24.5		1932-70

a Daily values data unpublished, available at Baltimore, MD office.
b Daily values data unpublished, available at Baltimore, MD office.

The following crest-stage partial-record stations in Maryland and Delaware have been discontinued. Annual maximum discharge and gage-height data were collected and published for the period of record, expressed in water years, shown for each station.

NORTH ATLANTIC SLOPE BASINS	Station number	Drainage area (mi^2)	Period of record
DELAWARE RIVER BASIN			
Delaware River:			
Christina River near Bear, DE	01478040	40.6	1983-91
White Clay Creek:			
Pike Creek near Newark, DE	01478950	6.04	1969-75
Mill Creek at Hockessin, DE	01479200	**a**4.19	1966-75
West Branch Red Clay Creek:			
Red Clay Creek tributary near Yorklyn, DE	01479950	0.38	1966-75
Brandywine Creek:			
Brandywine Creek tributary near Centerville, DE	01481200	0.97	1966-75
Husbands Run:			
Willow Run at Rockland, DE	01481450	0.37	1966-75
Red Lion Creek:			
Doll Run at Red Lion, DE	01482310	**b**1.2	1966-75
SMYRNA RIVER BASIN			
Providence Creek (head of Smyrna River):			
Paw Paw Branch:			
Paw Paw Branch tributary near Clayton, DE	01483290	**b**1.3	1966-75
Smyrna River:			
Sawmill Branch:			
Sawmill Branch tributary near Blackbird, DE	01483400	**b**0.6	1966-75
LEIPSIC RIVER BASIN			
Leipsic River near Cheswold, DE	01483500	9.35	1958-75
ST. JONES RIVER BASIN			
St. Jones River:			
Puncheon Branch at Dover, DE	01483720	**b**2.3	1966-75
MURDERKILL RIVER BASIN			
Murderkill River:			
Murderkill River tributary near Felton, DE	01484002	**b**1.0	1966-75
Hudson Branch (head of Spring Creek):			
Pratt Branch near Felton, DE	01484050	3.29	1966-75
BROADKILL RIVER BASIN			
Broadkill River:			
Beaverdam Creek near Milton, DE	01484270	6.10	1966-75
INDIAN RIVER BASIN			
Indian River:			
Whartons Branch near Millsboro, DE	01484531	5.8	1986-88
Pepper Creek at Dagsboro, DE	01484550	8.78	1960-75
Blackwater Creek near Clarksville, DE	01484600	3.5	1986-88
WICOMICO RIVER BASIN			
Andrews Branch (head of Wicomico River) near Delmar, MD	01486100	**b**4.1	1966-76
NANTICOKE RIVER BASIN			
Nanticoke River:			
Bridgeville Branch:			
Bridgeville Branch tributary at Bridgeville, DE	01486900	**b**0.8	1966-68
Gum Branch:			
Toms Dam Branch near Greenwood, DE	01486980	**b**6.4	1966-75
James Branch (head of Broad Creek):			
Trap Pond Outlet (head of Hitch Pond Branch) near Laurel, DE	01487500	16.7	1972-73, 1975
Broad Creek:			
Little Creek:			
Meadow Branch near Delmar, DE	01487900	**b**3.9	1967-75
Holly Ditch near Laurel, DE	01488000	2.19	1959-75
CHOPTANK RIVER BASIN			
Tappahanna Ditch (head of Choptank River) near Hartly, DE	01490470	5.93	1961-73
Tidy Island Creek (continuation of Tappahanna Creek):			
Culbreth Marsh Ditch:			
Beachy Neidig Ditch near Willow Grove, DE	01490490	**b**2.3	1966-75
Culbreth Marsh Ditch (Shades Branch) near Chapeltown, DE	**c**01490500	11.6	1957-68
Cow Marsh:			
Meredith Branch near Sandtown, DE	01490600	**b**8.4	1966-75
Broadway Branch:			
Oldtown Branch at Goldsboro, MD	01490800	3.9	1967-76
Gravelly Branch:			
Sangston Prong near Whiteleysburg, DE	01491010	**b**1.9	1966-75
Spring Branch near Greensboro, MD	01491050	**b**3.8	1966-76
Hunting Creek:			
Gravel Run at Beulah, MD	01492050	8.4	1966-76

a 0.15 square miles is probably noncontributing.
b Approximately.
c Prior to 1956 published as "Shades Branch".

NORTH ATLANTIC SLOPE BASINS--Continued	Station number	Drainage area (mi^2)	Period of record
WYE RIVER BASIN			
Wye River:			
Wye East River:			
Sallie Harris Creek near Carmichael, MD	01492500	8.09	1957-81
Skipton Creek:			
Mill Creek near Skipton, MD	01492550	**b**4.6	1966-76
CHESTER RIVER BASIN			
Andover Branch (head of Chester River):			
Southeast Creek at Church Hill, MD	01494000	12.5	1957-65
Browns Branch:			
Browns Branch tributary near Church Hill, MD	01494020	**b**1.7	1971-78
NORTHEAST RIVER BASIN			
Northeast Creek (head of Northeast River):			
Northeast River tributary near Charlestown, MD	01496080	**b**1.7	1967-76
SUSQUEHANNA RIVER BASIN			
Susquehanna River:			
Broad Creek:			
Broad Creek tributary at Whiteford, MD	01577940	0.77	1971-86
Octoraro Creek:			
Basin Run at West Nottinhgam, MD	01578800	**b**1.3	1967-76
Basin Run at Liberty Grove, MD	01579000	5.31	1965-76
Bush River Basin			
Bynum Run (head of Bush River) at Bel Air, MD	01581500	8.52	1971-72
GUNPOWDER RIVER BASIN			
Gunpowder Falls (head of Gunpowder River):			
Piney Creek near Hereford, MD	01582510	**b**1.5	1966-79
Western Run:			
Western Run tributary at Western Run, MD	01583495	0.26	1966-76
Beaverdam Run:			
Baisman Run at Broadmoor, MD	01583580	1.47	1970-76
Little Gunpowder Falls at Laurel Brook, MD	01584500	36.1	1971-86
PATAPSCO RIVER BASIN			
North Branch Patapsco River:			
South Branch Patapsco River:			
Hay Meadow Branch:			
Hay Meadow Branch tributary at Poplar Springs, MD	01587050	0.54	1966-76
Piney Run near Sykesville, MD	01588000	11.4	1959-74
Patapsco River:			
Gwynns Falls at Owings Mills, MD	01589220	9.12	1958-65, 1967-68
Gwynns Falls at McDonough, MD	01589240	19.3	1958-68, 1971-84
Jones Falls at Brooklandville, MD	01589400	19.7	1958-65, 1968
PATUXENT RIVER BASIN			
Patuxent River:			
Little Patuxent River:			
Little Patuxent River tributary at Guilford Downs, MD	01593350	0.95	1966-76
Dorsey Run near Jessup, MD	01594400	11.6	1959-68
Mill Branch near Mitchellville, MD	01594445	**b**1.1	1967-76
POTOMAC RIVER BASIN			
North Branch Potomac River:			
Savage River near Frostburg, MD	01596005	**b**1.5	1971-86
Wills Creek below Hyndman, PA	01601000	146	1968-86
Potomac River:			
Town Creek:			
Sawpit Run near Oldtown, MD	01609500	5.08	1963-76
Fifteen Mile Creek:			
Pratt Hollow:			
Pratt Hollow tributary at Pratt, MD	01610105	0.70	1971-86
Sideling Hill Creek:			
Bear Creek at Forest Park, MD	01610150	10.4	1965-69, 1971-83
Little Tonoloway Creek near Hancock, MD	01612500	16.9	1964
Ditch Run near Hancock, MD	01613150	**b**4.8	1965-86
Potomac River tributary near Hancock, MD	01613160	**b**1.2	1965-76
Antietam Creek:			
Little Antietam Creek:			
Dog Creek:			
Dog Creek tributary near Locust Grove, MD	01619475	0.10	1966-76

b Approximately.

NORTH ATLANTIC SLOPE BASINS--Continued	Station number	Drainage area (mi^2)	Period of record
POTOMAC RIVER BASIN --Continued			
Catoctin Creek:			
Little Catoctin Creek at Harmony, MD	01637000	8.8	1961-67, 1969-77
Hollow Road Creek (head of Cone Branch) near Middletown, MD	01637600	2.3	1965-74, 1977
Monocacy River:			
Piney Creek:			
Piney Creek tributary at Taneytown, MD	01639095	0.62	1967-76
Big Pipe Creek:			
Little Pipe Creek at Avondale, MD	01640000	8.10	1959-65, 1967-80
Owens Creek:			
Owens Creek tributary near Rocky Ridge, MD	01640700	**b**1.2	1967-77
Linganore Creek:			
Dollyhyde Creek at Libertytown, MD	01642400	**b**2.7	1969-76
Little Seneca Creek (head of Seneca Creek):			
Bucklodge Branch:			
Bucklodge Branch tributary near Barnesville, MD	01644420	0.27	1967-76
Little Falls Branch near Bethesda, MD	01646550	**b**4.1	1979-84
Northeast Branch Anacostia River:			
Northwest Branch Anacostia River at Norwood, MD	01650050	2.45	1975-76
Browns Creek:			
Nursery Run at Cloverly, MD	01650085	0.35	1975-76
North Creek:			
Batchellors Run at Oakdale, MD	01650190	0.47	1967-76
Mattawoman Creek near Pomonkey, MD	01658000	57.7	1973-86
Zekiah Swamp Run (head of Wicomico River):			
Wolf Den Branch near Cedarville, MD	01660900	**b**2.3	1966-80
Clark Run near Bel Alton, MD	01660930	10.4	1966-76
Herring Creek:			
Glebe Branch at Valley Lee, MD	01661430	**b**0.3	1968-78
OHIO RIVER BASIN			
MONONGAHELA RIVER BASIN			
Monongahela River:			
Youghiogheny River:			
Little Youghiogheny River:			
Little Youghiogheny River tributary near Deer Park, MD	03075450	0.57	1965-76
Toliver Run:			
Toliver Run tributary near Hoyes Run, MD	03075600	0.53	1965-86
Youghiogheny River tributary near Friendsville, MD	03076505	0.22	1965-76
North Branch Casselman River:			
North Branch Casselman River tributary at Foxtown, MD	03077700	**b**1.0	1965-77
Casselman River:			
Big Piney Run near Salisbury, PA	03078500	24.5	1974-86

b Approximately.

The following continuous-record surface-water-quality stations have been discontinued in Maryland and Delaware. Daily records of specific conductance (SC), water temperature (T), pH, dissolved oxygen (DO), and sediment (SED) were collected for the period (in water years) shown for each station.

NORTH ATLANTIC SLOPE BASINS	Station number	Drainage area (mi^2)	Type of record	Period of record
DELAWARE RIVER BASIN				
Delaware River:				
Christina River:				
White Clay Creek:				
Red Clay Creek at Wooddale, DE	01480000	47.0	T	1953-81
Brandywine Creek at Wilmington, DE	01481500	314	T	1957-61
				1971-73
				1975-80
			SED	1947-61
				1964-80
Delaware Bay near Lewes, DE	01484450		SC, T	1993-98
CHOPTANK RIVER BASIN				
Choptank River near Greensboro, MD	01491000	113	SC, T	1975-91
			SED	1981-91
ELK RIVER BASIN				
Elk River near Town Point, MD	01495900		SC, T	1982-98
SUSQUEHANNA RIVER BASIN				
Susquehanna River at Conowingo, MD	01578310	27,100	SC, T	1979-81
				1984-92
			SED	1980-81
				1984-92
RHODE RIVER BASIN				
Rhode River:				
Muddy Creek:				
North Fork Muddy Creek at South River, MD	01590710	0.89	T	1971-78
Rhode River near South River, MD	01590720	18.0	SC, pH, T, DO	1971-83
PATUXENT RIVER BASIN				
Patuxent River near Bowie, MD	01594440	348	SC, T	1978-80
				1986-91
			SED	1986-91
Patuxent River at Benedict, MD	01594700	742	T	1964-69
POTOMAC RIVER BASIN				
North Branch Potomac River:				
Laurel Run at Dobbin Road near Wilson, MD	01594930	8.23	SC, T	1981-88
			pH	1984-88
Sand Run:				
South Fork Sand Run near Wilson, MD	01594934	1.55	SC, pH, T	1981-86
North Fork Sand Run near Wilson, MD	01594936	1.91	SC, T	1981-88
			pH	1985-88
McMillan Fork near Fort Pendelton, MD	01594950	2.30	SC, pH, T	1987-97
North Branch Potomac River at Kitzmiller, MD	01595500	225	SC, pH, DO	1981-85
			T	1961-85
North Branch Potomac River at Barnum, WV	01595800	266	SC, pH, T, DO	1981-85
North Branch Potomac River at Luke, MD	01598500	404	T	1961-81
North Branch Potomac River at Pinto, MD	01600000	596	SC, pH, T, DO	1981-85
North Branch Potomac River near Cumberland, MD	01603000	875	T, SED	1965-79
Potomac River at Hancock, MD	01613000	4,073	T	1952-64
				1966-75
Conococheague Creek at Fairview, MD	01614500	495	T, SED	1967-80
Potomac River at Shepherdstown, WV	01618000	5,936	SC, T	1981
Antietam Creek near Sharpsburg, MD	01619500	281	T	1963-75
Shenandoah River at Millville, WV	01636500	3,040	SC, T	1980-83
Potomac River at Point of Rocks, MD	01638500	9,651	T, SED	1961-93
Monocacy River at Bridgeport, MD	01639000	173	T, SED	1990-93
Hunting Creek near Foxville, MD	01640965	2.14	SC, T	1988-91
Hunting Creek tributary near Foxville, MD	01640970	4.01	SC, T	1988-91
Fishing Creek:				
Fishing Creek tributary near Lewistown, MD	01641510	0.40	SC, T	1988-90
Monocacy River at Reich's Ford Bridge near Frederick, MD	01643020		T, SED	1961-93
Watts Branch at Rockville, MD	01645200	3.70	T	1957-67
Potomac River at Great Falls, MD	01645500	11,430	SC, T	1973-78

	Station number	Drainage area (mi^2)	Type of record	Period of record
NORTH ATLANTIC SLOPE BASINS				
POTOMAC RIVER BASIN--Continued				
Potomac River at Chain Bridge at Washington, DC	01646580	11,570	SC, pH, T, DO	1978-81
			SED	1979-81
Rock Creek:				
North Branch Rock Creek:				
Williamsburg Run near Olney, MD	01647685	2.25	SED	1967-68
North Branch Rock Creek near Rockville, MD	01647740	12.5	SED	1967-77
Northeast Branch Anacostia River:				
Northwest Branch Anacostia River:				
Browns Creek:				
Nursery Run at Cloverly, MD	01650085	0.35	SED	1967-68
Northwest Branch Anacostia River near Colesville, MD	01650500	21.1	SED	1967-75
Potomac River at Indian Head, MD	01655480	12,160	SC, pH, T, DO	1978-81
Potomac River at Piney Point, MD	01661475	---	SC, pH, T, DO	1980-81
OHIO RIVER BASIN				
MONONGAHELA RIVER BASIN				
Monongahela River:				
Youghiogheny River at Friendsville, MD	03076500	295	T	1963-75

The following low-flow, partial-record stations have been operated in Maryland, Delaware, and the District of Columbia. Measurements at these sites were made during periods of base flow when streamflow was primarily from ground-water storage. The column headed "Period of record" shows the water years in which measurements were made.

NORTH ATLANTIC SLOPE BASINS	Station number	Drainage area (mi^2)	Period of record
DELAWARE RIVER BASIN			
Delaware River:			
Naaman Creek:			
South Branch Naaman Creek near Claymont, DE	01477400	3.83	1955-66, 1968-71
Christina River near Newark, DE	01477850	3.76	1981-83, 2002
West Branch Christina River near Newark, DE	01477860	4.20	1981-83, 2002
Belltown Run near Glasgow, DE	01478009	3.35	1978-81, 2002
Muddy Run at Glasgow, DE	01478024	5.43	1978-81, 2002
Muddy Run near Cooches Bridge, DE	01478028	8.21	1978-80, 2002
White Clay Creek:			
White Clay Creek tributary near Ogletown, DE	01478878	3.68	1978-80, 2002
Brandywine Creek:			
Rocky Run at Talleyville, DE	01481350	1.76	1957-59, 1966
Wilson Run at Guyencort, DE	01481400	1.62	1957-59, 2002
North Fork Wilson Run at Guyencort, DE	01481430	1.12	1957-59, 2002
Wilson Run at Rockland, DE	01481440	3.05	1957-63
Husbands Run at Rockland, DE	01481460	1.28	1957-59, 2002
Squirrel Run at Montchanin, DE	01481480	1.67	1957-59
Alapocas Run at Concord, DE	01481530	0.81	1957-59, 2002
Red Lion Creek at Red Lion, DE	01482300	3.20	1955-60, 1962-71
Dragon Creek at Kirkwood, DE	01482400	1.93	1978-81
Dragon Creek tributary at Kirkwood, DE	01482405	0.16	1978-81
Joy Run near Summit Bridge, DE	01482670	1.26	1978-80
Scott Run near Boyds Corner, DE	01482690	2.18	1978-81
Appoquinimink River:			
Wiggins Millpond Outlet (head of Appoquinimink River) at Townsend, DE	01483150	3.82	1957-60, 1962-66, 1968-71, 1978-80
Drawyer Creek near Mt. Pleasant, DE	01483160	1.54	1978-80
Spring Mill Branch near Armstrong, DE	**a**01483165@	4.68	1979-80
Dove Nest Branch near Odessa, DE	**a**01483170@	4.68	1978-80
SMYRNA RIVER BASIN			
Providence Creek (head of Smyrna River) at Clayton, DE	01483300	11.8	1955-60, 1962-63, 1966, 1968-69
Smyrna River:			
Mill Creek at Smyrna, DE	01483350	4.77	1955-57, 1959-60, 1962-63, 1966, 1968-69
ST. JONES RIVER BASIN			
Fork Branch (head of St. Jones River) at Dupont, DE	01483650	7.50	1955-57, 1959-60, 1962-66, 1968-71
Maidstone Branch at Dupont, DE	01483680	17.3	1955-57, 1959-60, 1962-66, 1968-71

a Prior to 2001 published as "Drawyer Creek tributary".
@ Currently a surface-water discharge station.

NORTH ATLANTIC SLOPE BASINS--Continued	Station number	Drainage area (mi^2)	Period of record
MURDERKILL RIVER BASIN			
Murderkill River:			
Browns Branch near Houston, DE	01484020	12.4	1955-71
Spring Creek:			
Hudson Branch (head of Spring Creek) near Canterbury, DE	01484040	8.40	1955-60
Pratt Branch near Felton, DE	01484050*	3.29	1955-57 1959-60 1962-71
Double Run near Magnolia, DE	01484060	5.68	1955-57 1959-60 1962-64 1966-71
MISSPILLION RIVER BASIN			
Beaverdam Branch (head of Misspillion River):			
Cedar Creek near Lincoln, DE	01484200	7.21	1955-60 1962-63 1966, 1968-69
BROADKILL RIVER BASIN			
Pemberton Branch (head of Broadkill River) near Milton, DE	01484240	6.68	1955-66 1968-71
Broadkill River:			
Beaverdam Creek near Milton, DE	01484270	6.10	1955-71
INDIAN RIVER BASIN			
Indian River:			
Sheep Pen Ditch near Shortly, DE	01484510	**b**5.4	1986-88 1997-98
Iron Branch at Millsboro, DE	01484530	**b**8.0	1985-88 1997-99 2000
Whartons Branch near Millsboro, DE	01484531*	**b**5.8	1968-69 1971, 1985-88 1999-2000
Swan Creek near Warwick, DE	01484535	**b**5.6	1985-88 1997-98
Pepper Creek at Dagsboro, DE	01484550*	8.78	1955-71 1985-88 1997-99 2000
Blackwater Creek near Clarkesville, DE	01484600*	**b**3.5	1968-69 1971, 1985-88 1997-98
Love Creek at Robinsonville, DE	01484655	**b**11.1	1985-88 1997-99 2000
Chapel Branch at Angola, DE	01484677	**b**8.0	1985-88 1997-99 1997-99 2000
Unity Branch at Angola, DE	01484678	4.2	1999-2000
MILLER CREEK BASIN			
Beaverdam Ditch (head of Miller Creek) near Millville, DE	01484695@	2.2	1997-98
DIRICKSON CREEK BASIN			
Bearhole Ditch (head of Dirickson Creek) at Bunting, DE	01484700	**b**6.4	1968-71 1985-88 1997-98
ST. MARTIN RIVER BASIN			
St. Martin River:			
Buntings Branch near Selbyville, DE	01484710	4.15	1999
Taylorville Creek near Berlin, MD	01484714	0.94	1999
TRAPPE CREEK BASIN			
Trappe Creek:			
Bottle Branch at Berlin, MD	01484716	0.35	1999-2000
NEWPORT CREEK BASIN			
Newport Creek near Berlin, MD	01484717	0.51	1999-2000
Beaverdam Creek at Ironshire, MD	01484718	1.33	1999-2000
BASSETT CREEK BASIN			
Bassett Creek near Ironshire, MD	01484719	1.22	1999-2000
Porter Creek near Newark, MD	01484720	0.76	1999-2000

@ Currently a surface-water discharge station.
b Approximately.
***** Also a crest-stage partial-record station.

NORTH ATLANTIC SLOPE BASINS--Continued	Station number	Drainage area (mi^2)	Period of record
MARSHALL CREEK BASIN			
Marshall Creek at Newark, MD	01484721	1.30	1999-2000
Massey Branch near Newark, MD	01484722	0.54	1999-2000
WATERWORKS CREEK BASIN			
Waterworks Creek:			
Waterworks Creek tributary near Cedartown, MD	01484723	0.09	1999-2000
SCARBORO CREEK BASIN			
Scarboro Creek at Spence, MD	01484725	0.27	1999-2000
PAWPAW CREEK BASIN			
Pawpaw Creek at Spence, MD	01484726	1.48	1999-2000
TANHOUSE CREEK BASIN			
Tanhouse Creek near Boxiron, MD	01484727	0.45	1999-2000
BROCKATONORTON BAY BASIN			
Boxiron Creek (head of Brockatonorton Bay) at Boxiron, MD	01484728	0.41	1999-2000
Brockatonorton Bay tributary at Boxiron, MD	01484729	0.26	1999-2000
PIKES CREEK BASIN			
Pikes Creek near Stockton, MD	01484730	0.86	1999-2000
RILEY CREEK BASIN			
Riley Creek at Stockton, MD	01484731	0.12	1999-2000
SWANS GUT CREEK BASIN			
Little Mill Creek (head of Swans Gut Creek) near Stockton, MD	01484732	0.81	1999-2000
Marshall Ditch near Stockton, MD	01484733	0.28	1999-2000
LITTLE MOSQUITO CREEK BASIN			
Little Mosquito Creek:			
Wattsville Branch:			
Wattsville Branch tributary No. 1 at Wattsville, VA	0148473510	0.34	1999-2000
Snead Branch near Horntown, VA	0148474010	0.77	1999-2000
WICOMICO RIVER BASIN			
Andrews Branch (head of Wicomico River):			
Leonard Pond Run near Delmar, MD	01486200	13.4	1950-51, 1964, 1969-71
NANTICOKE RIVER BASIN			
Nanticoke River (Gravelly Fork):			
Deep Creek at Old Furnace, DE	01487100	33.0	1955-60, 1962-63, 1968
Tyndall Branch near Hardscrabble, De	01487120	12.7	1955-63, 1966
Lewes Creek:			
Butler Mill Branch near Woodland, De	01487300	6.96	1955-63, 1966, 1968-69
James Branch (head of Broad Creek):			
Elliott Pond Branch (Chipman Pond Branch) near Laurel, DE	01487700	8.55	1955-66, 1968-71
Chicone Creek at Reids Grove, MD	01489395	4.69	1951-53, 1969-71
Baron Creek at MD-DE State Corner	01489400	8.93	1950-52, 1969-70
CHOPTANK RIVER BASIN			
Choptank River near Choptank Mills, DE	01490550	**b**58	1985-87
Forge Branch at Greensboro, MD	01491060	9.84	1952-53
Watts Creek near Denton, MD	01491180	**b**11	1964-75
Tuckahoe CreeK:			
Knott Millpond near Hillsboro, MD	01491800	8.45	1952-53, 1968-71
Cabin Creek at Cabin Creek, MD	01492080	6.05	1952-53
WYE RIVER BASIN			
Wye River:			
Wye East River:			
Skipton Creek:			
Mill Creek near Wye Mills, MD	01492560	5.72	1952-53, 1982

b Approximately.

NORTH ATLANTIC SLOPE BASINS--Continued	Station number	Drainage area (mi^2)	Period of record
CHESTER RIVER BASIN			
Andover Branch (head of Chester River):			
Cypress Branch at Millington, MD	01492980	**b**38	1964-66, 1968-75
Mills Branch near Millington, MD	01492990	9.98	1953-54, 1968-71
Chester River:			
Foreman Branch at Ewingville, MD	01493480	5.27	1953-54
Langford Creek:			
East Fork Langford Creek:			
Mill Pond Outlet near Langford, MD	01494035	5.10	1953-54, 1968-71
Old Mill Stream Branch (head of Corsica River) at Centerville, MD	01494100	11.2	1964-71
SASSAFRAS RIVER BASIN			
Sassafras River:			
Sassafras River tributary at Ginns Corner, MD	01494450	3.81	1982-83
Duffy Creek near Cecilton, MD	01494480	1.45	1968-71
WORTON CREEK BASIN			
Mill Creek (head of Worton Creek) at Hanesville, MD	01494600	4.63	1953-54, 1968-71
ELK RIVER BASIN			
Big Elk Creek (head of Elk River):			
Gramies Run at Elk Mills, MD	01494995	3.05	1981-83
Little Elk Creek at Rock Church, MD	01495480	17.8	1982-83
Laurel Run near Elkton, MD	01495520	3.87	1982-83
Dogwood Run at Elkton, MD	01495525	1.62	1982-83
Mill Creek near Elkton, MD	01495540	4.32	1968-70, 1982
Elk River:			
Perch Creek near Elkton, MD	01495550	**b**6.0	1964-75, 1978-80, 1982-83
Back Creek near Mt. Pleasant, DE	01495700	4.40	1968-69
Bohemia River:			
Sandy Branch at Bohemia Creek, MD	01495925	2.58	1968-70, 1982
Little Bohemia Creek near Warwick, MD	01495935	2.45	1953-54
Scotchman Creek:			
Scotchman Creek tributary near Cecilton, MD	01495950	1.40	1982-83
NORTHEAST RIVER BASIN			
Northeast Creek (head of Northeast River):			
Little Northeast Creek:			
West Branch Little Northeast Creek at Zion, MD	01496030	3.32	1981-83
Little Northeast Creek at Mechanic Valley, MD	01496050	**b**14	1964-75
Northeast River:			
Northeast River tributary at North East, MD	01496055	1.55	1982-83
Stony Run near North East, MD	01496060	8.23	1982-83
Northeast River tributary at Charlestown, MD	01496085*	1.03	1982-83
Hance Point Creek at Hance Point, MD	01496100	1.36	1983
PRINCIPIO CREEK BASIN			
Principio Creek:			
Principio Creek tributary at Belvedere, MD	01496225	2.08	1982-83
MILL CREEK BASIN			
Mill Creek at Jackson, MD	01496250	3.73	1982-83
SUSQUEHANNA RIVER BASIN			
Susquehanna River:			
Broad Creek at Pylesville, MD	01577950	11.3	1956-59, 1962-63, 1966
Conowingo Creek at Oakwood, MD	01578300	34.4	1982-83
Octoraro Creek:			
Stone Run near Rising Sun, MD	01578475	2.24	1982-83
Stone Run at Rising Sun, MD	01578480	6.71	1982-83
Love Run at Richardsmere, MD	01578490	3.55	1982-83
Octoraro Creek tributary at Richardsmere, MD	01578515	3.27	1982-83
Deer Creek at Gorsuch Mills, MD	01579875	**b**25	1975-79, 2002
Big Branch at Harkins, MD	01579900	6.39	1975-79, 2002
Little Deer Creek near Federal Hill, MD	01579925	14.0	1975-79, 2002
Stout Bottle Branch near Ady, MD	01580170	7.13	1980-82, 2002

b Approximately.
* Also a crest-stage partial-record station.

NORTH ATLANTIC SLOPE BASINS--Continued SUSQUEHANNA RIVER BASIN--Continued	Station number	Drainage area (mi^2)	Period of record
Susquehanna River--Continued			
Deer Creek near Darlington, MD	01580520	168	2000-04
SWAN CREEK BASIN			
Swan Creek at Swan Creek, MD	01580700	13.2	1956-59, 1962-63, 1966
BUSH RIVER BASIN			
Bynum Run (head of Bush River) at Bush, MD	01581600	22.5	1956-59, 1962-63, 1966
James Run at Bush, MD	01581650	11.1	1956-59, 1962-63, 1966
Bush River:			
Grays Run at Stepney, MD	01581660	5.35	1956-59, 1962-63, 1966
Winters Run (head of Otter Point Creek) near Bel Air, MD	01581750	37.0	1954-59, 1962-63, 1966
GUNPOWDER RIVER BASIN			
Gunpowder Falls (head of Gunpowder River):			
Grave Run near Beckleysville, MD	01581830@	7.68	1977-82, 2002
Georges Run at Armacost, MD	01581850	13.0	1956-59, 1962, 1966, 2002
Georges Run near Beckleysville, MD	01581870@	15.8	1977-82, 2002
Little Falls:			
Beetree Run at Bentley Springs, MD	01581960@	9.72	1975-79, 2002
Third Mine Branch near Stablersville, MD	01581980	5.27	1975-79, 2002
Green Branch at Phoenix, MD	01582900	4.45	1973, 1975-79, 2002
Western Run:			
Piney Run at Dover, MD	01583100@	12.3	1975-79, 2002
Blackrock Run at Coopersville, MD	01583200	9.38	1956-59, 1962-63, 1966, 2002
Beaverdam Run at Cockeysville, MD	01583600@	20.9	1956-59, 1962-63, 1966, 2002
Little Gunpowder Falls at Hess, MD	01584200	16.5	1956-59, 1962-63, 1966, 2002
PATAPSCO RIVER BASIN			
North Branch Patapsco River:			
Deep Run at Lawndale, MD	01585700	6.70	1975-82, 2002
Beaver Run at Finksburg, MD	01586200	12.7	1957-59, 1961-63, 1966, 2002
Middle Run near Finksburg, MD	01586550	6.18	1973, 1975-79, 2002
Morgan Run near Gamber, MD	01586600	26.0	1957-59, 1961-63, 1966, 2002
Little Morgan Run near Eldersburg, MD	01586650	7.13	1973, 1975-79, 2002
South Branch Patapsco River at Woodbine, MD	01587070	11.4	1975-79, 1988-90, 2002
Gillis Falls at Woodbine, MD	01587170	19.4	1975-79, 2002
Rockburn Branch at Elkridge, MD	01589040	3.69	1988-90, 2002
Deep Run at Hanover, MD	01589080	18.0	1975-79, 1988-90, 2002

@ Currently a surface-water discharge station.

NORTH ATLANTIC SLOPE BASINS--Continued	Station number	Drainage area (mi^2)	Period of record
PATAPSCO RIVER BASIN--Continued			
Patapsco River--Continued			
Stony Run at Elkridge, MD	01589090	**b**9.4	1955, 1964-67 2002
Gwynns Falls:			
Red Run near Owings Mills, MD	01589230	7.39	1975-79 2002
Gwynns Falls at Baltimore, MD	01589345	50.7	1980-82 2002
Jones Falls at Eccleston, MD	01589370	2.86	1976-79 2002
SEVERN RIVER BASIN			
Severn Run (head of Severn River) at Benfield, MD	01589800	**b**24	1964-67
PATUXENT RIVER BASIN			
Patuxent River at Mullinix, MD	01590800	10.7	1988-90
Cabin Branch near Florence, MD	01590900	8.36	1975-79 1988-90 2002
Cattail Creek:			
Cattail Creek tributary at Carrs Mill, MD	01591200	3.93	1956-59 1961-63 1966, 1988-90
Cattail Creek tributary at Daisy, MD	01591375	3.12	1977-82 1988-90 2002
Dorsey Branch near Knollwood, MD	01591475	3.78	1964, 1988-90 2002
Hawlings River near Unity, MD	01591650	5.08	1977-82 2002
Little Patuxent River at Pine Orchard, MD	01593200	7.03	1956-59 1961-64 1966, 1988-90 2002
Red Hill Branch at Columbia, MD	01593300	5.98	1988-90 2002
Middle Patuxent River near West Friendship, MD	01593600	11.4	1956-59 1961-64 1966, 1988-90
Middle Patuxent River tributary near Dayton, MD	01593650	4.25	1977-82
Middle Patuxent River tributary near Columbia, MD	01593675	9.12	1988-90
Middle Patuxent River tributary near Clarksville, MD	01593700	6.24	1977-82 1988-90 2002
Hammond Branch at Scaggsville, MD	01594100	3.01	1956-59 1962-64 1966, 1988-90 2002
Hammond Branch near Laurel, MD	01594200	6.83	1988-90 2002
Dorsey Run at Jessup, MD	01594395	6.59	1964, 1989-91 2002
Towsers Branch at Conoways, MD	01594423	5.69	1975-80
Stocketts Run near Hardesty, MD	01594455	6.68	1977-80
Rock Branch at Bayard, MD	01594465	6.73	1977-80
Western Branch:			
Northeast Branch at Kolbes, MD	01594490	7.74	1977-80
Collington Branch at Upper Marlboro, MD	01594525	22.9	1964-66 1975-79
Mataponi Creek near Naylor, MD	01594535	**b**14	1964-66 1982
Lyons Creek at Lyons Creek, MD	01594545	**b**15	1964-67

b Approximately.

NORTH ATLANTIC SLOPE BASINS--Continued	Station number	Drainage area (mi^2)	Period of record
POTOMAC RIVER BASIN			
North Branch Potomac River:			
Glade Run at Steyer, MD	01594975	8.86	1977-82
Savage River:			
Little Savage River near Avilton, MD	01596200	1.95	1979-82
Big Run near Swanton, MD	01596600	13.4	1977-82
Crabtree Creek:			
Middle Fork near Swanton, MD	01597100	10.8	1977-82
Georges Creek near Midland, MD	01598770	13.1	1979-82
Woodland Creek at Ocean, MD	01598775	5.49	1979-82
Mill Run at Morrison, MD	01598980	7.35	1979-82
Mill Run at Rawlings, MD	01599800	2.84	1979-82
Wills Creek at Ellerslie, MD	01601100	185	1979-82
Jennings Run:			
North Branch Jennings Run at Barrelsville, MD	01601300	**b**12	1964-74
Jennings Run at Corriganville, MD	01601325	37.7	1975-79
Collier Run at Spring Gap, MD	01604150	**b**11	1964-74
Mill Run at Oldtown, MD	01605425	10.6	1975-79
Seven Springs Run at Oldtown, MD	01605475	9.16	1975-82
Town Creek:			
Murley Branch near Flintstone, MD	01608950	11.9	1977-78 1980-82
Maple Run near Town Creek, MD	01608975	7.10	1977-78 1980-82
Fifteen Mile Creek near Piney Grove, MD	01610060	20.2	1975-79
Deep Run near Little Orleans, MD	01610065	6.26	1975-79
Fifteen Mile Creek at Little Orleans, MD	01610075	61.6	1975-79
Sideling Hill Creek:			
Bear Creek at Forest Park, MD	01610150*	10.4	1975-79 1985-87
Potomac River tributary at Woodmont, MD	01610170	3.29	1985-87
Tonoloway Creek at Hancock, MD	01613100	113	1985-87
Ditch Run near Hancock, MD	01613150*	4.80	1975-79
Licking Creek:			
Lanes Run near Forsythe, MD	01613540	9.98	1980-82 1985-87
Licking Creek near Pectonville, MD	01613545	212	1985-87
Conococheague Creek:			
Little Conocoheague Creek near Charlton, MD	01614050	18.1	1985-87
Rockdale Run at Fairview, MD	01614525	9.67	1976-79 1981-82 1985-87
Rush Run near Huyett, MD	01614575	5.20	1976-79 1981-82 1985-87
Meadow Brook at Conococheague, MD	01614625	6.77	1976-79 1981-82 1985-87
Conococheague Creek tributary near Huyett, MD	01614675	7.94	1977-79 1981-82 1985-87
Conococheague Creek at Williamsport, MD	01614705	564	1985-87
Downey Branch near Downesville, MD	01617600	3.00	1976-79 1981-82
Marsh Run:			
St. James Run at Spielman, MD	01617780	7.14	1977-79 1981-82 1985-87
Antietam Creek:			
Little Antietam Creek at Leitersburg, MD	01619050	24.5	1976-79 1981-82 1985-87
West Branch at Paramount, MD	01619145	5.07	1977-79 1981-82
Marsh Run at Fiddlesburg, MD	01619150	**b**31	1965-74 1976-79 1985-87
Landis Spring Branch near Benevola, MD	01619275	6.60	1976-79 1981-82 1985-87
Beaver Creek at Benevola, MD	01619325	22.9	1975-79 1985-87
Little Beaver Creek at Benevola, MD	01619350	8.70	1975-79 1985-87

b Approximately.
* Also a crest-stage partial-record station.

NORTH ATLANTIC SLOPE BASINS--Continued	Station number	Drainage area (mi^2)	Period of record
POTOMAC RIVER BASIN--Continued			
Potomac River-Continued			
Antietam Creek-Continued			
Little Antietam Creek at Keedysville, MD	01619480	**b**24	1964-67, 1976-79, 1985-87
Sharmans Branch near Antietam, MD	01619525	4.62	1977-79, 1981-82
Isreal Creek at Weverton, MD	01636730	13.2	1975-79, 1985-87
Catoctin Creek:			
Little Catoctin Creek near Brunswick, MD	01636850	8.64	1977-83
Middle Creek at Ellerton, MD	01636975	22.7	1977-82
Catoctin Creek at Olive, MD	01638050	112	1977-83
Potomac River tributary at Point of Rocks, MD	01638520	3.04	1982-83
Tuscarora Creek at Tuscarora, MD	01638600	20.3	1975-79, 1982-83
Monocacy River:			
Piney Creek at Taneytown, MD	01639100	22.9	1956-59, 1961-63, 1966, 2002
Piney Creek near Keysville, MD	01639150	34.4	1982-83, 2002
Toms Creek:			
Friends Creek near Emmitsburg, MD	01639325	12.2	1977-83, 2002
Toms Creek near Keysville, MD	01639390	88.1	1982-83, 2002
Double Pipe Creek:			2002
Big Pipe Creek (head of Double Pipe Creek) at Bachman Mills, MD	01639400	9.39	1956-59, 1961-63, 1966, 2002
Deep Run at Union Mills, MD	01639420	5.46	1975-79, 2002
Silver Run near Silver Run, MD	01639440	8.77	1975-82, 2002
Big Pipe Creek near Mayberry, MD	01639450	51.6	1956-59, 1962-63, 1966, 2002
Bear Branch near Mayberry, MD	01639465	13.9	1975-82, 2002
Meadow Branch near Uniontown, MD	01639470	12.6	1956-59, 1961-63, 1966, 2002
Little Pipe Creek:			
Wolfpit Branch at Linwood, MD	01640100	2.01	1956-59, 1961-63, 1966, 2002
Little Pipe Creek at Union Bridge, MD	01640150	40.4	1956-59, 1962-63, 1966, 2002
Beaver Dam Creek near Union Bridge, MD	01640160	7.04	1977-82, 2002
Little Pipe Creek at Keymar, MD	01640200	80.0	1982-83, 2002

b Approximately.

NORTH ATLANTIC SLOPE BASINS--Continued	Station number	Drainage area (mi^2)	Period of record
POTOMAC RIVER BASIN--Continued			
Potomac River-Continued			
Monocacy River--Continued			
Owens Creek near Thurmont, MD	01640600	14.4	1975-79, 2002
Little Owens Creek near Thurmont, MD	01640650	6.16	1975-79, 2002
Beaver Branch at Rocky Ridge, MD	01640720	6.53	1977-82, 2002
Owens Creek near Rocky Ridge, MD	01640750	38.8	1982-83, 2002
Fishing Creek near Utica, MD	01641600	17.9	1982-83, 2002
Tuscarora Creek near Frederick, MD	01641900	16.5	1975-79, 1982-83, 2002
Israel Creek near Walkersville, MD	01642050	**b**29	1964-66, 1975-79, 1982-83, 2002
Linganore Creek near New London, MD	01642430	45.2	1980-82, 2002
Bens Branch near New Market, MD	01642450	11.8	1975-82, 2002
Bush Creek at Ijamsville, MD	01643100	**b**17.5	1964-66, 2002
Bush Creek at Reels, MD	01643110	29.7	1982-83, 2002
Ballenger Creek near Lime Kiln, MD	01643125	20.2	1977-83, 2002
Bennett Creek:			
Little Bennett Creek at Hyattstown, MD	01643400	12.8	1968-69, 1975-79
Broad Run at Elmer, MD	01643615	14.0	1975-82
Seneca Creek:			
Little Seneca Creek at Boyds, MD	01644400	**b**21	1964-67
Bucklodge Branch near Dawsonville, MD	01644425	8.47	1975-82
Great Seneca Creek:			
Goshen Branch at Goshen, MD	01644480	7.63	1975-77, 1979
Dry Seneca Creek near Seneca, MD	01645050	19.2	1975-82
Rock Run near Cabin John, MD	01646220	**b**4.8	1964-67
Rock Creek at Redland, MD	01647620	7.45	1977-82
Northeast Branch Anacostia River:			
Paint Branch at College Park, MD	01649200	17.5	1980-82
Oxon Run (head of Oxon Creek) at Washington, DC	01652580	6.84	1980-82
Piscataway Creek:			
Tinkers Creek at Piscataway, MD	01653625	15.9	1975-82
Mattawoman Creek near Waldorf, MD	01657900	16.9	1980-82
Chicamuxen Creek:			
Reeder Run at Chicamuxen, MD	01658300	**b**5.6	1964-67
Nanjemoy Creek:			
Burgess Creek:			
Mill Run (head of Nanjemoy Creek) Welcome, MD	01660650	9.89	1980-82
Port Tobacco Creek (head of Port Tobacco River) near Marshalls Corner, MD	01660740	15.8	1977-82
Wicomico River:			
Zekiah Swamp Run (head of Wicomico River) near Malcolm, MD	01660905	12.1	1975-82
Clark Run near Bel Alton, MD	01660930	10.4	1975-79
Gilbert Swamp Run near Olivers Shop, MD	01660950	**b**32	1964-65
McIntosh Run:			
Brooks Run near Hollywood, MD	01661200	5.76	1980-82
Mcintosh Run at Tintop Hill, MD	01661300	12.1	1964-66, 1982
Glebe Run at Leonardtown, MD	01661410	5.81	1980-82

b Approximately.

OHIO RIVER BASIN	Station number	Drainage area (mi^2)	Period of record
MONONGAHELA RIVER BASIN			
Monongahela River:			
Youghiogheny River:			
Cherry Creek near Crellin, MD	03075350	16.7	1977-82
Snowy Creek:			
Laurel Run at Crellin, MD	03075400	10.9	1964-74
Little Youghiogheny River at Loch Lynn Heights, MD	03075475	13.2	1975-79
Muddy Creek at Swallow Falls State Park, MD	03075700	17.8	1977-82
Cherry Creek near McHenry, MD	03075900	12.3	1973, 1975-79
Bear Creek:			
South Branch Bear Creek near Accident, MD	03076580	6.01	1964-74
South Branch Bear Creek near Friendsville, MD	03076590	16.8	1975-79
Casselman River:			
North Branch Casselman River near Grantsville, MD	03077925	24.4	1975-80
South Branch Casselman River near Grantsville, MD	03077950	20.8	1975-79

Photo by W.C. Lewis

Low Flow measurement on the Potomac River below Little Falls Dam, July 9, 2002.

WATER RESOURCES DATA - MARYLAND, DELAWARE, AND WASHINGTON, D.C., 2004

VOLUME 1. SURFACE-WATER DATA

INTRODUCTION

The Water Resources Division of the U.S. Geological Survey, in cooperation with State agencies, obtains a large amount of data pertaining to the water resources of Maryland and Delaware each water year. These data, accumulated during many water years, constitute a valuable data base for developing an improved understanding of the water resources of the State. To make these data readily available to interested parties outside the Geological Survey, the data are published annually in this report series entitled **"Water Resources Data - Maryland, Delaware, and Washington, D.C."**

This report series includes records of stage, discharge, and water quality of streams and stage, contents, and water quality of lakes and reservoirs. This volume contains records for water discharge at 147 gaging stations; stage and contents at 1 reservoir; stage only for 1 tidal gaging station; and water quality at 23 gaging stations. Also included are discharge for 1 partial-record station, and stage only for 10 tidal crest-gage partial-record stations. Locations of these sites are shown on figure 3. Locations of discontinued gaging stations are shown on figure 4. Additional water data were collected at various sites not part of the systematic data-collection program. These data represent that part of the National Water-Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies in Maryland, Delaware and Washington, D.C.

This series of annual reports for Maryland, Delaware, and Washington, D.C. began with a report for the 1961 water year that contained only data relating to the quantities of surface water. For the 1964 water year, a similar report was introduced that contained only data relating to water quality. Beginning with the l975 water year, the report format was changed to present, in one volume, data on quantities of surface water, quality of surface and ground water, and ground-water levels. In the 1989 water year, the report format was changed to two volumes. Both volumes contained data on quantities of surface water, quality of surface and ground water, and ground-water levels. Volume 1 contained data on the Atlantic Slope Basins (Delaware River through Patuxent River) and Volume 2 contained data on the Monongahela and Potomac River Basins. Beginning with the 1991 water year, Volume 1 contains all information on quantities of surface water and surface-water-quality data and Volume 2 contains ground-water levels and ground-water-quality data.

Prior to the introduction of this series and for several water years concurrent with it, water resources data for Maryland and Delaware were published in U.S. Geological Survey Water-Supply Papers. Data on stream discharge and stage, and on lake or reservoir contents and stage, through September 1960, were published annually under the title **"Surface-Water Supply of the United States, Parts 6A and 6B."** For the 1961 through 1970 water years, the data were published in two 5-year reports. Data on chemical quality, temperature, and suspended sediment for the 1941 through 1970 water years were published annually under the title **"Quality of Surface Waters of the United States,"** and water levels for the 1935 through 1974 water years were published under the title **"Ground-Water Levels in the United States."** The above mentioned Water-Supply Papers may be consulted in the libraries of the principal cities of the United States, and may be purchased from the U.S. Geological Survey, Branch of Information Services, Federal Center, Box 25286, Denver, CO 80225.

Publications similar to this report are published annually by the U.S. Geological Survey for all States. These official Survey reports have 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 volume is identified as **"U.S. Geological Survey Water-Data Report MD-DE-DC-04-1".** For archiving and general distribution, the reports for 1971-74 water years also are identified as water-data reports. These water-data reports are for sale in paper copy or on microfiche by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161.

Additional information including current prices for ordering specific reports may be obtained from the Director at the address given on the back of the title page or by telephone at (410) 238-4200.

COOPERATION

The U.S. Geological Survey and agencies of the State of Maryland had cooperative agreements for the collection of water-resource records from 1896 to 1909 and since 1924. Similar cooperative agreements have existed between the Survey and agencies of the State of Delaware since 1943. Organizations that assisted in collecting the data in this report through cooperative agreements with the Survey are:

Maryland Geological Survey, Emery T. Cleaves, Director.

Delaware Geological Survey, John H. Talley, Interim State Geologist.

Maryland Department of the Environment, Chesapeake Bay and Special Projects Program, Robert M. Summers, Division Chief.

Metropolitan Washington Council of Governments, David J. Robinson, Executive Director

District of Columbia Department of Health, James A. Buford, Director.

Maryland State Highway Administration, Neil J. Pedersen, Administrator.

Assistance with funds or services was given by the U.S. Army Corps of Engineers for collecting records at 10 gaging stations and 3 water-quality stations within Maryland.

The following organizations also aided in collecting records:

Delaware: Department of Natural Resources and Environmental Control, Water Resources Agency for New Castle County.

Maryland: Maryland Water Resources Administration, Washington Suburban Sanitary Commission, Interstate Commission Potomac River Basin, Upper Potomac River Commission, City of Aberdeen, Baltimore City, Anne Arundel County, Baltimore County, Harford County, Howard County, Montgomery County, Prince Georges County.

Organizations that provided data are acknowledged in station descriptions.

SUMMARY OF HYDROLOGIC CONDITIONS

Streamflow at the beginning of the 2004 water year was in the above-normal range throughout Maryland, Delaware, and Washington, D.C. and remained in the above-normal range throughout October 2003. During November 2003, flows were in the above-normal range (upper 25 percent of the record) following above-normal rainfall up to 3.0". In December 2003, flows remained in the above-normal range throughout the area following above-normal rainfall up to 4.5". During January 2004, flows returned to the normal range throughout the Maryland-Delaware-D.C. area. Rainfall decreased to as much as 2.0" below normal during the month. During February 2004, flows remained in the normal range except for Central and Northeast Maryland where flows moved into the above-normal range. Flows in March were in the normal range throughout Maryland, Delaware, and Washington, D.C. except for the Eastern Shore which moved into the deficient range where rainfall was up to 3.0" below the norm. Flows in April increased into the above-normal range except for Northeast Maryland where flows remained in the normal range. Rain was in excess of 1.0" to 4.0" above-normal throughout the state. During the month of May all flows returned to the normal range. Flows for June remained in the normal range for the lower Potomac, Western Md. and Eastern Shore while flows in Central and Northeast, Md moved into the excessive range. During the month of July flows remained the same as the previous month except for the Eastern Shore which increased into the above-normal range. Rainfall for June and July averaged in the 0.0" to 2.0" range above normal while Delaware showed a deficit of 0.0" to 1.5" below the norm. Streamflows decreased in the month of August on the Eastern Shore and returned to normal while in the other regions flows remained in the same range as the previous month. Rainfalls on the Eastern Shore fell into the deficit range during August and September while other regions were in the above-normal range of 3.0" to 5.0". In September the flows in the Western and Lower Potomac regions increased into the above-normal range while Central Md. dropped to the normal range. The Northeast and Eastern Shore continued in the same range as the previous month.

During the 2004 water year, flows were in the excessive range at four of the index stations: Potomac River at Paw Paw, WV, representing western Maryland; Potomac River near Washington,D.C., in central Maryland; Deer Creek at Rocks, in northeastern Maryland; and Seneca Creek at Dawsonville, in central Maryland. Flows at Choptank River at Greensboro, on the Eastern Shore of Maryland, were normal. Record daily means were set at Potomac River near Washington,D.C, in Dec. 2003, which was 7 percent higher than the record set in 1950. At Seneca Creek at Dawsonville in Dec. 2003, a new daily mean was set which was .5 percent higher than the record set in 1993 and a new record monthly mean which was set 46 percent higher than the record set in 1972.

Monthly and annual-mean discharges for water year 2004 were compared to long-term averages (reference period 1971-2000) for two representative streamflow-gaging stations in figure 1. Data for the station, Potomac River at Point of Rocks, in central Maryland, reflect runoff conditions in the Potomac River Basin, excluding the Coastal Plain. Data for the station, Choptank River near Greensboro, on the Eastern Shore of Maryland, reflect runoff from a 113 mi^2 (square mile) area, of which 21.6 mi^2 is located in Delaware in the central part of the Delmarva Peninsula.

Average freshwater inflow to the Chesapeake Bay was estimated to be 116,100 ft^3/s (cubic feet per second), on the basis of flows for the James, Potomac, and Susquehanna Rivers. This is 150 percent of the long-term average during the reference period (water years) 1952-2004. Flows for October averaged 196 percent of normal. During November, flows averaged 260 percent of normal. December flows averaged 230 percent of normal. For January, flows averaged106 percent of normal. Flows in February averaged 91 percent of normal. Flows in March were 98 percent of normal while flows in April were 110 percent of normal. Flows for May were 109 percent of normal. June flows were 104 percent of normal. During July, flows were 152 percent of normal. August flows were 213 percent of normal. September flows were 530 percent of normal.No new flow records were set during the 2004 water year.

The combined storage in the three major water-supply reservoirs in the Baltimore City Municipal System (combined usable capacity of 76,050 million gallons [previously 85,430 million gallons, with a decrease in storage capacity due to increase in sediment storage]) decreased from 100 percent of capacity on September 30, 2003 to 97 percent of capacity on September 30, 2004.

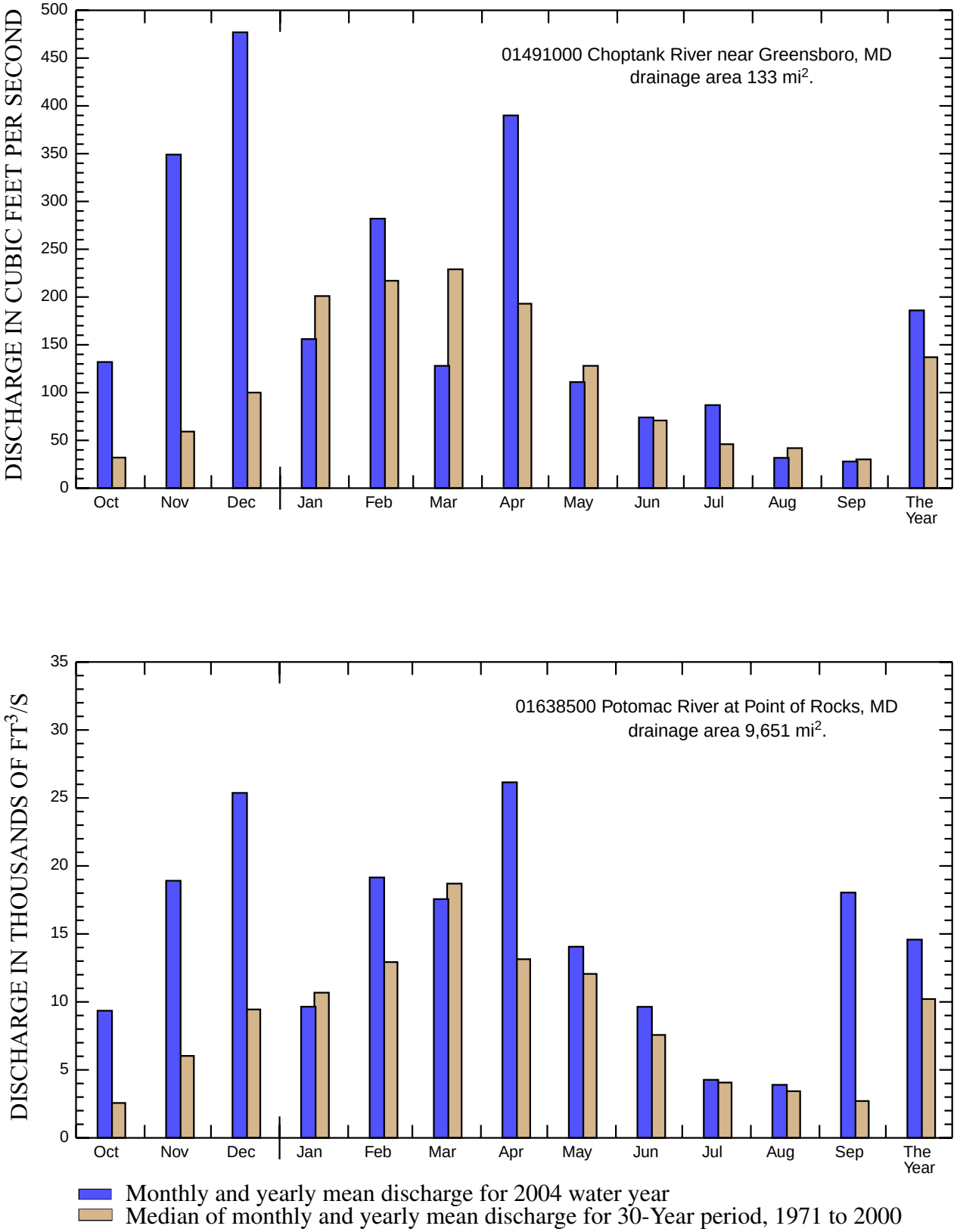

FIGURE 1. COMPARISON OF DISCHARGE AT TWO LONG-TERM REPRESENTATIVE GAGING STATIONS DURING THE 2004 WATER YEAR WITH MEDIAN DISCHARGE FOR INDICATED PERIOD.

SPECIAL NETWORKS AND PROGRAMS

National Stream-Quality Accounting Network (NASQAN) monitors the water quality of large rivers within the Nation's largest river basins. From 1995 through 1999, a network of approximately 40 stations were operated in the Mississippi, Columbia, Colorado, and Rio Grande. From 2000 through 2004, sampling was reduced to a few index stations on the Colorado and Columbia 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 Program (**NAWQA**); (3) to characterize processes unique to large-river systems such as storage and re-mobilization of sediments and associated contaminants; and (4) to refine existing estimates of off-continent transport of water, sediment, and chemicals for assessing human effects on the world's oceans and for determining global cycles of carbon, nutrients, and other chemicals.

Additional information about the NASQAN Program can be found at:

http://water.usgs.gov/nasqan/

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

Assessment activities are being conducted in 59 study units (major watersheds and aquifer systems) that represent a wide range of environmental settings nationwide and that account for a large percentage of the Nation's water use. A wide array of chemical constituents will be measured in ground water, surface water, streambed sediments, and fish tissues. The coordinated application of comparative hydrologic studies at a wide range of spatial and temporal scales will provide information for decision making by water-resources managers and a foundation for aggregation and comparison of findings to address water-quality issues of regional and national interest.

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

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

http://water.usgs.gov/nawqa/nawqa_home.html

EXPLANATION OF THE RECORDS

The surface-water records published in this report are for the 2004 water year that began October 1, 2003, and ended September 30, 2004. A calendar of the water year is provided on the inside of the front cover. The records contain streamflow data, stage and content data for lakes and reservoirs, and water-quality data for surface water. The locations of the stations where the data were collected are shown in figure 3. The following sections of introductory text are presented to provide users with a more detailed explanation of how the hydrologic data published in this report were collected, analyzed, computed, and arranged for presentation.

Station Identification Numbers

Each data station in this report is assigned a unique identification number. This number is unique in that it applies specifically to a given station and to no other. The number usually is assigned when a station is first established and is retained for that station indefinitely. The systems used by the U.S. Geological Survey to assign identification numbers for surface-water stations are based on geographic location. The **"downstream order"** system is used for regular surface-water stations and the **"latitude-longitude"** system is used for surface-water stations where only miscellaneous measurements are made.

Downstream Order System

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

The station-identification number is assigned according to downstream order. In assigning station numbers, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete eight-digit number for each station, such as 01477800, which appears just to the left of the station name, includes the two-digit part number **"01"** plus the six-digit downstream-order number **"477800."** The part number designates the major river basin; for example, part **"01"** is the North Atlantic Slope Basin.

Latitude-Longitude System

The identification numbers for miscellaneous surface-water sites are assigned according to the grid system of latitude and longitude. The number consists of 15 digits. The first six digits denote the degrees, minutes, and seconds of latitude, the next seven digits denote degrees, minutes, and seconds of longitude, and the last two digits (assigned sequentially) identify the sites within a 1-second grid. This site-identification number, once assigned, is a pure number and has no locational significance. In the rare instance where the initial determination of latitude and longitude are found to be in error, the station will retain its initial identification number; however, its true latitude and longitude will be listed in the **LOCATION** paragraph of the station description (See figure 2 below).

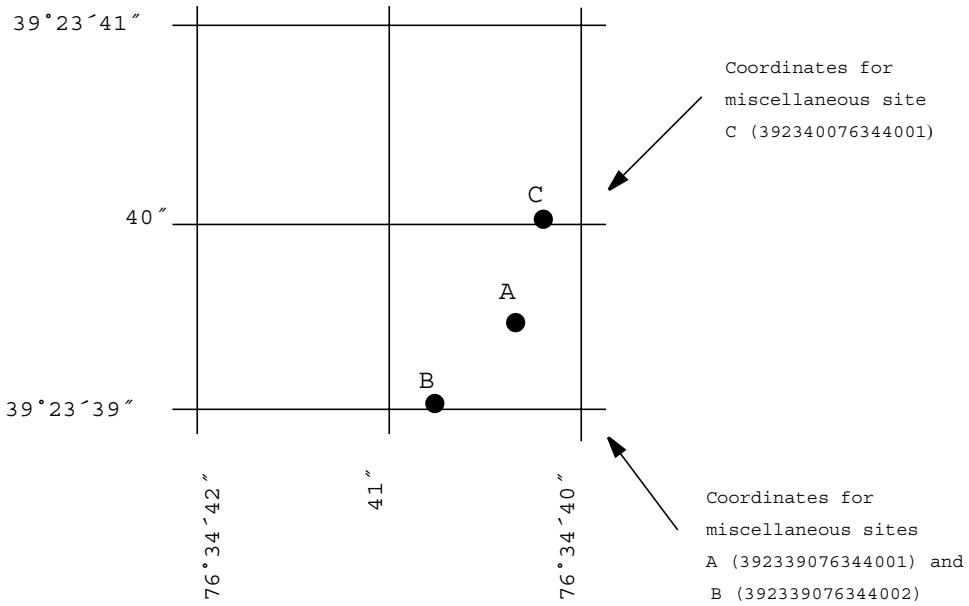

Figure 2. --System for numbering miscellaneous sites (latitude and longitude)

Records of Stage and Water Discharge

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

By contrast, partial records are obtained through discrete measurements without using a continuous stage-recording device and pertain only to a few flow characteristics, or perhaps only one. The nature of the partial record is indicated by table titles such as **"Crest-stage partial records,"** or **"Low-flow partial records."** Records of miscellaneous discharge measurements or of measurements from special studies, such as low-flow seepage studies, may be considered partial records, but they are presented separately in this report. Locations of all complete-record and crest-stage partial-record stations for which data are given in this report are shown in figure 3.

Data Collection and Computation

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

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

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

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

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

In computing records of lake or reservoir contents, it is necessary to have available curves or tables defining the relation of stage and content based on bathymetric surveys. The application of stage to the stage-content curves or tables gives the contents from which daily, monthly, or yearly changes are then determined. If the stage-content relation changes because of deposition of sediment in a lake or reservoir, periodic re-surveys may be necessary to redefine the relationship. Even when this is done, the contents computed may become increasingly inaccurate as the time lapsed since the last survey increases. Discharges over lake or reservoir spillways are computed from stage-discharge relations, similar to the methods by which other stream discharges are computed.

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

Data Presentation

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

The records published for each continuous-record surface-water discharge station (gaging station) now consist of four parts, the manuscript or station description; the data table of daily-mean values of discharge for the current water year with summary data; a tabular statistical summary of monthly-mean flow data for a designated period, by water years; and 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.

Station manuscript

The manuscript provides descriptive information under various headings 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 which follow clarify information presented under the various headings of the station description.

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

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

PERIOD OF RECORD.--This indicates the 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 flow could reasonably be considered equivalent to flow at the present station.

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

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

REMARKS.--All periods of estimated daily-discharge record will either be identified by date in this paragraph of the station description for water-discharge stations or flagged in the daily-discharge table. (See next section, **"Identifying Estimated Daily Discharge"**). If a **REMARKS** paragraph is used to identify estimated record, the paragraph will begin with this information presented as the first entry. The paragraph is also used to present information relative to the accuracy of the records, to special methods of computation, 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 extreme 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, outlet works and spillway, and purpose and use of the reservoir.

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

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

PEAK DISCHARGE(S) FOR CURRENT YEAR.--The maximum instantaneous discharge and any secondary peaks occurring during the current year are given. For stations meeting certain criteria, all peak discharges and stages occurring during the water year and greater than a selected base discharge are presented under this heading. The peaks greater than the base discharge, excluding the highest one, are referred to as secondary peaks. Peak discharges are not published for canals, ditches, drains, or streams for which the peaks are subject to substantial control by man. The time of occurrence for peaks is expressed in 24-hour local standard time. For example, 12:30 a.m. is 0030, and 1:30 p.m. is 1330.

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

Although rare, the records of a discontinued gaging station may occasionally need revision. Because there would be no current or, possibly, future station manuscript 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 ever revised after the station was discontinued. If the data for a discontinued station were obtained by computer retrieval, however, the data would be current and there would be no need to check because any published revision of data is always accompanied by a revision of the corresponding data in computer storage.

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

Headings for **AVERAGE DISCHARGE** and **EXTREMES FOR THE PERIOD OF RECORD** have been deleted and the information contained in these paragraphs is now presented in the tabular summaries following the discharge table or in the **REMARKS** paragraph, as appropriate. No changes have been made to the data presentation of lake contents.

Data table of daily-mean values

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

Statistics of monthly-mean data

A tabular summary of the mean (line headed **"MEAN"**), maximum (line headed **"MAX"**), and minimum (line headed **"MIN"**) of monthly-mean flows for each month for a designated period is provided below the mean values table. The water years of the first occurrence of the maximum and minimum monthly flows are provided immediately below those figures. The designated period is expressed as **"FOR WATER YEARS ____-____, BY WATER YEAR (WY),"** and lists the first and last water years of the range of years selected from the **PERIOD OF RECORD** paragraph in the station manuscript. It consists of all of the station record within the specified water years, inclusive, including complete months of record for partial water years, if any, and may coincide with the period of record for the station. The water years for which the statistics are computed 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 record within the specified water years, inclusive, including complete months of record for partial water years, if any, and may coincide with the period of record for the station. The water years for which the statistics are computed 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 in the station period of record published in the manuscript, occasionally the dates of occurrence listed for the daily and instantaneous extremes in the designated-period column may not be within the selected water years listed in the heading. When this occurs, it will be noted in the **REMARKS** paragraph or in footnotes. Selected streamflow-duration curve statistics and runoff data are also given. Runoff data may be omitted if there is extensive regulation or diversion of flow in the drainage area.

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

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

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

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

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

HIGHEST DAILY MEAN.--The maximum daily-mean discharge 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 to 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, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

Cubic feet per second per square mile (CFSM, $ft^3/s/mi^2$) is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming the runoff is distributed uniformly in time and area.

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

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

Identifying Estimated Daily Discharge

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

Accuracy of the Records

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

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

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

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

Other Records Available

Information used in the preparation of the records in this publication, such as discharge-measurement notes, gage-height records, temperature measurements, and rating tables is on file in the Maryland and Delaware offices of the MD-DE-DC District. In addition, most of the daily-mean discharges are in computer-readable form and have been analyzed statistically. Information on the availability of the unpublished information or on the results of statistical analyses of the published records may be obtained from the offices whose addresses are given on the back of the title page of this report.

Records of Surface-Water Quality

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

Classification of records

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

A careful distinction needs to be made between **"continuing records,"** as used in this report, and **"continuous recordings,"** which refers to a continuous graph or a series of discrete values punched at short intervals on a paper tape. Some records of water quality, such as temperature and specific conductance, may be obtained through continuous recordings; however, because of costs, most data are obtained only monthly or less frequently. Locations of stations for which records on the quality of surface water appear in this report are shown in figure 3.

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 of 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 to insure that the data obtained represent the in situ quality of the water. For this reason, certain measurements, such as water temperature, pH, and dissolved oxygen, need to be made on-site when the samples are taken. To assure that measurements made in the laboratory also represent the in situ water, carefully prescribed procedures need to be followed in collecting the samples, in treating the samples to prevent changes in quality pending analysis, and in shipping the samples to the laboratory. Procedures for on-site measurements and for collecting, treating, and shipping samples are given in publications on **"Techniques of Water-Resources Investigations,"** Book 1, Chap. D2; Book 3, Chap. A1, A3, and A4; Book 9, Chap. A1-A9. Most of the methods used for collecting and analyzing water samples are described in the TWRIs, which may be accessed from http://water.usgs.gov/pubs/twri/. Also, detailed information on collecting, treating, and shipping samples may be obtained from the U.S. Geological Survey Maryland and Delaware offices.

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

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

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

Water temperature

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at time of discharge measurements for water-discharge stations. For stations where water temperatures are taken manually once or twice daily, the water temperatures are taken at about the same time each day. Large streams have a small diurnal temperature change; shallow streams may have a daily range of several degrees and may closely follow 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 Maryland and Delaware Offices of the U.S. Geological Survey.

Sediment

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

During periods of rapidly changing flow or rapidly changing concentration, samples may have been collected more frequently (twice daily, or in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration were computed by the subdivided-day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided-day method. For periods when no samples were collected, daily discharges of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after these periods, and suspended-sediment loads for other periods of similar discharge. Methods used in the computation of sediment records are described in TWRI Book 3, Chapters C1 and C3. These methods are consistent with ASTM standards and generally follow ISO standards.

At other stations, suspended-sediment samples were collected periodically at many verticals in the stream cross section. Although data collected periodically may only be representative of conditions 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

Sediment samples, samples for biochemical-oxygen demand (**BOD**), samples for indicator bacteria, and daily samples for specific conductance are analyzed locally. All other samples are analyzed in the U.S. Geological Survey laboratory in Arvada, Colorado. Methods used to analyze sediment samples and to compute sediment records are described in TWRI Book 5, Chapter C1. Methods used by the U.S. Geological Survey laboratories are given in TWRI Book 1, Chapter D2; and Book 5, Chapters A1, A3, A4, and A5. 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 that are currently measured daily. Tables of chemical, physical, biological, radiochemical data, and so forth, obtained at a frequency less than daily are presented first. Tables of **"daily values"** of specific conductance, pH, water temperature, dissolved oxygen, and suspended sediment then follow in sequence.

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

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

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

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

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

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

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

EXTREMES.--Maximums and minimums are given only for parameters measured daily or more frequently. None are given for parameters measured weekly or less frequently, because the true maximums or minimums may not have been sampled. Extremes, when given, are provided for both the period of record and for the current water year.

REVISIONS.--If errors in published water-quality records are discovered after publication, appropriate updates are made in the U.S. Geological Survey's distributed data system, **NWIS**, and subsequently to its web-based National data system, **NWISWeb [http://water.usgs.gov/nwis/nwis]**. Because the usual volume of updates makes it impractical to document individual changes in the State data-report series or elsewhere, potential users of U.S. Geological Survey water-quality data are encouraged to obtain all required data from **NWIS** or **NWISWeb** to ensure the most recent updates. Updates to **NWISWeb** are currently 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 report:

PRINTED OUTPUT	REMARK
E	Estimated value
>	Actual value is known to be greater than the value shown
<	Actual value is known to be less than the value shown
K	Results based on colony count outside the acceptance range (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)
&	Biological organism estimated as dominant
V	Analyte was detected in both the environmental sample and the associated blank.
M	Presence of material verified but not quantified.

WATER-QUALITY CONTROL DATA

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

Blank Samples

Blank samples are collected and analyzed to ensure that environmental samples have not been contaminated by the overall data-collection process. The blank solution used to develop specific types of blank samples is a solution that is free of the analytes of interest. Any measured value signal in a blank sample for an analyte (a specific component measured in a chemical analysis) that was absent in the blank solution is believed to be due to contamination. There are many types of blank samples possible, each designed to segregate a different part of the overall data-collection process. The types of blank samples collected in this District are:

Source solution blank - a blank solution that is transferred to a sample bottle in an area of the office laboratory with an atmosphere that is relatively clean and protected with respect to target analytes.

Ambient blank - a blank solution that is put in the same type of bottle used for an environmental sample, kept with the set of sample bottles before sample collection, and opened at the site and exposed to the ambient conditions.

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 processed through 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

A Reference sample is a solution or material prepared by a laboratory whose composition is certified for one or more properties so that it can be used to assess a measurement method. Samples of reference material are submitted for analysis to insure 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 so that the samples are considered to be essentially identical in composition. Replicate is the general case for which a duplicate is the special case consisting of two samples. Replicate samples are collected and analyzed to establish the amount of variability in the data contributed by some part of the collection and analytical process. There are many types of replicate samples possible, each of which may yield slightly different results in a dynamic hydrologic setting, such as a flowing stream. The types of replicate samples collected in this District are:

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

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

Split sample - a type of replicate sample in which a sample is split into subsamples contemporaneous in time and space.

Spike Samples

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

Concurrent sample - a type of spike sample that is collected at the same time with the same sampling and compositing devices then spiked with the same spike solution containing laboratory-certified concentrations of selected analytes.

Split sample - a type of spike sample in which a sample is split into subsamples contemporaneous in time and space then spiked with the same spike solution containing laboratory-certified concentrations of selected analytes.

ACCESS TO USGS 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 the most current or discontinued gaging stations on the world wide web (**WWW**). These data may be accessed at

http://water.usgs.gov/

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

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 poly-chlorinated 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 multiplate 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 Cfor 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 stream-bed, 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 (mm^3/mL). The abundance of blue-green algae in periphyton samples is given in cells per square centimeter (cells/cm^2) or biovolume per square centimeter (mm^3/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 (mm^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:

$$\text{sphere } 4/3\ pr^3 \qquad \text{cone } 1/3\ pr^2h \qquad \text{cylinder } pr^2h.$$

pi (p) is the ratio of the circumference to the diameter of a circle; pi = 3.14159….

From cell volume, total algal biomass expressed as biovolume (mm^3/mL) is thus determined by multiplying the number of cells of a given species by its average cell volume and then summing these volumes 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 bound-aries. 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, ft^3/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point in 1 second. It is equivalent to approximately 7.48 gallons per second 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, [$(ft^3/s)/d$]) is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, 1.98347 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, $(ft^3/s)/mi^2$] is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming the runoff is distributed uniformly in time and area. (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 Vertical 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 (mm^3/mL). The abundance of diatoms in periphyton samples is given in cells per square centimeter ($cells/cm^2$) or biovolume per square centimeter (mm^3/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 0.4917 to convert it to carbonate. Alternatively, 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 feacalis, Streptococcus feacium, 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")

Filtered pertains to constituents in a water sample passed through a filter of specified pore diameter, most commonly 0.45 micrometer or less for inorganic analytes and 0.7 micrometer for organic analytes.

Filtered, recoverable is the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that has passed through a filter has been extracted. Complete recovery is not achieved by the extraction procedure and thus the analytical determination represents something less than 95 percent of the total constituent concentration in the sample. To achieve comparability of analytical data, equivalent extraction procedures are required of all laboratories performing such analyses because different procedures are likely to produce different analytical results.

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 technique 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 (mm^3/mL). The abundance of green algae in periphyton samples is given in cells per square centimeter (cells/cm^2) or biovolume per square centimeter (mm^3/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 ($CaCO_3$).

High tide is the maximum height reached by each rising tide. The high-high and low-high tides are the higher and lower of the two high tides, respectively, of each tidal day. *See NOAA Web site: http://www.csc.noaa.gov/text/glossary.html (see "High water")*

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

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

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

Horizontal datum (See "Datum")

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

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

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

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

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

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

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

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

Latent heat flux (often used interchangeably with latent heat-flux density) is the amount of heat energy that converts water from liquid to vapor (evaporation) or from vapor to liquid (condensation) across a specified cross-sectional area per unit time. Usually expressed in watts per square meter.

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

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

where I_o is the source light intensity, I is the light intensity at length L (in meters) from the source, l 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.csc.noaa.gov/text/glossary.html (see "Low water")*

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 code is a one-character code that identifies the analytical or field method used to determine a value stored in the National Water Information System (NWIS).

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, mg/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, mg/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, mg/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, mS/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.

Nonfilterable refers to the portion of the total residue retained by a filter.

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 (m^2), acre, or hectare. Periphyton, benthic organisms, and macrophytes are expressed in these terms.

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

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 mechanical 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 photo-synthetic and chemosynthetic activity of producer organisms (chiefly, green plants). The rate of primary production is estimated by measuring the amount of oxygen released (oxygen method) or the amount of carbon assimilated (carbon method) by the plants.

Primary productivity (carbon method) is expressed as milligrams of carbon per area per unit time [mg C/(m^2/time)] for periphyton and macrophytes or per volume [mg C/(m^3/time)] for phytoplankton. 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 [mg O/(m^2/time)] for periphyton and macrophytes or per volume [mg O/(m^3/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 is the amount of a given constituent that is in solution after a representative water sample has been extracted or digested. Complete recovery is not achieved by the extraction or digestion and thus the determination represents something less than 95 percent of the constituent present in the sample. To achieve comparability of analytical data, equivalent extraction or digestion procedures are required of all laboratories performing such analyses because different 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")

Salinity is the total quantity of dissolved salts, measured by weight in parts per thousand. Values in this report are calculated from specific conductance and temperature. Seawater has an average salinity of about 35 parts per thousand (for additional information, refer to: Miller, R.L., Bradford, W.L., and Peters, N.E., 1988, Specific conductance: theoretical considerations and application to analytical quality control: U.S. Geological Survey Water-Supply Paper 2311, 16 p.)

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 75percent 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 is the amount (concentration) of undissolved material in a water-sediment mixture. Most commonly refers to that 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 water-suspended sediment sample that is retained on a 0.45-micrometer filter has been extracted or digested. Complete recovery is not achieved by the extraction or digestion procedures and thus the determination represents less than 95 percent of the constituent present in the sample. To achieve comparability of analytical data, equivalent extraction or digestion procedures are required of all laboratories performing such analyses because different procedures are likely to produce different analytical results. (See also "Suspended")

Suspended sediment is sediment carried in suspension by the turbulent components of the fluid or by the Brownian movement (a law of physics). (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 (ft^3/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 hydro-logic 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 hierarchial scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, *Hexagenia limbata,* is the following:

Kingdom:	Animal
Phylum:	Arthropeda
Class:	Insecta
Order:	Ephemeroptera
Family:	Ephemeridae
Genus:	*Hexagenia*
Species:	*Hexagenia limbata*

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 an expression of the optical properties of a liquid that causes light rays to be scattered and absorbed rather than transmitted in straight lines through water. Turbidity, which can make water appear cloudy or muddy, is caused by the presence of suspended and dissolved matter, such as clay, silt, finely divided organic matter, plankton and other microscopic organisms, organic acids, and dyes (ASTM International, 2003, D1889-00 Standard test method for turbidity of water, *in* ASTM International, Annual Book of ASTM Standards, Water and Environmental Technology, v. 11.01: West Conshohocken, Pennsylvania, 6 p.). The color of water, whether resulting from dissolved compounds or suspended particles, can affect a turbidity measurement. To ensure that USGS turbidity data can be understood and interpreted properly within the context of the instrument used and site conditions encountered, data from each instrument type are stored and reported in the National Water Information System (NWIS) using parameter codes and measurement reporting units that are specific to the instrument type, with specific instruments designated by the method code. The respective measurement units, many of which also are in use internationally, fall into two categories: (1) the designations NTU, NTRU, BU, AU, and NTMU signify the use of a broad spectrum incident light in the wavelength range of 400-680 nanometers (nm), but having different light detection configurations; (2) The designations FNU, FNRU, FBU, FAU, and FNMU generally signify an incident light in the range between 780-900 nm, also with varying light detection configurations. These reporting units are equivalent when measuring a calibration solution (for example, formazin or polymer beads), but their respective instruments may not produce equivalent results for environmental samples. Specific reporting units are as follows:

NTU (Nephelometric Turbidity Units): white or broadband [400-680 nm] light source, 90 degree detection angle, one detector.

NTRU (Nephelometric Turbidity Ratio Units): white or broadband [400-680 nm] light source, 90 degree detection angle, multiple detectors with ratio compensation.

BU (Backscatter Units): white or broadband [400-680 nm] light source, 30 15 degree detection angle (backscatter).

AU (Attenuation Units): white or broadband [400-680 nm] light source, 180 degree detection angle (attenuation).

NTMU (Nephelometric Turbidity Multibeam Units): white or broadband [400-680 nm] light source, multiple light sources, detectors at 90 degrees and possibly other angles to each beam.

FNU (Formazin Nephelometric Units): near infrared [780-900 nm] or monochrome light source, 90 degree detection angle, one detector.

FNRU (Formazin Nephelometric Ratio Units): near infrared [780-900 nm] or monochrome light source, 90 degree detection angle, multiple detectors, ratio compensation.

FBU (Formazin Backscatter Units): near infrared [780-900 nm] or monochrome light source, 30 15 degree detection angle.

FAU (Formazin Attenuation Units): near infrared [780-900 nm] light source, 180 degree detection angle.

FNMU (Formazin Nephelometric Multibeam Units): near infrared [780-900 nm] or monochrome light source, multiple light sources, detectors at 90 degrees and possibly other angles to each beam.

For more information please see http://water.usgs.gov/owq/FieldManual/Chapter6/6.7_contents.html.

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")

Unfiltered pertains to the constituents in an unfiltered, representative water-suspended sediment sample.

Unfiltered, recoverable is the amount of a given constituent in a representative water-suspended sediment sample that has been extracted or digested. Complete recovery is not achieved by the extraction or digestion treatment and thus the determination represents less than 95 percent of the constituent present in the sample. To achieve comparability of analytical data, equivalent extraction or digestion procedures are required of all laboratories performing such analyses because different procedures are likely to produce different analytical results.

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",** that describe 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. Each chapter, the unit of publication, is limited to a narrow field of subject matter. This format permits flexibility when 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 available for sale from 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)236-4693 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.

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Section D. Water Quality

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

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

Book 2. Collection of Environmental Data

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

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

Section F. Drilling and Sample Methods

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

Book 3. Application of Hydraulics

Section A. Surface-Water Techniques

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

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

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

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

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

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

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

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Listed below is a selection of reports on surface-water resources in Maryland which are available through the U.S. Geological Survey, Book and Open-File Reports, Federal Center, Building 41, Box 25425, Denver, Colorado 80225. **An asterick (*) indicates that the publication is out of print and is not purchasable from any official source.**

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OFR 81-1200**#** Katz, B.G., and Fisher, G.T., **Analysis and characterization of urban storm-water runoff for selected basins in the Baltimore, Maryland metropolitan area--a project plan**, 58 p. (see page 27)

OFR 81-812 Staubitz, W.W., **Quality of surface water in the coal mining areas of western Maryland and adjacent areas of Pennsylvania and West Virginia from April 1979 to June 1980**, 106 p.

OFR-81-538 Herb, W.J., Shaw, L.C., and Brown, D.E., **Hydrology of area 5, Eastern Coal Province, Pennsylvania, Maryland, and West Virginia**, 92 p.

OFR 81-10 Cory, R.L., **Diel oxygen variations in the Rhode River Estuary, Maryland, 1970-1978**, 14 p.

OFR 80-1016**#** Carpenter, D.H., **Technique for estimating magnitude and frequency of floods in Maryland**, 119 p. (see page 28)

OFR 78-171 Herb, W.J., **Excedence probability - Depth relationships of floods for Maryland streams west of Chesapeake Bay**, 14 p.

OFR 76-884 Herb, W.J., **Availability of hydrologic data for Montgomery County, Maryland**, 15 p., 1 sheet, 1:62,500 (1 inch = 1 mile).

SELECTED U.S. GEOLOGICAL SURVEY REPORTS ON SURFACE-WATER RESOURCES IN MARYLAND--Continued

OPEN-FILE REPORTS--Continued

OFR 76-178 Herb, W.J., **Availability of hydrologic data for Prince Georges County, Maryland**, 7 p.

1974 Carpenter, D.H., **Flood characteristics of small drainage basins in Maryland**, 90 p.

OFR 74-1015 Carpenter, D.H., **Floods of August and September 1971 in Maryland and Delaware**, 41 p.

1973 **Water resources of the Delmarva Peninsula, a summary report (White House document 93-68) to the Congress**, 59 p.

1972 **Sediment yields of urban construction sources, Montgomery County, Maryland, a progress report, Rock Creek Anacostia River basins**, 39 p.

1972 Taylor, K.R., **A summary of peak stages and discharges in Maryland, Delaware, and District of Columbia for flood of June 1972,** 13 p.

1969 Simmons, R.H., **Floods of August 1967 in Maryland and Delaware**, 98 p.

1959 Darling, J.M., **Floods in Maryland, Magnitude and Frequency**, 9 p.

SELECTED MARYLAND GEOLOGICAL SURVEY REPORTS ON SURFACE-WATER RESOURCES IN MARYLAND

Listed below is a selection of reports on surface-water resources in Maryland which are available through the Maryland Geological Survey, 2300 St. Paul Street, Baltimore, Maryland 21218.

BULLETINS

MGS B 36 Duigon, M.T., and Dine, J.R., 1991, **Water resources of Washington County, Maryland**, 109 p.

MGS B 35 Werkheiser, W.H., 1990, **Hydrogeology and ground-water resources of Somerset County, Maryland**, 156 p.

MGS B 34 Otton, E.G., Wiley, R.E., McGregor, R.A., Achmad, G.J., Hiortdahl, S.N., and Gerhart, J.M., 1989, **Water resources and estimated effects of ground-water development, Duigon M.TCecil County, Maryland**, 133 p.

MGS B 33 Duigon, M.T., and Dine, J.R., 1987, **Water resources of Frederick County, Maryland**, 106 p.

MGS B 25 Darling, J.M., 1961, **Maryland streamflow characteristics**, 136 p.

MGS B 24 Slaughter, T.H., and Darling, J.M., 1961, **Water resources of Allegany and Washington Counties**, 408 p.

MGS B 22 Meyer, Gerald, and Beall, R.M., 1958, **Water resources of Carroll and Frederick Counties**, 355 p.

MGS B 21 Overbeck, R.M., Slaughter, T.H., and Hulme, A.E., 1958, **Water resources of Cecil, Kent, and Queen Annes Counties**, 478 p.

MGS B 18 Rasmussen, W.C., Slaughter, T.H., Hulme, A.E., and Murphy, J.J., 1956, **Water resources of Caroline, Dorchester, and Talbot Counties**, 465 p.

MGS B 17 Dingman, R.J., Ferguson, H.F., and Martin, R.O.R., 1956, **Water resources of Baltimore and Harford Counties**, 233 p.

MGS B 16 Rasmussen, W.C., Slaughter, T.H., Bennett, R.R., Meyer, R.R., and Hulme, G.E., 1955, **Water resources of Somerset, Wicomico, and Worchester Counties**, 535 p.

MGS B 14 Dingman, R.J., Meyer, Gerald, and Martin, R.O.R., 1954, **Water resources of Howard and Montgomery Counties**, 260 p.

MGS B 13 Amsden, T.W., Overbeck, R.M., and Martin, R.O.R., 1954, **Geology and water resources of Garrett County**, 349 p.

MGS B 11 Martin, R.O.R., and Ferguson, H.F., 1953, **Water resources of St. Marys County**, 195 p.

MGS B 10 Cooke, C., Wythe, Martin, R.O.R., and Meyer, Gerald, 1952, **Geology and water resources of Prince Georges's County**, 270 p.

MGS B 8 Bennion, V.R., Dougherty, D.F., and Overbeck, R.M., 1951, **Water resources of Calvert County**, 100 p.

MGS B 5 Bennion, V.R., and Brookhart, J.W., 1949, **Water resources of Anne Arundel County**, 14 p.

SELECTED MARYLAND GEOLOGICAL SURVEY REPORTS ON SURFACE-WATER RESOURCES IN MARYLAND--Continued

REPORTS OF INVESTIGATIONS--Continued

REPORTS OF INVESTIGATIONS

MGS RI 71 Cleaves, E.T., and Doheny, E.J., 2000, **A Strategy for improving the Stream-Gaging Network in Maryland**, 72 p.

MGS RI 48 Kerhin, R.T., and others, 1988, **The surficial sediments of Chesapeake Bay, Maryland: Physical characteristics and sediment budget**, 82 p.

MGS RI 45 Wiley, R.E., and Achmad, G.J., 1986, **Simulation of ground-water flow and base flow in weathered crystalline rock, Upper Cattail Creek, Howard County, Maryland**, 68 p.

MGS RI 42 Otton, E.G., and Hilleary, J.T., 1985, **Maryland springs--their physical, thermal, and chemical characteristics**, 151 p.

MGS RI 41-A Hiortdahl, S.N., 1988, **Hydrologic and mining data from an area of underground coal mining in Garrett County, Maryland**, 81 p.

MGS RI 41 Duigon, M.T., and Smigaj, M.J., 1985, **First report on the hydrologic effects of underground coal mining in southern Garrett County, Maryland**, 99 p.

MGS RI 40 **The Columbia aquifer of the Eastern Shore of Maryland**, 1984, Part 1, Bachman, L.J., and Wilson, J.M., Hydrogeology, Part 2, Wilson, J.M., and Bachman, L.J., **Selected water-well records, chemical analyses, water-level measurements, lithologic logs and geophysical logs**, 144 p.

MGS RI 35 Carpenter, D.H., 1983, **Characteristics of streamflow in Maryland**, 237 p.

MGS RI 17 Mack, F.K., Webb, W.E., and Gardner, R.A., 1971, **Water resources of Dorchester and Talbot Counties, Maryland, with special emphasis on the ground-water potential of the Cambridge and Easton areas**, 107 p.

MGS RI 16 Walker, P.N., 1971, **Flow characteristics of Maryland streams**, 160 p.

MGS RI 13 Webb, W.E., and Heddle, S.G., 1970, **Extent of brackish water in the tidal rivers of Maryland**, 46 p.

MGS RI 9 Thomas, J.D., and Heidel, S.G., 1969, **Chemical and physical character of municipal water supplies in Maryland**, 52 p.

MGS RI 5 Thomas, J.D., 1966, **Chemical quality reconnaissance of water of Maryland streams**, 61 p.

MGS RI 3 Boggess, D.H., and Heidel, S.G., 1968, **Water resources of the Salisbury area, Maryland**, 69 p.

MGS RI 1 Heidel, S.G., and Fernier, W.W., 1965, **Chemical quality of water and trace elements in the Patuxent River basin**, 40 p.

BASIC DATA REPORTS

MGS BDR 19 Dine, J.R., Adamski, J.C., Tompkins, M.D., 1992, **Hydrologic data for Howard County, Maryland**, 240 p.

MGS BDR 18 Duigon, M.T., Dine, J.R., and Tompkins, M.D., 1989, **Ground-water and surface-water data for Washington County, Maryland**, 273 p.

MGS BDR 16 Wiley, R.E., McGregor, R.A., deGrouchy, Joanne, and Tompkins, M.D., 1987, **Hydrologic data for Cecil County, Maryland**, 150 p.

MGS BDR 15 Dine, J.R., Tompkins, M.D., and Duigon, M.T., 1985, **Ground-water and surface-water data for Frederick County, Maryland**, 240 p.

MGS BDR 12 Hilleary, J.T., and Weigle, J.W., 1981, **Carroll County ground-water information: well records, spring records, and chemical-quality data**, 252 p.

MGS BDR 11 Nutter, L.J., Smigaj, M.J., and Knobel, L.L., 1980, **Garrett County water-well records, chemical-quality data, ground-water use, coal test-hole data, and surface-water data: with a section on gas-well records,** 102 p.

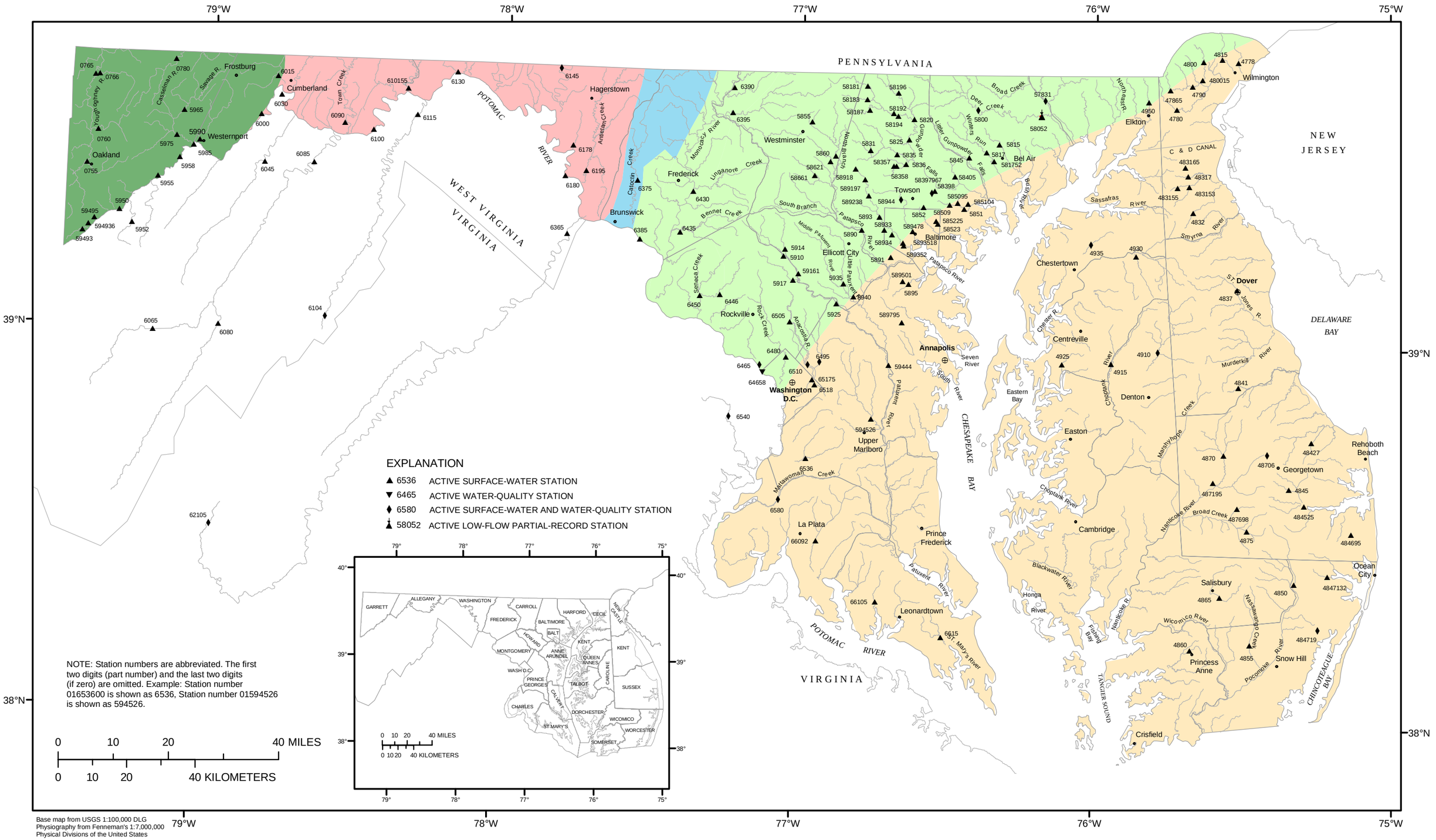
MGS BDR 2 Slaughter, T.H., and Laughlin, C.P., 1966, **Records of wells and springs in Charles County, Maryland**, 93 p.

MGS BDR 1 Laughlin, C.P., 1966, **Records of wells and springs in Baltimore County, Maryland**, 406 p.

INFORMATION CIRCULARS

MGS IC 12 Taylor, K.R., and Solley, W.B., 1972, **Traveltime and concentration attenuation of a soluble dye in Antietam and Conococheague Creeks, Maryland**, 25 p.

MGS IC 9 Taylor, K.R., 1970, **Traveltime and concentration attenuation of a soluble dye in the Monocacy River, Maryland**, 23 p.



EXPLANATION

- ▲ 6536 ACTIVE SURFACE-WATER STATION
- ▼ 6465 ACTIVE WATER-QUALITY STATION
- ♦ 6580 ACTIVE SURFACE-WATER AND WATER-QUALITY STATION
- 58052 ACTIVE LOW-FLOW PARTIAL-RECORD STATION

NOTE: Station numbers are abbreviated. The first two digits (part number) and the last two digits (if zero) are omitted. Example: Station number 01653600 is shown as 6536, Station number 01594526 is shown as 594526.

0 10 20 40 MILES
0 10 20 40 KILOMETERS

Base map from USGS 1:100,000 DLG
Physiography from Fenneman's 1:7,000,000 Physical Divisions of the United States

Figure 3. Map of Maryland, Delaware, and Washington D.C. showing location of surface-water, water-quality and low-flow partial-record stations.

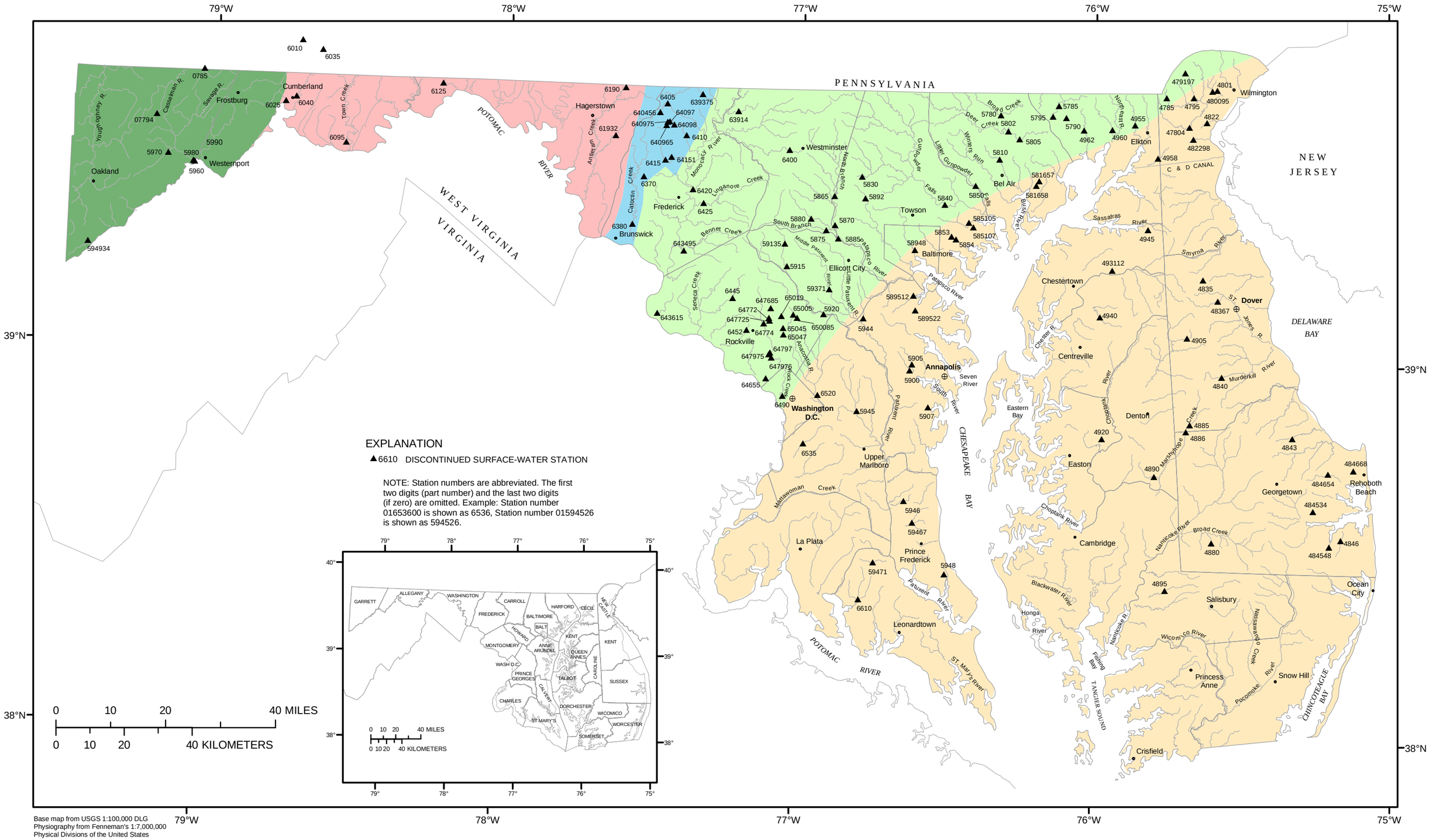


Figure 4. Map of Maryland, Delaware, and Washington D.C. showing location of discontinued surface-water stations.

Photo by Jim Jeffries

Discharge measurement being made using an AquaCalc and Flowtracker at Conococheague Creek at Fairview, Md (01614500).

SURFACE-WATER-DISCHARGE AND SURFACE-WATER-QUALITY RECORDS

REMARK CODES

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

PRINTED OUTPUT	REMARK
E	Estimated value
>	Actual value is known to be greater than the value shown.
<	Actual value is known to be less than the value shown.
K	Results based on colony count outside the acceptance range (non-ideal colony count).
L	Biological organism count less than 0.5 percent (organism may be observed rather than counted).
D	Biological organism count egual to or greater than 15 percent (dominant).
&	Biological organism estimated as dominant.
V	Analyte was detected in both the environmental sample and the associated blank.
M	Presence of material verified but not quantified.

Dissolved Trace-Element Concentrations

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

Change in National Trends Network Procedures

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

NORTH ATLANTIC SLOPE BASINS

DELAWARE RIVER BASIN

01477800 SHELLPOT CREEK AT WILMINGTON, DE

LOCATION.--Lat 39°45'39.5", long 75°31'07.3", New Castle County, Hydrologic Unit 02040205, on right bank 100 ft east of intersection of 44th and Pine Streets in Clifton Park, 700 ft downstream from bridge on North Market Street in Wilmington, 0.2 mi downstream from Matson Run, and 2.3 mi upstream from mouth.

DRAINAGE AREA.--7.46 mi^2.

PERIOD OF RECORD.--December 1945 to current year.

REVISED RECORDS.--WSP 1382: 1948(m).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 15.16 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those between 100 and 4,000 ft^3/s, which are fair, and those for estimated daily discharges (plugged intake, missing record, ice effect), which are poor. Occasional regulation at low flow from unknown source upstream from station. U.S. Geological Survey gage-height telemeter at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since at least 1940, that of July 5, 1989. Flood of Aug. 1, 1945, reached a stage of about 8.5 ft, from floodmarks.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec 24	1605	1,030	4.39	Jul 18	1505	1,270	4.83
Feb 6	1445	1,050	4.43	Aug 1	0850	1,380	5.03
Jun 15	0015	2,860	7.13	Sep 18	1255	1,140	4.59
Jul 12	1125	2,430	6.59	Sep 28	1645	1,650	5.50
Jul 12	1435	*4,260	*8.74	Sep 28	2145	2,580	6.78
Jul 12	1800	1,210	4.71				

Minimum discharge, 0.31 ft^3/s, Sept. 22 - 26.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	e4.0	4.1	3.5	2.7	2.6	12	3.1	2.7	1.6	105	0.80
2	2.5	e3.5	3.5	e3.2	2.7	3.2	58	3.0	10	1.5	6.2	0.64
3	2.3	e3.0	3.1	3.4	66	2.9	40	40	3.0	1.4	4.0	0.56
4	2.5	e2.7	3.4	3.4	24	5.8	72	14	1.4	1.2	9.7	e0.56
5	2.8	e2.5	6.5	20	8.1	3.3	13	e9.0	43	1.1	5.9	e0.54
6	2.0	e10	7.7	5.9	352	96	e7.0	e6.0	12	0.95	2.0	e0.54
7	1.9	e4.0	5.7	3.6	51	10	e5.5	e4.5	2.6	83	1.6	e0.52
8	1.9	e3.2	4.6	3.0	10	8.8	e4.8	e3.2	1.9	7.5	1.4	e0.52
9	1.8	e2.8	4.5	3.3	6.4	5.4	e4.4	e6.0	1.8	1.6	1.3	e2.0
10	1.7	e2.6	103	3.1	8.4	4.7	e4.2	61	4.7	1.2	1.2	1.0
11	1.7	e2.4	205	3.1	6.0	4.1	e4.0	6.0	30	0.99	1.3	0.63
12	1.6	e2.4	13	2.8	4.5	3.6	e60	3.6	3.3	854	5.2	e0.55
13	1.6	e8.0	7.1	2.7	3.9	3.1	141	2.8	1.7	20	2.4	e0.50
14	41	7.1	120	e2.2	3.7	3.1	80	2.5	61	24	2.5	e0.46
15	e30	6.1	27	2.3	3.4	3.0	34	2.5	170	8.4	5.2	e0.45
16	e2.5	5.1	9.2	2.5	2.9	27	9.9	3.5	7.4	3.4	4.2	e0.44
17	e1.8	4.8	82	2.4	2.9	15	6.9	2.4	21	2.4	1.3	e0.44
18	e3.0	4.4	e15	23	2.3	10	5.4	4.3	12	163	1.8	233
19	e2.0	59	e5.0	e4.0	2.4	72	5.1	23	3.5	14	1.1	5.1
20	e1.8	64	e4.0	e3.0	2.5	12	4.1	3.8	2.2	6.3	0.99	0.91
21	e1.8	7.8	e3.6	e2.7	2.6	9.4	3.4	5.8	1.9	3.7	4.0	0.45
22	e2.2	5.6	e3.4	2.7	2.7	5.8	3.6	2.7	1.8	3.2	1.6	0.33
23	e2.0	4.2	e3.4	2.5	2.7	4.8	6.1	1.7	2.1	9.9	1.1	0.31
24	e1.8	3.7	216	2.4	3.0	4.4	6.7	1.5	1.8	3.1	e0.80	0.31
25	e1.6	6.8	17	2.4	3.4	4.9	2.7	1.4	2.0	2.0	0.75	0.32
26	e1.8	3.3	7.8	2.5	2.8	4.4	70	1.6	2.1	1.8	0.70	0.34
27	194	3.0	6.1	2.7	2.9	5.2	23	1.3	1.9	13	0.71	0.39
28	e20	48	5.1	3.4	3.0	4.5	6.2	1.2	1.7	10	0.72	614
29	203	24	4.8	2.8	2.8	4.2	4.1	0.96	5.1	2.6	0.68	127
30	e10	5.3	4.8	2.5	---	5.2	e3.6	0.96	1.8	4.7	1.1	11
31	e6.0	---	3.8	2.5	---	18	---	2.3	---	2.7	2.6	---
TOTAL	553.4	313.3	909.2	129.5	591.7	366.4	700.7	225.62	417.4	1,254.24	179.05	1,004.61
MEAN	17.9	10.4	29.3	4.18	20.4	11.8	23.4	7.28	13.9	40.5	5.78	33.5
MAX	203	64	216	23	352	96	141	61	170	854	105	614
MIN	1.6	2.4	3.1	2.2	2.3	2.6	2.7	0.96	1.4	0.95	0.68	0.31
CFSM	2.39	1.40	3.93	0.56	2.74	1.58	3.13	0.98	1.87	5.42	0.77	4.49
IN.	2.76	1.56	4.53	0.65	2.95	1.83	3.49	1.13	2.08	6.25	0.89	5.01

e Estimated

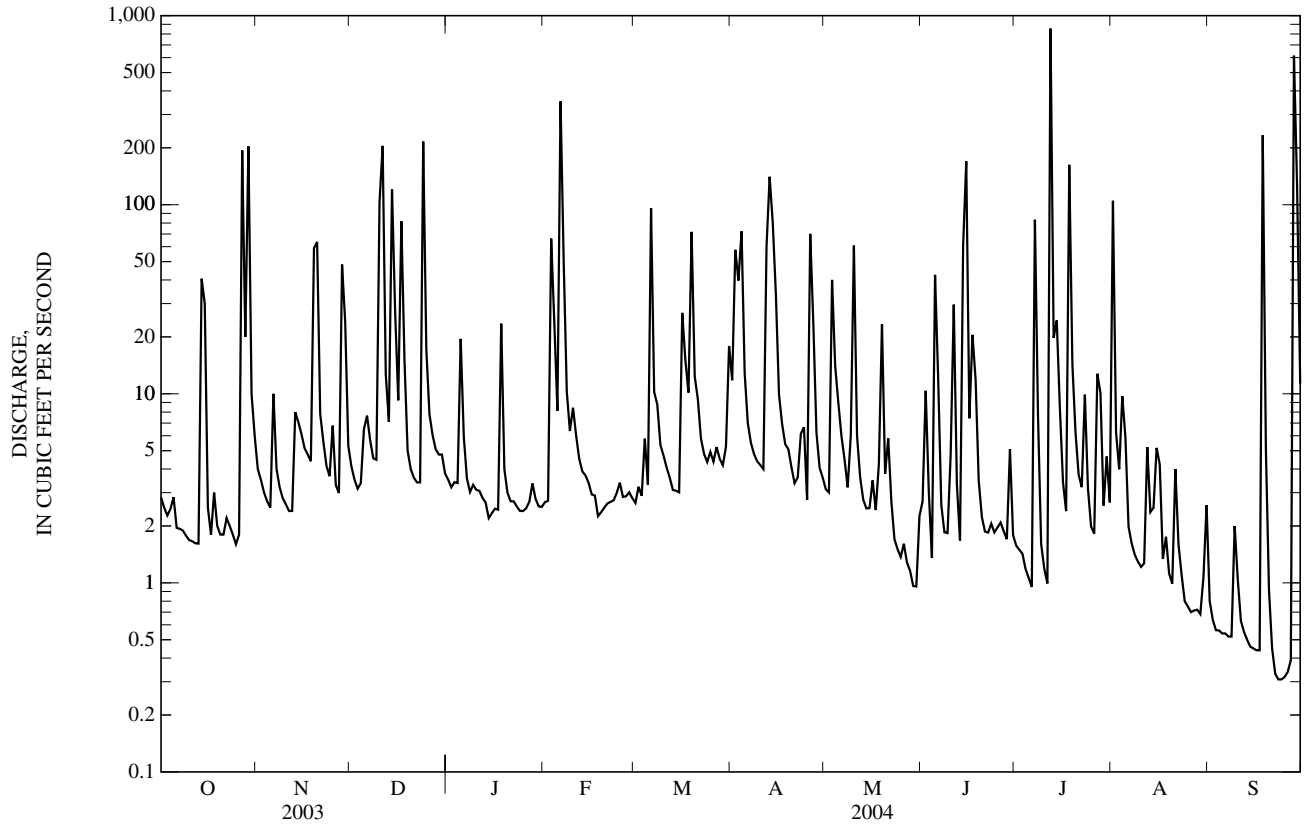
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 2004, BY WATER YEAR (WY)

MEAN	5.35	8.43	12.0	12.4	13.3	16.6	12.9	10.6	7.96	8.76	7.03	8.23
MAX	22.5	27.7	48.7	37.9	34.1	46.4	32.7	31.6	44.9	69.5	62.8	58.3
(WY)	(1996)	(1973)	(1997)	(1979)	(1979)	(2000)	(1983)	(1947)	(2003)	(1989)	(1967)	(1971)
MIN	0.62	1.35	1.03	1.18	1.80	2.93	2.55	1.76	1.09	0.65	0.32	0.90
(WY)	(1964)	(1966)	(1956)	(1981)	(2002)	(1985)	(1985)	(1955)	(1966)	(1957)	(1966)	(1951)

NORTH ATLANTIC SLOPE BASINS—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1946 - 2004	
ANNUAL TOTAL	7,409.14		6,645.12			
ANNUAL MEAN	20.3		18.2		10.3	
HIGHEST ANNUAL MEAN					19.6	2003
LOWEST ANNUAL MEAN					3.93	2002
HIGHEST DAILY MEAN	729	Jun 20	854	Jul 12	1,480	Sep 16, 1999
LOWEST DAILY MEAN	0.50	Aug 28	0.31	(a)	0.09	(b)
ANNUAL SEVEN-DAY MINIMUM	0.89	Aug 23	0.35	Sep 21	0.10	Aug 27, 1966
MAXIMUM PEAK FLOW			4,260	Jul 12	(c)8,040	Jul 5, 1989
MAXIMUM PEAK STAGE			8.74	Jul 12	13.76	Jul 5, 1989
INSTANTANEOUS LOW FLOW			0.31	(d)	0.09	Oct 2, 1968
ANNUAL RUNOFF (CFSM)	2.72		2.43		1.38	
ANNUAL RUNOFF (INCHES)	36.95		33.14		18.69	
10 PERCENT EXCEEDS	32		31		18	
50 PERCENT EXCEEDS	4.4		3.4		2.9	
90 PERCENT EXCEEDS	1.7		1.1		0.79	

a Sept. 23, 24.
b Oct. 2, 4, 1968.
c From rating curve extended above 200 ft^3/s on basis of culvert and flow-over-road measurements at gage heights 9.10 and 11.91 ft.
d Sept. 22 - 26.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01478000 CHRISTINA RIVER AT COOCHS BRIDGE, DE

LOCATION.--Lat 39°38'14.6", long 75°43'40.4", New Castle County, Hydrologic Unit 02040205, on right bank 60 ft downstream from highway bridge, 0.5 mi southeast of Coochs Bridge, 3.3 mi south of Newark, 3.6 mi upstream from Belltown Run, and 22.6 mi upstream from mouth.

DRAINAGE AREA.--20.5 mi^2.

PERIOD OF RECORD.--April 1943 to current year.

REVISED RECORDS.--WDR MD-DE-79-1: 1943-70(P). WDR MD-DE-87-1: 1980-82(P).

GAGE.--Water-stage recorder. Datum of gage is 25.54 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 14, 1944, nonrecording gage on upstream side of bridge at same datum. Sept. 14, 1944, to May 13, 1969, recording gage at site on left bank at downstream side of highway bridge at same datum. May 26, 1969, to Dec. 5, 1973, recording gage on left bank 82 ft downstream from highway bridge at same datum.

REMARKS.--No estimated daily discharges. Records good. Low and medium flow regulated by mill upstream from station. National Weather Service gage-height telemeter at station. U.S. Geological Survey satellite collection platform at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 27	1800	1,060	10.91	Jul 7	1930	1,610	11.62
Nov 19	2030	1,150	11.07	Jul 12	1900	2,200	12.14
Dec 11	0700	1,330	11.31	Jul 28	0300	1,050	10.90
Dec 17	1145	1,010	10.81	Aug 1	0930	1,530	11.54
Feb 6	1630	2,360	12.24	Aug 12	2100	2,130	12.09
Jun 15	0215	1,110	11.01	Sep 18	1330	1,340	11.32
Jun 18	0115	1,440	11.44	Sep 28	2300	*5,430	*13.43

Minimum discharge, 10 ft^3/s, Oct. 12, 13, 14.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	28	29	21	16	17	109	15	22	16	390	18
2	12	26	27	22	16	20	94	14	22	15	32	15
3	12	25	26	22	127	19	77	95	20	14	24	15
4	12	24	25	21	108	18	88	48	13	14	84	14
5	12	26	36	41	38	18	42	23	163	15	67	14
6	11	37	40	29	799	163	30	19	48	14	18	14
7	11	39	34	21	302	51	24	17	20	324	15	14
8	11	26	30	20	62	44	21	16	15	92	15	14
9	11	24	29	20	38	34	34	15	14	28	14	22
10	11	24	199	18	46	31	22	173	45	21	14	14
11	11	24	701	18	40	29	21	28	93	19	14	13
12	11	147	54	19	31	27	57	19	31	801	548	13
13	10	38	34	19	29	24	246	17	17	97	272	13
14	31	27	165	19	28	24	114	16	26	163	41	12
15	78	26	107	18	26	24	64	16	333	56	31	13
16	14	25	38	16	21	68	34	26	59	21	25	13
17	13	24	305	17	19	53	26	23	169	18	20	13
18	14	24	61	40	20	36	23	19	280	275	19	467
19	12	293	38	28	21	126	20	43	38	33	18	33
20	12	258	31	19	21	44	19	26	28	20	17	18
21	12	41	28	18	24	36	17	33	24	17	18	16
22	11	32	27	18	22	27	17	25	69	16	17	15
23	11	29	26	17	20	23	19	16	45	17	16	14
24	11	28	158	17	21	23	21	15	23	15	15	13
25	11	31	51	16	22	23	15	15	28	14	15	13
26	11	27	29	17	20	22	84	17	28	14	15	13
27	404	26	26	18	19	22	82	14	20	19	14	13
28	89	93	24	18	17	21	26	13	18	240	14	1,240
29	325	110	23	17	18	20	18	12	22	19	14	800
30	46	34	24	17	---	20	16	12	17	16	237	55
31	32	---	22	16	---	34	---	20	---	15	60	---
TOTAL	1,284	1,616	2,447	637	1,991	1,141	1,480	860	1,750	2,458	2,113	2,954
MEAN	41.4	53.9	78.9	20.5	68.7	36.8	49.3	27.7	58.3	79.3	68.2	98.5
MAX	404	293	701	41	799	163	246	173	333	801	548	1,240
MIN	10	24	22	16	16	17	15	12	13	14	14	12
CFSM	2.02	2.63	3.85	1.00	3.35	1.80	2.41	1.35	2.85	3.87	3.32	4.80
IN.	2.33	2.93	4.44	1.16	3.61	2.07	2.69	1.56	3.18	4.46	3.83	5.36

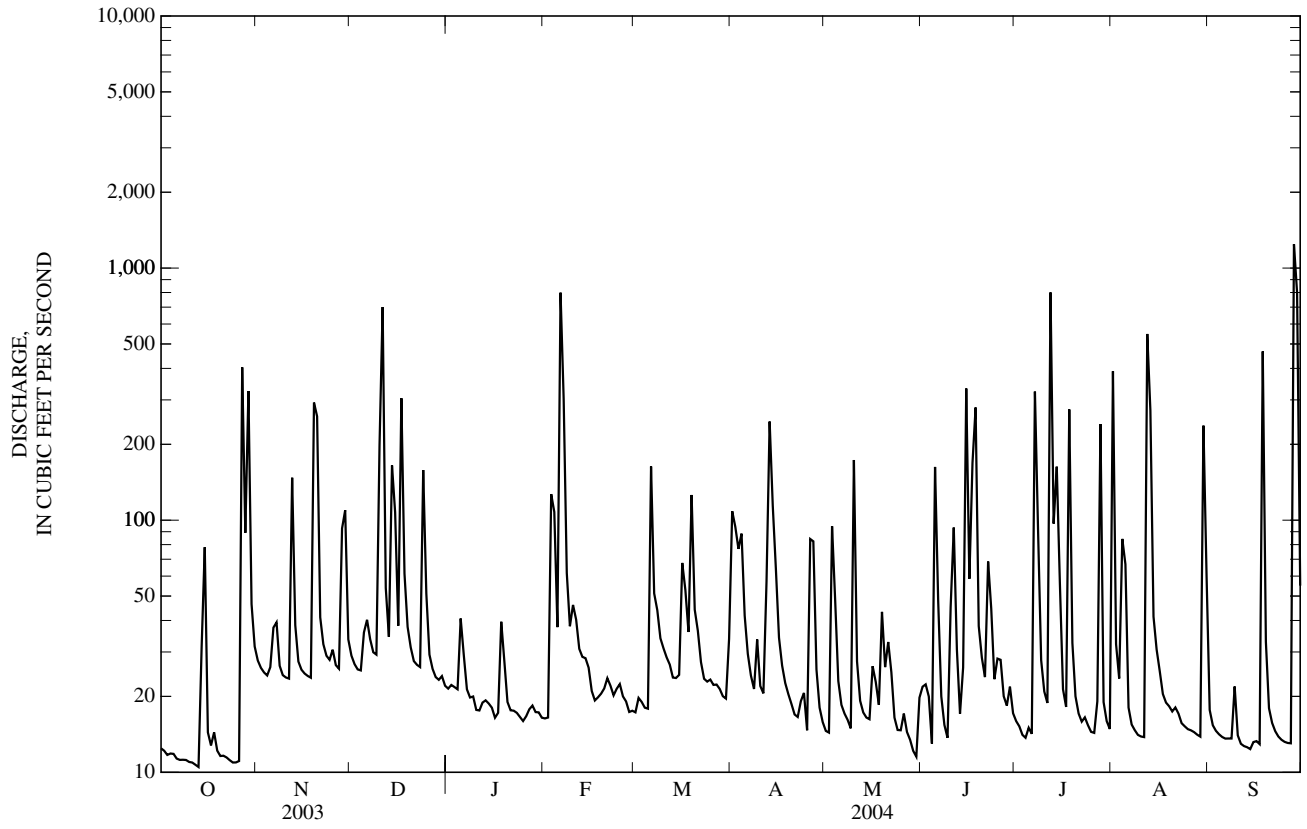
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 2004, BY WATER YEAR (WY)

MEAN	15.2	24.3	35.2	38.9	42.5	48.7	36.4	30.7	22.5	21.9	18.0	18.6
MAX	62.9	82.8	122	165	154	121	107	77.6	92.0	165	117	107
(WY)	(1972)	(1973)	(1997)	(1979)	(1979)	(1978)	(1983)	(1990)	(2003)	(1989)	(1967)	(1999)
MIN	2.25	2.76	3.98	5.35	6.95	8.35	10.5	8.10	4.57	2.48	1.29	2.85
(WY)	(1964)	(1966)	(1966)	(1981)	(2002)	(1981)	(1963)	(1965)	(1966)	(1963)	(1966)	(1965)

01478000 CHRISTINA RIVER AT COOCHS BRIDGE, DE—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1943 - 2004	
ANNUAL TOTAL	19,525.9		20,731			
ANNUAL MEAN	53.5		56.6		29.3	
HIGHEST ANNUAL MEAN					56.6	2004
LOWEST ANNUAL MEAN					10.4	2002
HIGHEST DAILY MEAN	930	Feb 22	1,240	Sep 28	2,650	Sep 16, 1999
LOWEST DAILY MEAN	3.4	Feb 16	10	Oct 13	0.20	(a)
ANNUAL SEVEN-DAY MINIMUM	7.5	Sep 6	11	Oct 7	0.50	Aug 25, 1966
MAXIMUM PEAK FLOW			5,430	Sep 28	(b)7,050	Sep 16, 1999
MAXIMUM PEAK STAGE			13.43	Sep 28	13.73	Sep 16, 1999
INSTANTANEOUS LOW FLOW			10	(c)	0.15	Aug 20, 1966
ANNUAL RUNOFF (CFSM)	2.61		2.76		1.43	
ANNUAL RUNOFF (INCHES)	35.43		37.62		19.44	
10 PERCENT EXCEEDS	94		108		49	
50 PERCENT EXCEEDS	23		22		13	
90 PERCENT EXCEEDS	9.7		13		4.3	

a Aug. 7, 17, 18, 21, 27, 28, 1966.
b From rating curve extended above 1,500 ft^3/s.
c Oct. 12-14.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01478650 WHITE CLAY CREEK AT NEWARK, DE

LOCATION.--Lat 39°41'21.2", long 75°44'55.5", New Castle County, Hydrologic Unit 02040205, on right bank 200 ft upstream from highway bridge on Paper Mill Road, at Newark, and 10.3 mi upstream from mouth.

DRAINAGE AREA.--69.0 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 56.45 ft above National Geodetic Vertical Datum of 1929.

REMARKS.-- Records good except those for estimated daily discharges (missing record, ice effect), which are fair. Flow affected by City of Newark municipal water plant upstream from station. Records do not include a negligible diversion upstream from station by MBNA America. U.S. Geological Survey satellite collection platform at station. Several measurements of water temperature were made during the year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,600 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 27	1045	3,080	9.60	Jul 12	1445	2,730	9.33
Nov 19	2100	1,750	8.51	Jul 28	0215	3,910	10.26
Dec 11	0815	3,430	9.87	Aug 1	0930	2,260	8.97
Feb 6	2000	4,460	10.72	Aug 12	2130	3,470	9.90
Jun 15	0215	3,060	9.58	Sep 18	1730	4,560	10.80
Jun 18	0015	3,610	10.01	Sep 28	UNKNOWN	*12,600	(a)*15.71

Minimum discharge, 69 ft^3/s, Jan. 16.

(a) From high water mark.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	96	144	142	151	e100	99	182	106	96	92	660	112
2	93	133	131	151	e110	107	174	105	100	90	172	96
3	87	125	121	153	389	106	238	182	96	86	132	90
4	91	122	120	151	568	110	268	188	80	83	132	88
5	94	122	142	188	237	109	177	127	259	82	160	85
6	87	160	155	174	1,820	337	129	128	250	76	113	85
7	84	175	139	141	934	186	117	117	132	198	101	83
8	83	129	129	133	257	151	111	123	105	163	95	84
9	83	118	127	140	167	118	128	110	92	91	91	101
10	83	118	197	111	203	110	109	546	127	80	91	87
11	80	118	e1,860	116	183	108	106	160	380	76	90	80
12	77	228	288	135	143	104	129	125	177	898	879	77
13	74	153	201	135	132	95	394	110	129	263	691	76
14	89	124	282	130	132	96	318	104	146	169	189	78
15	402	117	392	123	125	99	206	100	864	162	160	91
16	111	116	213	104	109	130	145	108	348	116	136	86
17	96	117	539	119	106	161	132	97	711	103	121	81
18	103	113	285	163	110	152	126	105	898	302	115	1,620
19	90	436	204	e150	e115	248	120	191	195	193	111	229
20	84	536	188	120	e120	177	113	143	149	125	107	128
21	86	186	172	e110	128	139	109	183	120	104	189	105
22	85	154	168	e105	123	118	108	151	147	98	155	92
23	82	139	171	e100	115	110	107	109	152	99	112	85
24	79	135	334	e110	116	110	156	96	117	98	104	83
25	80	141	242	e105	110	114	110	89	137	91	98	81
26	82	125	180	e105	102	110	221	104	150	90	93	80
27	1,450	122	171	e120	101	110	260	94	114	210	90	73
28	375	214	160	e120	98	106	138	88	104	1,010	86	e2,320
29	657	389	157	e110	98	99	118	81	121	158	85	e3,100
30	233	159	163	e110	---	97	109	79	97	116	362	264
31	168	---	151	e100	---	119	---	89	---	101	219	---
TOTAL	5,464	5,168	7,924	3,983	7,051	4,035	4,858	4,138	6,593	5,623	5,939	9,740
MEAN	176	172	256	128	243	130	162	133	220	181	192	325
MAX	1,450	536	1,860	188	1,820	337	394	546	898	1,010	879	3,100
MIN	74	113	120	100	98	95	106	79	80	76	85	73
CFSM	2.55	2.50	3.70	1.86	3.52	1.89	2.35	1.93	3.19	2.63	2.78	4.71
IN.	2.95	2.79	4.27	2.15	3.80	2.18	2.62	2.23	3.55	3.03	3.20	5.25

e Estimated

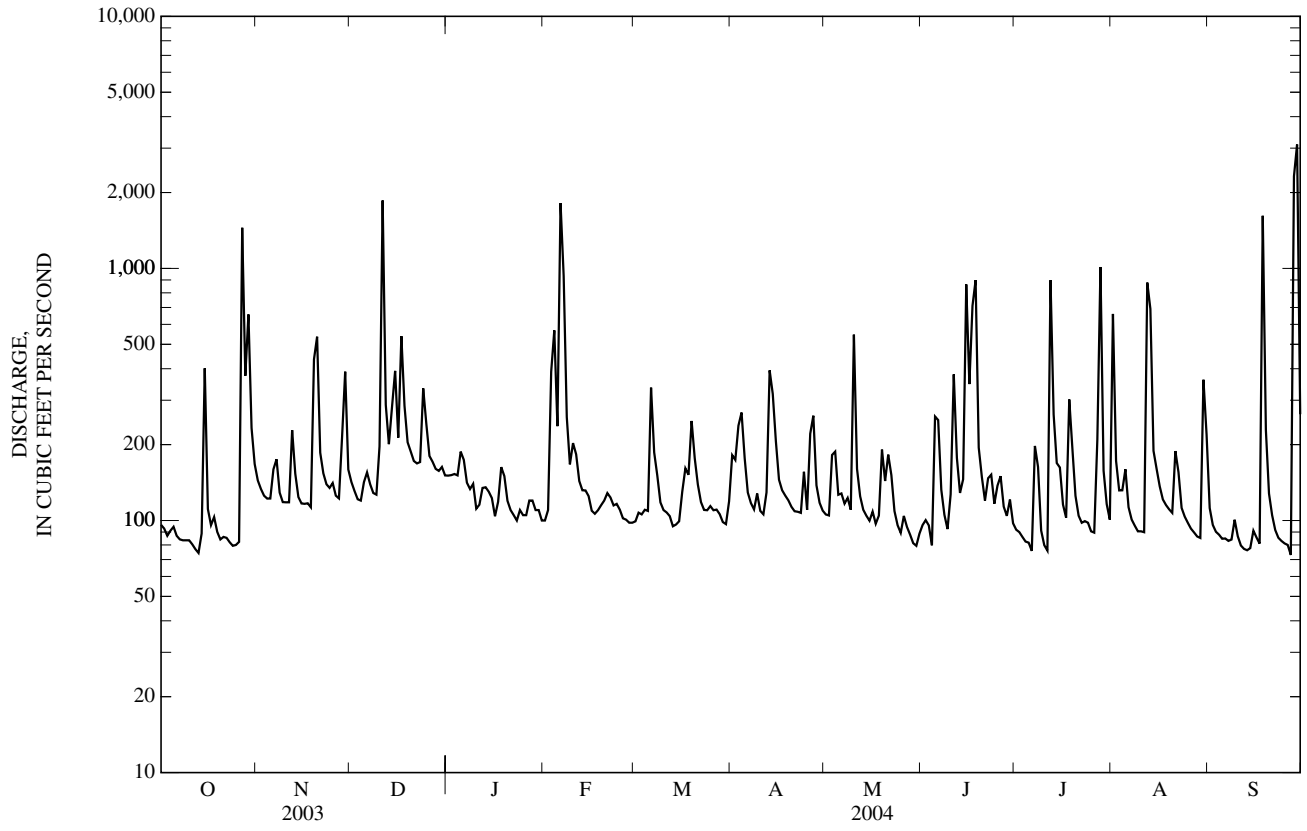
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 2004, BY WATER YEAR (WY)

MEAN	68.9	70.9	110	115	117	164	112	89.0	86.7	56.6	57.1	107
MAX	185	172	326	256	243	345	171	145	220	181	192	325
(WY)	(1997)	(2004)	(1997)	(1996)	(2004)	(1994)	(1996)	(1996)	(2004)	(2004)	(2004)	(2004)
MIN	23.1	23.8	29.0	43.6	38.1	63.4	45.3	45.7	25.7	14.6	12.1	14.7
(WY)	(2002)	(2002)	(1999)	(2002)	(2002)	(2002)	(1995)	(2002)	(1995)	(2002)	(2002)	(2002)

01478650 WHITE CLAY CREEK AT NEWARK, DE—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1994 - 2004	
ANNUAL TOTAL	59,017		70,516			
ANNUAL MEAN	162		193		95.7	
HIGHEST ANNUAL MEAN					193	2004
LOWEST ANNUAL MEAN					32.9	2002
HIGHEST DAILY MEAN	3,940	Sep 15	(e)3,100	Sep 29	5,750	Sep 16, 1999
LOWEST DAILY MEAN	(e)30	Jan 31	73	Sep 27	3.8	Aug 17, 2002
ANNUAL SEVEN-DAY MINIMUM	34	Jan 25	81	Oct 7	5.4	Aug 11, 2002
MAXIMUM PEAK FLOW			12,600	Sep 28	(a)16,800	Sep 16, 1999
MAXIMUM PEAK STAGE			(b)15.71	Sep 28	(b)17.13	Sep 16, 1999
INSTANTANEOUS LOW FLOW			69	Jan 16	2.6	Sep 13, 1995
ANNUAL RUNOFF (CFSM)	2.34		2.79		1.39	
ANNUAL RUNOFF (INCHES)	31.82		38.02		18.85	
10 PERCENT EXCEEDS	282		283		163	
50 PERCENT EXCEEDS	98		120		58	
90 PERCENT EXCEEDS	46		86		22	

e Estimated.
a From rating curve extended above 2,500 ft^3/s on basis of runoff comparison with White Clay Creek above Newark, DE (01478500).
b From high-water mark.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01479000 WHITE CLAY CREEK NEAR NEWARK, DE

LOCATION.--Lat 39°41'57.2" long 75°40'30.1", New Castle County, Hydrologic Unit 02040205, on left bank 35 ft downstream from bridge on private road at Delaware Park Race Track, 0.4 mi downstream from the Baltimore and Ohio Railroad bridge, 1.1 mi downstream from Pike Creek, 3.8 mi east of Newark, and 5.0 mi upstream from mouth.

DRAINAGE AREA.--89.1 mi^2.

PERIOD OF RECORD.--October 1931 to September 1936, June 1943 to September 1957, October 1959 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WSP 1051: 1933(M). WSP 1382: 1932, 1934. WDR MD-DE-83-1: 1978-82(P).

GAGE.--Water-stage recorder. Datum of gage is 9.00 ft above National Geodetic Vertical Datum of 1929. Nov. 17, 1931, to Sept. 30, 1936, June 4, 1943, to Sept. 30, 1957, and Oct. 1, 1959, to Apr. 7, 1976, at site 0.5 mi upstream at datum 2.6 ft higher.

REMARKS.--Records good except those for estimated daily discharges (ice effect, missing record), which are fair. Flow affected by City of Newark municipal water plant upstream from station. Slight diurnal fluctuation at low flow caused by mills upstream from station. Records do not include a negligible diversion upstream from station by MBNA America. National Weather Service gage-height telemeter at station. U.S. Geological Survey satellite collection platform at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 23 ft, previous site and datum, in July 1937 (probably affected by backwater from railroad bridge which has since been raised and widened), from information by Baltimore & Ohio Railroad.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 27	1930	3,140	13.26
Dec 11	1100	3,880	13.98
Feb 4	0200	3,160	13.28
Feb 6	2130	5,600	14.91
Jun 15	UNKNOWN	UNKNOWN	UNKNOWN
Jun 18	UNKNOWN	UNKNOWN	UNKNOWN
July 12	UNKNOWN	UNKNOWN	UNKNOWN
July 28	UNKNOWN	UNKNOWN	UNKNOWN
Aug 1	1030	2,450	12.32
Aug 12	2015	5,440	14.83
Sep 18	1630	3,450	13.57
Sep 29	UNKNOWN	*15,000	(a)*16.96

Minimum discharge, 85 ft^3/s, Sept. 14.

(a) From high water mark.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	122	186	172	164	e100	123	218	132	115	112	791	134
2	118	171	157	165	e120	131	234	129	122	109	225	116
3	112	162	149	165	e500	133	308	256	113	104	168	108
4	113	156	146	161	e700	132	319	244	e96	99	193	104
5	117	159	180	210	523	135	231	159	e300	100	207	101
6	107	207	194	195	2,040	411	166	148	e280	96	e160	99
7	104	223	170	152	1,260	236	149	137	e160	425	e140	97
8	102	163	156	140	336	188	140	141	124	244	121	97
9	102	147	153	146	214	e159	162	126	110	116	116	121
10	101	143	300	137	233	e141	137	e700	163	97	114	101
11	99	143	2,240	139	237	135	130	e200	441	92	112	91
12	95	324	364	149	183	130	169	147	201	e1,000	1,140	89
13	92	195	248	141	170	121	518	131	134	375	881	87
14	151	152	390	135	167	119	417	123	e160	256	229	86
15	529	144	479	131	160	121	269	119	e950	225	192	100
16	136	141	254	e120	143	179	186	133	404	157	170	96
17	114	140	676	e140	138	206	165	119	e900	137	151	92
18	123	136	343	e180	143	177	156	122	e1,000	424	141	e2,000
19	106	505	240	e160	142	313	148	236	e300	259	137	320
20	99	752	218	e140	147	231	142	179	e200	166	134	159
21	98	234	200	e130	150	171	134	201	e160	140	189	132
22	97	192	194	e120	146	144	133	175	214	129	193	118
23	92	173	192	e120	137	134	133	126	196	132	136	110
24	89	165	409	e130	137	132	182	112	141	130	127	105
25	87	174	288	e120	137	134	138	106	141	119	122	102
26	90	155	208	e120	127	130	247	119	185	116	119	101
27	1,450	151	195	e140	126	129	325	111	136	144	115	99
28	580	253	182	e140	123	126	177	104	124	e1,200	113	e2,800
29	876	483	178	e120	122	118	148	96	147	200	111	e3,600
30	298	196	181	e110	---	117	138	91	120	153	e400	355
31	215	---	168	e100	---	149	---	114	---	137	292	---
TOTAL	6,614	6,525	9,624	4,420	8,861	5,005	6,119	5,036	7,837	7,193	7,439	11,720
MEAN	213	218	310	143	306	161	204	162	261	232	240	391
MAX	1,450	752	2,240	210	2,040	411	518	700	1,000	1,200	1,140	3,600
MIN	87	136	146	100	100	117	130	91	96	92	111	86
CFSM	2.39	2.44	3.48	1.60	3.43	1.81	2.29	1.82	2.93	2.60	2.69	4.38
IN.	2.76	2.72	4.02	1.85	3.70	2.09	2.55	2.10	3.27	3.00	3.11	4.89

e Estimated.

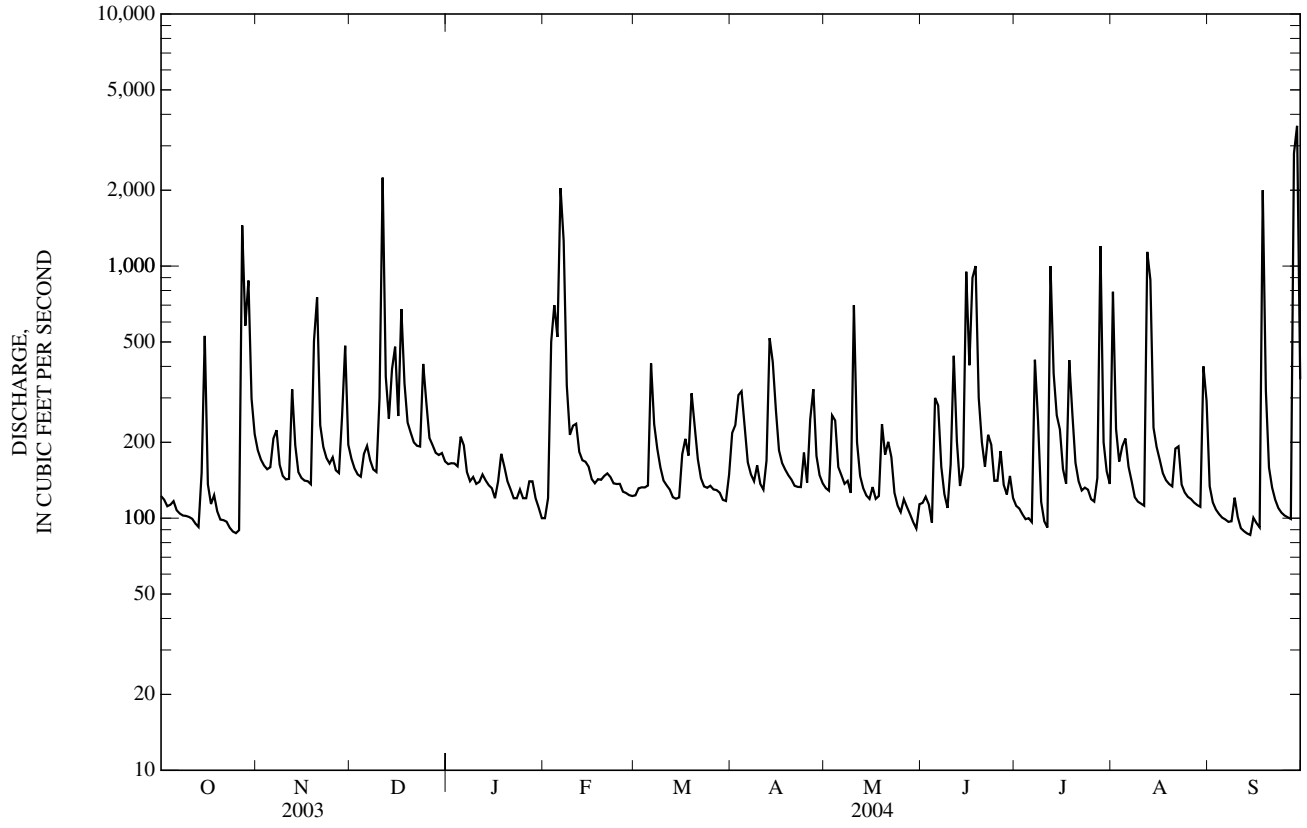
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 2004, BY WATER YEAR (WY)

MEAN	67.5	92.4	118	146	162	177	151	128	103	95.0	80.2	86.7
MAX	234	221	405	493	542	402	342	265	311	540	301	441
(WY)	(1997)	(1973)	(1997)	(1979)	(1979)	(1994)	(1983)	(1989)	(1972)	(1975)	(1967)	(2003)
MIN	17.6	28.4	28.1	32.8	40.8	57.5	59.7	42.3	33.7	16.6	13.6	15.0
(WY)	(1964)	(1966)	(1966)	(1966)	(2002)	(1981)	(1963)	(1955)	(1995)	(1963)	(1966)	(1932)

01479000 WHITE CLAY CREEK NEAR NEWARK, DE—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1932 - 2004	
ANNUAL TOTAL	78,780		86,393			
ANNUAL MEAN	216		236		117	
HIGHEST ANNUAL MEAN					236	2004
LOWEST ANNUAL MEAN					47.6	2002
HIGHEST DAILY MEAN	6,650	Sep 15	(e)3,600	Sep 29	8,220	Sep 16, 1999
LOWEST DAILY MEAN	(e)44	Jan 31	86	Sep 14	5.0	Sep 10, 1966
ANNUAL SEVEN-DAY MINIMUM	46	Jan 25	92	Sep 11	5.7	Sep 7, 1966
MAXIMUM PEAK FLOW			15,000	Sep 29	(a)19,500	Sep 16, 1999
MAXIMUM PEAK STAGE			(b)16.96	Sep 29	(c)17.74	Jun 22, 1972
INSTANTANEOUS LOW FLOW			85	Sep 14	4.7	Sep 11, 1966
ANNUAL RUNOFF (CFSM)	2.42		2.65		1.31	
ANNUAL RUNOFF (INCHES)	32.89		36.07		17.85	
10 PERCENT EXCEEDS	359		393		195	
50 PERCENT EXCEEDS	134		146		77	
90 PERCENT EXCEEDS	63		102		32	

e Estimated.
a From rating curve extended above 6,700 ft^3/s on basis of contracted-opening and flow-over-road measurement at a gage height of 15.9 ft and on basis of runnoff comparisons with nearby stations.
b From high water mark in well.
c At previous site and datum.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01480000 RED CLAY CREEK AT WOODDALE, DE

LOCATION.--Lat 39°45'46.1", long 75°38'11.4", New Castle County, Hydrologic Unit 02040205, on right bank 12 ft upstream from bridge on State Highway 48, 0.3 mi south of Wooddale, 2.3 mi north of Marshallton, and 4.9 mi upstream from mouth.
DRAINAGE AREA.--47.0 mi^2.
PERIOD OF RECORD.--April 1943 to current year.
REVISED RECORDS.--WSP 1141: 1948. WSP 1272: 1951(m). WSP 1432: 1944(M), 1945, 1946(M), 1948, 1949(M). WSP 2102: 1960(M), 1964(M), 1966-67(M).
GAGE.--Water-stage recorder and concrete control. Datum of gage is 81.46 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 21, 1950, nonrecording gage at site 10 ft downstream at same datum.
REMARKS.--Records good except those for estimated daily discharges (ice effect, doubtful gage-heights), which are fair. Low flows augmented at times by inflow from Hoopes Reservoir located 1.7 miles upstream from gage on unnamed tributary to Red Clay Creek, capacity 2,000,000,000 gal. Water from Brandywine Creek is pumped into Hoopes Reservoir and is released into Red Clay Creek during periods of low flow. No releases were observed during the 2004 water year. Water from Red Clay Creek is used for municipal supply. National Weather Service gage-height telemeter at station. U.S. Geological Survey satellite collection platform at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.
EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 15	0145	1,290	5.53	Jul 12	1630	2,120	6.84
Oct 27	1745	1,920	6.55	Jul 28	0345	3,480	8.64
Nov 19	2100	1,670	6.16	Aug 1	1015	1,700	6.20
Dec 11	0945	2,750	7.71	Aug 12	2045	2,720	7.68
Feb 3	--	2,860	ice jam	Sep 18	1345	2,270	7.05
Feb 6	1345	3,400	8.54	Sep 28	2245	*8,280	*13.53
Jun 18	0000	1,250	5.45				

Minimum discharge, 38 ft^3/s, July 6, 7.
REVISIONS.--Revised figure for peak discharge and annual maximum (*) for water year 2003, superseding those published in corresponding annual reports are given herein.
EXTREME FOR WATER YEAR 2003.-- Peak discharge greater than base discharge of 1,300 ft^3/s and maximum (*).

Water Year	Date	Time	Discharge (ft^3/s)	Gage height (ft)
2003	Sep 15, 2003	1045	*16,300	*17.62

DISCHARGE, CUBIC FEET PER SECOND WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	81	103	102	103	e60	69	90	84	68	49	591	61
2	79	96	94	105	e58	73	107	83	71	48	118	58
3	74	91	90	104	e500	72	163	154	65	45	85	56
4	77	88	87	104	232	78	230	133	55	42	85	53
5	77	88	101	134	101	73	118	97	141	40	107	52
6	71	129	108	114	1,590	254	89	95	142	41	75	51
7	69	120	99	97	419	116	83	90	79	79	68	50
8	69	90	94	90	135	97	80	87	67	73	64	51
9	68	84	92	91	110	82	88	81	61	47	58	63
10	66	82	186	79	133	78	76	283	64	42	e54	51
11	65	82	1,410	85	102	74	74	103	161	41	e50	47
12	62	158	200	89	91	71	93	87	89	721	e580	46
13	60	98	137	89	89	67	314	80	70	e120	558	44
14	77	83	244	85	89	65	228	77	87	e90	119	45
15	381	81	299	82	82	67	155	74	305	e70	e90	47
16	84	79	145	72	74	89	103	73	116	e60	e82	47
17	75	79	404	84	e72	105	94	69	278	58	e76	47
18	82	77	188	118	e76	95	88	77	298	231	e72	779
19	72	378	142	102	e78	183	85	135	89	116	e70	133
20	67	427	130	83	e80	112	82	96	74	73	e68	e80
21	68	129	121	80	e82	91	80	94	67	60	178	e66
22	67	105	120	e76	e80	78	79	93	62	55	e100	e62
23	65	97	118	69	e78	74	82	74	62	57	e75	e58
24	63	94	274	e68	e76	72	132	69	57	57	e65	54
25	61	101	165	e66	e74	73	87	64	61	51	e60	52
26	63	90	128	e64	e72	71	217	71	74	50	58	52
27	862	87	119	e76	e70	72	213	67	55	184	58	51
28	261	151	113	e72	68	69	104	64	52	998	55	2,140
29	629	280	112	e68	68	65	92	57	60	105	54	1,560
30	157	112	112	e64	---	66	88	55	51	76	142	179
31	115	---	106	e62	---	89	---	60	---	67	107	---
TOTAL	4,167	3,759	5,840	2,675	4,839	2,740	3,614	2,826	2,981	3,846	4,022	6,135
MEAN	134	125	188	86.3	167	88.4	120	91.2	99.4	124	130	204
MAX	862	427	1,410	134	1,590	254	314	283	305	998	591	2,140
MIN	60	77	87	62	58	65	74	55	51	40	50	44
CFSM	2.86	2.67	4.01	1.84	3.55	1.88	2.56	1.94	2.11	2.64	2.76	4.35
IIN.	3.30	2.98	4.62	2.12	3.83	2.17	2.86	2.24	2.36	3.04	3.18	4.86

e Estimated

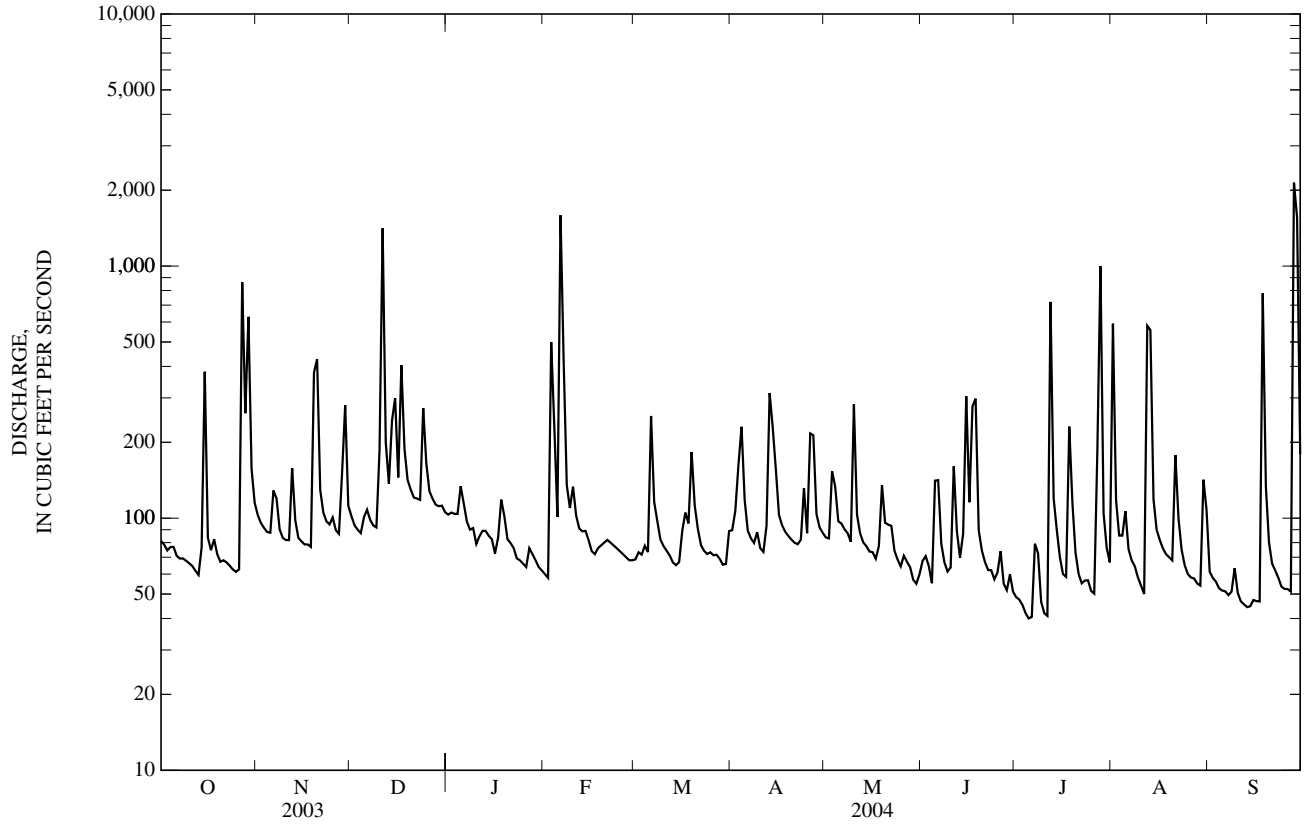
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 2004, BY WATER YEAR (WY)

MEAN	37.8	49.7	65.3	76.5	87.4	94.5	84.5	72.5	58.8	50.8	44.2	49.1
MAX	134	125	212	232	237	209	167	156	193	279	180	327
(WY)	(2004)	(2004)	(1997)	(1979)	(1979)	(1994)	(1958)	(1958)	(2003)	(1975)	(1955)	(2003)
MIN	11.1	17.1	16.5	16.8	24.4	27.3	31.6	24.2	21.7	12.7	9.79	13.7
(WY)	(1964)	(1999)	(1999)	(1981)	(2002)	(1981)	(2002)	(1955)	(1966)	(1963)	(1966)	(1964)

01480000 RED CLAY CREEK AT WOODDALE, DE—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1943 - 2004	
ANNUAL TOTAL	48,983		47,444			
ANNUAL MEAN	134		130		64.2	
ANNUAL MEAN‡	134		130		64.1	
HIGHEST ANNUAL MEAN					130	2004
LOWEST ANNUAL MEAN					27.0	2002
HIGHEST DAILY MEAN	5,980	Sep 15	2,140	Sep 28	5,980	Sep 15, 2003
LOWEST DAILY MEAN	23	Jan 31	40	Jul 5	4.5	Sep 4, 1966
ANNUAL SEVEN-DAY MINIMUM	25	Jan 25	45	Jun 30	4.9	Sep 7, 1966
MAXIMUM PEAK FLOW			8,280	Sep 28	(a)16,300	Sep 15, 2003
MAXIMUM PEAK STAGE			13.53	Sep 28	17.62	Sep 15, 2003
INSTANTANEOUS LOW FLOW			38	(b)	2.9	Sep 4, 1966
ANNUAL RUNOFF (CFSM)	2.86		2.76		1.37	
ANNUAL RUNOFF (CFSM)‡	2.85		2.77		1.36	
ANNUAL RUNOFF (INCHES)	38.77		37.55		18.55	
ANNUAL RUNOFF (INCHES)‡	38.69		37.60		18.52	
10 PERCENT EXCEEDS	200		192		108	
50 PERCENT EXCEEDS	77		82		44	
90 PERCENT EXCEEDS	39		55		19	

‡ Adjusted for inflow since June 1994.
a From rating curve extended above 3,900 ft^3/s on basis of contracted-opening measurement of peak flow.
b July 6, 7.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01480015 RED CLAY CREEK NEAR STANTON, DE

LOCATION.--Lat 39°42'56.7", long 75°38'23.8", New Castle County, Hydrologic Unit 02040205, on right bank at downstream side of westbound lane of bridge on State Highway 4, near Stanton, and 0.9 mi upstream from mouth.

DRAINAGE AREA.--52.4 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 0.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges (missing record, ice effect), which are fair. Low flows augmented at times by inflow from Hoopes Reservoir located 5.7 miles upstream from gage on unnamed tributary to Red Clay Creek, capacity 2,000,000,000 gal. Water from Brandywine Creek is pumped into Hoopes Reservoir and is released into Red Clay Creek during periods of low flow. No releases were observed during the 2004 water year. Water from Red Clay Creek is used for municipal supply. U.S. Geological Survey satellite collection platform at station. Several measurements of water temperature were made during the year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,300 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 27	1915	1,700	13.99	Jul 12	1745	2,410	15.31
Nov 19	2145	1,600	13.35	Jul 28	0445	2,600	15.65
Dec 11	0945	2,370	15.15	Aug 1	1400	1,450	13.19
Feb 6	1900	2,940	16.38	Aug 12	2345	2,440	15.32
Jun 15	0015	2,640	15.74	Sep 18	1400	2,120	14.60
Jun 17	2100	1,330	12.66	Sep 29	0030	*10,900	*23.43

Minimum discharge, 36 ft^3/s, July 11.

REVISIONS.--Revised figure for peak discharge and annual maximum (*) for water year 2003, superseding those published in corresponding annual reports are given herein.

EXTREME FOR WATER YEAR 2003.-- Peak discharge greater than base discharge of 1,300 ft^3/s and maximum (*).

Water Year	Date	Time	Discharge (ft^3/s)	Gage height (ft)
2003	Sep 15, 2003	----	*17,400	*25.52

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	108	120	111	122	e68	72	104	87	77	51	562	75
2	101	109	100	123	e66	77	126	86	86	50	142	66
3	95	105	96	121	580	76	207	182	76	46	105	62
4	95	100	93	121	e650	83	264	162	62	44	105	60
5	94	101	114	162	159	78	149	104	157	44	127	58
6	86	161	125	139	1,190	285	102	106	189	41	89	58
7	80	155	110	e110	599	142	93	95	93	108	80	57
8	78	104	104	e105	204	109	88	97	77	101	76	57
9	76	92	102	99	132	90	101	87	69	49	72	71
10	73	90	187	e90	148	82	83	302	79	42	69	60
11	72	89	1,340	e92	140	77	78	127	212	40	68	54
12	70	220	252	93	108	74	108	105	103	937	540	53
13	e72	120	154	90	101	69	362	95	77	228	643	50
14	e90	95	246	85	99	67	301	91	143	129	135	48
15	e400	91	e340	e84	93	69	202	87	516	117	113	52
16	87	89	e160	e82	e86	101	120	88	170	87	100	53
17	76	90	e460	e94	e82	124	107	82	355	77	92	52
18	85	86	242	136	80	109	100	88	340	277	85	801
19	73	351	175	e120	81	221	94	166	118	166	81	152
20	70	491	159	e100	85	135	90	120	93	101	78	86
21	70	154	146	e90	88	102	86	107	81	84	156	73
22	70	117	e144	e85	85	84	84	118	76	76	123	66
23	67	107	e141	e80	78	77	87	85	75	77	77	61
24	65	101	328	e76	79	77	146	78	67	79	72	58
25	65	117	217	e74	79	80	90	73	67	68	68	57
26	67	103	159	e72	73	78	224	81	96	64	66	56
27	798	100	146	e88	73	78	254	75	63	110	65	55
28	338	161	137	e82	e72	76	115	70	58	928	63	2,330
29	674	342	133	e76	e72	71	98	64	75	131	61	2,640
30	211	126	134	e72	---	72	92	61	58	96	125	193
31	137	---	124	e70	---	104	---	68	---	84	141	---
TOTAL	4,543	4,287	6,479	3,033	5,450	3,039	4,155	3,237	3,808	4,532	4,379	7,614
MEAN	147	143	209	97.8	188	98.0	138	104	127	146	141	254
MAX	798	491	1,340	162	1,190	285	362	302	516	937	643	2,640
MIN	65	86	93	70	66	67	78	61	58	40	61	48
CFSM	2.80	2.73	3.99	1.87	3.59	1.87	2.64	1.99	2.42	2.79	2.70	4.84
IN.	3.23	3.04	4.60	2.15	3.87	2.16	2.95	2.30	2.70	3.22	3.11	5.41

e Estimated

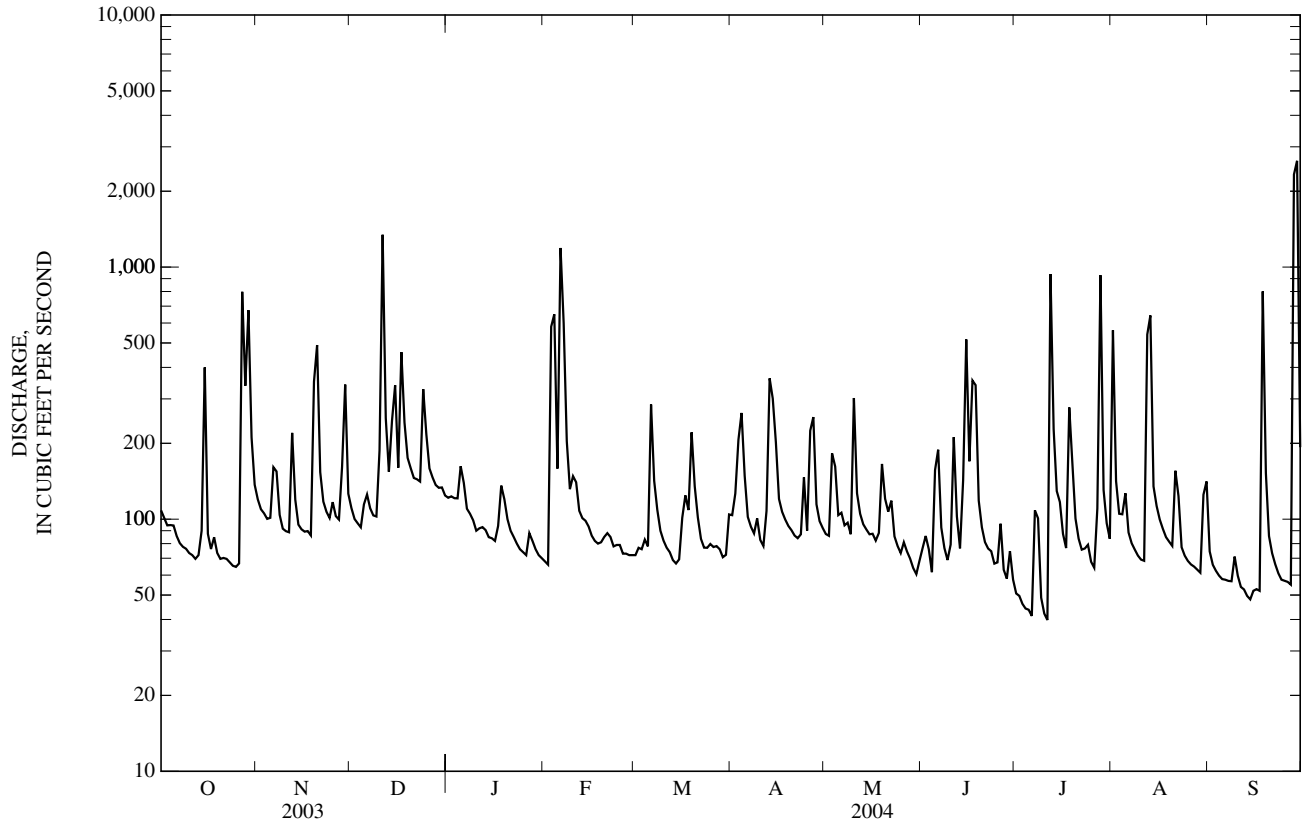
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 2004, BY WATER YEAR (WY)

MEAN	50.4	57.1	78.5	89.8	83.7	116	90.8	75.8	72.2	59.4	49.5	86.6
MAX	147	143	240	220	188	229	191	138	220	246	141	354
(WY)	(2004)	(2004)	(1997)	(1996)	(2004)	(2000)	(1993)	(1989)	(2003)	(1989)	(2004)	(2003)
MIN	19.6	19.8	19.1	34.6	24.5	50.6	38.0	39.7	23.7	14.4	19.8	17.7
(WY)	(2002)	(1999)	(1999)	(2002)	(2002)	(2002)	(2002)	(1995)	(1999)	(2002)	(2002)	(2002)

01480015 RED CLAY CREEK NEAR STANTON, DE—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1989 - 2004	
ANNUAL TOTAL	53,388		54,556			
ANNUAL MEAN	146		149		75.7	
ANNUAL MEAN‡	146		149		75.4	
HIGHEST ANNUAL MEAN					149	2004
LOWEST ANNUAL MEAN					29.3	2002
HIGHEST DAILY MEAN	6,000	Sep 15	2,640	Sep 29	(e)6,000	Sep 15, 2003
LOWEST DAILY MEAN	28	Jan 29	40	Jul 11	7.0	Sep 12, 1995
ANNUAL SEVEN-DAY MINIMUM	30	Jan 25	48	Jun 30	9.2	Sep 6, 2002
MAXIMUM PEAK FLOW			10,900	Sep 29	(a)17,400	Sep 15, 2003
MAXIMUM PEAK STAGE			23.43	Sep 29	(b)25.52	Sep 15, 2003
INSTANTANEOUS LOW FLOW			36	Jul 11	(c)6.8	Sep 12, 2002
ANNUAL RUNOFF (CFSM)	2.79		2.84		1.45	
ANNUAL RUNOFF (CFSM)‡	2.79		2.84		1.44	
ANNUAL RUNOFF (INCHES)	37.90		38.73		19.64	
ANNUAL RUNOFF (INCHES)‡	37.90		38.73		19.54	
10 PERCENT EXCEEDS	244		232		126	
50 PERCENT EXCEEDS	89		92		49	
90 PERCENT EXCEEDS	42		64		21	

‡ Adjusted for inflow since June 1994.
e Estimated
a From rating curve extended above 5,000 ft^3/s on basis of runnoff comparison and drainage area ratios with Red Clay Creek at Wooddale, DE (01480000).
b From floodmarks.
c May have been lower during periods of missing gage-height record.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01481500 BRANDYWINE CREEK AT WILMINGTON, DE

LOCATION.--Lat 39°46'09.9", long 75°34'25.0", New Castle County, Hydrologic Unit 02040205, on right bank in Rockford Park, 0.2 mi downstream from Rising Sun Bridge, in Wilmington, and 4.2 mi upstream from mouth.

DRAINAGE AREA.--314 mi^2.

PERIOD OF RECORD.--October 1946 to current year. Prior to December 1946 monthly discharge only, published in WSP 1302.

REVISED RECORDS.--WSP 1432: 1948, 1950.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 68.23 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges (missing gage-height record), which are fair. Some diurnal fluctuation at low flow caused by mills upstream from station. Flow regulated since November 1973 by Marsh Creek Reservoir, capacity 7,230,000,000 gal, about 27 mi upstream. No diversion just upstream from station by plant of E. I. du Pont de Nemours & Co. since June l3, 1960. National Weather Service gage-height telemeter at station. U.S. Geological Survey satellite collection platform at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 28	0545	7,230	8.83	Jul 12	1745	4,040	6.97
Nov 20	0515	4,320	7.19	Jul 28	0330	4,180	7.09
Dec 11	2300	8,370	9.34	Aug 1	1315	4,680	7.48
Dec 17	1945	4,180	7.06	Sep 19	0430	6,550	8.51
Feb 4	0215	7,870	9.12	Sep 29	0515	*20,800	*13.52
Feb 7	0300	11,000	10.41				

Minimum discharge, 197 ft^3/s, July 11, 12.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	676	1,050	817	795	e490	500	563	557	378	e265	2,130	522
2	617	965	767	789	e480	499	680	539	390	e260	890	336
3	574	895	737	791	1,210	527	901	742	357	249	504	299
4	587	791	721	785	2,440	551	987	874	327	238	420	277
5	625	777	759	897	1,330	565	975	645	427	e230	490	261
6	564	1,580	806	907	3,920	962	678	592	998	234	390	260
7	540	1,080	758	750	7,020	857	616	546	564	300	338	251
8	530	885	730	695	2,060	675	588	571	418	347	316	256
9	517	812	719	699	1,010	591	621	502	366	251	298	340
10	507	789	816	612	945	531	563	1,130	349	214	280	303
11	500	782	4,870	579	1,130	507	528	689	515	204	271	252
12	480	980	3,110	694	822	483	572	566	506	1,730	416	236
13	464	883	1,240	676	746	452	1,260	499	367	1,360	2,110	227
14	504	845	1,270	651	732	439	1,330	464	396	506	682	221
15	1,570	817	1,850	633	698	442	886	441	826	633	515	224
16	690	807	1,220	471	e650	499	737	499	641	445	445	233
17	565	803	2,220	622	e610	629	695	464	513	366	439	232
18	617	722	1,950	735	601	586	665	460	1,280	652	394	3,040
19	569	990	1,230	787	602	882	634	621	552	895	370	2,840
20	502	2,980	1,140	640	649	858	613	623	408	470	357	663
21	495	1,050	1,060	589	669	830	554	494	360	368	374	514
22	520	866	1,010	601	670	680	538	520	342	336	550	433
23	494	806	977	537	610	571	551	424	345	313	339	379
24	467	812	1,460	520	595	542	836	390	330	348	306	350
25	451	855	1,330	540	590	533	618	368	311	317	288	329
26	458	790	1,010	538	555	522	961	381	378	289	280	310
27	2,860	753	935	559	543	518	1,500	402	303	347	272	297
28	4,020	849	882	e550	527	513	731	378	274	2,500	263	3,520
29	2,910	1,640	857	e540	526	479	638	349	313	724	253	13,200
30	1,560	921	852	e520	---	461	591	331	289	467	274	1,480
31	1,100	---	816	e500	---	559	---	338	---	381	993	---
TOTAL	27,533	29,575	38,919	20,202	33,430	18,243	22,610	16,399	13,823	16,239	16,247	32,085
MEAN	888	986	1,255	652	1,153	588	754	529	461	524	524	1,070
MAX	4,020	2,980	4,870	907	7,020	962	1,500	1,130	1,280	2,500	2,130	13,200
MIN	451	722	719	471	480	439	528	331	274	204	253	221
(†)	+17.9	-21.8	+3.2	-26.0	+7.0	+14.6	+11.8	-6.5	0.0	+3.2	-1.6	+16.8
MEAN‡	906	964	1258	626	1160	603	766	522	461	527	522	1087
CFSM‡	2.89	3.07	4.01	1.99	3.69	1.92	2.44	1.66	1.47	1.68	1.66	3.46
IN.‡	3.33	3.42	4.62	2.29	3.98	2.21	2.72	1.91	1.64	1.94	1.91	3.86

e Estimated

† Change in contents in Marsh Creek Reservoir, equivalent in cubic feet per second, provided by Pennsylvania Department of Environmental Resources.

‡ Adjusted for change in reservoir contents.

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1947 - 1973, BY WATER YEAR (WY) (UNREGULATED)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	222	356	434	498	681	734	696	559	435	330	315	284
MAX	860	794	979	1,052	1,454	1,206	1,406	1,087	1,343	749	1,436	1,403
(WY)	(1972)	(1972)	(1973)	(1953)	(1971)	(1958)	(1958)	(1958)	(1972)	(1958)	(1955)	(1971)
MIN	80.6	117	129	173	225	333	259	190	149	92.5	81.9	99.6
(WY)	(1964)	(1966)	(1966)	(1955)	(1954)	(1969)	(1963)	(1963)	(1963)	(1963)	(1957)	(1964)

SUMMARY STATISTICS	WATER YEARS 1947 - 1973	
ANNUAL TOTAL		
ANNUAL MEAN	461	
HIGHEST ANNUAL MEAN	732	1972
LOWEST ANNUAL MEAN	252	1954
HIGHEST DAILY MEAN	14,300	Jun 23, 1972
LOWEST DAILY MEAN	56	Aug 23, 1957
ANNUAL SEVEN-DAY MINIMUM	59	Aug 18, 1957
MAXIMUM PEAK FLOW	(a)29,000	Jun 23, 1972
MAXIMUM PEAK STAGE	15.49	Jun 23, 1972
INSTANTANEOUS LOW FLOW	(b)30	Dec 26, 1948
ANNUAL RUNOFF (CFSM)	1.47	
ANNUAL RUNOFF (INCHES)	19.93	
10 PERCENT EXCEEDS	864	
50 PERCENT EXCEEDS	316	
90 PERCENT EXCEEDS	125	

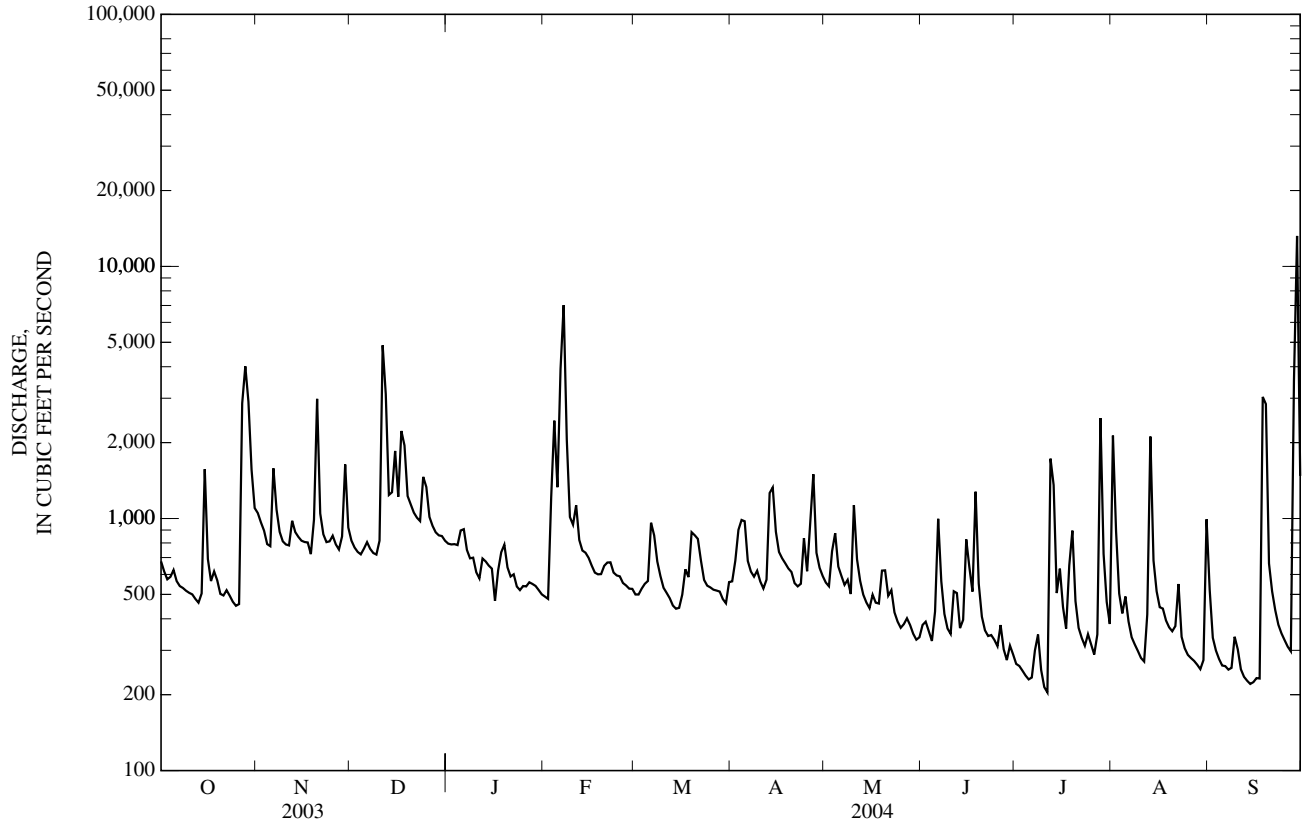
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	315	377	546	613	638	759	704	578	467	376	275	363
MAX	1,022	986	1,927	1,868	1,610	1,839	1,773	1,168	1,492	1,243	642	1,224
(WY)	(1997)	(2004)	(1997)	(1979)	(1979)	(1994)	(1983)	(1989)	(2003)	(1975)	(2003)	(2003)
MIN	115	116	145	119	162	230	221	304	172	79.3	64.2	84.4
(WY)	(2002)	(2002)	(1981)	(1981)	(2002)	(1981)	(2002)	(1977)	(1985)	(2002)	(2002)	(2002)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1974 - 2004	
ANNUAL TOTAL	314,896		285,305			
ANNUAL MEAN	863		780		500	
HIGHEST ANNUAL MEAN					835	1984
LOWEST ANNUAL MEAN					168	2002
HIGHEST DAILY MEAN	11,000	Jun 21	13,200	Sep 29	14,200	Sep 17, 1999
LOWEST DAILY MEAN	119	Feb 17	204	Jul 11	35	Aug 22, 2002
ANNUAL SEVEN-DAY MINIMUM	230	Feb 11	232	Sep 11	37	Aug 17, 2002
MAXIMUM PEAK FLOW			20,800	Sep 29	(a)28,700	Sep 17, 1999
MAXIMUM PEAK STAGE			13.52	Sep 29	15.43	Sep 17, 1999
INSTANTANEOUS LOW FLOW			197	(c)	(d)32	Jul 27, 2002
ANNUAL RUNOFF (CFSM)	2.75		2.48		1.59	
ANNUAL RUNOFF (CFSM)‡	2.75		2.49		1.59	
ANNUAL RUNOFF (INCHES)	37.31		33.80		21.64	
ANNUAL RUNOFF (INCHES)‡	37.33		33.89		21.66	
10 PERCENT EXCEEDS	1,570		1,230		919	
50 PERCENT EXCEEDS	632		571		350	
90 PERCENT EXCEEDS	300		302		139	

a From rating curve extended above 18,000 ft^3/s.
b During period of ice effect.
‡ Adjusted for change in reservoir contents since November 1973.
c July 11, 12.
d Result of regulation from Hagley Museum and Library.

01481500 BRANDYWINE CREEK AT WILMINGTON, DE—Continued



DAILY MEAN DISCHARGE - 2004 WATER YEAR

Photo by A.J. Tallman

Gage house at 01481500 Brandywine Creek at Wilmington, DE

01483153 NOXONTOWN LAKE OUTLET NEAR MIDDLETOWN, DE

LOCATION.--Lat 39°26'00.4", long 75°41'59.8", New Castle County, Hydrologic Unit 02040205, on right bank just upstream from Noxontown Lake Dam, 15 ft upstream from bridge on State Road 38, 2.0 mi southwest of Odessa, 2.4 mi southeast of Middletown, and 10.1 mi upstream from mouth of Appoquinimink River.

DRAINAGE AREA.--8.85 mi^2.

PERIOD OF RECORD.--October 1992 to September 1994, November 1999 to September 2004 (Discontinued).

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 5 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair except those for estimated daily discharges (missing record), which are poor. Outflow of lake controlled by stop logs at outlet. Several measurements of water temperature were made during the year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 743 ft^3/s, July 12, gage height, 3.12 ft; minimum discharge, 2.2 ft^3/s, June 25, Sept. 5.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.1	15	16	15	13	12	21	19	18	7.9	9.9	26
2	8.1	13	13	16	13	14	23	19	14	7.5	10	13
3	9.5	12	12	17	18	13	24	23	11	6.9	9.5	7.9
4	9.6	13	12	17	38	e13	22	24	9.5	6.5	8.9	6.0
5	9.5	14	17	18	40	e13	19	22	30	7.9	9.4	4.8
6	9.5	19	22	19	132	e30	17	20	43	7.2	7.5	4.1
7	10	20	19	17	232	e26	15	19	23	6.9	6.8	6.3
8	11	16	16	15	59	e22	14	19	16	7.4	7.0	7.4
9	11	13	15	15	30	e20	16	18	12	8.5	7.0	11
10	11	12	17	15	25	e18	17	22	11	8.0	7.2	8.6
11	10	12	53	14	17	e16	17	21	15	7.4	7.4	7.3
12	11	19	36	15	13	e14	21	19	15	196	11	7.0
13	10	20	22	15	11	12	47	17	11	205	18	7.0
14	11	14	28	15	11	12	57	16	10	34	15	7.1
15	19	12	45	15	10	12	63	15	11	21	15	7.9
16	15	12	25	14	11	17	37	15	12	15	9.8	8.2
17	11	13	24	13	13	23	26	15	21	13	6.7	12
18	11	13	26	17	14	20	20	16	30	22	9.8	19
19	10	16	21	18	15	23	17	16	19	26	6.6	15
20	9.9	29	18	16	15	21	18	15	13	19	5.2	8.9
21	10	23	17	15	15	17	19	15	9.9	15	6.5	5.9
22	10	18	17	15	14	14	20	14	8.3	13	7.0	4.3
23	10	15	16	14	13	14	21	13	8.2	12	6.4	2.8
24	10	14	26	14	14	13	27	12	7.7	10	6.4	2.6
25	9.7	15	28	13	13	13	29	12	19	7.1	6.7	3.0
26	11	14	21	14	13	14	29	18	30	5.6	6.6	4.4
27	18	13	19	16	13	14	32	17	17	5.7	7.0	7.1
28	22	15	17	17	13	13	21	15	11	5.7	6.6	33
29	41	22	17	15	12	13	18	12	11	5.7	5.9	98
30	29	19	17	15	---	12	18	11	8.9	8.1	9.6	26
31	20	---	16	14	---	16	---	15	---	8.4	65	---
TOTAL	402.9	475	668	478	850	504	745	524	475.5	729.4	321.4	381.6
MEAN	13.0	15.8	21.5	15.4	29.3	16.3	24.8	16.9	15.8	23.5	10.4	12.7
MAX	41	29	53	19	232	30	63	24	43	205	65	98
MIN	5.1	12	12	13	10	12	14	11	7.7	5.6	5.2	2.6
CFSM	1.47	1.79	2.43	1.74	3.31	1.84	2.81	1.91	1.79	2.66	1.17	1.44
IN.	1.69	2.00	2.81	2.01	3.57	2.12	3.13	2.20	2.00	3.07	1.35	1.60

e Estimated

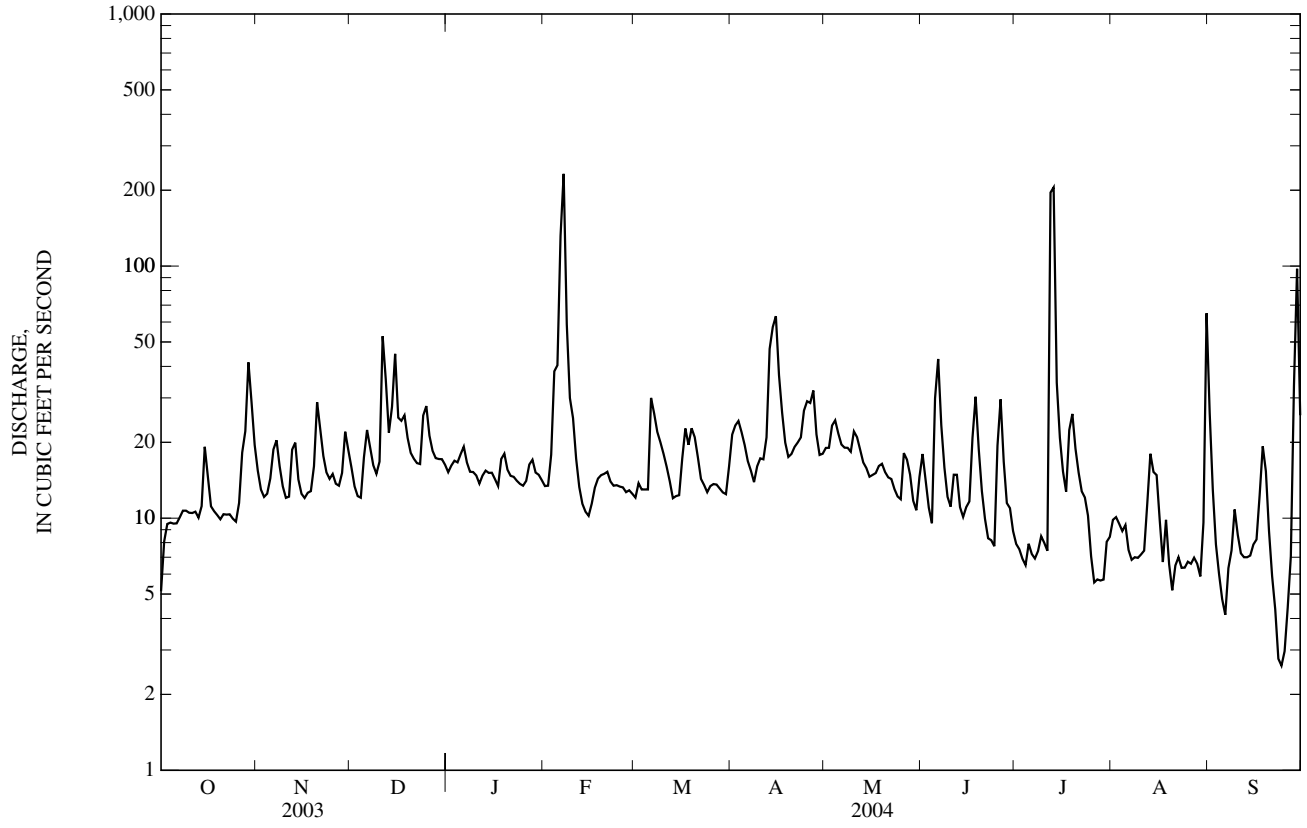
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 1994, 2001 - 2004, BY WATER YEAR (WY)

MEAN	6.18	10.0	12.8	12.4	19.3	23.4	17.9	14.4	12.5	8.96	8.23	8.86
MAX	13.0	15.8	21.5	21.1	32.7	37.4	27.9	23.8	32.1	23.5	13.6	17.3
(WY)	(2004)	(2004)	(2004)	(1994)	(1994)	(1994)	(1993)	(2003)	(2003)	(2004)	(2000)	(2003)
MIN	1.67	5.35	4.56	5.72	4.81	6.10	6.25	8.76	5.76	1.22	0.93	2.11
(WY)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)

01483153 NOXONTOWN LAKE OUTLET NEAR MIDDLETOWN, DE—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1993 - 1994, 2001 - 2004	
ANNUAL TOTAL	7,525.1		6,554.8			
ANNUAL MEAN	20.6		17.9		13.0	
HIGHEST ANNUAL MEAN					19.6	2003
LOWEST ANNUAL MEAN					4.43	2002
HIGHEST DAILY MEAN	144	Feb 23	232	Feb 7	359	Mar 3, 1994
LOWEST DAILY MEAN	5.1	Oct 1	2.6	Sep 24	e0.10	(a)
ANNUAL SEVEN-DAY MINIMUM	7.8	Sep 29	4.3	Sep 21	0.13	Aug 20, 2002
MAXIMUM PEAK FLOW			743	Jul 12	(b)743	Jul 12, 2004
MAXIMUM PEAK STAGE			3.12	Jul 12	3.12	Jul 12, 2004
INSTANTANEOUS LOW FLOW			2.2	(c)	(d)0.00	Oct 26, 2001
ANNUAL RUNOFF (CFSM)	2.33		2.02		1.47	
ANNUAL RUNOFF (INCHES)	31.63		27.55		20.02	
10 PERCENT EXCEEDS	29		26		23	
50 PERCENT EXCEEDS	17		15		9.7	
90 PERCENT EXCEEDS	11		7.1		2.4	

e Estimated.
a Aug. 22-24, 2002.
b From rating curve extended above 250 ft^3/s.
c June 25, Sept. 5.
d Wind effect.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01483155 SILVER LAKE TRIBUTARY AT MIDDLETOWN, DE

LOCATION.--Lat 39°25'49", long 75°42'34", New Castle County, Hydrologic Unit 02040205, on left bank just downstream from bridge on State Road 71, at Middletown, 0.5 mi upstream of Silver Lake.

DRAINAGE AREA.--2.00 mi^2.

PERIOD OF RECORD.--April 2001 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those above 20 ft^3/s, and those for estimated daily discharges (missing record), which are poor. Occasional regulation at low and medium flows for irrigation upstream from station during some years. U.S. Geological Survey gage-height telemeter at station. Several measurements of water temperature were made during the year.

EXTREMES FOR 2001 WATER YEAR.--Peak discharges greater than base discharge of 20 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 23	0015	22	1.54	Jun 17	0500	52	2.01
May 26	1245	39	1.84	Sep 4	1845	25	1.68
May 26	1715	*57	*2.07	Sep 21	0130	33	1.78
May 27	2245	43	1.89	Sep 21	0315	47	1.95

Minimum discharge, 0.74 ft^3/s, July 20.

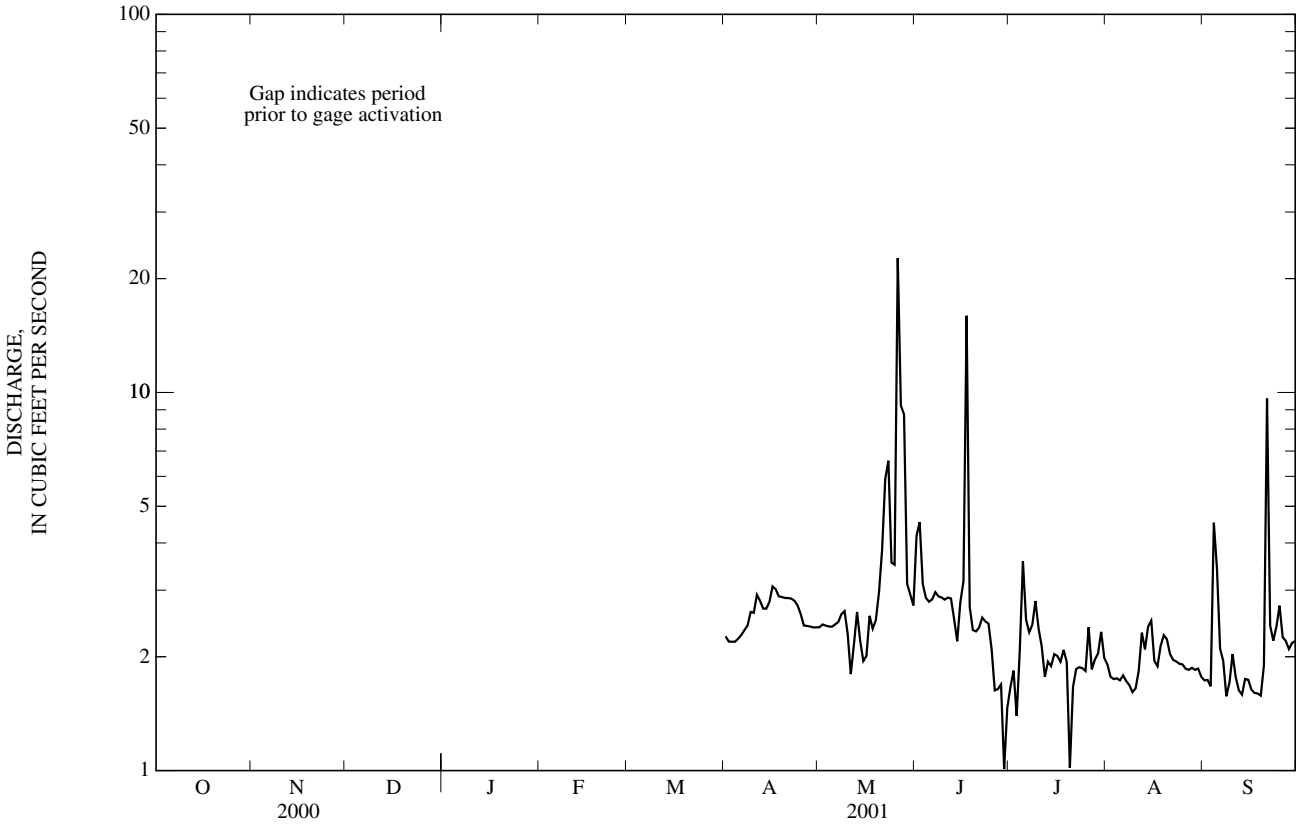
DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	2.3	2.4	4.2	1.7	1.9	1.7
2	---	---	---	---	---	---	2.2	2.4	4.5	1.8	1.8	1.7
3	---	---	---	---	---	---	2.2	2.4	3.1	1.4	1.7	1.7
4	---	---	---	---	---	---	2.2	2.4	2.9	2.1	1.8	4.5
5	---	---	---	---	---	---	2.2	2.4	2.8	3.6	1.7	3.4
6	---	---	---	---	---	---	2.3	2.4	2.8	2.5	1.8	2.1
7	---	---	---	---	---	---	2.4	2.5	3.0	2.3	1.7	1.9
8	---	---	---	---	---	---	2.4	2.6	2.9	2.4	1.7	1.6
9	---	---	---	---	---	---	2.6	2.6	2.9	2.8	1.6	1.7
10	---	---	---	---	---	---	2.6	2.3	2.8	2.4	1.6	2.0
11	---	---	---	---	---	---	2.9	1.8	2.9	2.1	1.8	1.8
12	---	---	---	---	---	---	2.8	2.2	2.9	1.8	2.3	1.6
13	---	---	---	---	---	---	2.7	2.6	2.5	1.9	2.1	1.6
14	---	---	---	---	---	---	2.7	2.2	2.2	1.9	2.4	1.7
15	---	---	---	---	---	---	2.8	1.9	2.8	2.0	2.5	1.7
16	---	---	---	---	---	---	3.1	2.0	3.2	2.0	2.0	1.6
17	---	---	---	---	---	---	3.0	2.6	16	1.9	1.9	1.6
18	---	---	---	---	---	---	2.9	2.4	2.7	2.1	2.1	1.6
19	---	---	---	---	---	---	2.9	2.5	2.4	1.9	2.3	1.6
20	---	---	---	---	---	---	2.9	3.0	2.3	1.0	2.2	1.9
21	---	---	---	---	---	---	2.9	3.8	2.4	1.7	2.0	9.6
22	---	---	---	---	---	---	2.8	5.9	2.5	1.9	2.0	2.4
23	---	---	---	---	---	---	2.8	6.6	2.5	1.9	1.9	2.2
24	---	---	---	---	---	---	2.7	3.5	2.4	1.9	1.9	2.4
25	---	---	---	---	---	---	2.6	3.5	2.1	1.8	1.9	2.7
26	---	---	---	---	---	---	2.4	23	1.6	2.4	1.9	2.3
27	---	---	---	---	---	---	2.4	9.2	1.6	1.9	1.8	2.2
28	---	---	---	---	---	---	2.4	8.7	1.7	2.0	1.9	2.1
29	---	---	---	---	---	---	2.4	3.1	1.0	2.0	1.8	2.2
30	---	---	---	---	---	---	2.4	2.9	1.5	2.3	1.9	2.2
31	---	---	---	---	---	---	---	2.7	---	2.0	1.8	---
TOTAL	---	---	---	---	---	---	77.9	120.5	91.1	63.4	59.7	69.3
MEAN	---	---	---	---	---	---	2.60	3.89	3.04	2.05	1.93	2.31
MAX	---	---	---	---	---	---	3.1	23	16	3.6	2.5	9.6
MIN	---	---	---	---	---	---	2.2	1.8	1.0	1.0	1.6	1.6
CFSM	---	---	---	---	---	---	1.30	1.94	1.52	1.02	0.96	1.16
IN.	---	---	---	---	---	---	1.45	2.24	1.69	1.18	1.11	1.29

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2001, BY WATER YEAR (WY)

MEAN	---	---	---	---	---	---	2.60	3.89	3.04	2.05	1.93	2.31
MAX	---	---	---	---	---	---	2.60	3.89	3.04	2.05	1.93	2.31
(WY)	---	---	---	---	---	---	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)
MIN	---	---	---	---	---	---	2.60	3.89	3.04	2.05	1.93	2.31
(WY)	---	---	---	---	---	---	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)

01483155 SILVER LAKE TRIBUTARY AT MIDDLETOWN, DE—Continued



DAILY MEAN DISCHARGE - 2001 WATER YEAR

01483155 SILVER LAKE TRIBUTARY AT MIDDLETOWN, DE—Continued

EXTREMES FOR 2002 WATER YEAR.--Peak discharges greater than base discharge of 20 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Apr 28	2100	31	1.70	May 2	0930	23	1.56
May 2	0745	*66	*2.17	May 18	0745	29	1.68

Minimum discharge, 0.52 ft^3/s, July 3.

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	2.3	1.0	2.2	1.4	1.3	1.1	1.1	0.96	1.3	0.65	0.93	e1.1
2	2.0	1.0	2.2	1.4	1.3	1.2	0.97	4.3	0.90	0.63	0.93	e2.0
3	1.9	1.1	2.0	1.4	1.2	1.3	0.96	1.1	0.92	0.63	0.94	e1.4
4	1.8	1.1	1.9	1.4	1.2	1.1	0.96	0.96	0.80	0.64	0.93	e1.3
5	1.8	1.1	1.9	1.4	1.2	1.1	1.0	0.95	1.4	0.72	0.95	e1.3
6	1.7	1.1	1.9	1.8	1.2	1.1	0.97	0.95	1.7	0.68	0.95	e1.2
7	1.7	1.9	1.9	1.6	1.2	1.2	0.97	1.1	0.88	0.63	0.95	e1.2
8	1.7	1.7	2.2	1.5	1.2	1.1	0.96	0.96	0.86	0.63	0.89	e1.2
9	1.6	1.4	2.1	1.4	1.2	1.1	0.97	0.95	0.83	0.64	0.80	e1.1
10	1.6	2.2	1.9	1.4	1.2	1.1	1.0	0.92	0.84	0.81	0.83	e1.1
11	1.6	1.6	1.9	1.6	1.3	1.1	0.94	0.93	0.86	0.83	0.93	e1.1
12	1.5	1.6	1.9	1.4	1.2	1.1	0.98	1.0	0.84	0.77	0.95	e1.0
13	1.5	1.6	1.9	1.4	1.2	1.1	0.95	1.0	0.83	0.67	0.92	e1.0
14	1.5	1.5	1.9	1.3	1.2	1.1	0.94	0.95	0.88	0.70	0.84	e1.0
15	1.5	1.6	1.9	1.3	1.2	1.0	0.92	0.94	0.87	0.77	0.85	e1.1
16	1.5	1.7	1.8	1.3	1.2	0.99	0.91	0.94	0.86	0.75	0.92	e1.3
17	1.5	1.5	1.7	1.3	1.1	1.0	0.89	0.97	0.85	0.75	0.95	e1.1
18	1.4	1.7	1.9	1.3	1.1	1.3	0.90	3.3	0.84	0.68	0.99	e1.0
19	1.3	1.6	1.8	1.3	1.1	1.0	0.90	1.1	0.80	0.79	1.0	e1.2
20	1.3	1.6	1.6	1.4	1.1	1.3	0.90	1.0	0.77	0.79	0.96	e1.1
21	1.2	1.6	1.6	1.4	1.2	1.1	0.89	1.00	0.68	0.70	0.87	e1.1
22	1.3	1.6	1.7	1.3	1.1	1.0	0.94	0.99	0.65	0.73	0.87	e1.1
23	1.2	1.4	1.6	1.3	1.1	1.0	0.93	0.98	0.64	0.74	0.96	e1.0
24	1.2	1.5	1.8	1.3	1.1	1.0	0.90	0.97	0.71	0.91	e0.98	e1.0
25	1.1	2.3	1.7	1.3	1.1	1.0	0.94	0.95	0.67	0.92	e0.90	e1.0
26	1.1	3.0	1.5	1.3	1.1	1.1	0.91	0.95	0.71	0.93	e1.1	e1.1
27	1.2	2.3	1.6	1.3	1.1	1.3	0.90	1.2	0.84	0.91	e1.0	e1.5
28	1.1	2.2	1.5	1.3	1.1	1.1	2.6	1.0	0.81	0.94	e1.0	e1.3
29	1.1	2.2	1.4	1.3	---	1.0	1.2	1.0	0.64	0.91	e1.0	e1.2
30	1.1	2.3	1.4	1.3	---	1.0	1.0	1.0	0.63	0.91	e1.4	e1.1
31	1.1	---	1.4	1.3	---	1.0	---	1.0	---	0.91	e1.2	---
TOTAL	45.4	50.0	55.7	42.7	32.8	33.99	30.30	36.32	25.81	23.67	29.69	35.2
MEAN	1.46	1.67	1.80	1.38	1.17	1.10	1.01	1.17	0.86	0.76	0.96	1.17
MAX	2.3	3.0	2.2	1.8	1.3	1.3	2.6	4.3	1.7	0.94	1.4	2.0
MIN	1.1	1.0	1.4	1.3	1.1	0.99	0.89	0.92	0.63	0.63	0.80	1.0
CFSM	0.73	0.83	0.90	0.69	0.59	0.55	0.51	0.59	0.43	0.38	0.48	0.59
IN.	0.84	0.93	1.04	0.79	0.61	0.63	0.56	0.68	0.48	0.44	0.55	0.65

e Estimated.

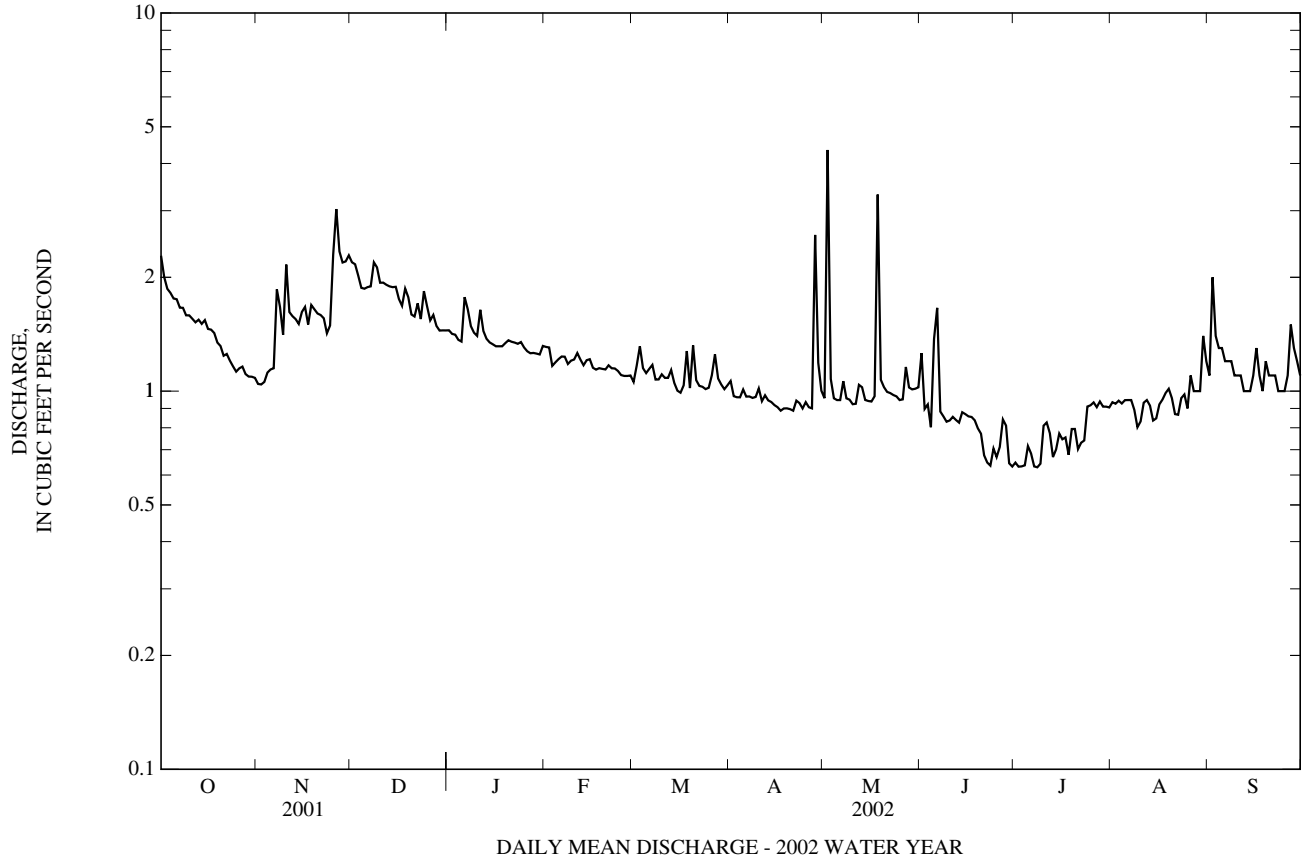
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2002 - 2002, BY WATER YEAR (WY)

MEAN	1.46	1.67	1.80	1.38	1.17	1.10	1.01	1.17	0.86	0.76	0.96	1.17
MAX	1.46	1.67	1.80	1.38	1.17	1.10	1.01	1.17	0.86	0.76	0.96	1.17
(WY)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)
MIN	1.46	1.67	1.80	1.38	1.17	1.10	1.01	1.17	0.86	0.76	0.96	1.17
(WY)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)

01483155 SILVER LAKE TRIBUTARY AT MIDDLETOWN, DE—Continued

SUMMARY STATISTICS	FOR 2002 WATER YEAR	
ANNUAL TOTAL	441.58	
ANNUAL MEAN	1.21	
HIGHEST DAILY MEAN	4.3	May 2
LOWEST DAILY MEAN	0.63	(a)
ANNUAL SEVEN-DAY MINIMUM	0.65	Jun 29
MAXIMUM PEAK FLOW	(b)66	May 2
MAXIMUM PEAK STAGE	2.17	May 2
INSTANTANEOUS LOW FLOW	0.52	Jul 3
ANNUAL RUNOFF (CFSM)	0.000	
ANNUAL RUNOFF (INCHES)	0.00	
10 PERCENT EXCEEDS	1.8	
50 PERCENT EXCEEDS	1.1	
90 PERCENT EXCEEDS	0.83	

a June 30, July 2, 3, 7, 8.
b From rating curve extended above 20 ft^3/s.



DAILY MEAN DISCHARGE - 2002 WATER YEAR

01483155 SILVER LAKE TRIBUTARY AT MIDDLETOWN, DE—Continued

EXTREMES FOR 2003 WATER YEAR.--Peak discharges greater than base discharge of 20 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 26	0315	32	1.72	Jun 7	1645	*130	*2.65
Nov 6	0030	21	1.52	Jun 18	0645	23	1.57
Nov 16	2330	28	1.66	Jun 20	1615	123	2.62
Dec 25	1200	30	1.69	Aug 30	1800	46	1.93
Feb 22	1530	21	1.53	Sep 18	2115	42	1.88
Feb 23	2215	84	2.36	Sep 19	0400	44	1.91
May 26	0715	32	1.72	Sep 23	0915	32	1.73

Minimum discharge, 0.95 ft^3/s, Oct. 28, 29.

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	e1.2	1.0	1.5	3.0	1.3	e4.0	3.6	3.3	e3.3	e2.7	2.9	3.4
2	e1.2	1.0	1.5	1.7	1.3	e70	3.4	3.3	e3.3	e2.7	2.9	3.6
3	e1.2	1.0	1.6	2.2	1.2	e7.0	3.3	3.6	e3.2	3.8	2.9	3.5
4	e1.2	1.0	1.6	1.7	3.2	e5.5	3.3	3.5	4.4	e3.0	3.6	6.7
5	e1.2	1.9	1.7	1.5	1.5	e10	3.3	3.5	e3.5	e2.8	e3.3	4.3
6	e1.1	3.9	1.7	1.5	1.3	e60	3.3	3.4	e3.3	e2.7	e2.9	3.5
7	e1.1	1.1	1.6	1.5	1.3	e8.0	4.0	3.5	34	3.9	3.6	3.3
8	e1.1	1.0	1.5	1.5	1.3	e6.0	4.3	5.2	7.4	e3.0	e3.1	3.3
9	e1.1	1.0	1.5	1.5	1.2	e7.0	4.2	e4.3	4.1	e2.8	e2.9	3.2
10	e1.2	1.0	1.5	1.5	1.2	e5.0	4.0	e3.8	3.5	4.3	3.6	3.2
11	e3.0	1.4	2.5	1.4	1.2	e4.0	5.4	e3.6	3.2	e3.3	e3.1	3.1
12	e1.5	2.7	2.0	1.4	1.2	e3.7	5.1	e3.5	3.8	e3.1	e2.9	3.3
13	e1.3	1.3	2.8	1.4	1.2	e3.6	4.1	e3.5	5.3	4.2	e2.8	4.7
14	e1.2	1.3	2.6	1.4	1.2	e3.4	3.7	e3.4	5.1	3.9	e2.7	4.5
15	1.1	1.2	1.8	1.4	1.2	e3.2	3.5	e3.4	3.5	3.4	e2.7	7.4
16	2.0	6.4	1.7	1.3	e1.2	e3.1	3.4	e4.0	3.2	3.2	e2.9	3.6
17	1.2	6.0	1.6	1.4	e1.1	e5.0	3.4	5.0	3.2	3.1	3.5	3.0
18	1.1	1.9	1.5	1.4	e1.1	e4.0	3.6	e4.0	11	3.0	e2.9	8.9
19	1.1	1.3	1.5	1.4	1.2	e3.0	3.6	e3.7	4.4	3.0	e2.8	14
20	1.1	1.3	2.4	1.4	1.3	e9.0	3.4	e3.5	38	3.0	e2.7	2.5
21	1.1	1.3	1.7	1.4	1.3	e5.0	3.3	e3.4	9.5	3.0	e2.6	2.2
22	1.1	1.4	1.6	1.4	7.9	e4.0	3.3	e3.3	e4.0	2.9	e4.0	2.1
23	1.1	1.3	1.5	1.3	39	e3.7	3.3	e3.2	e3.3	3.0	4.4	9.4
24	1.1	1.3	1.5	1.3	54	e3.3	3.2	e3.2	e3.0	4.3	3.1	2.8
25	1.1	1.5	6.0	1.3	e10	3.1	3.2	e3.1	e2.9	3.3	3.0	2.4
26	3.4	1.5	1.9	1.3	e8.0	3.2	3.4	13	e2.8	3.0	3.0	2.3
27	1.0	1.8	1.6	1.3	e6.0	3.3	3.5	e4.5	e2.8	3.0	3.0	2.4
28	1.2	1.6	1.6	1.3	e5.0	3.3	3.4	e4.0	e2.8	3.0	3.0	2.4
29	3.0	1.6	1.5	1.3	---	3.3	3.3	e3.7	e2.7	3.0	3.2	2.3
30	1.6	1.6	1.5	1.2	---	3.7	3.3	e3.5	e2.7	2.9	9.8	2.3
31	1.2	---	1.5	1.2	---	3.9	---	e3.4	---	2.9	4.9	---
TOTAL	43.1	53.6	58.0	45.8	157.9	264.3	109.1	123.3	187.2	99.2	104.7	123.6
MEAN	1.39	1.79	1.87	1.48	5.64	8.53	3.64	3.98	6.24	3.20	3.38	4.12
MAX	3.4	6.4	6.0	3.0	54	70	5.4	13	38	4.3	9.8	14
MIN	1.0	1.0	1.5	1.2	1.1	3.0	3.2	3.1	2.7	2.7	2.6	2.1
CFSM	0.70	0.89	0.94	0.74	2.82	4.26	1.82	1.99	3.12	1.60	1.69	2.06
IN.	0.80	1.00	1.08	0.85	2.94	4.92	2.03	2.29	3.48	1.85	1.95	2.30

e Estimated

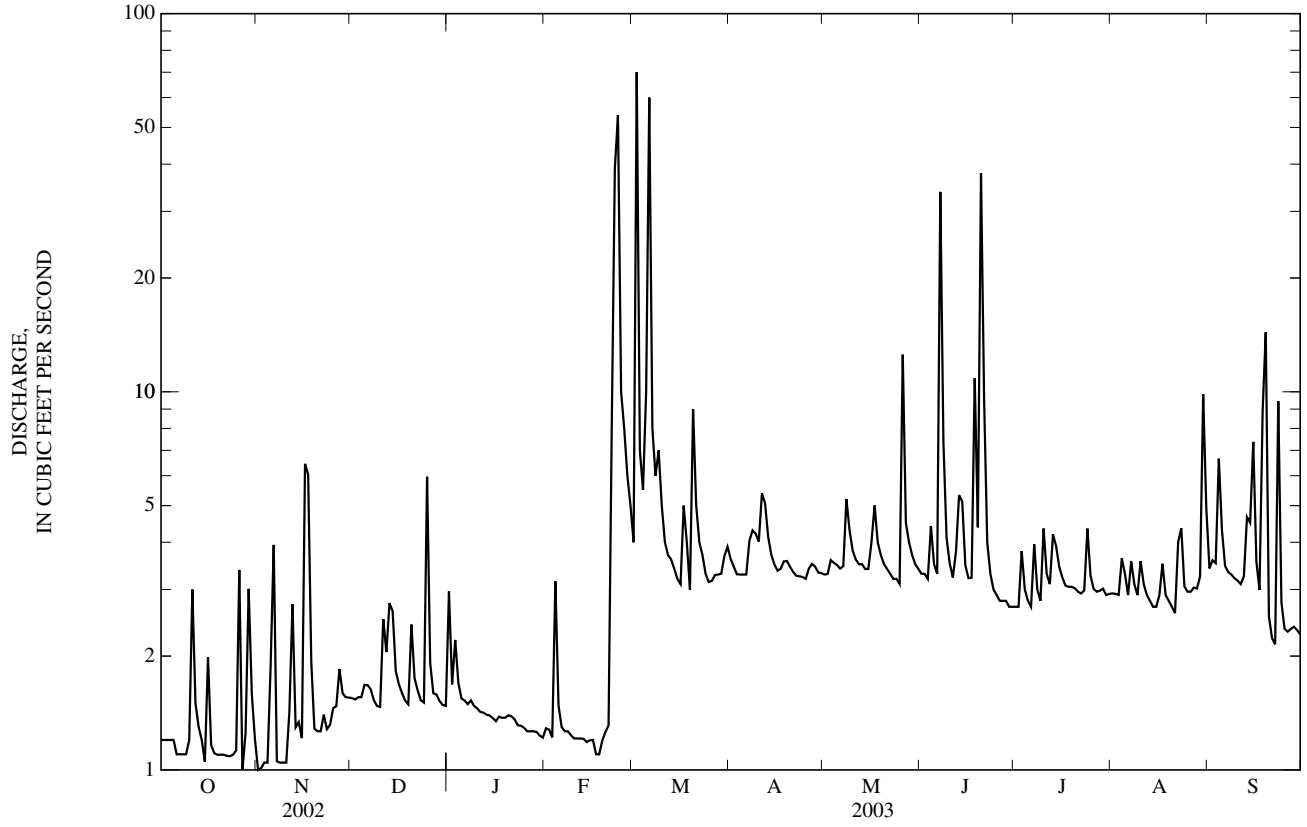
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2002 - 2003, BY WATER YEAR (WY)

MEAN	1.43	1.73	1.83	1.43	3.41	4.81	2.32	2.57	3.55	1.98	2.17	2.65
MAX	1.46	1.79	1.87	1.48	5.64	8.53	3.64	3.98	6.24	3.20	3.38	4.12
(WY)	(2002)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)
MIN	1.39	1.67	1.80	1.38	1.17	1.10	1.01	1.17	0.86	0.76	0.96	1.17
(WY)	(2003)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)

01483155 SILVER LAKE TRIBUTARY AT MIDDLETOWN, DE—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 2002 - 2003	
ANNUAL TOTAL	445.18		1,369.8			
ANNUAL MEAN	1.22		3.75		2.48	
HIGHEST ANNUAL MEAN					3.75	2003
LOWEST ANNUAL MEAN					1.21	2002
HIGHEST DAILY MEAN	6.4	Nov 16	70	Mar 2	70	Mar 2, 2003
LOWEST DAILY MEAN	0.63	Jun 30	1.0	(a)	0.63	Jun 30, 2002
ANNUAL SEVEN-DAY MINIMUM	0.65	Jun 29	1.1	Oct 18	0.65	Jun 29, 2002
MAXIMUM PEAK FLOW			Unknown		(b)66	May 2, 2002
MAXIMUM PEAK STAGE			Unknown		2.17	May 2, 2002
INSTANTANEOUS LOW FLOW			0.95	Oct 28	0.52	Jul 3, 2002
ANNUAL RUNOFF (CFSM)	0.000		0.000		0.000	
ANNUAL RUNOFF (INCHES)	0.00		0.00		0.00	
10 PERCENT EXCEEDS	1.6		5.0		3.8	
50 PERCENT EXCEEDS	1.1		3.0		1.4	
90 PERCENT EXCEEDS	0.83		1.2		0.92	

a Oct. 27, Nov. 1-4, 8-10.
b From rating curve extended above 20 ft^3/s.



DAILY MEAN DISCHARGE - 2003 WATER YEAR

01483155 SILVER LAKE TRIBUTARY AT MIDDLETOWN, DE—Continued

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 20 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb 4	1800	40	1.85	Jul 12	1800	*520	*3.67
Feb 6	2030	266	3.13	Jul 18	1230	21	1.52
Feb 7	1330	26	1.62	Aug 31	0245	93	2.44
Jun 17	1700	28	1.65	Sep 28	1615	30	1.69
Jun 25	1530	74	2.26	Sep 28	2100	165	2.80

Minimum discharge, 1.5 ft^3/s, Oct. 20, 21.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.3	2.8	2.8	e2.5	e2.1	3.1	3.6	2.2	3.2	2.8	2.2	2.8
2	2.3	2.7	2.8	e2.4	e2.1	3.1	3.4	2.2	3.0	2.8	2.2	2.4
3	2.3	2.6	3.1	e2.4	e2.1	3.1	3.2	2.3	3.0	2.8	2.1	2.3
4	2.3	2.6	2.8	e2.4	e20	3.0	3.2	2.2	3.0	2.8	2.1	2.3
5	2.3	2.7	3.2	e2.6	6.9	3.0	2.9	2.5	5.8	3.1	2.1	2.3
6	2.3	3.2	3.2	e2.5	78	4.6	2.9	2.6	4.0	2.8	2.1	2.2
7	2.2	3.3	3.0	e2.5	34	3.7	2.8	2.3	3.4	2.9	2.1	2.2
8	2.3	2.9	2.8	e2.4	6.8	3.4	2.8	2.3	3.2	3.0	2.1	2.2
9	2.3	2.5	2.8	e2.3	5.1	3.2	2.8	2.3	3.2	3.0	2.0	2.3
10	2.2	2.5	3.0	e2.3	4.7	3.2	2.8	2.4	3.4	3.0	2.0	2.2
11	2.2	3.3	6.6	e2.3	4.5	3.2	2.7	2.4	3.7	3.0	2.0	2.2
12	2.2	3.6	3.6	e2.2	4.3	3.2	3.2	2.3	3.4	109	2.0	2.2
13	2.8	3.0	3.2	e2.2	4.1	3.1	3.9	2.3	3.2	19	2.1	2.2
14	2.7	3.2	4.6	e2.2	4.0	3.0	4.4	2.4	3.4	4.0	2.2	2.2
15	3.0	3.2	4.5	e2.2	4.0	3.0	3.4	2.3	3.3	3.5	2.3	2.3
16	2.7	3.4	3.4	e2.2	3.9	3.6	2.6	2.3	3.3	3.2	2.2	2.3
17	2.3	3.0	3.8	e2.2	3.9	3.4	2.5	2.6	6.8	3.0	2.4	2.3
18	2.3	3.0	3.5	e2.8	3.8	3.2	2.5	2.7	5.4	5.9	3.1	3.6
19	2.3	3.5	3.3	e2.7	3.8	3.5	2.5	2.9	3.6	2.8	2.2	2.7
20	2.5	4.4	3.1	e2.6	3.7	3.1	2.5	2.7	3.3	2.4	2.1	2.3
21	2.2	3.3	3.0	e2.5	3.6	3.0	2.5	2.7	3.2	2.3	2.2	2.3
22	2.4	3.2	2.8	e2.4	3.6	3.0	2.5	2.6	3.2	2.2	2.2	2.3
23	2.4	3.2	2.8	e2.4	3.6	3.0	2.6	2.5	3.2	2.2	2.2	2.2
24	2.4	3.2	3.6	e2.3	3.5	3.0	2.6	2.5	3.2	2.2	2.1	2.2
25	2.3	3.2	3.4	e2.3	3.5	3.0	2.4	2.7	13	2.1	2.1	2.2
26	2.3	3.1	3.1	e2.3	3.4	2.9	2.7	3.2	4.7	2.1	2.1	2.2
27	3.1	3.0	3.0	e2.3	3.3	2.9	2.7	3.1	3.0	2.1	2.1	2.2
28	3.2	3.3	2.8	e2.2	3.3	2.9	2.5	3.1	2.8	2.2	2.1	28
29	7.8	3.6	e2.7	e2.2	3.1	2.9	2.4	2.9	3.0	2.2	2.1	26
30	3.3	3.0	e2.6	e2.2	---	2.9	2.3	2.9	2.8	2.1	2.8	3.7
31	2.8	---	e2.5	e2.2	---	3.0	---	3.6	---	2.1	36	---
TOTAL	82.0	93.5	101.4	73.2	232.7	98.2	85.8	80.0	116.7	208.6	101.6	120.8
MEAN	2.65	3.12	3.27	2.36	8.02	3.17	2.86	2.58	3.89	6.73	3.28	4.03
MAX	7.8	4.4	6.6	2.8	78	4.6	4.4	3.6	13	109	36	28
MIN	2.2	2.5	2.5	2.2	2.1	2.9	2.3	2.2	2.8	2.1	2.0	2.2
CFSM	1.32	1.56	1.64	1.18	4.01	1.58	1.43	1.29	1.95	3.36	1.64	2.01
IN.	1.53	1.74	1.89	1.36	4.33	1.83	1.60	1.49	2.17	3.88	1.89	2.25

e Estimated

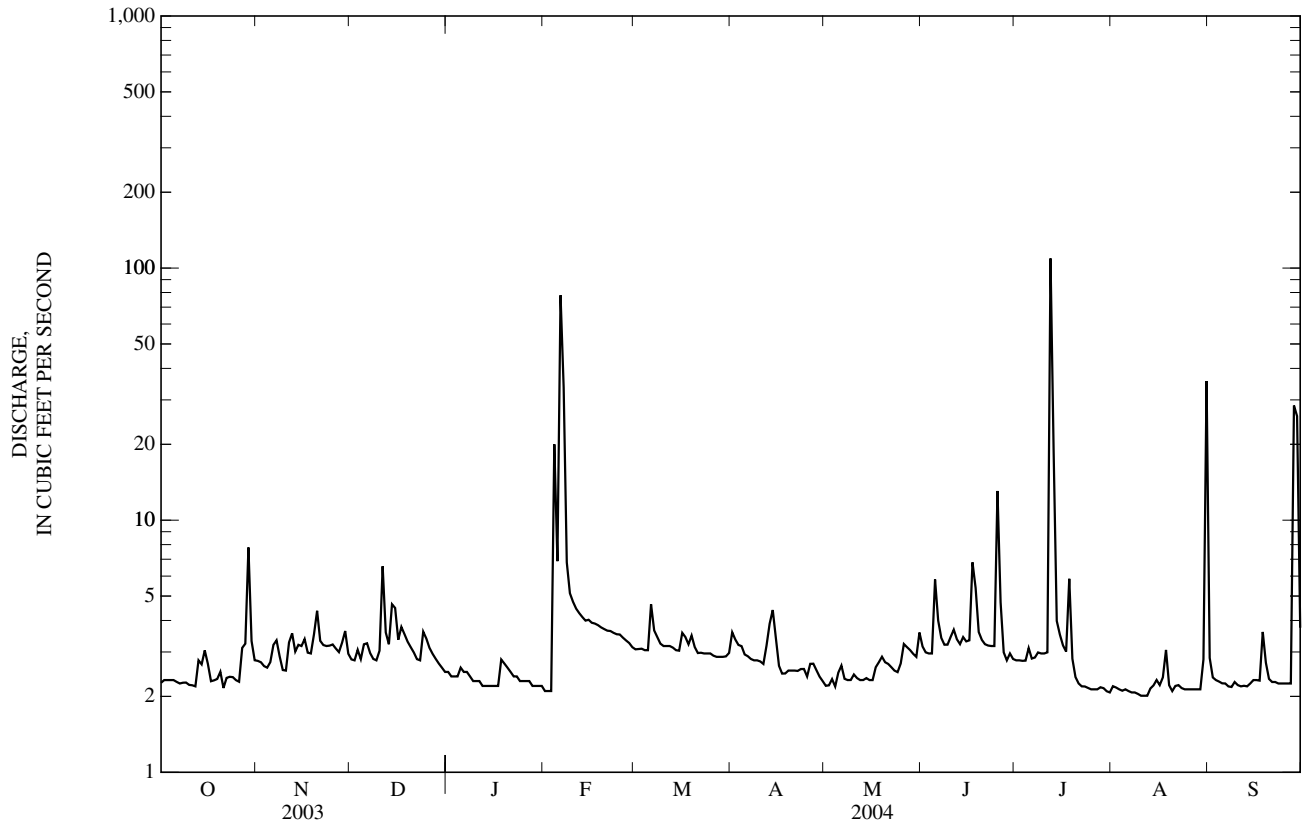
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2004, BY WATER YEAR (WY)

MEAN	1.83	2.19	2.31	1.74	4.98	4.26	2.53	2.90	3.51	3.18	2.38	2.91
MAX	2.65	3.12	3.27	2.36	8.02	8.53	3.64	3.98	6.24	6.73	3.38	4.12
(WY)	(2004)	(2004)	(2004)	(2004)	(2004)	(2003)	(2003)	(2003)	(2003)	(2004)	(2003)	(2003)
MIN	1.39	1.67	1.80	1.38	1.17	1.10	1.01	1.17	0.86	0.76	0.96	1.17
(WY)	(2003)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)

01483155 SILVER LAKE TRIBUTARY AT MIDDLETOWN, DE—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 2001 - 2004	
ANNUAL TOTAL	1,492.0		1,394.5			
ANNUAL MEAN	4.09		3.81		2.93	
HIGHEST ANNUAL MEAN					3.81	2004
LOWEST ANNUAL MEAN					1.21	2002
HIGHEST DAILY MEAN	70	Mar 2	109	Jul 12	109	Jul 12, 2004
LOWEST DAILY MEAN	1.1	Feb 17	2.0	(a)	0.63	Jun 30, 2002
ANNUAL SEVEN-DAY MINIMUM	1.2	Feb 12	2.0	Aug 6	0.65	Jun 29, 2002
MAXIMUM PEAK FLOW			520	Jul 12	(b)520	Jul 12, 2004
MAXIMUM PEAK STAGE			3.67	Jul 12	3.67	Jul 12, 2004
INSTANTANEOUS LOW FLOW			1.5	(c)	0.52	Jul 3, 2002
ANNUAL RUNOFF (CFSM)	0.000		0.000		0.000	
ANNUAL RUNOFF (INCHES)	0.00		0.00		0.00	
10 PERCENT EXCEEDS	5.0		3.8		3.8	
50 PERCENT EXCEEDS	3.2		2.8		2.2	
90 PERCENT EXCEEDS	1.4		2.2		0.96	

a Aug. 9-12.
b From rating curve extended above 20 ft^3/s.
c Oct. 20, 21.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01483165 SPRING MILL BRANCH NR ARMSTRONG, DE

LOCATION.--Lat 39°29'05", long 75°41'48", New Castle County, Hydrologic Unit 02040205, on left bank just downstream from bridge on Cedar Lane (Road No. 427), 0.7 mi upstream from Shallcross Lake, and 1.2 mi northeast of Armstrong.

DRAINAGE AREA.--1.79 mi^2.

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1978-1980. October 2000 to September 2004 (Discontinued). Prior to 2001, published as Drawyer Creek Tributary near Armstrong.

GAGE.--Water-stage recorder. Elevation of gage is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair except those for estimated daily discharges (backwater, ice effect ,missing record), which are poor. Several measurements of water temperature were made during the year.

EXTREMES FOR 2001 WATER YEAR.--Peak discharges greater than base discharge of 75 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 26	1830	*81	*5.52

Date	Time	Discharge (ft^3/s)	Gage height (ft)
No other peak greater than base discharge.			

Minimum discharge, 0.52 ft^3/s, Oct. 30, Sept. 13.

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	e1.1	0.79	0.94	1.0	1.5	1.9	3.1	e1.5	2.0	1.1	0.92	0.75
2	e1.0	0.80	0.89	1.1	1.3	1.7	2.5	e1.5	2.7	1.1	0.89	0.74
3	e0.81	0.81	0.80	0.98	1.3	1.7	2.2	e1.4	2.0	1.1	0.88	0.74
4	e0.74	0.81	0.81	0.98	1.2	2.3	2.0	e1.4	1.5	1.3	0.88	3.5
5	e0.66	0.79	0.87	1.0	9.7	3.8	1.9	e1.4	1.4	1.5	0.95	1.5
6	e0.74	0.78	0.78	1.0	3.6	2.5	1.9	e1.4	1.4	1.2	0.98	0.78
7	e0.81	0.81	0.76	1.00	2.2	2.1	1.9	e1.4	1.5	1.1	0.88	0.76
8	e0.66	0.79	0.74	1.2	1.8	2.0	1.9	e1.3	1.3	1.2	0.83	0.74
9	e0.66	0.83	0.75	1.2	1.7	2.0	2.3	e1.3	1.2	1.7	0.75	0.74
10	e0.66	1.3	0.77	1.0	1.8	1.9	3.2	e1.3	1.3	1.2	0.77	0.64
11	e0.66	1.00	0.80	1.0	1.5	1.8	3.4	e1.3	1.3	1.2	0.89	0.62
12	e0.58	0.97	0.81	1.1	1.5	1.8	3.4	e1.2	1.4	1.1	1.3	0.60
13	e0.66	0.97	0.88	1.0	1.6	3.1	2.7	1.1	1.3	1.1	1.2	0.58
14	e0.66	1.3	2.1	0.97	1.6	2.2	2.3	1.0	1.3	1.1	0.98	0.68
15	e0.66	1.2	1.0	1.1	1.6	2.0	2.4	1.0	1.3	1.0	0.93	0.66
16	e0.66	1.1	0.96	1.1	2.1	2.2	3.4	1.1	1.4	1.00	0.86	0.64
17	e0.66	1.1	13	1.0	3.6	2.0	2.8	1.1	6.0	1.0	0.86	0.62
18	e0.81	1.0	2.4	1.0	2.0	1.8	2.3	1.1	1.7	1.1	0.85	0.60
19	e0.74	1.0	1.6	4.8	1.7	1.7	2.1	1.1	1.4	1.0	0.88	0.59
20	0.74	1.0	1.4	4.7	1.7	1.6	2.0	1.1	1.4	1.0	0.90	0.71
21	0.74	1.1	1.3	2.9	1.6	10	2.1	1.9	1.4	0.95	0.88	1.4
22	0.74	1.1	1.3	1.8	1.6	4.3	2.0	2.6	1.4	0.97	0.83	0.69
23	0.74	1.1	1.2	1.5	1.6	2.6	1.9	2.8	1.4	0.89	0.86	0.69
24	0.74	1.0	1.2	1.4	1.6	2.3	1.8	1.3	1.3	0.89	0.81	0.65
25	0.74	1.0	1.2	1.3	2.3	2.0	1.7	1.2	1.3	0.88	0.81	0.87
26	0.74	3.5	1.1	1.2	2.8	2.0	e1.6	25	1.2	1.3	0.78	0.75
27	0.75	1.2	1.1	1.3	2.0	1.9	e1.6	9.2	1.1	1.0	0.93	0.71
28	0.76	e0.89	1.1	1.2	1.9	1.7	e1.6	5.8	1.1	0.95	1.2	0.66
29	0.80	e0.94	1.1	1.1	---	2.0	e1.6	2.5	1.1	1.1	1.0	0.66
30	0.81	1.1	1.1	2.7	---	24	e1.5	1.9	1.1	1.2	0.82	0.72
31	0.81	---	1.1	1.9	---	4.2	---	1.6	---	0.96	0.86	---
MEAN	0.74	1.07	1.48	1.50	2.16	3.20	2.24	2.61	1.57	1.10	0.91	0.83
MAX	1.1	3.5	13	4.8	9.7	24	3.4	25	6.0	1.7	1.3	3.5
MIN	0.58	0.78	0.74	0.97	1.2	1.6	1.5	1.0	1.1	0.88	0.75	0.58

e Estimated.

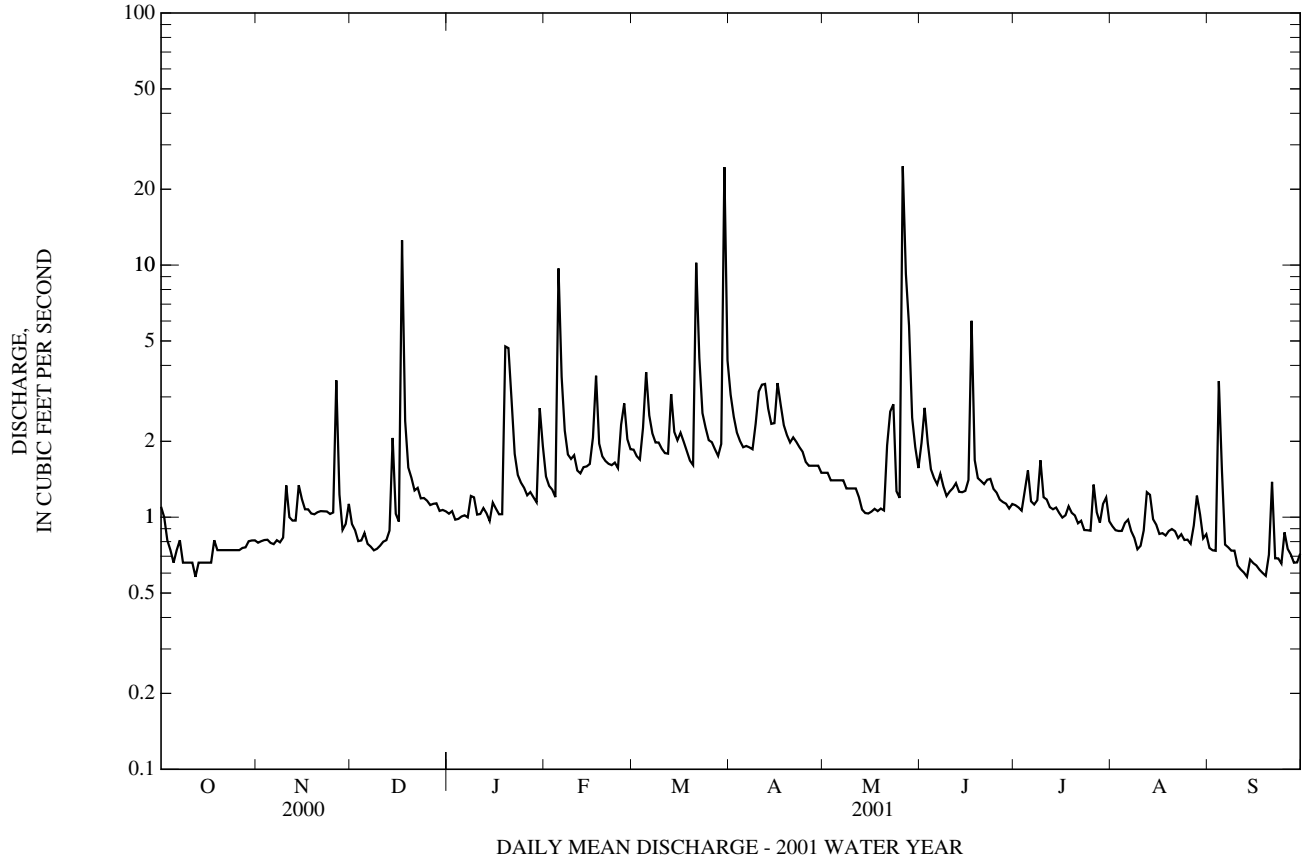
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEAR 2001

MEAN	0.74	1.07	1.48	1.50	2.16	3.20	2.24	2.61	1.57	1.10	0.91	0.83
MAX	0.74	1.07	1.48	1.50	2.16	3.20	2.24	2.61	1.57	1.10	0.91	0.83
(WY)	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)
MIN	0.74	1.07	1.48	1.50	2.16	3.20	2.24	2.61	1.57	1.10	0.91	0.83
(WY)	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)

01483165 SPRING MILL BRANCH NR ARMSTRONG, DE—Continued

SUMMARY STATISTICS	FOR 2001 WATER YEAR	
ANNUAL MEAN	1.61	
HIGHEST DAILY MEAN	25	May 26
LOWEST DAILY MEAN	0.58	(a)
ANNUAL SEVEN-DAY MINIMUM	0.62	Sep 13
MAXIMUM PEAK FLOW	(b)81	May 26
MAXIMUM PEAK STAGE	5.52	May 26
INSTANTANEOUS LOW FLOW	0.52	(c)
10 PERCENT EXCEEDS	2.4	
50 PERCENT EXCEEDS	1.1	
90 PERCENT EXCEEDS	0.74	

a Oct. 12, Sept. 13.
b From rating curve extended above 70 ft^3/s.
c Oct. 30 and Sept. 13 (may have been lower during period of backwater, Oct. 4-19).



DAILY MEAN DISCHARGE - 2001 WATER YEAR

01483165 SPRING MILL BRANCH NR ARMSTRONG, DE—Continued

EXTREMES FOR 2002 WATER YEAR.--Peak discharges greater than base discharge of 75 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
June 6	1930	*21	*4.46	No other peak greater than base discharge.			

Minimum discharge, Unknown

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	0.85	e0.61	1.1	0.71	0.98	0.81	0.92	0.69	0.56	0.43	0.39	e0.64
2	0.69	e0.62	1.5	0.66	0.97	0.88	0.68	2.9	0.54	0.48	0.37	e1.8
3	0.64	e0.60	1.1	0.69	0.93	1.5	0.70	1.1	0.50	0.41	0.31	e1.1
4	0.63	e1.0	0.91	0.66	0.95	0.86	0.66	0.85	0.49	0.46	0.32	e0.84
5	0.62	e0.85	1.2	0.64	0.90	0.79	0.65	0.81	0.59	0.49	0.36	e0.60
6	0.77	e0.76	1.2	1.3	0.94	0.75	0.64	0.76	3.5	0.49	0.31	e0.52
7	e0.70	e0.80	0.82	1.4	0.97	0.64	0.64	0.76	1.6	0.53	0.30	e0.44
8	e0.66	e0.86	1.2	0.96	0.93	0.62	0.63	0.70	0.82	0.57	e0.30	e0.40
9	e0.64	e0.78	1.5	0.89	0.94	0.60	0.70	0.73	0.68	0.75	e0.30	e0.35
10	e0.62	e0.74	1.0	0.86	0.94	0.66	0.81	0.68	0.68	1.6	e0.29	e0.32
11	e0.62	e0.74	1.1	1.7	1.1	0.63	0.71	0.62	0.65	0.65	e0.29	e0.30
12	e0.80	e1.1	1.0	1.1	0.99	0.62	0.75	0.87	0.69	0.60	e0.28	e0.29
13	e0.72	e0.90	1.00	0.92	0.97	0.79	0.77	1.0	1.1	0.56	e0.40	0.25
14	e0.66	e0.80	1.0	0.85	0.89	0.65	0.79	0.84	1.9	0.62	e0.35	0.25
15	e0.64	e0.74	1.1	0.83	0.89	0.61	0.85	0.74	1.1	0.61	e0.32	0.32
16	e0.80	e0.76	0.88	0.79	0.88	0.58	0.65	0.70	0.84	0.56	e0.29	0.39
17	e0.74	e0.74	0.94	0.80	0.89	0.62	0.74	0.76	0.72	0.53	e0.27	0.36
18	e0.70	e0.72	1.4	0.86	0.86	1.1	0.70	3.4	0.69	0.53	e0.36	0.31
19	e0.68	e0.72	1.1	0.96	0.85	0.78	0.77	0.91	0.64	0.52	e0.31	0.36
20	e0.66	e0.86	0.96	0.94	0.84	2.2	0.73	0.68	0.62	0.44	e0.28	0.30
21	e0.65	e0.80	0.90	0.92	0.80	1.3	0.71	0.63	0.60	0.45	e0.24	0.28
22	e0.64	e0.74	0.89	0.95	0.76	0.77	0.83	0.56	0.50	0.50	e0.20	0.28
23	e0.74	e0.64	0.83	1.1	0.84	0.70	0.75	0.52	0.49	0.54	e0.23	0.24
24	e0.70	e0.60	1.5	1.4	0.81	0.66	0.66	0.52	0.50	0.70	e0.22	0.21
25	e0.66	3.4	0.93	1.1	0.81	0.64	0.77	0.52	0.55	0.64	e0.21	0.23
26	e0.65	2.3	0.84	0.99	0.82	0.68	0.70	0.52	0.53	0.62	e0.32	0.52
27	e0.64	1.3	0.81	0.89	0.81	1.4	0.67	0.97	0.49	0.61	e0.27	0.81
28	e0.64	1.2	0.78	0.87	0.82	0.79	2.9	0.81	0.45	0.58	e0.31	0.48
29	e0.62	1.1	0.77	0.89	---	0.70	2.1	0.59	0.43	0.57	e0.60	0.32
30	e0.68	1.1	0.74	0.88	---	0.67	0.82	0.57	0.45	0.48	e1.0	0.30
31	e0.64	---	0.81	0.97	---	0.73	---	0.52	---	0.42	e0.66	---
MEAN	0.68	0.96	1.03	0.95	0.90	0.83	0.85	0.88	0.80	0.58	0.34	0.46
MAX	0.85	3.4	1.5	1.7	1.1	2.2	2.9	3.4	3.5	1.6	1.0	1.8
MIN	0.62	0.60	0.74	0.64	0.76	0.58	0.63	0.52	0.43	0.41	0.20	0.21

e Estimated

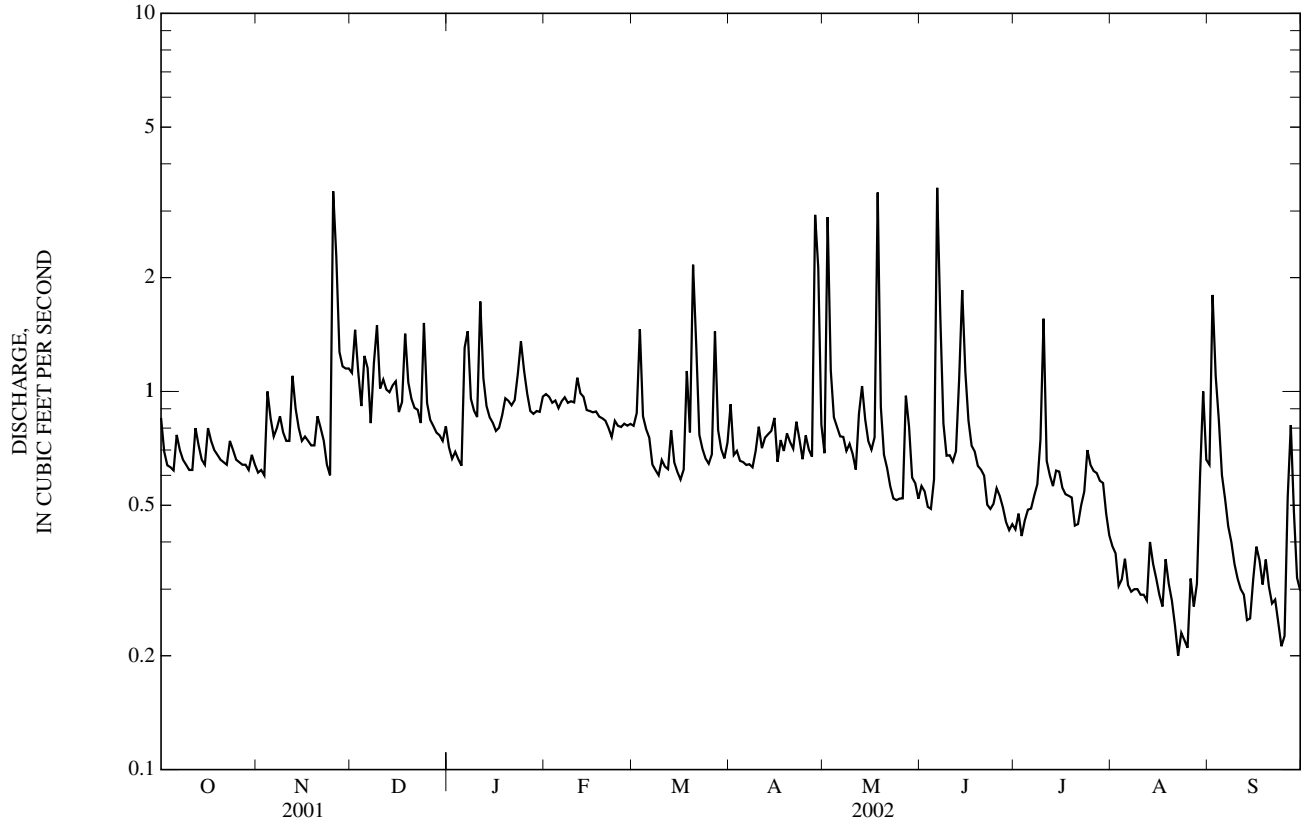
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2002, BY WATER YEAR (WY)

MEAN	0.71	1.02	1.25	1.23	1.53	2.01	1.54	1.74	1.18	0.84	0.65	0.65
MAX	0.74	1.07	1.48	1.50	2.16	3.20	2.24	2.61	1.57	1.10	0.97	0.83
(WY)	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)
MIN	0.68	0.96	1.03	0.95	0.90	0.83	0.85	0.88	0.80	0.58	0.34	0.46
(WY)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)

01483165 SPRING MILL BRANCH NR ARMSTRONG, DE—Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 2001 - 2002	
ANNUAL MEAN	1.57		0.77		1.19	
HIGHEST ANNUAL MEAN					1.62	2001
LOWEST ANNUAL MEAN					0.77	2002
HIGHEST DAILY MEAN	25	May 26	3.5	Jun 6	25	May 26, 2001
LOWEST DAILY MEAN	0.58	Sep 13	(e)0.20	Aug 22	(e)0.20	Aug 22, 2002
ANNUAL SEVEN-DAY MINIMUM	0.62	Sep 13	0.24	Aug 19	0.24	Aug 19, 2002
MAXIMUM PEAK FLOW			21	Jun 6	(a)81	May 26, 2001
MAXIMUM PEAK STAGE			4.46	Jun 6	5.53	May 26, 2001
10 PERCENT EXCEEDS	2.3		1.1		2.0	
50 PERCENT EXCEEDS	1.1		0.70		0.89	
90 PERCENT EXCEEDS	0.68		0.32		0.52	

e Estimated
a From rating curve extended above 70 ft^3/s



DAILY MEAN DISCHARGE - 2002 WATER YEAR

01483165 SPRING MILL BRANCH NR ARMSTRONG, DE—Continued

EXTREMES FOR 2003 WATER YEAR.--Peak discharges greater than base discharge of 75 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb 22	1645	78	5.49	May 26	1030	124	5.99
Feb 23	1400	78	5.49	Jun 7	1715	94	5.68
Mar 2	1630	109	5.84	Jun 18	0745	89	5.62
Mar 6	1330	103	5.78	Jun 20	1615	*492	*7.69

Minimum discharge, 0.18 ft^3/s, Oct. 1, 2, 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	0.25	0.44	1.6	4.7	1.8	2.9	3.0	1.8	2.0	2.6	1.6	1.5
2	0.22	0.49	1.5	4.0	1.9	47	2.7	1.8	1.7	3.7	1.6	2.7
3	0.23	0.65	1.5	4.6	1.5	15	2.5	1.8	1.7	5.5	1.6	1.7
4	0.25	0.54	1.9	3.7	6.2	5.4	2.5	1.7	5.8	4.5	1.8	6.7
5	0.25	0.74	1.7	2.6	2.2	19	2.4	1.8	3.5	3.8	1.7	2.2
6	0.23	2.8	1.6	2.6	1.6	39	2.1	1.9	2.1	7.1	1.9	1.6
7	0.23	0.74	1.4	2.4	1.7	7.2	3.9	2.0	23	10	2.3	1.5
8	0.23	0.62	1.5	2.8	1.6	7.0	4.0	3.6	6.3	2.0	2.2	1.4
9	0.22	0.84	1.5	2.8	1.5	10	5.7	2.7	3.2	1.8	1.5	1.3
10	0.45	0.72	1.5	2.4	1.6	4.9	3.9	2.5	2.3	3.7	2.4	1.3
11	5.9	1.7	7.7	2.1	1.5	3.6	14	2.1	2.0	2.4	2.3	1.3
12	0.90	3.7	11	2.0	1.5	3.4	6.5	1.8	4.1	2.1	1.8	1.4
13	0.47	2.8	6.3	2.0	1.4	3.5	3.7	1.6	6.5	2.4	1.5	3.2
14	0.42	1.5	9.6	2.0	1.3	3.0	2.9	1.4	5.9	3.2	1.4	2.7
15	0.43	1.6	3.1	1.9	1.4	2.6	2.7	1.3	2.6	2.3	1.4	14
16	3.5	6.3	2.1	1.8	1.3	2.5	2.6	3.7	2.1	1.9	1.4	3.0
17	0.77	21	2.0	1.9	1.6	4.4	2.4	4.2	2.0	1.7	1.5	1.7
18	0.41	6.9	1.8	1.8	1.5	3.1	2.5	2.4	25	1.7	1.4	7.6
19	0.48	2.2	1.8	1.7	1.4	2.5	2.4	1.8	5.0	1.8	1.3	7.7
20	0.26	1.6	6.1	1.8	1.5	13	2.2	1.6	81	1.8	1.2	2.4
21	0.25	1.5	2.9	1.7	1.8	10	2.2	2.0	12	1.8	1.2	2.0
22	0.35	2.2	2.2	1.7	27	4.3	2.2	2.1	5.1	1.7	1.3	1.9
23	0.38	1.8	2.0	1.6	50	3.2	2.0	1.8	3.8	1.8	1.4	12
24	0.38	2.0	1.9	1.6	e24	2.7	2.0	2.1	2.9	2.1	1.3	3.2
25	0.42	1.4	16	1.5	13	2.4	2.1	2.2	2.6	1.7	1.3	2.3
26	1.7	1.6	5.6	1.4	7.0	2.7	3.2	37	2.5	1.7	1.3	2.0
27	0.43	2.0	2.7	1.3	4.0	3.1	2.5	4.4	2.5	1.7	1.3	2.3
28	0.60	1.5	2.3	1.3	3.2	2.7	2.1	2.8	2.4	1.7	1.3	2.3
29	0.88	1.5	2.1	1.4	---	3.6	2.0	2.4	2.5	1.8	1.3	2.1
30	2.1	1.5	2.0	1.4	---	5.7	1.8	1.9	2.5	1.6	3.5	1.9
31	1.2	---	1.9	1.5	---	4.2	---	1.8	---	1.6	1.8	---
MEAN	0.80	2.50	3.51	2.19	5.93	7.86	3.22	3.35	7.55	2.75	1.64	3.30
MAX	5.9	21	16	4.7	50	47	14	37	81	10	3.5	14
MIN	0.22	0.44	1.4	1.3	1.3	2.4	1.8	1.3	1.7	1.6	1.2	1.3

e Estimated

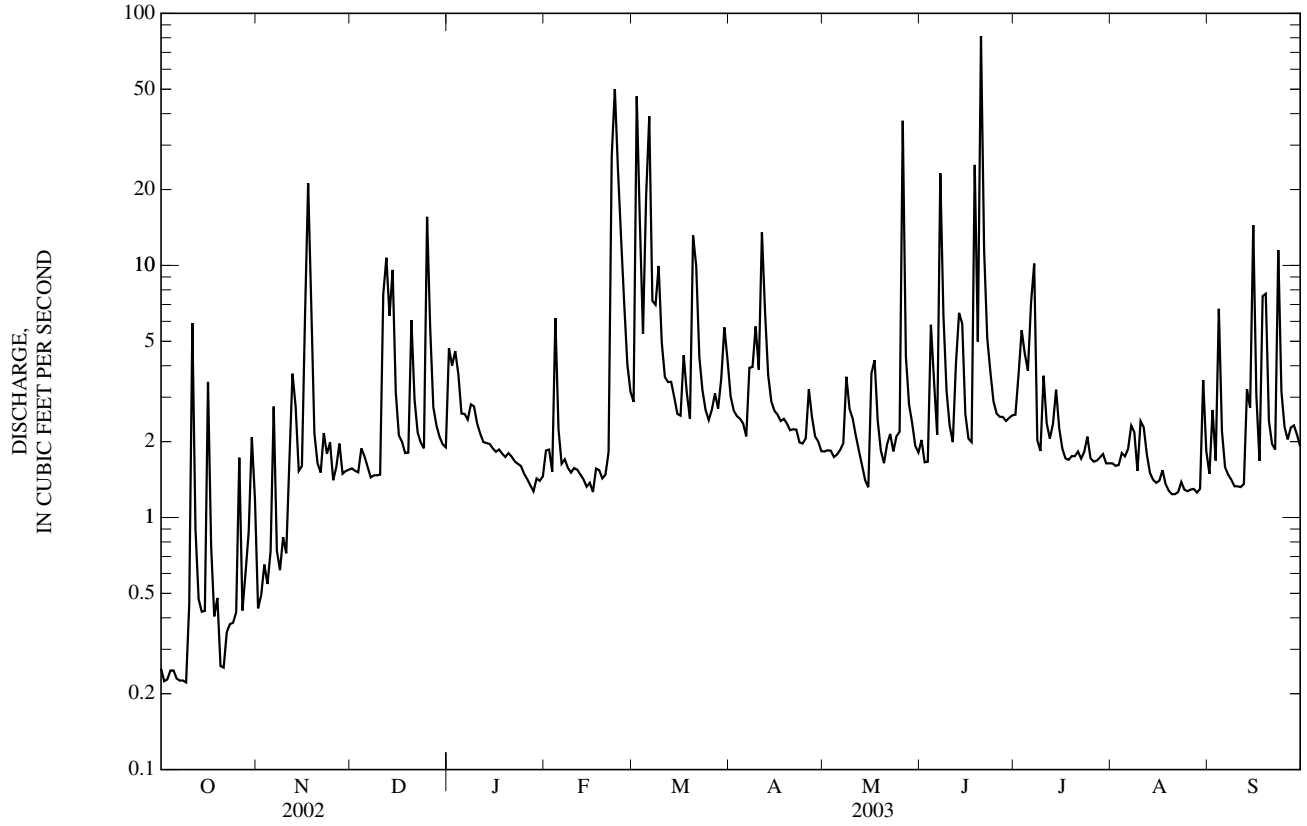
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2003, BY WATER YEAR (WY)

MEAN	0.74	1.51	2.01	1.55	2.99	3.96	2.10	2.28	3.31	1.48	0.98	1.53
MAX	0.80	2.50	3.51	2.19	5.93	7.86	3.22	3.35	7.55	2.75	1.64	3.30
(WY)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)
MIN	0.68	0.96	1.03	0.95	0.90	0.83	0.85	0.88	0.80	0.58	0.34	0.47
(WY)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)

01483165 SPRING MILL BRANCH NR ARMSTRONG, DE—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 2001 - 2003	
ANNUAL MEAN	1.12		3.69		2.03	
HIGHEST ANNUAL MEAN					3.69	2003
LOWEST ANNUAL MEAN					0.77	2002
HIGHEST DAILY MEAN	21	Nov 17	81	Jun 20	81	Jun 20, 2003
LOWEST DAILY MEAN	(e)0.20	Aug 22	0.22	(a)	(e)0.20	Aug 22, 2002
ANNUAL SEVEN-DAY MINIMUM	0.23	Oct 2	0.23	Oct 2	0.23	Oct 2, 2002
MAXIMUM PEAK FLOW			(b)492	Jun 20	(b)492	Jun 20, 2003
MAXIMUM PEAK STAGE			7.69	Jun 20	7.69	Jun 20, 2003
INSTANTANEOUS LOW FLOW			0.18	(c)	Unknown	
10 PERCENT EXCEEDS	1.9		6.3		3.2	
50 PERCENT EXCEEDS	0.70		2.0		1.1	
90 PERCENT EXCEEDS	0.30		1.2		0.56	

e Estimated
a Oct. 2, 9.
b From rating curve extended above 70 ft^3/s.
c Oct. 1, 2, 9.



DAILY MEAN DISCHARGE - 2003 WATER YEAR

01483165 SPRING MILL BRANCH NR ARMSTRONG, DE—Continued

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 75 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb 6	1615	243	6.73	Aug 31	0215	122	5.97
Aug 12	1500	144	6.14	Sep 28	2100	*349	*7.20

Minimum discharge, 1.1 ft^3/s, Aug. 28-30.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	2.4	2.5	1.9	1.4	1.8	3.4	1.9	1.6	1.3	2.2	1.9
2	1.9	2.5	2.3	2.1	1.4	1.9	3.8	2.0	1.5	1.3	2.1	1.5
3	1.8	2.7	2.0	2.0	3.8	e1.8	3.4	3.2	1.5	1.2	1.9	1.4
4	1.8	2.7	1.8	2.0	11	e1.7	3.8	3.0	1.3	1.2	1.8	1.4
5	1.8	3.1	3.0	2.5	3.3	e1.7	2.6	2.3	5.3	3.0	1.7	1.4
6	1.8	4.8	3.2	2.4	76	e5.0	2.1	2.0	3.3	1.3	1.7	1.4
7	1.7	4.4	2.5	2.0	21	e3.4	1.9	1.9	2.0	1.3	1.7	1.4
8	1.7	3.0	2.3	1.9	4.9	e2.8	1.9	1.8	1.6	1.3	1.6	1.3
9	1.7	2.6	2.2	2.0	3.3	e2.4	1.9	1.7	1.5	e1.2	1.6	1.4
10	1.8	2.5	5.0	1.8	3.5	e2.2	1.8	2.0	1.5	e1.2	1.6	1.3
11	1.9	2.5	16	1.7	3.0	e2.0	1.9	1.7	2.0	e1.2	1.6	1.3
12	1.8	5.5	4.1	1.8	2.6	e1.8	2.9	1.6	1.7	e100	18	1.3
13	1.9	3.8	3.0	1.9	2.5	e1.7	6.8	1.6	1.5	e20	3.2	1.3
14	2.3	3.2	9.9	1.8	2.4	e1.7	8.6	1.5	5.2	e10	2.2	1.3
15	4.2	2.9	6.4	1.6	2.3	1.6	6.6	1.4	4.4	e6.0	2.5	1.4
16	2.3	2.7	3.6	1.5	2.1	3.4	3.3	1.4	1.8	e4.0	1.9	1.4
17	2.2	2.6	7.2	1.5	1.9	3.1	2.7	1.4	1.9	e3.0	1.6	1.4
18	2.3	2.6	4.6	2.0	1.9	2.4	2.5	1.6	1.8	e5.0	2.1	3.0
19	2.3	3.7	3.3	1.8	2.0	4.1	2.3	2.1	1.6	e2.8	1.7	1.6
20	2.3	6.8	2.8	1.6	2.0	2.5	2.2	1.7	1.5	e2.4	1.5	1.4
21	2.3	3.3	2.5	1.5	2.0	2.3	2.1	1.6	1.5	e2.2	1.5	1.3
22	2.5	2.8	2.3	1.5	1.9	2.0	2.1	1.7	1.5	e2.0	1.5	1.3
23	2.5	2.6	2.3	1.5	1.9	1.7	2.2	1.6	1.4	e1.9	1.4	1.2
24	2.2	2.5	6.7	1.5	1.9	1.7	2.6	1.4	1.3	e1.9	1.3	1.2
25	2.2	2.7	4.1	1.5	1.9	1.6	2.2	1.5	3.3	e1.8	1.3	1.2
26	2.2	2.4	2.9	1.5	1.9	1.6	3.8	1.8	2.3	e1.8	1.3	1.3
27	4.9	2.1	2.4	1.5	1.8	1.7	4.3	1.6	1.6	e1.8	1.2	1.4
28	4.3	3.3	2.2	1.5	1.8	1.7	2.5	1.6	1.4	e2.0	1.2	71
29	13	5.5	2.2	1.5	1.8	1.6	2.2	1.4	1.7	1.9	1.2	21
30	3.4	2.8	2.3	1.5	---	1.7	2.0	1.3	1.4	1.8	1.5	3.5
31	2.5	---	2.0	1.5	---	2.0	---	1.6	---	1.7	19	---
MEAN	2.69	3.23	3.86	1.75	5.83	2.21	3.08	1.77	2.06	6.11	2.79	4.47
MAX	13	6.8	16	2.5	76	5.0	8.6	3.2	5.3	100	19	71
MIN	1.7	2.1	1.8	1.5	1.4	1.6	1.8	1.3	1.3	1.2	1.2	1.2

e Estimated.

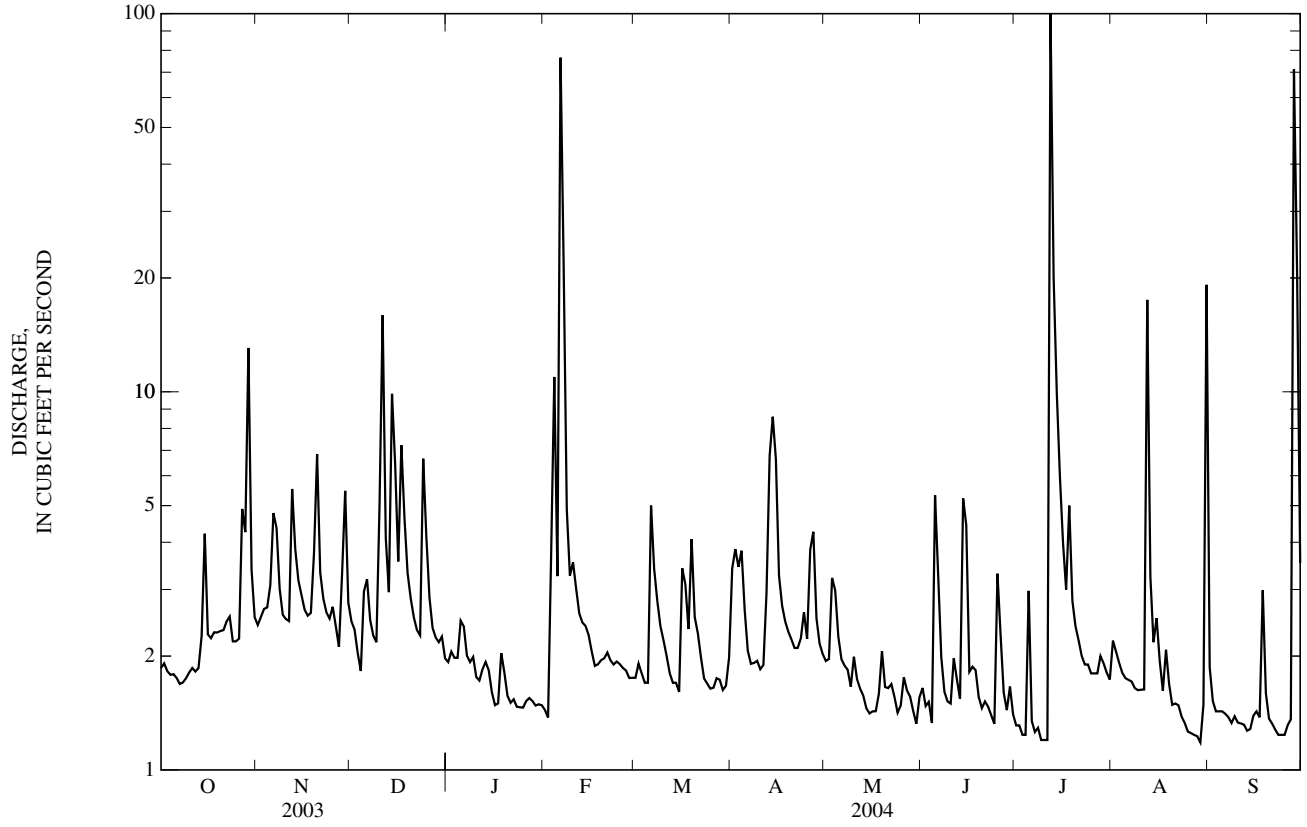
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2004, BY WATER YEAR (WY)

MEAN	1.24	1.92	2.42	1.54	3.71	3.55	2.34	2.13	3.00	2.64	1.44	2.27
MAX	2.69	3.23	3.86	2.07	5.93	7.95	3.19	3.27	7.55	6.11	2.79	4.47
(WY)	(2004)	(2004)	(2004)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2004)	(2004)	(2004)
MIN	0.68	0.96	1.03	0.83	0.83	0.83	0.85	0.88	0.80	0.58	0.34	0.47
(WY)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)

01483165 SPRING MILL BRANCH NR ARMSTRONG, DE—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 2001 - 2004	
ANNUAL MEAN	3.93		3.31		2.34	
HIGHEST ANNUAL MEAN					3.67	2003
LOWEST ANNUAL MEAN					0.76	2002
HIGHEST DAILY MEAN	81	Jun 20	(e)100	Jul 12	(e)100	Jul 12, 2004
LOWEST DAILY MEAN	1.2	(a)	1.2	(b)	(e)0.20	Aug 22, 2002
ANNUAL SEVEN-DAY MINIMUM	1.3	Aug 19	1.3	Aug 23	0.24	Aug 19, 2002
MAXIMUM PEAK FLOW			349	Sep 28	(c)492	Jun 20, 2003
MAXIMUM PEAK STAGE			7.20	Sep 28	7.69	Jun 20, 2003
INSTANTANEOUS LOW FLOW			1.1	(d)	Unknown	
10 PERCENT EXCEEDS	6.3		4.2		3.5	
50 PERCENT EXCEEDS	2.3		1.9		1.5	
90 PERCENT EXCEEDS	1.5		1.4		0.62	

e Estimated.
a Jan. 27, 28, May 15, Aug. 20, 21.
b July 3, 4, 9-11, Aug. 27-29, Sept. 23-25.
c From rating curve extended above 70 ft^3/s.
d Aug. 28-30.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01483170 DOVE NEST BRANCH NEAR ODESSA, DE

LOCATION.--Lat 39°27'45.4", long 75°41'15.8", New Castle County, Hydrologic Unit 02040205, on left bank at downstream side of highway culvert on Brick Mill Road, 1.5 mi northwest of Odessa, and 2.4 mi upstream from confluence with Drawyer Creek.

DRAINAGE AREA.--4.68 mi^2.

PERIOD OF RECORD.--October 1978 to September 1980, October 2003 to September 2004 (discontinued). Prior to 2001, published as Drawyer Creek Tributary near Odessa, DE.

GAGE.--Water-stage recorder. Elevation of gage is 4 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair except those for estimated daily discharges (sluggish record, missing record), which are poor. Several measurements of water temperature were made during the year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 50 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 29	1115	83	5.61	Jun 25	1615	194	6.80
Dec 11	0615	88	5.68	Jul 12	1915	*297	*7.58
Dec 14	1900	87	5.67	Jul 14	1800	140	6.29
Feb 6	1815	165	6.54	Jul 18	1330	95	5.78
Apr 14	2230	51	5.12	Aug 31	0345	173	6.61
Jun 5	1845	93	5.75	Sep 28	2030	273	7.41
Jun 14	2315	106	5.91				

Minimum discharge, 2.7 ft^3/s, May 24.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.7	4.4	5.4	6.8	5.2	3.3	7.9	5.5	5.6	e4.0	e6.0	e10
2	5.6	4.0	4.8	6.7	5.3	3.5	9.4	5.3	4.5	e3.8	e5.0	e7.0
3	5.6	4.0	4.4	6.5	17	3.4	8.1	9.7	4.0	e3.6	e4.6	e5.5
4	5.8	4.1	4.3	6.3	28	e3.2	8.3	8.1	3.8	e3.4	e4.2	e4.8
5	5.6	4.9	8.2	7.5	16	e3.0	6.2	5.8	31	12	e4.0	e4.4
6	5.4	8.7	9.3	7.6	74	15	5.0	5.1	20	e7.0	e3.8	e4.2
7	5.3	9.8	6.0	6.2	e70	7.1	4.6	5.0	e8.0	e5.6	e3.8	e4.0
8	5.3	e6.0	5.0	5.7	e12	4.6	4.5	4.8	6.3	e5.0	e3.6	e4.0
9	5.2	e4.6	4.7	5.9	e7.0	3.4	4.6	4.9	5.1	e4.6	e3.6	e5.0
10	5.1	e4.2	12	5.2	e8.0	3.1	4.1	6.2	4.7	e4.2	3.6	e4.4
11	5.1	e4.0	55	5.0	e7.2	3.0	4.1	5.3	6.1	e4.0	3.7	e4.2
12	4.8	18	16	5.5	e6.6	3.0	7.5	5.0	5.3	87	12	e4.0
13	4.5	8.1	10	5.4	e6.0	2.8	22	4.8	4.4	e40	12	e4.0
14	6.0	6.4	29	e5.2	e5.6	2.8	24	4.5	15	e20	6.8	e3.8
15	16	5.9	28	e5.0	e5.2	2.8	23	4.1	32	e14	8.9	e3.8
16	7.4	5.4	12	e4.8	e5.0	7.9	e9.0	4.1	7.7	e12	6.2	e3.6
17	5.6	5.1	22	e4.8	e4.8	7.1	e7.8	5.6	11	e10	5.1	e3.6
18	5.3	5.0	16	8.2	e4.6	4.7	e6.8	5.4	12	41	7.3	11
19	5.2	8.2	10	e7.0	e4.6	8.7	e6.0	5.6	6.5	e14	5.2	7.4
20	5.2	26	8.9	e6.4	e4.6	5.6	e5.5	5.0	5.1	e10	4.5	5.1
21	5.3	8.1	8.1	e6.0	e4.5	5.0	e5.2	4.4	e4.4	e8.5	4.9	4.6
22	5.7	5.6	7.9	e5.8	e4.5	4.4	e5.0	3.9	e4.2	e7.0	4.7	4.2
23	5.4	5.0	7.9	e5.6	e4.5	e4.0	e5.6	3.7	e4.0	e6.0	4.1	4.1
24	5.3	5.0	22	e5.5	e4.4	e3.6	8.4	3.5	e4.0	e5.4	3.8	3.9
25	5.7	5.6	15	e5.4	e4.4	e3.3	6.0	3.5	54	e5.0	3.7	3.8
26	6.1	4.7	9.6	e5.3	e4.4	e3.1	11	5.1	22	e4.6	3.7	3.8
27	12	4.7	8.3	e5.3	e4.4	e3.0	13	3.7	e6.0	e4.4	3.6	3.8
28	14	8.1	7.8	e5.2	4.1	e3.4	7.6	3.5	e4.4	e5.0	3.5	72
29	49	18	7.4	e5.2	3.6	e3.2	6.3	3.4	e5.0	e4.4	3.5	69
30	12	6.9	7.5	5.2	---	e3.0	5.8	3.8	e4.2	e4.0	4.8	13
31	5.8	---	7.3	5.1	---	e4.0	---	6.2	---	e3.8	61	---
TOTAL	246.0	218.5	379.8	181.3	335.5	138.0	252.3	154.5	310.3	363.3	215.2	286.0
MEAN	7.94	7.28	12.3	5.85	11.6	4.45	8.41	4.98	10.3	11.7	6.94	9.53
MAX	49	26	55	8.2	74	15	24	9.7	54	87	61	72
MIN	4.5	4.0	4.3	4.8	3.6	2.8	4.1	3.4	3.8	3.4	3.5	3.6
CFSM	1.70	1.56	2.62	1.25	2.47	0.95	1.80	1.06	2.21	2.50	1.48	2.04
IN.	1.96	1.74	3.02	1.44	2.67	1.10	2.01	1.23	2.47	2.89	1.71	2.27

e Estimated.

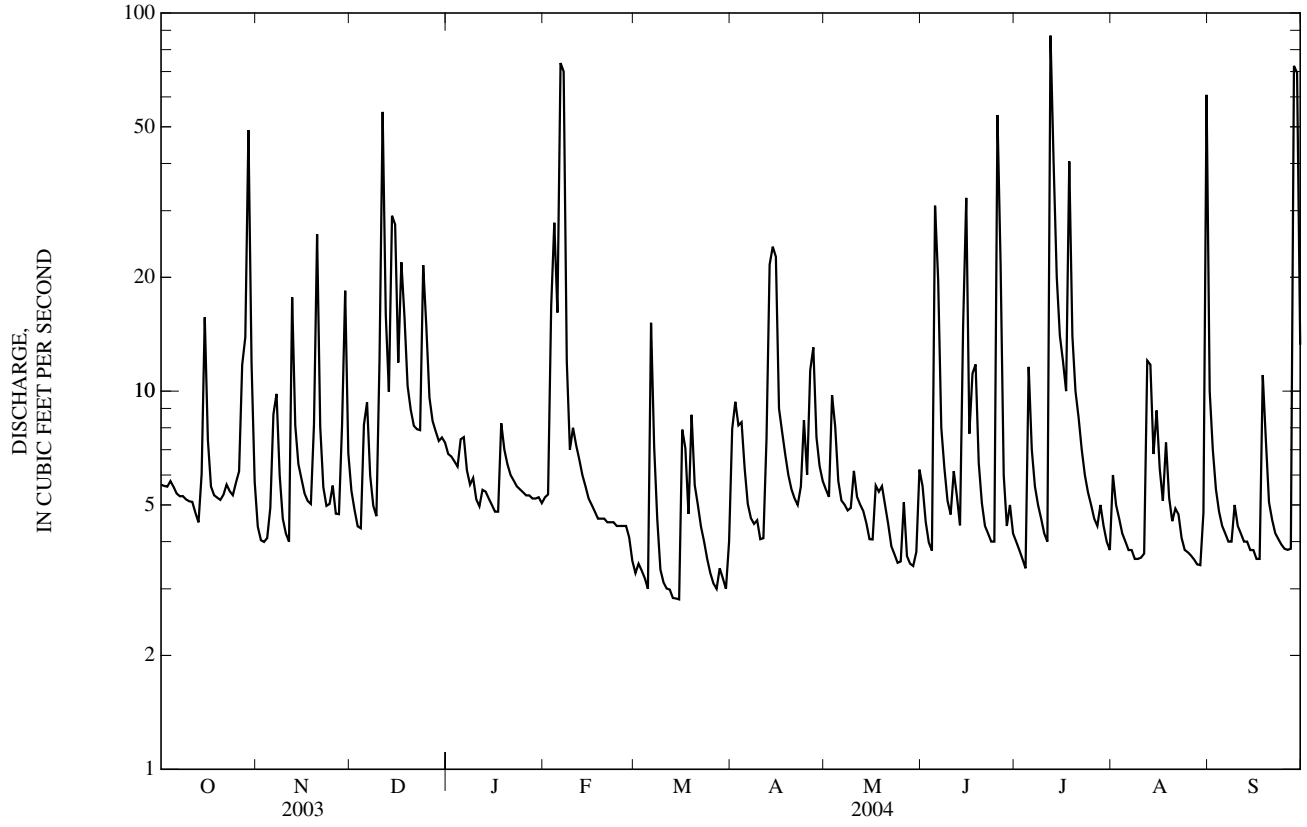
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 1980, 2003-2004, BY WATER YEAR (WY)

MEAN	5.33	5.69	7.22	7.71	9.78	5.99	7.40	5.22	7.40	5.70	3.78	5.67
MAX	7.94	7.28	12.3	12.3	14.1	7.57	8.41	5.43	10.3	11.7	6.94	9.53
(WY)	(2004)	(2004)	(2004)	(1979)	(1979)	(1980)	(2004)	(1980)	(2004)	(2004)	(2004)	(2004)
MIN	3.18	3.96	4.35	4.99	3.82	4.45	5.55	4.98	5.89	2.35	2.18	2.22
(WY)	(1979)	(1979)	(1980)	(1980)	(1980)	(2004)	(1979)	(2004)	(1980)	(1980)	(1979)	(1980)

01483170 DOVE NEST BRANCH NEAR ODESSA, DE—Continued

SUMMARY STATISTICS	FOR 2004 WATER YEAR		WATER YEARS 1978 - 1980, 2003 - 2004	
ANNUAL TOTAL	3,080.7			
ANNUAL MEAN	8.42		6.39	
HIGHEST ANNUAL MEAN			8.42	2004
LOWEST ANNUAL MEAN			4.81	1980
HIGHEST DAILY MEAN	87	Jul 12	120	Feb 26, 1979
LOWEST DAILY MEAN	2.8	(a)	1.6	(b
ANNUAL SEVEN-DAY MINIMUM	3.0	Mar 9	1.8	Jul 26, 1979
MAXIMUM PEAK FLOW	(c)297	Jul 12	(c)297	Jul 12, 2004
MAXIMUM PEAK STAGE	7.58	Jul 12	7.58	Jul 12, 2004
INSTANTANEOUS LOW FLOW	UNKNOWN		1.53	(d)
ANNUAL RUNOFF (AC-FT)	6,110		4,630	
ANNUAL RUNOFF (CFSM)	1.80		1.36	
ANNUAL RUNOFF (INCHES)	24.49		18.54	
10 PERCENT EXCEEDS	14		10	
50 PERCENT EXCEEDS	5.3		4.4	
90 PERCENT EXCEEDS	3.7		2.4	

a March 13-15.
b July 31, Aug. 1, 1979.
c From rating curve extended above 40 ft^3/s.
d From high water mark.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01483200 BLACKBIRD CREEK AT BLACKBIRD, DE

LOCATION.--Lat 39°21'58.6", long 75°40'09.8", New Castle County, Hydrologic Unit 02040205, on left bank 15 ft downstream from highway culverts, 0.5 mi upstream from Barlow Branch, 0.6 mi southwest of Blackbird, 5.6 mi northwest of Smyrna, and 13.8 mi upstream from mouth.

DRAINAGE AREA.--3.85 mi^2.

PERIOD OF RECORD.--Annual maximum, water years 1952-56, and occasional low-flow measurements, water years 1952-53, 1955-56. October 1956 to current year.

REVISED RECORDS.--WRD MD-DE-89-1: 1987-88(P).

GAGE.--Water-stage recorder. Concrete control since May 23, 1968. Datum of gage is 17.89 ft above National Geodetic Vertical Datum of 1929. Mar. 5, 1951, to Oct. 16, 1956, nonrecording gage and crest-stage gage at site 15 ft upstream at datum 1.0 ft higher. Oct. 17, 1956, to June 16, 1986, recording gage at same site on right bank at datum 1.0 ft higher.

REMARKS.--No estimated daily discharges. Records good. Occasional regulation at low and medium flow by Blackbird Lake Dam upstream from station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 50 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 29	0700	50	2.12	Apr 15	0230	70	2.46
Dec 11	0915	78	2.57	Jul 12	2130	*694	*6.21
Dec 15	0315	58	2.27	Jul 18	2230	50	2.12
Feb 7	0000	186	3.83				

Minimum discharge, 0.68 ft^3/s, Sept. 13.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.3	4.5	6.8	6.3	4.1	4.6	13	6.7	7.1	2.4	3.3	4.8
2	3.2	4.3	5.3	6.4	4.0	5.2	15	5.6	4.2	2.0	3.6	2.4
3	3.0	4.2	4.7	6.7	8.9	5.2	14	9.9	3.4	1.9	2.9	2.0
4	3.1	4.0	4.6	6.4	20	4.9	12	11	3.2	1.7	2.8	2.0
5	3.1	12	17	7.5	15	4.9	10	6.6	14	1.8	4.6	1.8
6	3.1	37	27	8.7	50	15	6.4	6.4	17	1.7	3.1	1.7
7	3.0	23	15	6.2	74	13	5.8	5.4	5.8	1.5	2.2	1.5
8	3.2	9.8	7.5	5.3	18	7.5	5.6	5.3	4.4	1.4	2.0	1.6
9	3.2	5.6	6.6	5.2	11	5.6	5.8	4.4	3.3	1.2	1.9	1.6
10	3.2	4.9	14	4.4	11	5.0	5.3	9.8	2.8	1.1	1.7	1.6
11	3.2	4.7	57	3.9	9.3	4.8	5.2	6.3	5.3	1.0	1.7	1.6
12	3.1	20	21	4.5	7.4	4.5	10	4.4	5.7	200	2.3	1.6
13	2.9	18	9.7	5.7	7.1	4.3	33	3.9	3.4	149	2.2	1.2
14	3.3	7.4	22	5.3	6.9	4.2	42	3.7	3.0	19	2.5	1.3
15	19	5.3	37	5.0	6.5	4.3	45	3.5	2.7	11	4.7	2.5
16	8.0	4.9	14	4.0	5.6	8.5	16	3.2	11	5.9	3.6	2.2
17	3.2	4.9	18	3.9	5.3	12	12	3.1	25	4.9	2.8	2.0
18	3.2	4.6	20	6.0	5.6	7.1	9.6	3.1	7.5	27	2.3	3.7
19	3.2	11	11	7.1	5.6	13	8.9	4.1	3.9	26	3.5	3.4
20	3.0	39	9.1	4.8	5.6	8.5	7.8	4.0	2.9	9.4	2.3	1.8
21	3.4	18	7.5	4.2	5.9	6.3	7.1	3.5	2.5	5.6	1.9	1.4
22	3.7	8.1	7.1	4.3	5.6	5.3	7.1	3.5	2.1	4.7	2.0	1.3
23	3.4	6.2	7.0	4.1	5.1	4.9	8.3	3.2	2.3	5.1	1.9	1.4
24	3.3	5.9	26	3.8	5.0	4.7	14	3.1	2.5	4.9	1.8	1.3
25	3.2	6.5	23	4.0	5.0	4.9	7.3	2.8	3.3	4.3	1.7	1.2
26	3.7	5.6	11	4.0	4.7	4.8	10	3.9	6.0	4.1	1.6	1.2
27	16	5.1	8.8	4.3	4.6	4.9	18	3.7	3.2	3.9	1.7	1.1
28	35	8.0	7.7	4.9	4.6	4.9	8.8	3.1	2.4	4.2	1.3	7.8
29	43	26	7.3	4.8	4.6	4.5	6.0	3.0	2.3	3.8	1.4	26
30	18	13	7.1	4.6	---	4.4	5.8	2.5	2.2	3.2	6.1	6.0
31	5.8	---	6.6	4.4	---	6.4	---	5.5	---	2.8	16	---
TOTAL	222.0	331.5	446.4	160.7	326.0	198.1	374.8	148.2	164.4	516.5	93.4	91.0
MEAN	7.16	11.1	14.4	5.18	11.2	6.39	12.5	4.78	5.48	16.7	3.01	3.03
MAX	43	39	57	8.7	74	15	45	11	25	200	16	26
MIN	2.9	4.0	4.6	3.8	4.0	4.2	5.2	2.5	2.1	1.0	1.3	1.1
CFSM	1.86	2.87	3.74	1.35	2.92	1.66	3.25	1.24	1.42	4.33	0.78	0.79
IN.	2.15	3.20	4.31	1.55	3.15	1.91	3.62	1.43	1.59	4.99	0.90	0.88

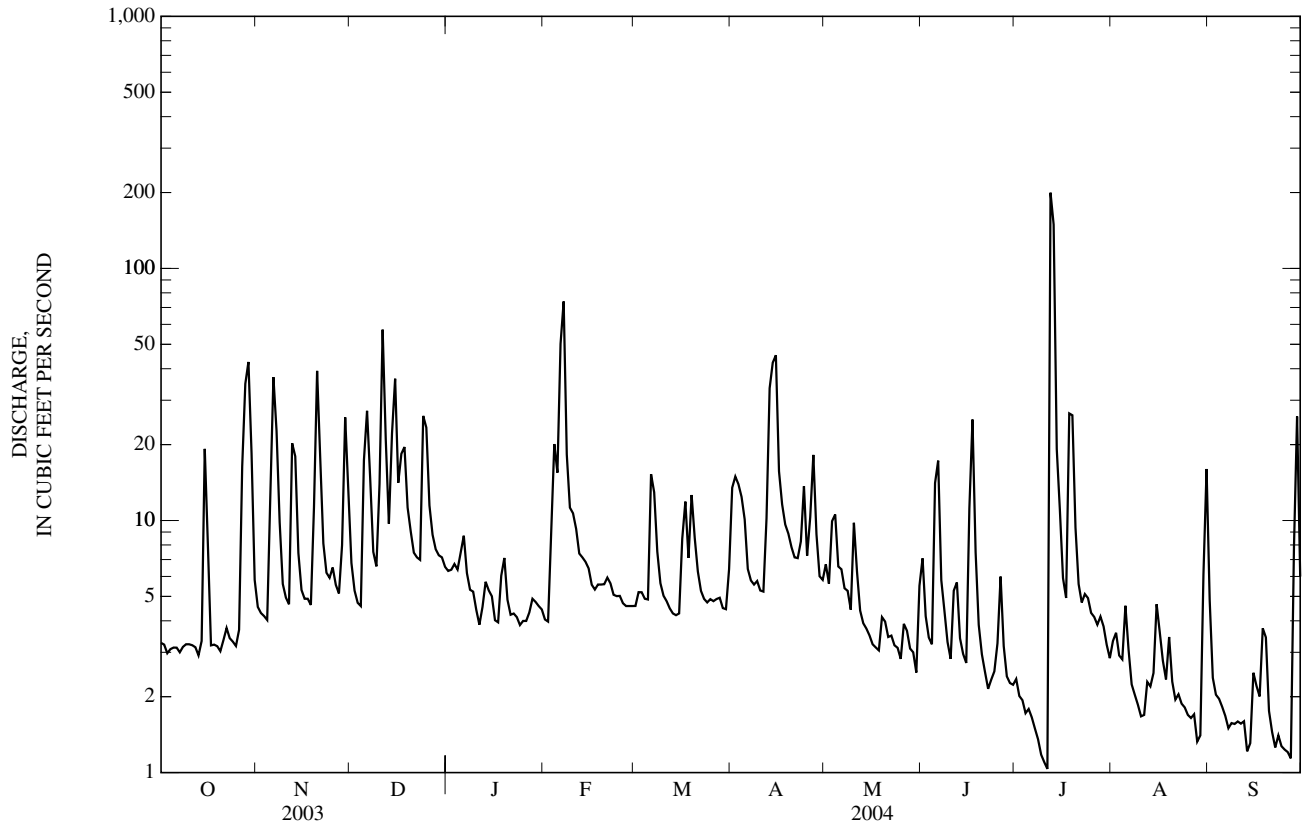
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 2004, BY WATER YEAR (WY)

MEAN	2.52	3.62	5.27	6.14	7.32	8.93	7.63	5.46	3.95	3.17	2.17	2.60
MAX	8.83	11.1	23.5	18.1	19.2	20.3	21.0	13.9	24.4	17.0	7.10	20.1
(WY)	(1972)	(2004)	(1997)	(1978)	(1979)	(1958)	(1983)	(1989)	(1972)	(1989)	(2000)	(1999)
MIN	0.30	0.73	0.71	1.51	1.49	1.98	2.16	1.26	0.54	0.08	0.01	0.21
(WY)	(1969)	(1966)	(1966)	(1981)	(2002)	(1966)	(1966)	(1977)	(1966)	(1966)	(1966)	(1968)

01483200 BLACKBIRD CREEK AT BLACKBIRD, DE—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1957 - 2004	
ANNUAL TOTAL	3,730.4		3,073.0			
ANNUAL MEAN	10.2		8.40		4.88	
HIGHEST ANNUAL MEAN					9.05	1972
LOWEST ANNUAL MEAN					1.40	1966
HIGHEST DAILY MEAN	78	May 26	200	Jul 12	397	Sep 16, 1999
LOWEST DAILY MEAN	1.7	(a)	1.0	Jul 11	0.00	(b)
ANNUAL SEVEN-DAY MINIMUM	2.4	Aug 23	1.3	Sep 21	0.00	Jul 17, 1966
MAXIMUM PEAK FLOW			694	Jul 12	(c)789	Sep 16, 1999
MAXIMUM PEAK STAGE			6.21	Jul 12	6.47	Sep 16, 1999
INSTANTANEOUS LOW FLOW			0.68	Sep 13	0.00	(d)
ANNUAL RUNOFF (CFSM)	2.65		2.18		1.27	
ANNUAL RUNOFF (INCHES)	36.04		29.69		17.24	
10 PERCENT EXCEEDS	22		17		10	
50 PERCENT EXCEEDS	6.6		4.9		2.8	
90 PERCENT EXCEEDS	3.1		1.9		0.52	

a Aug. 26, Sept. 11.
b Sept. 11, 1965; July 12-15, 17-31, Aug. 1-12, 14, 15, 18-31, Sept. 1-20, 1966.
c From rating curve extended above 600 ft^3/s.
d No flow at times during 1964-66.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01483700 ST. JONES RIVER AT DOVER, DE

LOCATION.--Lat 39°09'49.4", long 75°31'08.7", Kent County, Hydrologic Unit 02040207, on left bank 150 ft upstream from Division Street Bridge in Dover, 1,950 ft downstream from Silver Lake, and 12.5 mi upstream from mouth.

DRAINAGE AREA.--31.9 mi^2.

PERIOD OF RECORD.--January 1958 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 0.00 ft above National Geodetic Vertical Datum of 1929. Prior to June 1973, at datum 0.50 ft higher.

REMARKS.--Records good except those for estimated daily discharges (backwater from tides), which are fair. Flow affected by Silver Lake. Flow occasionally affected by tide and wind effect. U.S. Geological Survey gage-height telemeter at station. Several measurements of water temperature were made during the year. Water-quality data for some prior years have been collected at this location.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 719 ft^3/s, July 12, gage height, 6.42 ft; minimum discharge, 2.0 ft^3/s, July 8, 9.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	62	61	59	27	25	59	33	12	8.2	23	20
2	24	41	49	57	26	27	88	30	e12	12	23	10
3	20	31	41	57	47	29	95	54	e12	e9.7	20	8.0
4	20	27	38	56	99	29	81	70	10	e7.8	e17	7.1
5	19	37	73	63	124	28	68	57	e26	e7.4	21	e5.9
6	17	123	e138	75	142	56	56	42	e49	7.3	e14	e5.6
7	18	196	126	69	486	77	44	34	34	6.5	12	5.8
8	17	140	88	53	295	66	37	28	19	5.2	9.6	e5.9
9	16	87	69	49	154	48	37	25	14	2.2	8.7	9.6
10	16	61	62	40	105	e36	34	44	37	2.4	8.1	8.5
11	e15	49	183	33	76	e32	33	39	86	2.7	7.8	6.8
12	e14	74	221	32	64	e29	62	29	51	189	e7.8	e6.2
13	15	101	138	39	55	27	312	22	28	639	8.4	e5.4
14	e16	91	e151	41	50	24	591	19	16	327	13	5.5
15	51	71	269	39	47	25	450	17	13	93	33	e9.6
16	46	56	202	30	41	37	262	15	17	37	37	11
17	34	48	142	28	36	e57	149	14	49	19	26	e8.8
18	26	42	136	45	36	56	97	14	41	64	16	e19
19	20	54	121	60	36	65	74	14	21	109	13	e21
20	16	153	92	51	36	61	61	13	12	80	11	e12
21	16	173	74	37	36	50	52	14	9.5	35	9.5	e9.2
22	16	120	64	32	34	38	48	14	8.5	22	7.8	e7.4
23	14	e82	59	30	32	32	46	13	8.2	19	7.0	e6.5
24	14	e66	206	28	31	28	49	11	7.8	19	e6.2	e5.9
25	13	56	316	26	33	28	42	12	71	19	e5.9	e5.4
26	14	51	189	28	29	28	45	16	68	17	e5.9	e5.1
27	28	47	120	29	28	28	77	14	21	17	e6.2	e5.1
28	50	49	89	34	26	27	73	14	12	24	e5.9	e47
29	122	68	74	34	26	e24	49	11	9.9	24	e5.4	e100
30	144	69	69	33	---	26	38	9.0	8.1	19	e36	e52
31	104	---	63	30	---	38	---	e8.8	---	16	50	---
TOTAL	984	2,325	3,723	1,317	2,257	1,181	3,209	749.8	783.0	1,859.4	475.2	435.3
MEAN	31.7	77.5	120	42.5	77.8	38.1	107	24.2	26.1	60.0	15.3	14.5
MAX	144	196	316	75	486	77	591	70	86	639	50	100
MIN	13	27	38	26	26	24	33	8.8	7.8	2.2	5.4	5.1
CFSM	1.00	2.43	3.76	1.33	2.44	1.19	3.35	0.76	0.82	1.88	0.48	0.45
IN.	1.15	2.71	4.34	1.54	2.63	1.38	3.74	0.87	0.91	2.17	0.55	0.51

e Estimated

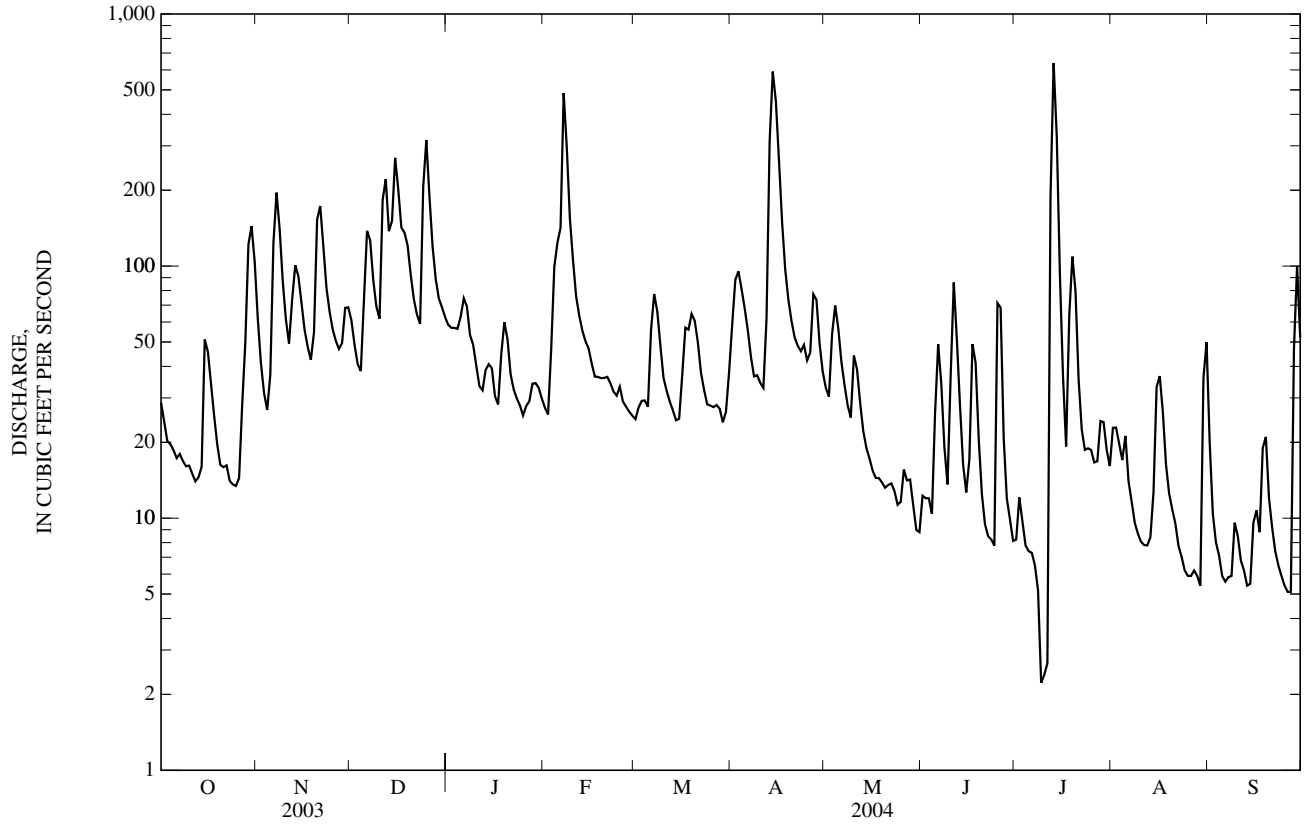
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 2004, BY WATER YEAR (WY)

MEAN	19.2	25.6	39.1	49.4	60.5	76.3	59.0	37.4	30.9	20.0	24.2	20.7
MAX	93.5	103	145	156	143	187	180	117	138	88.6	144	128
(WY)	(1972)	(1973)	(1997)	(1978)	(1998)	(1994)	(1983)	(1989)	(1996)	(1975)	(1958)	(1960)
MIN	0.40	0.56	1.35	1.64	6.70	10.7	13.5	9.86	4.36	2.10	0.69	1.92
(WY)	(1964)	(2002)	(1966)	(1966)	(2002)	(1966)	(1966)	(1963)	(1986)	(1966)	(1966)	(1970)

01483700 ST. JONES RIVER AT DOVER, DE—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1958 - 2004	
ANNUAL TOTAL	30,046.2		19,298.7			
ANNUAL MEAN	82.3		52.7		37.8	
HIGHEST ANNUAL MEAN					79.9	2003
LOWEST ANNUAL MEAN					6.14	1966
HIGHEST DAILY MEAN	500	Jun 22	639	Jul 13	1,460	Sep 13, 1960
LOWEST DAILY MEAN	(e)9.2	Sep 11	(a)2.2	Jul 9	0.00	(b)
ANNUAL SEVEN-DAY MINIMUM	14	Sep 6	4.8	Jul 5	0.34	Nov 1, 2001
MAXIMUM PEAK FLOW			719	Jul 12	1,900	Sep 13, 1960
MAXIMUM PEAK STAGE			6.42	Jul 12	(c)9.45	Sep 13, 1960
INSTANTANEOUS LOW FLOW			2.0	(d)	0.00	(f)
ANNUAL RUNOFF (CFSM)	2.58		1.65		1.18	
ANNUAL RUNOFF (INCHES)	35.04		22.51		16.08	
10 PERCENT EXCEEDS	178		112		85	
50 PERCENT EXCEEDS	55		33		21	
90 PERCENT EXCEEDS	23		8.1		3.7	

e Estimated
a Regulation.
b July 9, 1959, May 9, 10, 1961.
c From floodmark.
d July 8, 9.
f No flow at times in 1959, 1961, 1962.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01484100 BEAVERDAM BRANCH AT HOUSTON, DE

LOCATION.--Lat 38°54'20.8", long 75°30'45.9", Kent County, Hydrologic Unit 02040207, on left bank 15 ft upstream from culverts on State Highway 384, 0.8 mi south of Houston, and 1.2 mi upstream from Blairs Pond and mouth.

DRAINAGE AREA.--2.83 mi^2.

PERIOD OF RECORD.--May 1958 to current year.

REVISED RECORDS.--WDR MD-DE-84-1: 1981, 1983 (M).

GAGE.--Water-stage recorder and concrete control; timber control prior to Nov. 8, 1979. Datum of gage is 35.67 ft above National Geodetic Vertical Datum of 1929.

REMARKS.-- No estimated daily discharges. Records good. Diversion for irrigation of about l50 acres upstream from station during some years. Several measurements of water temperature were made during this year. Water-quality data for some prior years have been collected at this location.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 30 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov 6	2130	*55	*3.81	Dec 24	1315	31	3.32
Nov 20	0645	38	3.46	Feb 3	2045	45	3.61
Dec 11	1215	43	3.58	Feb 7	0015	53	3.77
Dec 14	2200	31	3.32	Apr 13	0430	34	3.37

Minimum discharge, 0.84 ft^3/s, on several days.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.3	3.7	5.6	6.0	4.0	4.1	5.0	4.5	2.7	1.5	2.9	1.4
2	3.0	3.6	5.2	6.0	4.0	4.2	4.4	4.5	2.6	1.5	1.9	1.3
3	2.9	3.5	5.1	5.9	17	4.0	4.1	4.9	2.7	1.5	1.7	1.3
4	3.0	3.4	5.1	5.8	10	4.1	4.1	4.7	2.6	1.5	1.7	1.3
5	2.8	3.9	13	6.5	5.9	4.1	3.8	4.3	3.3	1.4	1.8	1.2
6	2.8	35	10	6.6	14	5.3	3.7	4.0	3.0	1.4	1.6	1.2
7	2.8	25	7.7	5.7	27	4.7	3.7	3.9	2.8	1.3	1.5	1.2
8	2.8	8.1	6.8	5.5	8.2	4.6	3.7	3.8	2.6	1.3	1.4	1.2
9	2.8	6.7	6.5	5.4	6.5	4.3	3.6	3.7	2.5	1.2	1.3	1.2
10	2.9	6.3	6.7	5.1	6.3	4.1	3.5	4.9	2.6	1.2	1.3	1.1
11	2.9	6.1	28	5.0	5.9	4.1	3.8	3.9	2.7	1.2	1.2	1.1
12	2.8	7.0	11	5.3	5.6	4.0	7.0	3.6	2.6	2.8	1.3	1.1
13	2.7	8.1	8.1	5.3	5.4	3.9	20	3.5	2.3	3.3	1.2	1.0
14	2.8	6.3	17	5.0	5.4	3.9	15	3.4	2.3	1.9	1.5	0.95
15	3.4	5.8	16	4.9	5.1	3.9	11	3.5	2.2	1.7	1.8	1.1
16	2.8	5.7	9.3	4.6	4.7	4.6	7.6	3.4	2.3	1.5	3.0	1.1
17	2.7	5.4	11	4.6	4.7	4.6	6.7	3.7	2.4	1.5	1.8	1.0
18	2.7	5.4	9.7	6.7	4.8	4.2	6.3	3.5	2.3	1.8	1.7	1.2
19	2.7	8.1	7.9	6.2	4.7	4.9	5.9	3.3	2.2	1.7	1.6	1.1
20	2.6	25	7.1	5.0	4.6	4.4	5.6	3.2	2.1	1.5	1.5	0.97
21	2.6	8.4	6.6	4.7	4.6	4.4	5.4	3.2	2.1	1.5	1.5	0.92
22	2.6	7.1	6.5	4.7	4.4	4.1	5.3	3.0	2.0	1.4	1.4	0.89
23	2.6	6.6	6.3	4.5	4.4	4.0	5.0	2.9	2.0	1.4	1.3	0.87
24	2.5	6.5	20	4.4	4.4	3.9	4.9	2.6	2.0	1.3	1.3	0.86
25	2.4	6.1	11	4.2	4.2	4.0	4.7	2.7	1.9	1.4	1.3	0.87
26	2.5	5.9	8.3	4.5	4.1	3.9	5.6	3.1	1.9	1.4	1.3	0.84
27	3.2	5.7	7.5	4.8	4.1	4.0	6.6	2.8	1.8	1.4	1.3	0.85
28	3.9	6.0	6.9	4.8	4.1	4.0	5.3	3.5	1.7	1.7	1.2	1.4
29	10	6.8	6.7	4.5	4.1	3.9	4.9	2.8	1.6	1.4	1.2	1.4
30	4.8	5.8	6.5	4.4	---	3.7	4.7	2.6	1.6	1.3	1.7	1.1
31	3.8	---	6.2	4.2	---	4.0	---	2.7	---	1.2	1.8	---
TOTAL	98.1	247.0	289.3	160.8	192.2	129.9	180.9	110.1	69.4	48.1	49.0	33.02
MEAN	3.16	8.23	9.33	5.19	6.63	4.19	6.03	3.55	2.31	1.55	1.58	1.10
MAX	10	35	28	6.7	27	5.3	20	4.9	3.3	3.3	3.0	1.4
MIN	2.4	3.4	5.1	4.2	4.0	3.7	3.5	2.6	1.6	1.2	1.2	0.84
CFSM	1.12	2.91	3.30	1.83	2.34	1.48	2.13	1.25	0.82	0.55	0.56	0.39
IN.	1.29	3.25	3.80	2.11	2.53	1.71	2.38	1.45	0.91	0.63	0.64	0.43

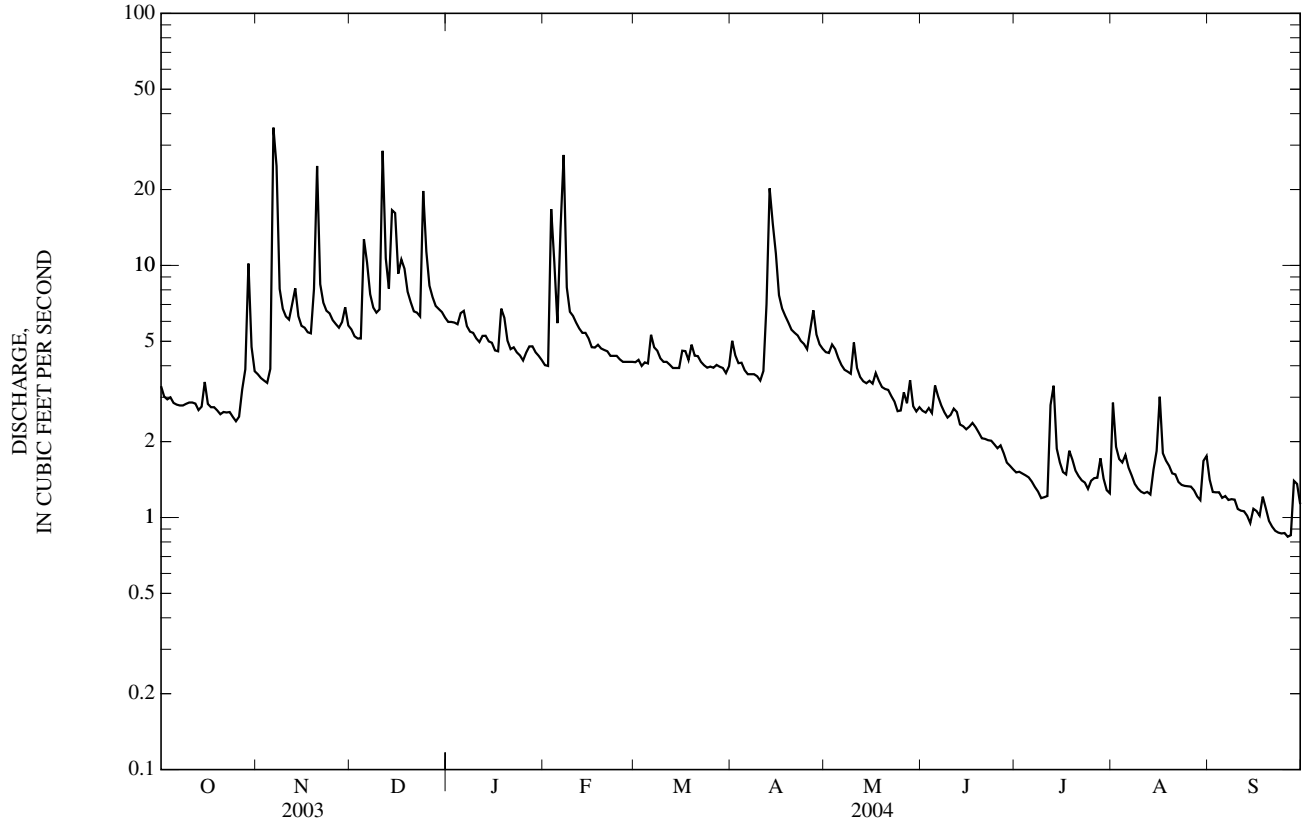
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 2004, BY WATER YEAR (WY)

MEAN	1.90	2.41	3.37	4.47	5.50	6.43	5.63	4.38	3.18	2.73	2.38	2.11
MAX	4.69	8.23	11.5	10.7	16.2	18.0	11.0	10.5	9.33	16.8	9.38	10.1
(WY)	(1959)	(2004)	(1973)	(1978)	(1998)	(1994)	(1983)	(1984)	(2003)	(1975)	(1967)	(1960)
MIN	0.37	0.44	0.48	0.57	1.06	1.57	1.90	1.88	1.22	0.42	0.42	0.44
(WY)	(1987)	(1988)	(1966)	(1966)	(1966)	(2002)	(1985)	(1977)	(1986)	(1977)	(2002)	(1986)

01484100 BEAVERDAM BRANCH AT HOUSTON, DE—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1958 - 2004	
ANNUAL TOTAL	2,480.4		1,607.82			
ANNUAL MEAN	6.80		4.39		3.67	
HIGHEST ANNUAL MEAN					6.68	2003
LOWEST ANNUAL MEAN					1.20	1966
HIGHEST DAILY MEAN	43	Feb 23	35	Nov 6	98	May 30, 1984
LOWEST DAILY MEAN	2.4	Oct 25	0.84	Sep 26	(a)0.00	Jul 28, 1977
ANNUAL SEVEN-DAY MINIMUM	2.5	Oct 20	0.87	Sep 21	0.06	Jul 19, 1977
MAXIMUM PEAK FLOW			55	Nov 6	(b)176	Sep 12, 1960
MAXIMUM PEAK STAGE			3.81	Nov 6	5.55	Sep 12, 1960
INSTANTANEOUS LOW FLOW			0.84	(c)	(a)0.00	(d)
ANNUAL RUNOFF (CFSM)	2.40		1.55		1.30	
ANNUAL RUNOFF (INCHES)	32.60		21.13		17.62	
10 PERCENT EXCEEDS	11		7.0		6.7	
50 PERCENT EXCEEDS	5.6		3.8		2.8	
90 PERCENT EXCEEDS	3.0		1.3		0.83	

a Result of pumpage for irrigation.
b From rating curve extended above 75 ft^3/s.
c Sept. 21-28.
d July 18-30, 1977.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01484270 BEAVERDAM CREEK NEAR MILTON, DE

LOCATION.--Lat 38°45'41", long 75°16'03", Sussex County, Hydrologic Unit 02040207, on left bank, at downstream side of culverts on state road (maintenance No. 88), 2.3 mi east of Milton, and 3.2 mi upstream from mouth.

DRAINAGE AREA.--6.10 mi^2.

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1955-71, and annual maximums, water years 1966-71. May 1971 to September 1980, March 2002 to current year.

GAGE.--Water-stage recorder. Datum of gage is 0.91 ft above National Geodetic Vertical Datum of 1929. Prior to Jan. 14, 1966, nonrecording gage at same site at different datum. Jan. 14, 1966 to April 1977, nonrecording gage and crest-stage gage at same site and datum.

REMARKS.--No estimated daily discharges. Records good. Several measurements of water temperature were made during this year. Water-quality data for some prior years have been collected at this location.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 25 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 29	1415	28	4.13	Jan 6	0345	28	4.11
Nov 6	1515	47	4.40	Jan 18	1915	28	4.10
Nov 20	0100	39	4.30	Feb 3	2000	72	4.63
Dec 6	1130	35	4.25	Feb 7	0200	68	4.60
Dec 11	0500	*74	*4.65	Apr 13	0130	48	4.38
Dec 14	2145	48	4.38	Apr 27	0545	25	4.11
Dec 24	1130	40	4.28				

Minimum discharge, 6.9 ft^3/s, Aug. 9.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	14	15	24	16	16	21	20	14	11	9.6	9.7
2	12	13	16	23	15	17	21	19	14	12	11	9.3
3	12	13	16	24	37	17	19	20	14	12	11	9.3
4	12	13	15	23	33	17	18	21	14	11	10	9.2
5	12	14	23	24	21	17	17	20	15	10	11	8.3
6	11	29	32	27	26	20	18	19	14	9.5	10	7.9
7	12	31	27	25	47	18	17	18	13	9.6	9.3	7.6
8	12	25	22	24	28	18	17	17	13	9.5	7.7	7.6
9	11	18	20	24	21	18	18	15	13	9.3	7.1	8.9
10	11	16	21	23	21	17	16	18	13	9.0	8.1	9.0
11	11	16	56	21	21	17	17	16	16	7.8	8.4	8.7
12	11	17	50	21	20	17	22	15	14	8.3	8.4	8.5
13	10	20	34	22	19	16	43	14	11	13	9.2	7.6
14	11	18	36	22	19	15	44	13	11	11	11	8.3
15	14	17	42	21	18	15	38	12	12	10	17	9.2
16	12	15	40	20	17	19	30	11	13	9.2	14	9.9
17	11	14	33	20	18	20	25	11	13	8.9	13	9.4
18	11	15	32	24	20	18	23	13	12	10	11	9.6
19	11	19	30	25	19	19	21	12	12	9.5	10	11
20	10	34	28	22	19	18	22	12	12	9.0	9.6	9.0
21	11	31	25	21	19	17	22	12	12	9.7	10	8.7
22	11	22	24	21	17	16	22	12	12	9.2	13	9.1
23	11	18	25	21	17	17	22	11	12	9.0	9.3	9.0
24	11	17	34	21	18	17	22	11	12	9.2	9.3	8.9
25	11	17	38	19	18	17	21	11	12	8.8	9.6	9.0
26	10	17	31	19	17	17	20	14	12	8.5	9.6	8.2
27	11	17	28	21	17	17	25	13	12	9.4	9.4	7.5
28	12	16	26	23	17	17	24	14	11	10	9.3	8.4
29	24	18	25	21	16	17	21	13	11	9.9	8.9	10
30	21	16	26	21	---	18	21	12	11	9.1	8.0	9.7
31	15	---	25	19	---	21	---	13	---	9.1	9.7	---
TOTAL	377	560	895	686	611	540	687	452	380	301.5	312.5	266.5
MEAN	12.2	18.7	28.9	22.1	21.1	17.4	22.9	14.6	12.7	9.73	10.1	8.88
MAX	24	34	56	27	47	21	44	21	16	13	17	11
MIN	10	13	15	19	15	15	16	11	11	7.8	7.1	7.5
CFSM	1.99	3.06	4.73	3.63	3.45	2.86	3.75	2.39	2.08	1.59	1.65	1.46
IN.	2.30	3.42	5.46	4.18	3.73	3.29	4.19	2.76	2.32	1.84	1.91	1.63

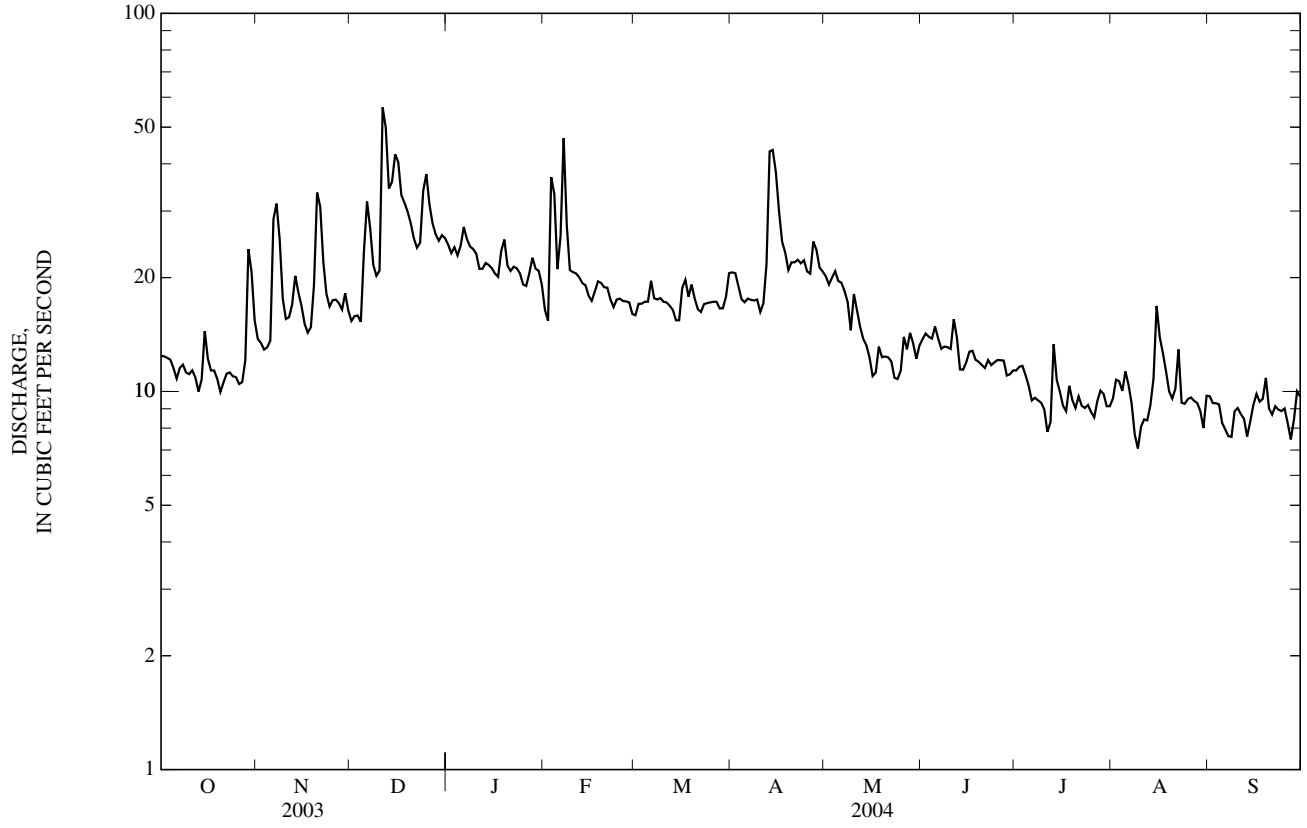
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1980, 2002 - 2004, BY WATER YEAR (WY)

MEAN	9.27	10.9	13.1	13.8	15.4	16.5	16.8	15.0	12.9	10.8	9.88	9.70
MAX	12.2	18.7	28.9	22.1	21.1	28.9	26.5	21.5	19.4	16.8	15.2	13.5
(WY)	(1980)	(2004)	(2004)	(2004)	(2004)	(1979)	(2003)	(1978)	(2003)	(2003)	(2003)	(2003)
MIN	4.83	5.85	7.05	8.45	9.33	8.86	8.43	8.06	6.31	5.20	4.04	5.52
(WY)	(1978)	(1978)	(1979)	(1975)	(1977)	(1977)	(2002)	(1977)	(2002)	(2002)	(2002)	(1977)

01484270 BEAVERDAM CREEK NEAR MILTON, DE—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1971 - 1980, 2002 - 2004	
ANNUAL TOTAL	6,904.2		6,068.5			
ANNUAL MEAN	18.9		16.6		13.1	
HIGHEST ANNUAL MEAN					17.5	2003
LOWEST ANNUAL MEAN					8.28	1977
HIGHEST DAILY MEAN	56	Dec 11	56	Dec 11	77	Sep 1, 2002
LOWEST DAILY MEAN	9.2	Jan 30	7.1	Aug 9	3.2	(a)
ANNUAL SEVEN-DAY MINIMUM	9.5	Jan 26	8.3	Sep 7	3.4	Aug 18, 2002
MAXIMUM PEAK FLOW			74	Dec 11	(b)142	Sep 1, 2002
MAXIMUM PEAK STAGE			4.65	Dec 11	5.15	Sep 1, 2002
INSTANTANEOUS LOW FLOW			6.9	Aug 9	3.1	(c)
ANNUAL RUNOFF (CFSM)	3.10		2.72		2.15	
ANNUAL RUNOFF (INCHES)	42.10		37.01		29.23	
10 PERCENT EXCEEDS	27		25		20	
50 PERCENT EXCEEDS	17		16		12	
90 PERCENT EXCEEDS	12		9.2		7.0	

a Aug. 19, 20, 27, 2002.
b From rating curve extended above 23 ft^3/s.
c Aug. 23, 27, 2002.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01484500 STOCKLEY BRANCH AT STOCKLEY, DE

LOCATION.--Lat 38°38'19.9", long 75°20'31.1", Sussex County, Hydrologic Unit 02060010, on left bank at highway bridge in Stockley, 1.6 mi upstream from mouth, and 4.4 mi southeast of Georgetown.

DRAINAGE AREA.--5.24 mi^2.

PERIOD OF RECORD.--April 1943 to September 2004 (discontinued).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 24.54 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 16, 1950, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Records fair. Natural flow of stream affected by inflow from sand mine dewatering process. U.S. Geological Survey gage-height telemeter at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 45 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov 7	0030	*92	*4.22	Dec 24	1800	64	3.80
Nov 20	0900	66	3.82	Feb 7	0645	52	3.60
Dec 11	1415	64	3.79	Apr 13	0730	50	3.54
Dec 15	0015	65	3.81				

Minimum discharge, 3.0 ft^3/s, July 8.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	17	17	17	12	13	11	11	11	6.8	11	6.5
2	12	19	16	18	9.0	10	11	12	6.0	6.5	10	6.2
3	18	19	9.7	18	16	9.2	7.2	14	5.5	6.0	11	5.8
4	20	18	15	18	28	10	9.6	13	7.7	5.5	9.5	5.7
5	19	8.9	24	19	16	11	9.1	11	12	5.7	9.6	5.6
6	16	35	35	20	17	12	11	11	11	5.6	8.9	5.7
7	9.6	61	28	14	44	10	11	10	8.8	6.4	8.5	5.7
8	17	29	22	18	25	13	8.8	9.7	8.7	5.8	8.3	5.7
9	17	22	14	17	18	11	5.3	8.8	8.5	6.0	8.2	5.7
10	17	19	14	16	17	15	9.1	9.3	8.1	6.1	8.6	5.7
11	17	19	47	15	17	12	11	12	7.6	5.9	8.5	7.6
12	8.8	21	35	16	15	13	15	6.4	6.7	5.9	6.7	8.1
13	13	25	24	17	8.8	10	45	5.7	9.2	7.2	6.1	6.5
14	9.1	17	33	16	8.5	9.2	38	11	9.5	6.3	7.1	5.4
15	20	13	49	15	14	14	34	12	10	6.5	12	6.4
16	18	18	30	13	14	17	21	11	10	6.2	10	7.7
17	9.4	18	28	12	14	15	18	12	5.4	5.7	7.8	6.1
18	15	18	29	12	9.2	8.9	16	15	5.1	5.5	7.2	6.4
19	16	22	25	20	9.6	12	16	11	6.4	5.3	6.6	7.4
20	16	54	22	16	10	17	18	9.7	9.0	5.8	6.2	8.5
21	16	27	20	14	14	17	16	8.4	7.6	5.9	6.9	8.7
22	7.8	18	12	14	13	13	13	8.2	6.8	5.9	8.0	8.2
23	6.1	21	18	13	13	11	13	9.6	7.1	5.8	8.1	6.3
24	13	21	41	13	8.9	14	13	8.9	7.0	5.5	9.2	6.0
25	15	21	40	13	8.5	15	11	8.8	7.0	5.6	9.5	5.7
26	15	21	26	13	9.1	9.0	12	11	6.8	5.5	9.6	5.4
27	15	18	23	13	11	10	14	9.5	6.4	6.0	9.0	5.4
28	6.9	11	21	16	9.0	14	13	11	6.1	6.0	8.7	5.9
29	30	18	20	13	13	12	12	10	6.6	5.9	8.5	6.3
30	28	18	18	13	---	8.4	11	11	6.5	5.7	8.9	6.4
31	16	---	11	13	---	12	---	12	---	5.6	5.5	---
TOTAL	475.7	666.9	766.7	475	421.6	377.7	453.1	324.0	234.1	184.1	263.7	192.7
MEAN	15.3	22.2	24.7	15.3	14.5	12.2	15.1	10.5	7.80	5.94	8.51	6.42
MAX	30	61	49	20	44	17	45	15	12	7.2	12	8.7
MIN	6.1	8.9	9.7	12	8.5	8.4	5.3	5.7	5.1	5.3	5.5	5.4
CFSM	2.93	4.24	4.72	2.92	2.77	2.33	2.88	1.99	1.49	1.13	1.62	1.23
IN.	3.38	4.73	5.44	3.37	2.99	2.68	3.22	2.30	1.66	1.31	1.87	1.37

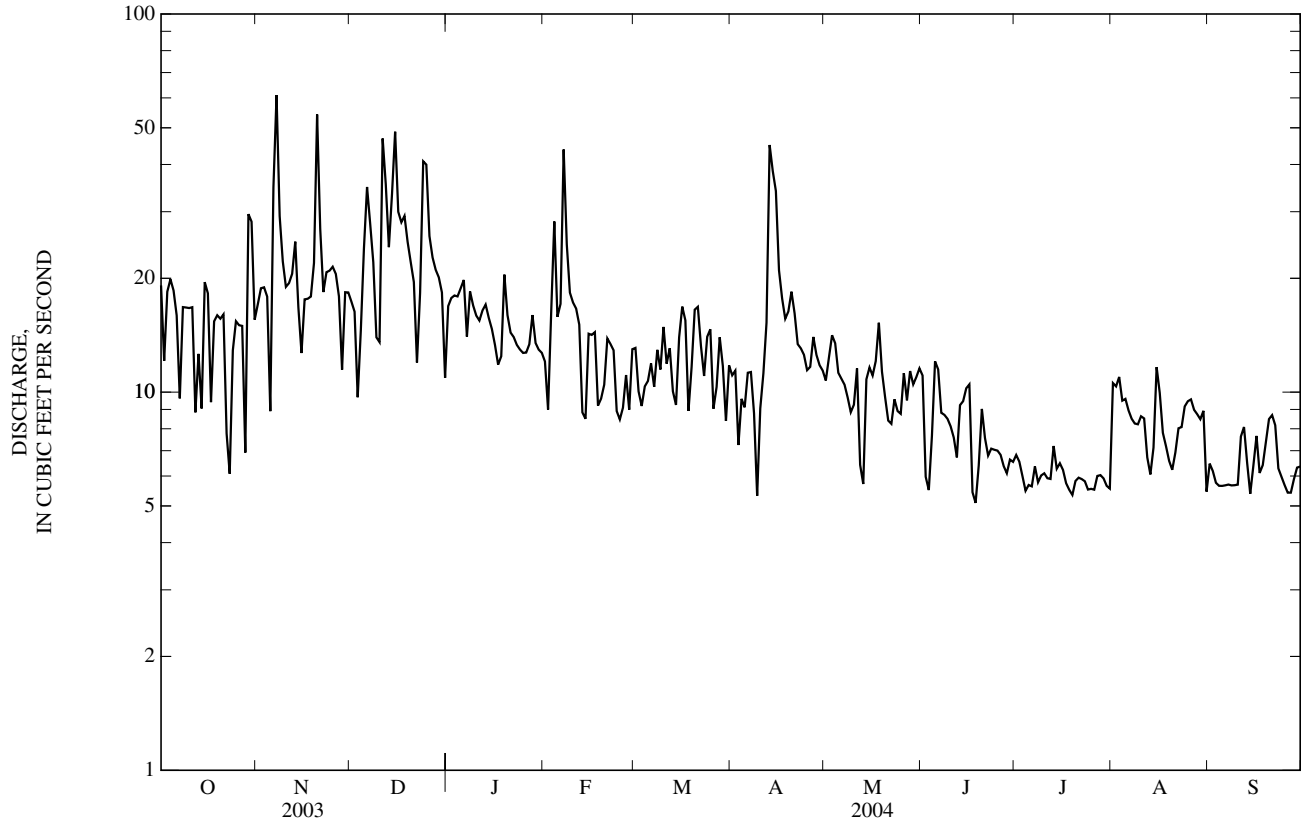
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 2004, BY WATER YEAR (WY)

MEAN	3.81	5.28	7.15	9.47	10.7	12.7	10.7	7.96	5.95	4.54	5.38	4.03
MAX	15.3	22.2	24.7	24.8	29.9	31.2	24.4	19.7	25.3	20.4	24.8	19.8
(WY)	(2004)	(2004)	(2004)	(1978)	(1998)	(1994)	(1983)	(1948)	(1948)	(2003)	(1989)	(2003)
MIN	0.67	0.77	0.76	0.92	1.19	4.05	3.78	2.36	1.80	1.21	0.65	0.67
(WY)	(1989)	(1989)	(1989)	(1989)	(1989)	(1966)	(1985)	(1985)	(1977)	(1977)	(1944)	(1988)

01484500 STOCKLEY BRANCH AT STOCKLEY, DE—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1943 - 2004	
ANNUAL TOTAL	6,757.2		4,835.3			
ANNUAL MEAN	18.5		13.2		7.31	
HIGHEST ANNUAL MEAN					17.0	2003
LOWEST ANNUAL MEAN					3.24	1966
HIGHEST DAILY MEAN	92	Feb 23	61	Nov 7	195	Mar 3, 1994
LOWEST DAILY MEAN	5.3	(a)	5.1	Jun 18	0.07	Aug 27, 2002
ANNUAL SEVEN-DAY MINIMUM	9.4	Feb 3	5.7	Jul 18	0.13	Sep 2, 1944
MAXIMUM PEAK FLOW			92	Nov 7	(b)303	Mar 3, 1994
MAXIMUM PEAK STAGE			4.22	Nov 7	5.63	Aug 14, 2001
INSTANTANEOUS LOW FLOW			3.0	Jul 8	0.00	(c)
ANNUAL RUNOFF (CFSM)	3.53		2.52		1.39	
ANNUAL RUNOFF (INCHES)	47.97		34.33		18.95	
10 PERCENT EXCEEDS	27		21		15	
50 PERCENT EXCEEDS	17		11		5.4	
90 PERCENT EXCEEDS	9.5		5.9		1.6	

a Jan. 29, 30.
b From rating curve extended above 150 ft^3/s.
d Aug. 22, 27, 28, 2002.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01484525 MILLSBORO POND OUTLET AT MILLSBORO, DE

LOCATION.--Lat 38°35'40.4", long 75°17'27.7" Hydrologic Unit 02060010, on right bank just upstream from Millsboro Pond Dam, 10 ft upstream from bridge on State Highway 24, at Millsboro.

DRAINAGE AREA.--66.0 mi^2.

PERIOD OF RECORD.--May 1986 to September 1988, March 1991 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1.98 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records fair. Outflow from lake controlled by sluice gates at outlet. No gate openings during water year. Natural flow of stream affected by inflow from sand mine dewatering process. U.S. Geological Survey gage-height telemeter at station. Several measurements of water temperature were made during the period.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 564 ft^3/s, Dec. 15, gage height, 3.87 ft; minimum discharge, 34 ft^3/s, July 12.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	128	152	165	202	135	123	122	138	95	49	80	94
2	118	135	160	201	131	124	123	135	85	47	165	85
3	118	125	156	195	147	122	116	143	71	47	161	81
4	118	119	146	190	269	122	111	142	70	44	118	80
5	118	114	188	196	231	121	105	133	86	44	93	78
6	114	147	288	223	189	130	100	124	87	44	93	77
7	113	210	317	212	343	133	100	123	84	40	85	73
8	109	206	267	196	370	131	102	123	77	44	81	70
9	105	206	224	192	254	126	95	119	68	44	77	69
10	102	206	197	180	224	122	93	118	71	44	77	70
11	105	189	328	169	211	121	115	118	90	44	77	68
12	113	185	507	161	199	117	135	109	88	46	76	67
13	103	189	334	167	183	108	324	102	82	67	64	67
14	100	191	290	171	176	102	467	101	75	62	75	65
15	123	181	450	162	169	106	412	97	70	57	145	66
16	116	171	296	159	164	124	342	93	70	52	163	70
17	111	162	191	162	161	142	256	94	70	45	150	69
18	104	152	174	174	165	127	224	127	67	47	118	76
19	99	170	209	219	160	129	194	124	61	51	99	93
20	97	343	255	202	157	126	180	103	60	51	93	85
21	90	417	237	175	160	125	173	98	58	47	88	69
22	86	288	223	164	156	121	169	94	55	44	88	64
23	82	236	208	160	152	113	165	89	54	44	88	61
24	80	218	262	154	146	107	177	85	54	44	86	58
25	80	202	461	150	138	108	160	85	54	49	84	57
26	80	192	348	148	135	105	153	102	54	51	84	57
27	85	182	278	154	132	103	172	95	54	49	84	57
28	93	171	250	175	126	103	169	97	54	51	84	57
29	148	172	231	169	123	102	148	95	54	57	84	62
30	202	170	221	136	---	101	141	85	54	52	83	58
31	193	---	214	137	---	106	---	88	---	46	100	---
TOTAL	3,433	5,801	8,075	5,455	5,306	3,650	5,343	3,379	2,072	1,503	3,043	2,103
MEAN	111	193	260	176	183	118	178	109	69.1	48.5	98.2	70.1
MAX	202	417	507	223	370	142	467	143	95	67	165	94
MIN	80	114	146	136	123	101	93	85	54	40	64	57
CFSM	1.68	2.93	3.95	2.67	2.77	1.78	2.70	1.65	1.05	0.73	1.49	1.06
IN.	1.93	3.27	4.55	3.07	2.99	2.06	3.01	1.90	1.17	0.85	1.72	1.19

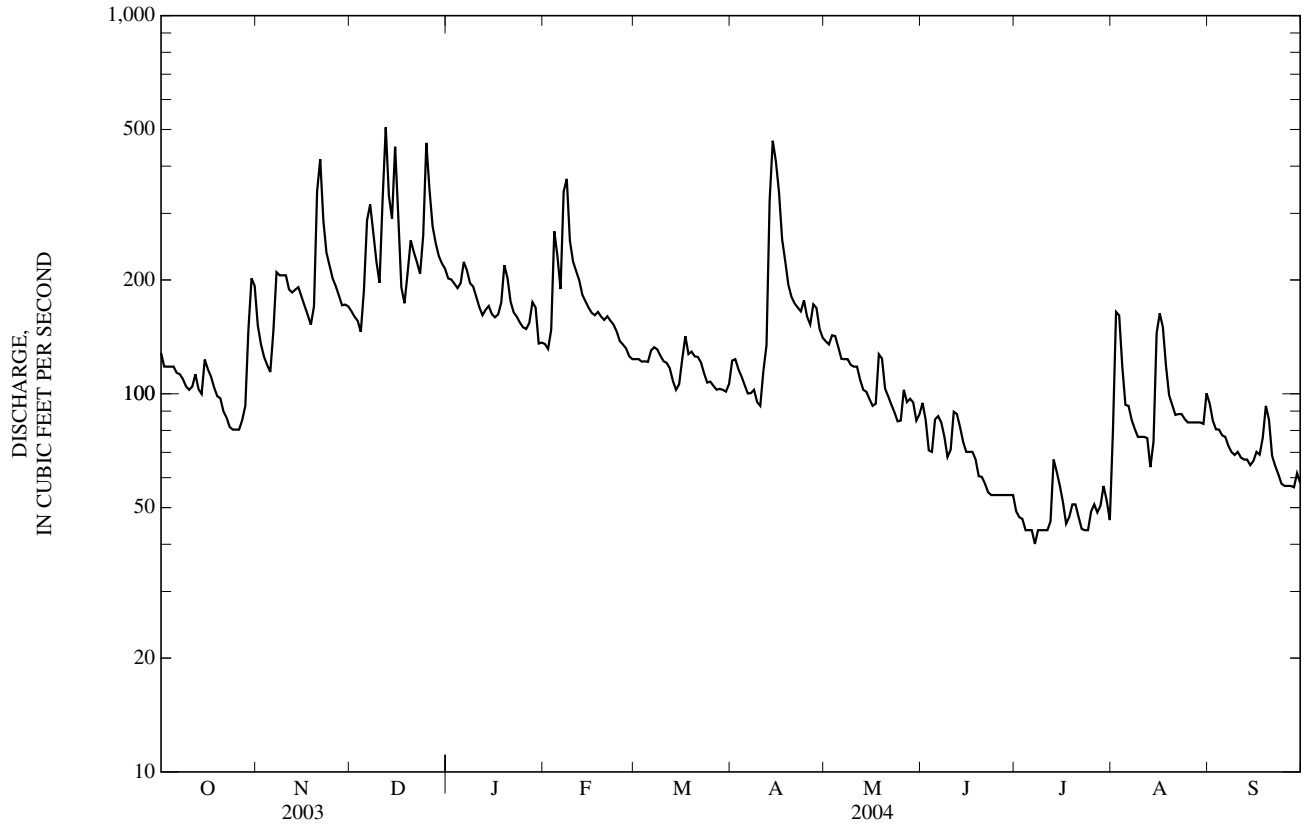
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 1988, 1991 - 2004, BY WATER YEAR (WY)

MEAN	56.1	70.3	93.2	104	143	159	144	103	73.0	55.4	62.6	62.6
MAX	111	193	260	176	428	373	286	205	190	168	148	157
(WY)	(2004)	(2004)	(2004)	(2004)	(1998)	(1994)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)
MIN	20.8	24.3	33.2	40.5	33.5	44.5	69.1	47.3	30.1	15.9	15.3	20.1
(WY)	(1987)	(1988)	(1988)	(2002)	(2002)	(2002)	(1995)	(1986)	(2002)	(2002)	(2002)	(1986)

01484525 MILLSBORO POND OUTLET AT MILLSBORO, DE—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1986 - 1988, 1991- 2004	
ANNUAL TOTAL	67,942		49,163			
ANNUAL MEAN	186		134		95.1	
HIGHEST ANNUAL MEAN					173	2003
LOWEST ANNUAL MEAN					42.3	2002
HIGHEST DAILY MEAN	648	Apr 12	507	Dec 12	1,260	Mar 4, 1994
LOWEST DAILY MEAN	68	Jul 2	40	Jul 7	(a,e)0.00	Aug 30, 1998
ANNUAL SEVEN-DAY MINIMUM	83	Oct 21	43	Jul 4	10	Aug 9, 2002
MAXIMUM PEAK FLOW			564	Dec 15	(b)1,770	Mar 3, 1994
MAXIMUM PEAK STAGE			3.87	Dec 15	4.94	Mar 3, 1994
INSTANTANEOUS LOW FLOW			34	Jul 12	(a)0.00	(c)
ANNUAL RUNOFF (CFSM)	2.82		2.04		1.44	
ANNUAL RUNOFF (INCHES)	38.29		27.71		19.59	
10 PERCENT EXCEEDS	277		222		177	
50 PERCENT EXCEEDS	169		118		74	
90 PERCENT EXCEEDS	107		56		29	

a As a result of lake being refilled.
e Estimated.
b From rating curve extended above 1,500 ft^3/s.
c Aug. 29-31, 1998.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01484695 BEAVERDAM DITCH NEAR MILLVILLE, DE

LOCATION.--Lat 38°31'17.2", long 75°08'00.2", Sussex County, Hydrologic Unit 02060010, at culverts on Road No. 368, 1.6 mi upstream from mouth, and 2.1 mi southwest of Millville.

DRAINAGE AREA.--2.24 mi^2.

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

GAGE.--Water-stage recorder. Elevation of gage is 10 ft above National Geodetic Vertical Datum of 1929. from topographic map.

REMARKS.--Records good except those for estimated daily discharges (missing record), which are poor. Flow occasionally affected by releases from sand pits located upstream from station. U.S. Geological Survey gage-height telemeter at station. Several measurements of water temperature were made during the year. Water-quality data for some prior years have been collected at this location.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 50 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 29	1400	56	3.41	Dec 24	1600	51	3.30
Nov 6	2300	71	3.74	Apr 13	1900	74	3.81
Dec 11	1300	100	4.27	Aug 2	1345	62	3.55
Dec 14	2100	*128	*4.70				

Minimum discharge, 0.05 ft^3/s, July 9, 10, 11, 12.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	6.2	3.1	6.1	3.3	2.5	2.9	2.8	1.0	0.09	4.4	1.3
2	1.8	4.9	2.9	5.9	3.0	2.5	2.8	2.6	0.86	0.30	42	1.0
3	1.4	4.1	2.6	5.8	5.5	2.5	2.5	2.7	0.72	0.40	48	0.89
4	1.3	3.5	2.4	5.6	8.8	2.4	2.4	2.7	0.68	0.38	24	0.80
5	1.1	3.1	14	7.0	5.9	2.3	2.0	2.4	1.6	0.25	13	0.77
6	0.99	22	34	12	8.9	2.5	1.6	2.1	1.4	0.16	16	0.69
7	0.86	46	17	8.1	36	2.5	1.5	1.9	1.2	0.12	8.8	0.62
8	0.79	13	9.3	6.5	14	2.9	1.4	1.8	0.90	0.11	5.7	0.60
9	0.72	7.7	7.4	5.9	9.4	2.8	1.4	1.6	0.73	0.09	4.2	0.58
10	0.68	5.9	7.1	5.4	8.3	2.5	1.3	1.5	0.79	0.07	3.7	0.52
11	0.75	5.0	68	4.8	7.3	2.2	2.9	1.3	1.6	0.06	2.8	0.43
12	0.75	4.7	27	4.7	6.3	2.1	7.9	1.2	1.4	0.18	2.3	0.39
13	0.67	7.4	10	4.7	5.7	1.8	60	1.0	1.1	0.41	2.1	0.36
14	0.72	5.8	51	4.5	5.2	1.6	42	e0.96	0.85	0.27	3.5	0.35
15	3.8	4.3	70	e4.3	4.8	1.6	19	0.82	0.73	0.22	26	1.0
16	2.6	3.5	17	e4.0	4.1	2.2	12	0.84	0.65	0.16	30	1.8
17	1.5	3.2	23	3.8	3.8	3.1	9.6	1.1	0.60	0.12	19	1.3
18	1.3	2.9	21	6.6	4.7	2.9	7.8	0.96	0.57	4.4	9.9	1.3
19	1.0	5.4	13	9.8	5.1	4.6	6.5	0.85	0.43	7.3	6.9	1.5
20	0.82	36	10	6.4	5.8	4.2	5.5	0.79	0.35	2.5	5.2	1.1
21	0.63	13	8.4	4.8	5.5	3.7	4.9	0.77	0.30	1.5	4.2	0.92
22	0.61	8.0	7.6	4.3	4.6	3.0	4.4	0.74	0.25	0.99	3.4	0.77
23	0.56	6.3	7.0	3.7	3.9	2.5	4.1	0.64	0.24	0.78	2.8	0.67
24	0.44	5.4	31	3.2	3.6	2.2	5.0	0.55	0.23	0.71	2.3	0.59
25	0.36	4.8	23	2.8	3.4	1.9	4.1	0.58	0.21	1.0	1.9	0.51
26	0.35	4.2	12	2.8	3.1	1.8	3.8	1.5	0.24	0.86	1.7	0.46
27	0.51	3.8	9.5	5.5	2.9	1.7	5.7	1.1	0.21	0.74	1.5	0.42
28	0.83	3.7	8.1	13	2.8	1.7	4.5	1.2	0.19	4.8	1.3	0.51
29	36	3.8	7.4	6.6	2.7	1.5	3.5	1.1	0.16	8.4	1.2	0.94
30	21	3.4	7.1	5.2	---	1.5	3.1	0.83	0.12	4.2	1.1	0.81
31	8.6	---	6.6	4.1	---	2.4	---	1.0	---	2.6	1.6	---
TOTAL	95.64	251.0	537.5	177.9	188.4	75.6	236.1	41.93	20.31	44.17	300.5	23.90
MEAN	3.09	8.37	17.3	5.74	6.50	2.44	7.87	1.35	0.68	1.42	9.69	0.80
MAX	36	46	70	13	36	4.6	60	2.8	1.6	8.4	48	1.8
MIN	0.35	2.9	2.4	2.8	2.7	1.5	1.3	0.55	0.12	0.06	1.1	0.35
CFSM	1.38	3.74	7.74	2.56	2.90	1.09	3.51	0.60	0.30	0.64	4.33	0.36
IN.	1.59	4.17	8.93	2.95	3.13	1.26	3.92	0.70	0.34	0.73	4.99	0.40

e Estimated

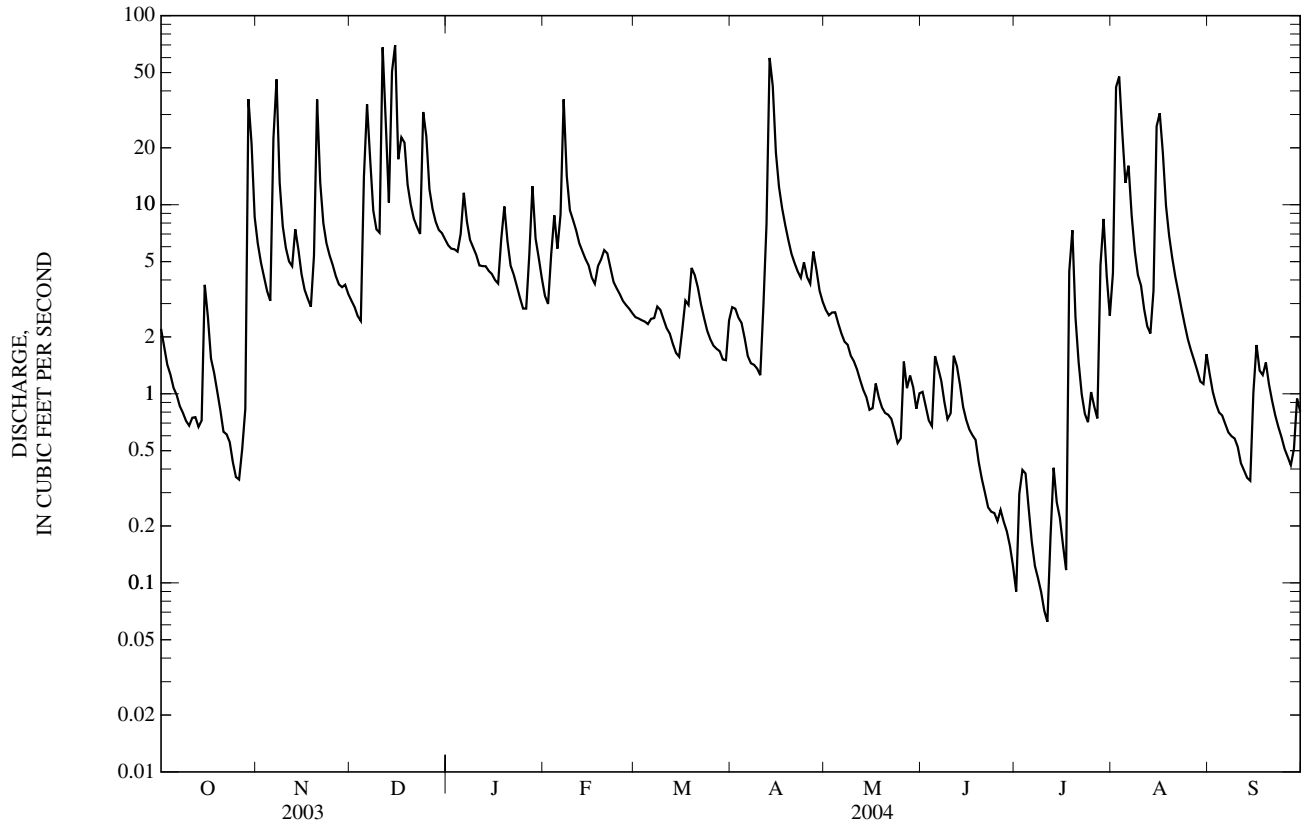
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2004, BY WATER YEAR (WY)

MEAN	3.24	4.42	5.25	3.76	6.31	6.56	6.42	2.68	2.89	2.10	3.32	2.70
MAX	7.69	14.3	17.3	5.74	15.1	11.3	12.5	7.20	6.73	7.47	9.69	5.88
(WY)	(2003)	(2003)	(2004)	(2004)	(2003)	(2000)	(2003)	(2003)	(2000)	(2000)	(2004)	(2000)
MIN	0.10	0.09	0.25	0.77	0.71	2.15	2.76	0.78	0.14	0.13	0.06	0.15
(WY)	(1999)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(1999)	(2002)	(1999)	(2002)	(1998)

01484695 BEAVERDAM DITCH NEAR MILLVILLE, DE—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1998 - 2004	
ANNUAL TOTAL	2,618.55		1,992.95			
ANNUAL MEAN	7.17		5.45		4.16	
HIGHEST ANNUAL MEAN					7.29	2003
LOWEST ANNUAL MEAN					1.19	2002
HIGHEST DAILY MEAN	78	Apr 11	70	Dec 15	119	Mar 22, 2000
LOWEST DAILY MEAN	0.35	Oct 26	0.06	Jul 11	0.00	(a)
ANNUAL SEVEN-DAY MINIMUM	0.49	Oct 21	0.11	Jul 6	0.01	Jul 12, 2002
MAXIMUM PEAK FLOW			128	Dec 14	(b)147	Mar 22, 2000
MAXIMUM PEAK STAGE			4.70	Dec 14	4.97	Mar 22, 2000
INSTANTANEOUS LOW FLOW			0.05	(c)	0.00	(d)
ANNUAL RUNOFF (CFSM)	3.20		2.43		1.86	
ANNUAL RUNOFF (INCHES)	43.49		33.10		25.22	
10 PERCENT EXCEEDS	15		12		9.1	
50 PERCENT EXCEEDS	4.1		2.6		1.8	
90 PERCENT EXCEEDS	0.78		0.44		0.12	

a July 17, 18, 2002.
b From rating curve extended above 55 ft^3/s.
c July 9-12.
d July 8-13, 15-18, Aug. 14, 22, 2002.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

0148471320 BIRCH BRANCH AT SHOWELL, MD

LOCATION.--Lat 38°24'33.6", long 75°12'44.6", Worchester County, Hydrologic Unit 02060010, on right bank at downstream side of bridge on U.S. Highway 113, 0.75 mi north of Showell, and 1.1 mi upstream from mouth.

DRAINAGE AREA.--6.38 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair except those for estimated daily discharges (missing record), which are poor. U.S. Geological Survey gage-height telemeter at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 29	1015	221	8.04	Dec 24	1200	175	7.71
Nov 6	2000	215	8.00	Feb 7	0215	145	7.47
Nov 20	0500	119	7.23	Apr 13	0600	208	7.95
Dec 11	0830	259	8.27	Aug 1	1800	262	8.29
Dec 14	1700	*443	*9.04	Aug 3	0900	142	7.44
Dec 17	1500	105	7.08	Aug 16	1130	271	8.34

Minimum discharge, 0.55 ft^3/s, July 10.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.7	14	6.9	10	e4.6	4.1	9.8	3.9	8.8	1.0	72	3.6
2	5.0	12	6.1	9.9	e13	4.1	9.4	3.7	6.4	1.0	36	2.8
3	4.4	11	5.7	9.9	e35	3.9	8.2	4.4	4.6	1.0	64	2.4
4	4.1	9.9	5.4	9.5	e18	3.7	7.4	4.6	3.8	e1.0	19	2.1
5	3.7	9.4	32	18	13	3.8	5.5	4.0	6.0	0.97	24	2.7
6	3.4	62	58	29	23	4.7	e4.3	3.5	5.0	0.90	28	2.2
7	3.2	80	27	17	85	4.4	4.1	3.4	3.8	0.85	11	2.0
8	3.0	28	16	12	27	8.2	3.7	3.9	3.0	0.83	7.2	1.9
9	2.9	17	12	11	18	6.7	3.5	4.1	2.5	0.75	5.2	1.9
10	2.8	13	11	9.4	17	6.2	3.1	3.3	2.1	0.60	4.0	1.8
11	2.9	11	132	7.8	14	6.6	14	2.6	1.9	0.58	3.3	1.7
12	3.3	11	42	8.1	e11	5.5	34	2.1	2.0	1.4	2.8	1.6
13	3.2	13	21	8.4	e10	4.2	150	1.9	1.7	2.6	2.6	1.5
14	3.2	10	138	7.6	9.4	3.7	66	1.7	1.6	e1.3	6.1	1.4
15	15	9.0	85	7.6	8.6	3.8	40	1.5	1.5	e1.1	41	3.2
16	8.4	8.1	33	5.8	7.4	6.2	23	1.8	1.5	0.86	112	4.2
17	6.7	8.0	56	5.2	7.0	9.3	17	6.0	1.6	0.77	37	3.5
18	6.7	7.6	39	e23	9.3	8.3	12	7.5	1.6	3.7	17	5.7
19	6.0	13	24	e27	e11	13	10	4.1	1.4	2.5	11	7.9
20	5.2	73	19	15	11	10	8.5	3.3	1.3	1.2	8.3	4.9
21	5.1	26	15	11	10	9.0	7.2	3.0	1.2	0.99	e6.9	3.7
22	5.0	17	13	9.6	8.3	7.1	6.1	2.4	1.3	0.88	6.1	3.1
23	4.7	13	12	8.3	7.1	5.9	5.3	1.9	e1.3	0.85	5.0	2.6
24	4.1	11	85	6.7	6.8	5.4	6.2	1.6	e1.3	0.86	4.3	2.2
25	3.8	9.9	41	e4.8	6.0	4.9	4.6	1.8	1.2	0.90	3.6	2.0
26	4.1	8.7	e24	e7.0	5.2	4.5	5.1	14	1.6	0.98	3.2	1.9
27	5.0	8.1	e18	e18	5.0	4.1	13	5.9	1.3	0.96	2.9	1.8
28	6.8	8.1	15	e14	4.6	3.9	7.9	8.2	1.2	1.7	2.5	2.5
29	107	8.4	13	e11	4.3	3.6	5.5	6.1	1.2	1.4	2.2	3.3
30	38	7.3	13	e8.4	---	3.9	4.5	4.4	1.1	1.0	2.1	3.2
31	20	---	11	e6.0	---	6.8	---	8.4	---	0.86	4.2	---
TOTAL	302.4	537.5	1,029.1	356.0	409.6	179.5	498.9	129.0	74.8	36.29	554.5	85.3
MEAN	9.75	17.9	33.2	11.5	14.1	5.79	16.6	4.16	2.49	1.17	17.9	2.84
MAX	107	80	138	29	85	13	150	14	8.8	3.7	112	7.9
MIN	2.8	7.3	5.4	4.8	4.3	3.6	3.1	1.5	1.1	0.58	2.1	1.4
CFSM	1.53	2.81	5.20	1.80	2.21	0.91	2.61	0.65	0.39	0.18	2.80	0.45
IN.	1.76	3.13	6.00	2.08	2.39	1.05	2.91	0.75	0.44	0.21	3.23	0.50

e Estimated

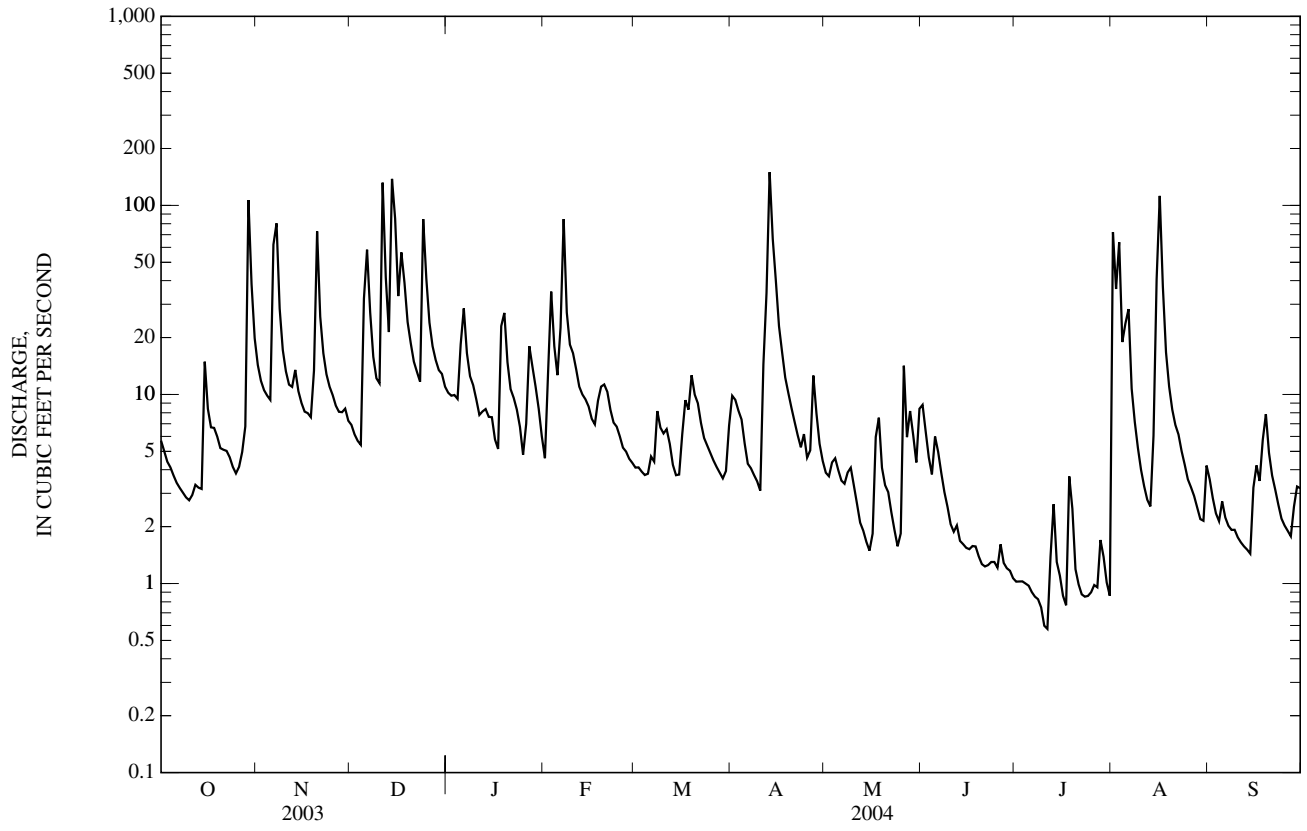
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2004, BY WATER YEAR (WY)

MEAN	4.27	10.2	11.5	6.27	13.4	13.9	13.6	7.09	5.12	3.52	5.96	7.36
MAX	9.75	21.0	33.2	11.5	27.9	25.7	24.3	19.5	10.0	6.79	17.9	23.3
(WY)	(2004)	(2003)	(2004)	(2004)	(2003)	(2000)	(2003)	(2003)	(2003)	(2003)	(2004)	(2003)
MIN	0.59	0.44	0.53	1.19	1.41	3.37	4.69	3.10	0.83	0.28	0.18	0.63
(WY)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2000)	(2002)	(2002)	(2002)	(2001)

0148471320 BIRCH BRANCH AT SHOWELL, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 2000 - 2004	
ANNUAL TOTAL	6,071.9		4,192.89			
ANNUAL MEAN	16.6		11.5		8.51	
HIGHEST ANNUAL MEAN					14.9	2003
LOWEST ANNUAL MEAN					1.82	2002
HIGHEST DAILY MEAN	149	Apr 11	150	Apr 13	311	Mar 22, 2000
LOWEST DAILY MEAN	1.3	Aug 26	0.58	Jul 11	0.14	(a)
ANNUAL SEVEN-DAY MINIMUM	1.6	Aug 23	0.78	Jul 5	0.14	Aug 21, 2002
MAXIMUM PEAK FLOW			443	Dec 14	(b)563	Mar 22, 2000
MAXIMUM PEAK STAGE			9.04	Dec 14	9.38	Mar 22, 2000
INSTANTANEOUS LOW FLOW			0.55	Jul 10	0.14	(c)
ANNUAL RUNOFF (CFSM)	2.61		1.80		1.33	
ANNUAL RUNOFF (INCHES)	35.40		24.45		18.13	
10 PERCENT EXCEEDS	38		24		18	
50 PERCENT EXCEEDS	8.6		5.7		3.9	
90 PERCENT EXCEEDS	3.0		1.4		0.55	

a Aug. 21-23, 26, 27, 2002.
b From rating curve extended above 230 ft^3/s.
c Aug. 19-28, 2002.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01484719 BASSETT CREEK NEAR IRONSHIRE, MD

LOCATION.--Lat 38°16'04", long 75°14'41", Worcester County Hydrologic Unit 02060010, upstream side of bridge on U.S. Highway 113, 0.8 mi upstream from mouth, and 1.4 mi south of Ironshire.

DRAINAGE AREA.--1.22 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 2002 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 3.33 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good except those for estimated daily discharges (ice effect, recorder malfunction), which are poor. U.S. Geological Survey gage-height telemeter at station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 25 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 29	1015	*84	*14.32	Apr 13	0530	65	13.96
Nov 6	1900	44	13.51	Apr 13	1915	40	13.39
Dec 11	0900	49	13.61	Jul 13	0145	49	13.62
Dec 14	1730	78	14.22	Aug 1	1900	58	13.82
Dec 24	1200	52	13.69	Aug 3	0730	78	14.22
Jan 5	2100	27	12.97	Aug 14	2345	26	12.94
Feb 7	0300	27	12.98	Aug 16	1115	76	14.17

Minimum discharge, 0.21 ft^3/s, July 5- 9.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	3.0	1.1	2.7	e2.0	1.3	2.6	1.1	1.8	0.25	15	1.1
2	1.2	2.8	1.0	2.5	1.9	1.4	2.2	1.1	0.78	0.35	14	0.90
3	0.92	2.5	0.88	2.5	6.3	1.4	2.0	1.4	0.45	0.31	34	0.82
4	0.82	2.3	0.82	2.6	6.4	1.3	1.8	1.4	0.41	0.27	11	0.82
5	0.67	2.2	11	8.3	3.1	1.3	1.6	1.0	1.2	0.25	12	0.75
6	0.58	14	9.5	12	5.7	1.7	1.4	e1.3	0.80	0.25	11	0.82
7	0.52	15	4.6	5.6	19	1.7	1.3	1.0	0.58	0.23	5.8	0.77
8	0.48	5.7	2.5	4.0	8.0	2.7	1.3	1.3	0.41	0.22	3.9	0.68
9	0.48	3.4	1.8	3.6	5.3	1.9	1.3	0.97	0.37	0.24	2.6	0.79
10	0.48	e2.5	1.6	e2.8	4.5	2.1	1.3	0.79	0.33	0.25	1.6	0.74
11	0.64	2.1	27	e2.6	3.6	2.1	6.6	0.60	0.33	0.25	1.1	0.68
12	0.74	2.2	9.4	e2.2	2.9	1.8	11	0.54	0.39	0.44	0.91	0.68
13	0.51	1.8	5.8	2.4	2.5	1.6	40	0.45	0.34	15	0.99	0.68
14	e0.76	1.5	30	2.1	2.1	1.5	18	0.44	0.32	0.96	5.7	0.68
15	e12	1.5	19	2.1	1.9	1.5	11	0.41	0.30	0.40	14	4.9
16	e7.1	1.3	9.5	2.0	1.6	2.4	7.8	0.41	0.30	0.30	32	2.3
17	e4.8	1.3	12	1.7	1.7	2.6	5.9	0.41	0.30	e0.25	12	0.96
18	e3.2	1.2	9.7	11	2.5	2.0	4.6	0.45	0.32	0.95	7.1	2.9
19	e1.8	2.6	6.9	9.2	2.5	3.8	3.0	0.67	0.30	1.2	5.0	2.4
20	e0.94	13	5.6	e4.5	2.2	2.6	1.5	0.96	0.30	0.39	3.4	1.1
21	0.48	4.2	4.5	e2.9	2.0	2.3	1.1	0.61	0.30	e0.31	5.4	0.81
22	0.48	2.3	3.6	2.7	1.8	1.9	0.97	0.43	0.30	0.27	5.7	0.77
23	0.44	1.6	2.7	e2.0	1.7	1.7	0.89	0.37	0.30	0.25	2.4	0.73
24	0.41	1.4	26	e1.6	1.6	1.6	0.83	0.33	0.30	0.27	1.7	0.63
25	0.41	1.4	13	e1.5	1.6	1.6	0.68	0.67	0.30	0.30	1.6	0.65
26	0.45	1.5	7.8	e1.3	1.5	1.5	1.0	3.4	0.44	0.32	1.3	0.68
27	0.48	1.3	6.1	9.4	1.5	1.5	3.4	0.76	0.29	0.33	1.2	0.68
28	e4.4	1.3	5.2	e9.3	1.4	1.5	2.0	0.76	0.25	0.69	e1.2	1.4
29	e44	1.4	4.3	e3.8	1.3	1.5	1.4	0.52	0.25	e0.69	0.97	1.7
30	e7.7	1.2	3.7	2.9	---	1.5	1.1	0.34	0.25	e0.38	0.88	1.5
31	3.8	---	3.1	e2.2	---	2.0	---	5.3	---	0.30	1.7	---
TOTAL	103.09	99.5	249.70	126.0	100.1	57.3	139.57	30.19	13.31	26.87	217.15	35.02
MEAN	3.33	3.32	8.05	4.06	3.45	1.85	4.65	0.97	0.44	0.87	7.00	1.17
MAX	44	15	30	12	19	3.8	40	5.3	1.8	15	34	4.9
MIN	0.41	1.2	0.82	1.3	1.3	1.3	0.68	0.33	0.25	0.22	0.88	0.63
CFSM	2.73	2.72	6.60	3.33	2.83	1.52	3.81	0.80	0.36	0.71	5.74	0.96
IN.	3.14	3.03	7.61	3.84	3.05	1.75	4.26	0.92	0.41	0.82	6.62	1.07

e Estimated

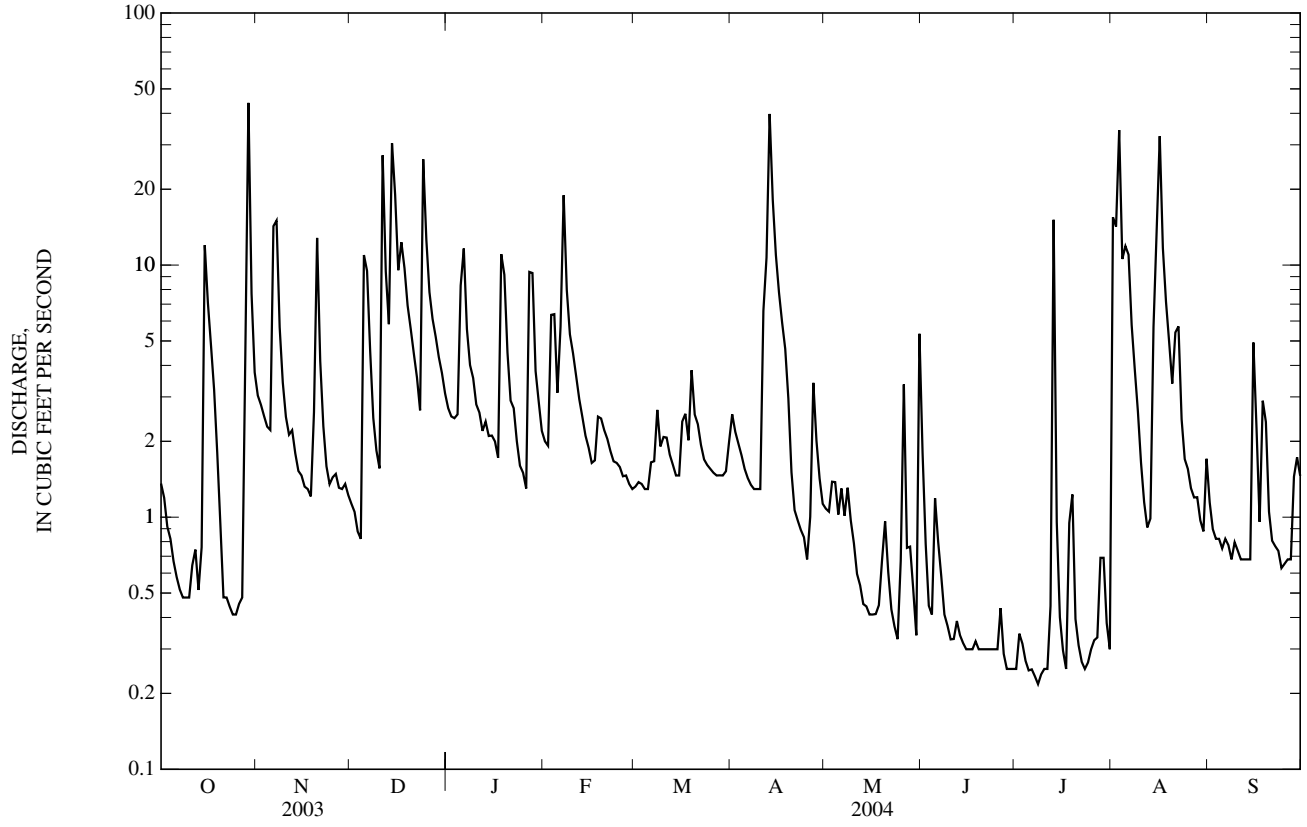
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2002 - 2004, BY WATER YEAR (WY)

MEAN	2.26	3.38	5.56	2.91	4.26	2.92	5.03	2.10	1.54	0.91	3.88	2.02
MAX	3.33	3.44	8.05	4.06	5.09	3.99	5.41	3.23	2.64	0.96	7.00	2.88
(WY)	(2004)	(2003)	(2004)	(2004)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2004)	(2003)
MIN	1.20	3.32	3.07	1.75	3.45	1.85	4.65	0.97	0.44	0.87	0.76	1.17
(WY)	(2003)	(2004)	(2003)	(2003)	(2004)	(2004)	(2004)	(2004)	(2004)	(2004)	(2003)	(2004)

01484719 BASSETT CREEK NEAR IRONSHIRE, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 2002 - 2004	
ANNUAL TOTAL	1,254.35		1,197.80			
ANNUAL MEAN	3.44		3.27		3.06	
HIGHEST ANNUAL MEAN					3.27	2004
LOWEST ANNUAL MEAN					2.84	2003
HIGHEST DAILY MEAN	44	Oct 29	44	Oct 29	44	Oct 29, 2003
LOWEST DAILY MEAN	0.41	(a)	0.22	Jul 8	0.06	(b)
ANNUAL SEVEN-DAY MINIMUM	0.44	Aug 21	0.24	Jul 5	0.06	Oct 4, 2002
MAXIMUM PEAK FLOW			84	Oct 29	(c)85	Apr 11, 2003
MAXIMUM PEAK STAGE			14.32	Oct 29	14.35	Apr 11, 2003
INSTANTANEOUS LOW FLOW			0.21	(d)	0.06	(f)
ANNUAL RUNOFF (CFSM)	2.82		2.68		2.51	
ANNUAL RUNOFF (INCHES)	38.25		36.52		34.06	
10 PERCENT EXCEEDS	7.9		8.6		7.1	
50 PERCENT EXCEEDS	1.9		1.5		1.7	
90 PERCENT EXCEEDS	0.58		0.33		0.44	

a Aug. 24 (estimated), 25, 26, Oct. 24, 25.
b Oct. 4-9, 2002.
c From rating curve extended above 47 ft^3/s on basis of slope-area measurements.
d July 5-9.
f Oct. 3-10, 2002.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01484719 BASSETT CREEK NEAR IRONSHIRE, MD—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1989 to September 2004 (discontinued).
PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 2002 to May 2004 (discontinued).
pH: October 2002 to September 2004 (discontinued).
WATER TEMPERATURE: October 2002 to September 2004 (discontinued).
DISSOLVED OXYGEN: October 2002 to September 2004 (discontinued).
INSTRUMENTATION.--Water-quality monitor since October 2002 to September 2004.
REMARKS.-- Missing record due to equipment malfunction. Records good.
EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 242 microsiemens/cm, Aug. 25, 2003; minimum, 55 microsiemens/cm, Feb. 17, 2003.
pH: Maximum, 7.2 units, Aug. 8, 2004; minimum, 4.5 units, Dec. 24, 25, 2003.
WATER TEMPERATURE: Maximum, 24.8°C July 31, 2004; minimum, -0.3°C, Jan. 27, 28, 2003.
DISSOLVED OXYGEN: Maximum, 12.2 mg/L, Feb. 17, 2004; minimum, 0.0 mg/L, Aug. 16, 2004.
EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 225 microsiemens/cm, May 25, 29, 30; minimum, 79 microsiemens/cm, Dec. 24.
pH: Maximum, 7.2 standard units, Aug. 8; minimum, 4.5 standard units, Nov. 6, Dec. 24, 25.
WATER TEMPERATURE: Maximum, 24.8°C, July 31; minimum, 0.0°C, Jan. 26.
DISSOLVED OXYGEN: Maximum, 12.2 mg/L, Feb. 17, 26; minimum, 0.0 mg/L, Aug. 16.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sample type	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Sampling method, code (82398)	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, air, deg C (00020)
OCT												
15...	0930	Environmental	1053	80020	16	10	751	4.8	49	5.2	184	17.0
23...	1130	Environmental	1028	80020	.53	10	--	7.6	--	5.5	215	13.0
29...	0953	Environmental	1053	80020	72	10	744	6.7	66	5.2	129	--
NOV												
19...	1315	Environmental	1028	80020	1.3	10	--	7.3	--	5.0	165	19.0
20...	0840	Environmental	1053	80020	15	10	747	6.8	65	4.8	136	10.9
DEC												
11...	1000	Environmental	1053	80020	54	10	736	7.8	73	4.9	130	9.0
23...	*1030*	*Blank*	*1028*	*80020*	--	--	--	--	--	--	--	--
23...	1415	Environmental	1028	80020	2.5	10	767	9.6	80	5.0	158	13.5
JAN												
27...	1115	Environmental	1053	80020	3.8	10	748	10.9	81	5.8	170	3.6
FEB												
04...	0920	Environmental	1053	80020	6.0	10	759	11.4	82	6.0	146	3.9

Date	Temperature, water, deg C (00010)	Ammonia water, fltrd, mg/L as N (00608)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, wat unf by analysis, mg/L (62855)	Sampler type, code (84164)
OCT									
15...	15.5	.06	.83	.85	.029	.169	.44	2.49	3001
23...	11.1	.06	2.41	2.42	.008	.014	.041	2.98	3001
29...	13.4	<.04	1.24	1.25	.011	.619	.94	2.72	3001
NOV									
19...	14.9	.07	1.43	1.43	.008	.024	.062	2.03	3001
20...	12.3	E.04	.75	.76	.009	.172	.38	2.01	3001
DEC									
11...	10.6	.07	1.33	1.34	.009	.251	.64	2.90	3001
23...	--	*<.04*	--	*<.06*	*<.008*	*E.003*	*E.002*	*<.03*	--
23...	7.8	E.03	--	1.93	<.008	.008	.030	2.49	3001
JAN									
27...	2.2	.09	--	2.28	E.004	.006	.033	2.65	3001
FEB									
04...	1.6	.11	2.00	2.01	.014	.029	.115	2.67	3001

Remark codes used in this table:
< -- Less than.
E -- Estimated.

Agency collecting sample: 1053 - National Park Service
1028 - U.S. Geological Survey
Agency analyzing sample: 80020 - USGS-National Water Quality Lab, Denver, CO
Sampling method code: 10 - Equal-width increment
Sampler type: 3001 - Sampler, US DH-48

01484719 BASSETT CREEK NEAR IRONSHIRE, MD—Continued

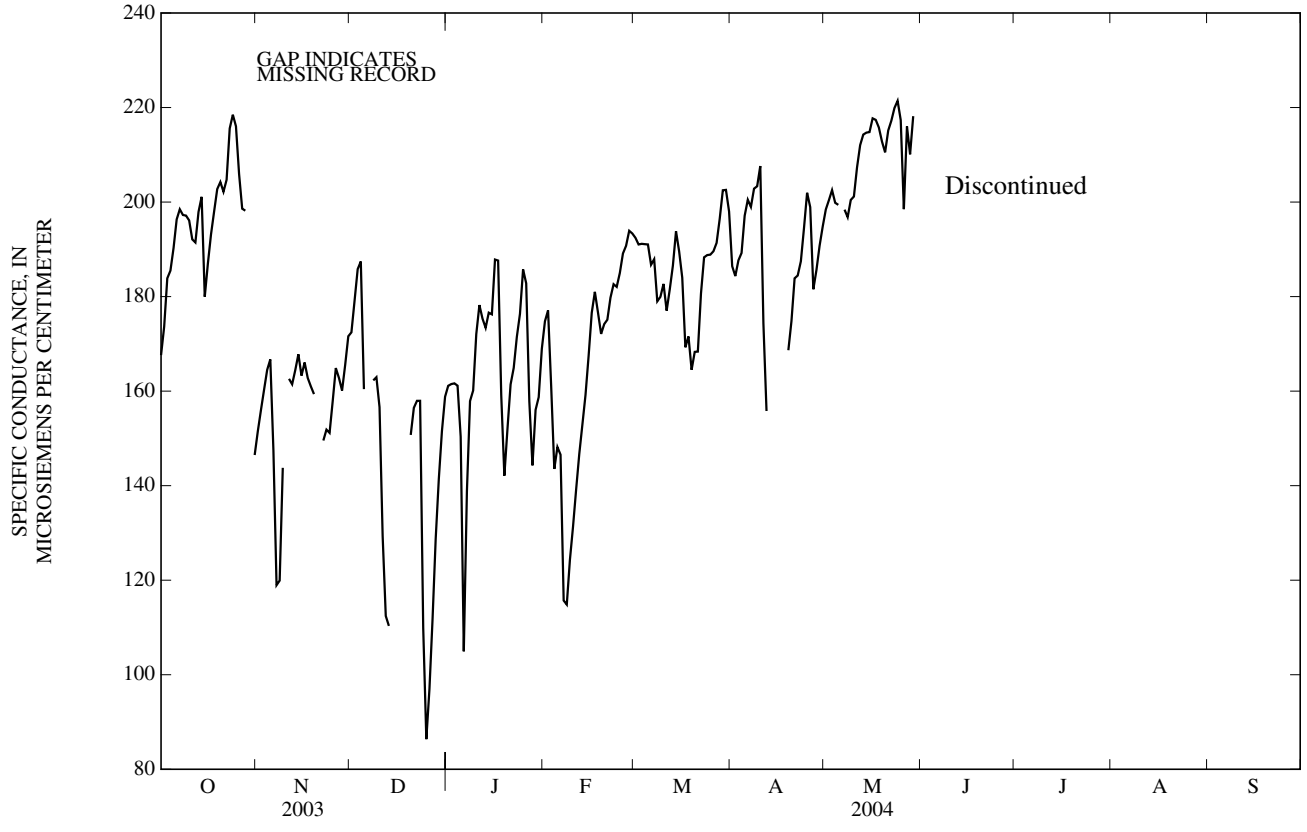
SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	169	164	168	154	149	151	175	170	172	163	159	161
2	180	169	174	160	154	156	183	175	179	164	159	161
3	186	180	184	161	158	160	188	183	186	163	161	162
4	187	184	186	166	161	165	192	184	187	162	159	161
5	194	186	190	168	166	167	184	148	160	162	111	150
6	199	194	196	168	88	147	---	---	---	115	92	105
7	201	196	198	138	90	119	---	---	---	155	109	139
8	199	195	197	140	105	120	166	160	162	160	155	158
9	201	194	197	164	107	144	166	161	163	166	158	160
10	198	195	196	---	---	---	165	114	157	177	166	172
11	196	188	192	164	160	163	156	110	129	181	177	178
12	196	189	191	163	158	161	132	97	112	178	169	175
13	202	196	198	170	159	164	116	105	110	176	171	173
14	205	175	201	176	161	168	---	---	---	179	174	177
15	186	170	180	166	159	163	---	---	---	183	174	176
16	191	183	187	169	162	166	---	---	---	191	183	188
17	195	191	193	165	159	163	---	---	---	192	183	188
18	202	194	198	164	159	161	---	---	---	184	132	159
19	206	200	203	166	141	159	---	---	---	145	126	142
20	208	202	204	---	---	---	154	145	151	157	145	152
21	204	200	202	---	---	---	160	154	156	164	157	161
22	212	201	205	152	148	150	159	156	158	168	163	165
23	220	212	216	156	149	152	159	156	158	175	164	171
24	221	216	218	154	149	151	158	79	110	182	174	176
25	221	210	216	165	149	158	92	82	86	188	182	186
26	210	199	206	169	162	165	104	92	97	187	179	183
27	200	195	199	165	161	163	124	104	112	179	129	158
28	200	188	198	162	158	160	135	122	129	154	129	144
29	---	---	---	172	159	166	148	135	141	158	153	156
30	---	---	---	174	170	172	157	147	152	164	156	159
31	149	144	146	---	---	---	161	157	159	172	163	169
MONTH	221	144	194	176	88	157	192	79	145	192	92	163
		FEBRUARY			MARCH			APRIL			MAY	
1	178	172	175	197	189	192	194	182	186	202	195	198
2	180	175	177	193	188	191	187	182	184	203	198	200
3	176	133	161	194	188	191	189	186	188	205	200	203
4	147	138	144	195	187	191	197	186	189	206	193	200
5	150	145	148	194	187	191	203	189	197	202	192	199
6	153	122	147	190	182	187	208	193	200	---	---	---
7	125	109	116	191	184	188	204	193	199	202	189	198
8	118	111	115	185	174	179	205	200	203	201	188	197
9	129	117	124	185	176	180	207	198	203	203	198	200
10	134	128	131	186	180	183	212	203	208	203	199	201
11	144	134	139	181	172	177	208	154	174	211	203	207
12	150	144	147	186	178	182	166	130	156	214	208	212
13	156	149	153	192	182	187	---	---	---	216	212	214
14	163	156	159	201	189	194	---	---	---	217	212	215
15	174	163	167	192	186	190	---	---	---	217	210	215
16	181	173	177	193	172	184	---	---	---	220	216	218
17	184	178	181	172	167	169	---	---	---	220	215	217
18	179	172	177	175	167	172	---	---	---	220	212	216
19	174	170	172	172	154	165	173	165	169	221	181	213
20	176	173	174	174	164	168	182	171	175	216	198	211
21	179	173	175	176	166	168	186	182	184	216	213	215
22	183	177	180	188	176	181	187	180	184	220	214	217
23	186	179	183	194	182	188	194	183	187	222	217	220
24	185	178	182	193	183	189	200	189	194	223	219	221
25	189	182	185	191	186	189	206	199	202	225	156	217
26	193	186	189	194	185	190	206	186	199	214	156	198
27	196	187	191	195	188	191	189	176	182	218	214	216
28	199	189	194	203	193	196	190	182	186	217	203	210
29	198	190	193	205	198	202	194	187	191	225	214	218
30	---	---	---	205	200	203	199	192	195	---	---	---
31	---	---	---	204	194	198	---	---	---	---	---	---
MONTH	199	109	164	205	154	186	212	130	189	225	156	210

01484719 BASSETT CREEK NEAR IRONSHIRE, MD—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
YEAR	225	79	176									



DAILY MEAN SPECIFIC CONDUCTIVITY - 2004 WATER YEAR

01484719 BASSETT CREEK NEAR IRONSHIRE, MD—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

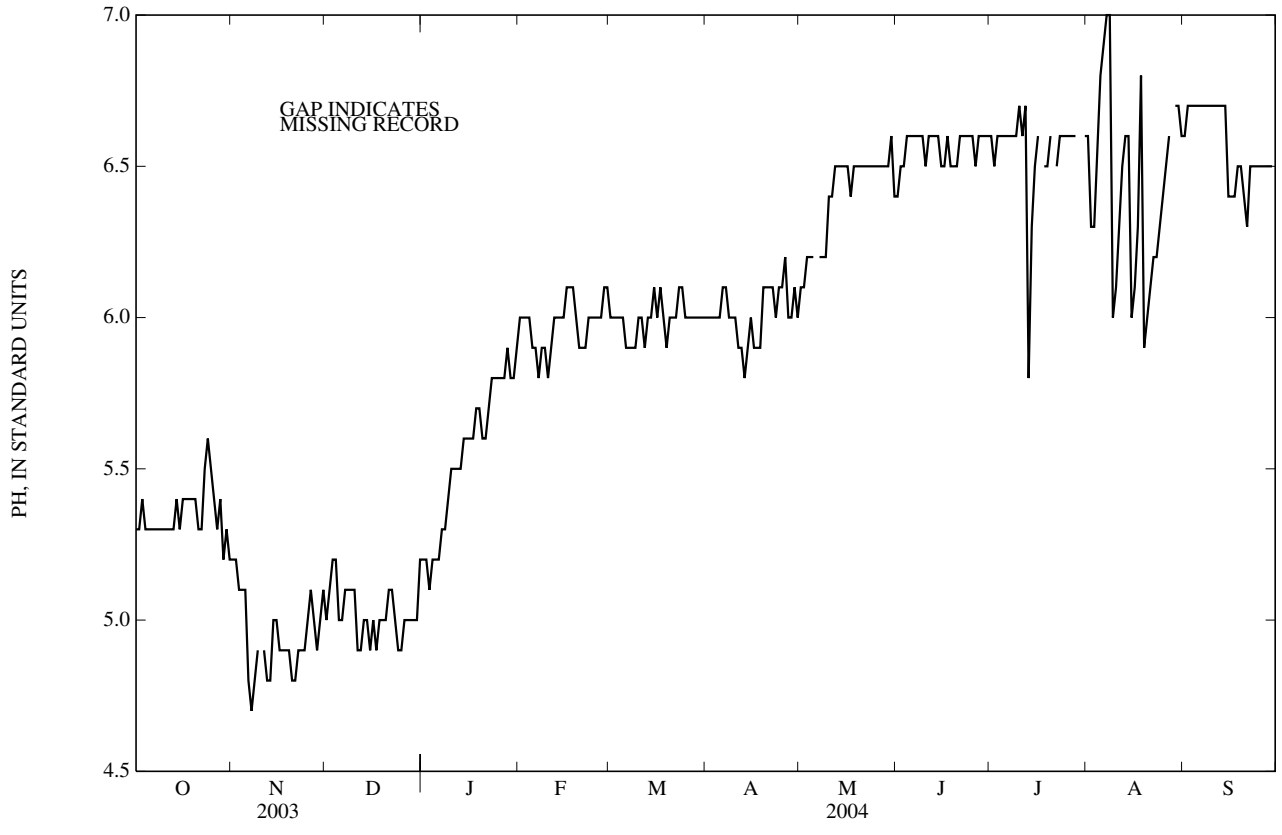
DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	5.3	5.2	5.3	5.3	5.2	5.2	5.1	5.0	5.0	5.2	5.1	5.2
2	5.3	5.2	5.3	5.3	5.2	5.2	5.2	5.1	5.1	5.2	5.1	5.2
3	5.4	5.3	5.4	5.3	5.0	5.1	5.2	5.1	5.2	5.2	5.1	5.1
4	5.4	5.3	5.3	5.2	4.9	5.1	5.3	5.2	5.2	5.3	5.1	5.2
5	5.4	5.3	5.3	5.2	5.0	5.1	5.2	5.0	5.0	5.2	5.0	5.2
6	5.4	5.3	5.3	5.0	4.5	4.8	5.1	5.0	5.0	5.3	5.1	5.2
7	5.4	5.3	5.3	4.9	4.6	4.7	5.1	5.1	5.1	5.3	5.2	5.3
8	5.3	5.3	5.3	5.0	4.8	4.8	5.1	5.1	5.1	5.4	5.2	5.3
9	5.4	5.3	5.3	4.9	4.8	4.9	5.2	5.1	5.1	5.4	5.4	5.4
10	5.4	5.3	5.3	---	---	---	5.1	5.0	5.1	5.5	5.3	5.5
11	5.3	5.3	5.3	4.9	4.8	4.9	5.0	4.6	4.9	5.5	5.5	5.5
12	5.3	5.2	5.3	5.0	4.7	4.8	5.0	4.9	4.9	5.5	5.4	5.5
13	5.4	5.3	5.3	5.0	4.8	4.8	5.0	4.9	5.0	5.6	5.5	5.5
14	5.5	5.2	5.4	5.0	5.0	5.0	5.0	4.9	5.0	5.6	5.5	5.6
15	5.4	5.1	5.3	5.0	5.0	5.0	5.0	4.9	4.9	5.6	5.5	5.6
16	5.5	5.3	5.4	5.0	4.9	4.9	5.0	4.8	5.0	5.6	5.6	5.6
17	5.4	5.3	5.4	4.9	4.9	4.9	5.0	4.8	4.9	5.6	5.6	5.6
18	5.5	5.4	5.4	5.0	4.9	4.9	5.1	4.9	5.0	5.7	5.6	5.7
19	5.5	5.4	5.4	5.0	4.7	4.9	5.2	5.0	5.0	5.7	5.6	5.7
20	5.5	5.4	5.4	4.8	4.7	4.8	5.2	5.0	5.0	5.7	5.6	5.6
21	5.4	5.3	5.3	4.9	4.8	4.8	5.1	5.0	5.1	5.7	5.6	5.6
22	5.4	5.3	5.3	4.9	4.8	4.9	5.1	4.9	5.1	5.7	5.6	5.7
23	5.6	5.4	5.5	5.2	4.9	4.9	5.0	4.9	5.0	5.8	5.7	5.8
24	5.7	5.5	5.6	5.0	4.8	4.9	5.0	4.5	4.9	5.8	5.8	5.8
25	5.7	5.4	5.5	5.0	4.9	5.0	5.0	4.5	4.9	5.8	5.8	5.8
26	5.4	5.3	5.4	5.1	5.0	5.1	5.0	4.7	5.0	5.8	5.8	5.8
27	5.4	5.3	5.3	5.1	4.9	5.0	5.1	4.9	5.0	5.9	5.8	5.8
28	5.4	5.3	5.4	5.0	4.8	4.9	5.1	5.0	5.0	5.9	5.8	5.9
29	5.4	5.1	5.2	5.1	4.8	5.0	5.1	5.0	5.0	5.9	5.8	5.8
30	5.3	5.2	5.3	5.1	5.0	5.1	5.2	5.0	5.0	5.8	5.8	5.8
31	5.3	5.2	5.2	---	---	---	5.2	5.1	5.2	5.9	5.8	5.9
MAX	5.7	5.5	5.6	5.3	5.2	5.2	5.3	5.2	5.2	5.9	5.8	5.9
MIN	5.3	5.1	5.2	4.8	4.5	4.7	5.0	4.5	4.9	5.2	5.0	5.1
		FEBRUARY			MARCH			APRIL			MAY	
1	6.0	5.9	6.0	6.3	5.9	6.0	6.3	5.9	6.0	6.1	6.0	6.1
2	6.0	6.0	6.0	6.1	6.0	6.0	6.0	6.0	6.0	6.2	6.0	6.1
3	6.0	5.9	6.0	6.2	5.9	6.0	6.0	6.0	6.0	6.2	6.0	6.2
4	6.0	5.8	6.0	6.2	5.8	6.0	6.1	6.0	6.0	6.3	6.2	6.2
5	6.0	5.8	5.9	6.2	5.8	6.0	6.1	5.9	6.0	6.3	6.1	6.2
6	6.0	5.7	5.9	6.0	5.9	5.9	6.4	5.9	6.1	---	---	---
7	5.9	5.6	5.8	6.0	5.8	5.9	6.4	5.9	6.1	6.3	6.1	6.2
8	5.9	5.8	5.9	5.9	5.8	5.9	6.4	6.0	6.0	6.3	6.1	6.2
9	5.9	5.8	5.9	6.0	5.8	5.9	6.2	5.9	6.0	6.3	6.2	6.2
10	5.8	5.8	5.8	6.0	5.8	6.0	6.0	5.8	6.0	6.5	6.1	6.4
11	5.9	5.8	5.9	6.2	5.8	6.0	6.0	5.8	5.9	6.6	6.1	6.4
12	6.0	5.9	6.0	6.0	5.9	5.9	5.9	5.8	5.9	6.6	6.2	6.5
13	6.0	5.9	6.0	6.2	5.6	6.0	5.9	5.7	5.8	6.6	6.2	6.5
14	6.0	5.9	6.0	6.1	6.0	6.0	6.0	5.7	5.9	6.6	6.2	6.5
15	6.0	6.0	6.0	6.4	5.8	6.1	6.0	5.9	6.0	6.6	6.2	6.5
16	6.1	6.0	6.1	6.1	6.0	6.0	6.0	5.7	5.9	6.5	6.2	6.5
17	6.2	6.1	6.1	6.2	6.0	6.1	6.1	5.9	5.9	6.5	6.4	6.4
18	6.1	6.0	6.1	6.3	5.8	6.0	6.0	5.8	5.9	6.5	6.4	6.5
19	6.1	5.6	6.0	6.0	5.9	5.9	6.2	5.9	6.1	6.5	6.3	6.5
20	6.0	5.9	5.9	6.0	6.0	6.0	6.2	6.0	6.1	6.6	6.4	6.5
21	5.9	5.8	5.9	6.1	5.7	6.0	6.1	6.0	6.1	6.5	6.5	6.5
22	6.5	5.8	5.9	6.0	5.8	6.0	6.1	6.0	6.1	6.6	6.5	6.5
23	6.0	5.9	6.0	6.3	5.8	6.1	6.1	5.9	6.0	6.5	6.4	6.5
24	6.0	5.9	6.0	6.3	5.9	6.1	6.2	6.0	6.1	6.6	6.4	6.5
25	6.0	5.9	6.0	6.3	5.8	6.0	6.2	6.1	6.1	6.5	6.4	6.5
26	6.1	6.0	6.0	6.3	5.8	6.0	6.2	6.0	6.2	6.5	6.4	6.5
27	6.1	5.9	6.0	6.2	5.8	6.0	6.0	5.9	6.0	6.6	6.5	6.5
28	6.2	6.1	6.1	6.0	5.9	6.0	6.1	5.9	6.0	6.6	6.5	6.5
29	6.3	5.9	6.1	6.0	6.0	6.0	6.2	6.0	6.1	6.6	6.5	6.5
30	---	---	---	6.0	6.0	6.0	6.1	5.9	6.0	6.6	6.5	6.6
31	---	---	---	6.1	5.8	6.0	---	---	---	6.6	6.0	6.4
MAX	6.5	6.1	6.1	6.4	6.0	6.1	6.4	6.1	6.2	6.6	6.5	6.6
MIN	5.8	5.6	5.8	5.9	5.6	5.9	5.9	5.7	5.8	6.1	6.0	6.1

01484719 BASSETT CREEK NEAR IRONSHIRE, MD—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	6.4	6.0	6.4	6.7	6.6	6.6	6.6	6.0	6.6	6.7	6.6	6.6
2	6.5	6.4	6.5	6.6	6.3	6.5	6.5	6.1	6.3	6.9	6.6	6.7
3	6.6	6.4	6.5	6.6	6.5	6.6	6.7	6.2	6.3	6.7	6.7	6.7
4	6.6	6.5	6.6	6.6	6.6	6.6	6.7	6.4	6.5	6.7	6.7	6.7
5	6.6	6.5	6.6	6.6	6.5	6.6	6.9	6.7	6.8	6.7	6.7	6.7
6	6.6	6.6	6.6	6.6	6.5	6.6	7.0	6.9	6.9	6.8	6.7	6.7
7	6.6	6.6	6.6	6.7	6.5	6.6	7.0	6.9	7.0	6.7	6.7	6.7
8	6.7	6.6	6.6	6.7	6.6	6.6	7.2	7.0	7.0	6.8	6.6	6.7
9	6.6	6.5	6.6	6.7	6.6	6.6	7.0	5.9	6.0	6.8	6.7	6.7
10	6.6	6.5	6.5	6.7	6.6	6.7	6.1	6.0	6.1	6.8	6.6	6.7
11	6.6	6.5	6.6	6.8	6.6	6.6	6.3	6.1	6.3	6.7	6.7	6.7
12	6.7	6.6	6.6	7.1	6.2	6.7	6.5	6.2	6.5	6.8	6.7	6.7
13	6.6	6.6	6.6	6.2	5.3	5.8	6.6	6.4	6.6	6.7	6.6	6.7
14	6.6	6.6	6.6	6.4	6.2	6.3	6.6	6.0	6.6	6.7	6.6	6.7
15	6.6	6.5	6.5	6.6	6.4	6.5	6.1	6.0	6.0	6.7	6.3	6.4
16	6.5	6.4	6.5	6.6	6.5	6.6	6.3	6.0	6.1	6.5	6.3	6.4
17	6.6	6.5	6.6	---	---	---	6.6	6.1	6.3	6.5	6.4	6.4
18	6.6	6.4	6.5	6.6	6.2	6.5	6.9	6.5	6.8	6.6	6.4	6.5
19	6.5	6.4	6.5	6.6	6.2	6.5	6.9	5.9	5.9	6.6	6.4	6.5
20	6.6	6.4	6.5	6.6	6.5	6.6	6.0	5.8	6.0	6.4	6.4	6.4
21	6.6	6.5	6.6	---	---	---	6.2	5.8	6.1	6.4	6.2	6.3
22	6.7	6.5	6.6	6.6	6.5	6.5	6.2	6.1	6.2	6.5	6.2	6.5
23	6.7	6.6	6.6	6.6	6.5	6.6	6.3	6.1	6.2	6.6	6.5	6.5
24	6.6	6.5	6.6	6.6	6.6	6.6	6.3	6.2	6.3	6.6	6.5	6.5
25	6.6	6.5	6.6	6.7	6.6	6.6	6.5	6.3	6.4	6.6	6.5	6.5
26	6.6	6.4	6.5	6.7	6.6	6.6	6.5	6.4	6.5	6.5	6.5	6.5
27	6.7	6.5	6.6	6.7	6.6	6.6	6.6	6.5	6.6	6.5	6.5	6.5
28	6.6	6.6	6.6	6.6	6.5	6.6	---	---	---	6.6	6.3	6.5
29	6.6	6.6	6.6	---	---	---	6.8	6.6	6.7	6.5	6.2	6.5
30	6.7	6.6	6.6	---	---	---	6.7	6.6	6.7	---	---	---
31	---	---	---	6.6	6.5	6.6	6.6	6.5	6.6	---	---	---
MAX	6.7	6.6	6.6	7.1	6.6	6.7	7.2	7.0	7.0	6.9	6.7	6.7
MIN	6.4	6.0	6.4	6.2	5.3	5.8	6.0	5.8	5.9	6.4	6.2	6.3

YEAR			
	MAX	MAXIMUM 7.2	MINIMUM 4.8
	MIN	MAXIMUM 7.0	MINIMUM 4.5
	MEDIAN	MAXIMUM 7.0	MINIMUM 4.7



DAILY MEDIAN pH - 2004 WATER YEAR

01484719 BASSETT CREEK NEAR IRONSHIRE, MD—Continued

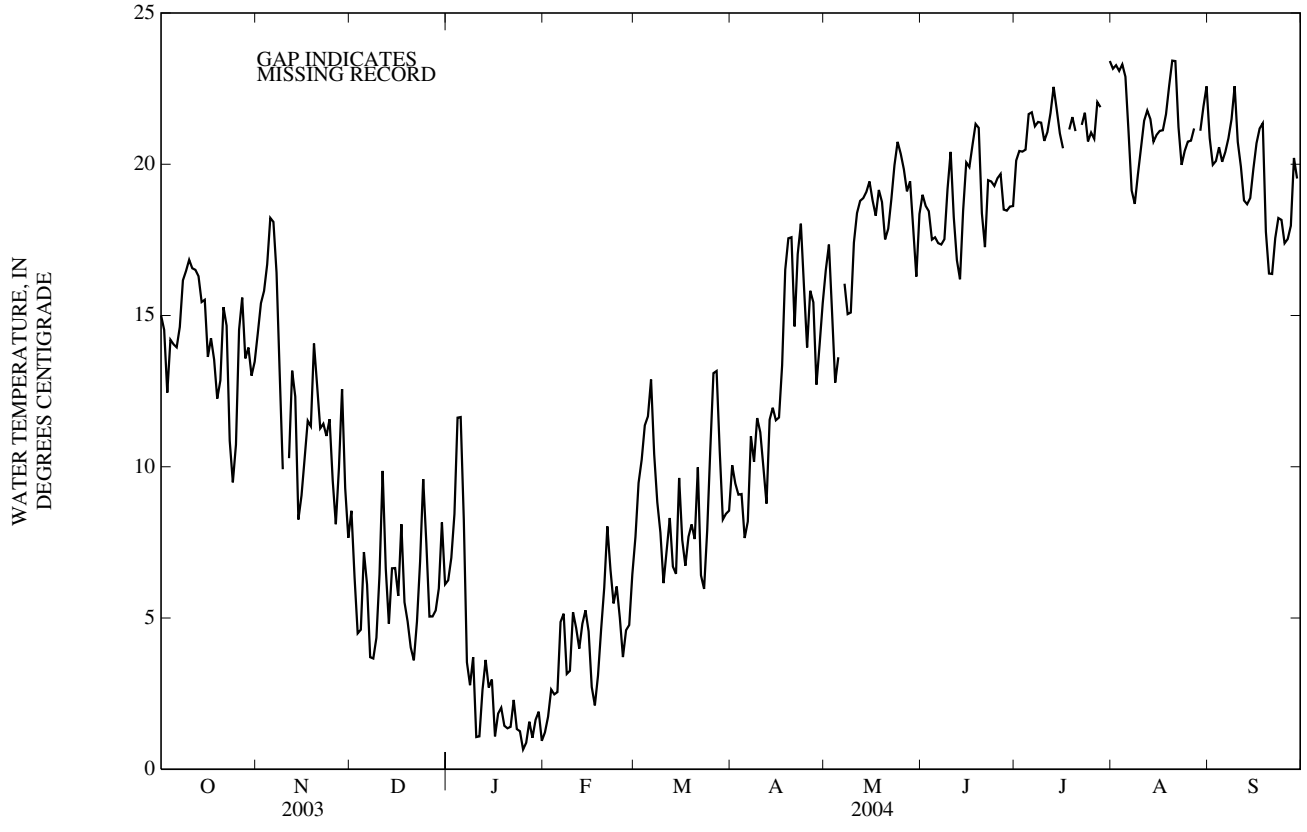
TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	15.9	13.9	15.0	15.7	13.2	14.4	9.8	7.3	8.5	7.5	5.1	6.2
2	15.4	12.6	14.5	16.5	14.2	15.4	7.3	5.2	6.3	8.2	5.7	7.0
3	13.3	11.3	12.5	16.8	14.6	15.8	5.2	3.7	4.5	10.1	6.8	8.4
4	15.4	12.8	14.2	17.7	15.4	16.7	6.0	3.0	4.6	13.4	10.1	11.6
5	14.9	13.2	14.0	19.2	17.2	18.2	7.9	6.0	7.2	12.7	10.4	11.6
6	15.0	12.9	13.9	18.6	17.2	18.1	8.0	4.3	6.1	10.9	5.7	8.3
7	15.8	13.2	14.6	17.2	14.8	16.4	4.3	3.1	3.7	5.7	2.5	3.5
8	17.4	14.8	16.2	14.8	11.1	13.1	4.6	2.7	3.7	3.7	1.6	2.8
9	17.5	15.2	16.5	11.1	8.8	9.9	5.5	3.0	4.3	4.5	2.1	3.7
10	17.4	16.0	16.8	---	---	---	9.2	4.3	6.4	2.1	0.5	1.1
11	17.1	16.2	16.6	12.3	8.3	10.3	10.8	7.8	9.9	1.9	0.2	1.1
12	17.6	15.8	16.5	13.8	12.3	13.2	7.8	5.6	6.6	3.7	1.6	2.6
13	17.2	15.2	16.3	13.9	8.9	12.3	5.6	4.1	4.8	4.9	2.5	3.6
14	17.0	14.2	15.4	8.9	7.4	8.3	8.4	4.8	6.6	3.4	1.9	2.7
15	16.8	13.6	15.5	10.0	8.2	9.0	7.9	5.7	6.7	3.8	1.6	3.0
16	14.6	12.3	13.6	11.3	9.0	10.3	6.8	4.6	5.7	1.8	0.4	1.1
17	15.2	13.0	14.2	12.6	10.5	11.5	9.7	6.6	8.1	2.9	0.8	1.8
18	14.6	11.9	13.5	12.5	9.8	11.3	6.6	4.8	5.5	2.6	1.4	2.0
19	13.6	10.8	12.3	15.3	12.5	14.1	5.6	4.3	4.9	2.1	0.9	1.4
20	14.0	11.3	12.9	14.6	10.9	12.7	4.8	3.2	4.0	2.1	0.8	1.4
21	16.5	13.9	15.3	12.7	9.9	11.3	4.4	2.6	3.6	2.3	0.7	1.4
22	16.0	12.3	14.7	12.6	10.3	11.4	6.2	3.7	4.9	3.5	1.1	2.3
23	12.3	9.2	10.9	12.3	9.6	11.0	8.0	5.6	6.9	2.4	0.8	1.3
24	10.8	8.0	9.5	13.1	9.8	11.6	10.5	8.0	9.6	2.0	0.6	1.3
25	13.2	8.4	10.7	12.3	7.7	9.5	9.1	5.8	7.5	1.2	0.0	0.7
26	15.3	13.2	14.5	9.6	6.3	8.1	5.8	4.2	5.0	2.0	0.0	0.9
27	16.6	14.8	15.6	11.1	8.6	10	6.1	4.2	5.1	2.3	0.8	1.6
28	14.8	13.3	13.6	14.1	10.7	12.6	6.6	3.9	5.2	1.6	0.7	1.0
29	14.5	13.3	13.9	12.7	7.2	9.3	7.3	4.6	6.0	2.6	0.7	1.6
30	14.1	11.8	13.0	8.6	6.6	7.7	9.9	6.7	8.2	2.5	1.1	1.9
31	14.8	12.1	13.5	---	---	---	6.9	5.0	6.1	1.8	0.3	0.9
MONTH	17.6	8.0	14.2	19.2	6.3	12.2	10.8	2.6	6.0	13.4	0.0	3.2
		FEBRUARY			MARCH			APRIL			MAY	
1	2.4	0.3	1.2	10.4	5.0	7.7	12.9	8.4	10.1	18.7	14.6	16.5
2	3.1	0.6	1.7	11.3	8.0	9.5	10.1	8.7	9.4	18.8	16.1	17.3
3	3.6	1.9	2.6	13.0	7.9	10.2	10.2	8.3	9.1	17.7	12.7	15.1
4	3.6	1.5	2.5	14.5	9.3	11.4	10.8	7.2	9.1	14.6	11.2	12.8
5	3.5	1.5	2.6	14.3	9.6	11.7	11.6	5.0	7.6	15.8	11.4	13.6
6	6.6	3.1	4.9	13.8	11.1	12.9	12.1	4.7	8.2	---	---	---
7	6.7	4.1	5.1	13.0	8.5	10.4	15.1	7.6	11.0	18.6	13.6	16.1
8	4.3	2.0	3.2	10.4	7.7	8.8	11.4	9.0	10.2	16.9	13.1	15.0
9	4.9	1.5	3.3	10.1	6.2	7.8	15.8	8.6	11.6	17.3	13.0	15.1
10	6.5	4.3	5.2	6.6	5.4	6.2	14.2	8.3	11.1	19.1	15.8	17.4
11	6.1	3.5	4.7	10.4	4.4	7.2	11.0	9.0	10	20.1	16.9	18.4
12	4.7	3.4	4.0	11.1	6.6	8.3	9.1	8.3	8.8	20.6	17.3	18.8
13	6.8	3.3	4.8	9.4	4.6	6.7	13.0	8.6	11.6	20.4	17.6	18.9
14	6.9	3.7	5.3	8.9	4.1	6.5	12.5	11.3	12.0	20.7	17.7	19.1
15	5.7	3.2	4.6	12.4	7.6	9.6	13.6	10.0	11.5	21.2	18.0	19.4
16	4.3	1.3	2.7	8.6	6.7	7.6	14.8	8.8	11.6	19.6	18.0	18.8
17	3.4	1.3	2.1	7.4	6.2	6.7	17.6	9.5	13.3	19.6	17.5	18.3
18	5.2	1.6	3.1	10.3	5.3	7.7	20.7	13.0	16.5	20.8	17.9	19.2
19	7.3	2.4	4.6	9.4	6.5	8.1	21.3	14.5	17.6	19.4	18.2	18.8
20	8.2	4.0	6.0	10.6	4.6	7.6	21.2	15.3	17.6	18.4	16.7	17.5
21	10.4	6.6	8.0	13.0	7.5	10	15.3	13.9	14.6	19.3	16.6	17.9
22	8.5	5.2	6.6	8.5	4.8	6.4	20.8	14.0	17.0	20.2	17.5	18.8
23	7.4	3.7	5.5	9.5	3.0	6.0	21.6	15.7	18.0	21.5	18.4	20.0
24	7.3	4.9	6.0	12.0	4.5	7.9	19.1	13.8	16.0	22.0	19.5	20.7
25	6.9	3.3	5.0	13.9	8.3	10.6	15.2	12.7	13.9	21.0	19.5	20.3
26	4.8	2.3	3.7	16.8	10.4	13.1	18.6	13.5	15.8	20.7	19.1	19.8
27	7.0	3.2	4.6	14.9	11.4	13.2	17.6	13.6	15.4	19.6	18.8	19.1
28	7.9	2.1	4.8	13.0	8.4	10.5	14.6	10.8	12.7	20.4	18.7	19.4
29	9.6	3.6	6.4	9.3	7.6	8.3	16.8	11.6	14.0	19.0	16.4	17.9
30	---	---	---	9.8	7.5	8.4	17.7	13.5	15.4	16.8	15.3	16.3
31	---	---	---	9.2	7.9	8.5	---	---	---	19.9	16.8	18.4
MONTH	10.4	0.3	4.3	16.8	3.0	8.9	21.6	4.7	12.7	22.0	11.2	17.8

01484719 BASSETT CREEK NEAR IRONSHIRE, MD—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	19.6	18.2	19.0	21.4	18.7	20.1	23.5	22.5	23.2	21.8	19.9	20.9
2	19.8	17.5	18.6	21.4	19.6	20.4	23.6	22.9	23.3	21.0	18.8	20.0
3	19.4	17.5	18.4	21.4	19.5	20.4	23.2	22.9	23.1	21.2	18.9	20.1
4	17.9	17.1	17.5	21.2	19.5	20.5	24.3	22.4	23.3	21.3	19.8	20.6
5	18.1	17.1	17.6	22.8	20.6	21.7	24.0	21.9	22.9	20.8	19.2	20.1
6	17.8	16.8	17.4	23.0	20.8	21.7	21.9	20.0	21.1	21.1	19.9	20.4
7	18.3	16.5	17.3	22.6	20.1	21.3	20.0	18.4	19.1	21.8	20.0	20.9
8	18.7	16.1	17.5	22.6	20.1	21.4	19.8	17.4	18.7	22.1	20.7	21.5
9	21.0	17.4	19.2	22.6	20.4	21.4	20.9	18.5	19.7	23.5	21.4	22.6
10	21.6	19.4	20.4	21.9	19.6	20.8	21.5	19.4	20.5	21.9	19.8	20.7
11	20.0	16.5	18.2	22.3	19.8	21.1	22.3	20.6	21.4	20.5	19.0	19.9
12	18.1	15.8	16.8	22.5	20.8	21.7	22.6	21.1	21.8	20.0	17.6	18.8
13	16.9	14.9	16.2	23.0	21.7	22.6	21.8	20.9	21.5	19.8	17.5	18.7
14	19.8	16.9	18.5	22.8	21.0	21.8	21.0	20.5	20.7	19.7	17.8	18.9
15	21.2	19.0	20.1	22.0	20.0	21.0	21.3	20.7	21.0	20.7	19.1	19.9
16	20.4	19.4	19.9	21.5	19.3	20.5	21.9	20.5	21.1	21.2	20.3	20.7
17	21.9	19.7	20.6	---	---	---	21.8	20.3	21.1	22.1	20.2	21.2
18	22.6	20.1	21.3	21.9	20.4	21.1	22.6	20.8	21.7	22.2	19.6	21.4
19	22.1	20.3	21.2	22.0	21.1	21.6	23.5	21.7	22.6	19.6	16.4	17.8
20	20.3	16.7	18.4	21.8	20.3	21.1	24.4	22.6	23.4	17.2	15.6	16.4
21	18.4	15.6	17.3	---	---	---	24.0	22.8	23.4	17.6	14.9	16.4
22	21.0	17.9	19.5	22.3	20.1	21.3	22.8	20.2	21.2	18.8	16.2	17.6
23	19.9	18.8	19.4	22.1	21.1	21.7	21.1	18.6	20.0	19.4	17.0	18.2
24	20.3	18.4	19.3	21.1	20.6	20.8	21.5	19.3	20.4	19.1	17.3	18.2
25	20.6	18.5	19.5	21.3	20.8	21.0	21.4	19.9	20.7	18.5	15.9	17.4
26	20.3	18.8	19.7	21.1	20.7	20.8	21.4	20.0	20.8	18.6	16.1	17.5
27	19.6	17.1	18.5	23.3	20.7	22.1	22.1	20.4	21.2	19.1	16.7	18.0
28	19.1	17.6	18.5	22.2	21.6	21.9	---	---	---	21.3	19.1	20.2
29	19.8	17.7	18.6	---	---	---	22.2	19.8	21.1	20.6	18.8	19.5
30	20.0	17.1	18.6	---	---	---	22.7	21.2	21.9	---	---	---
31	---	---	---	24.8	22.2	23.4	23.1	21.8	22.6	---	---	---
MONTH	22.6	14.9	18.8	24.8	18.7	21.3	24.4	17.4	21.5	23.5	14.9	19.5
YEAR	24.8	0.0	13.2									



DAILY MEAN WATER TEMPERATURE - 2004 WATER YEAR

01484719 BASSETT CREEK NEAR IRONSHIRE, MD—Continued

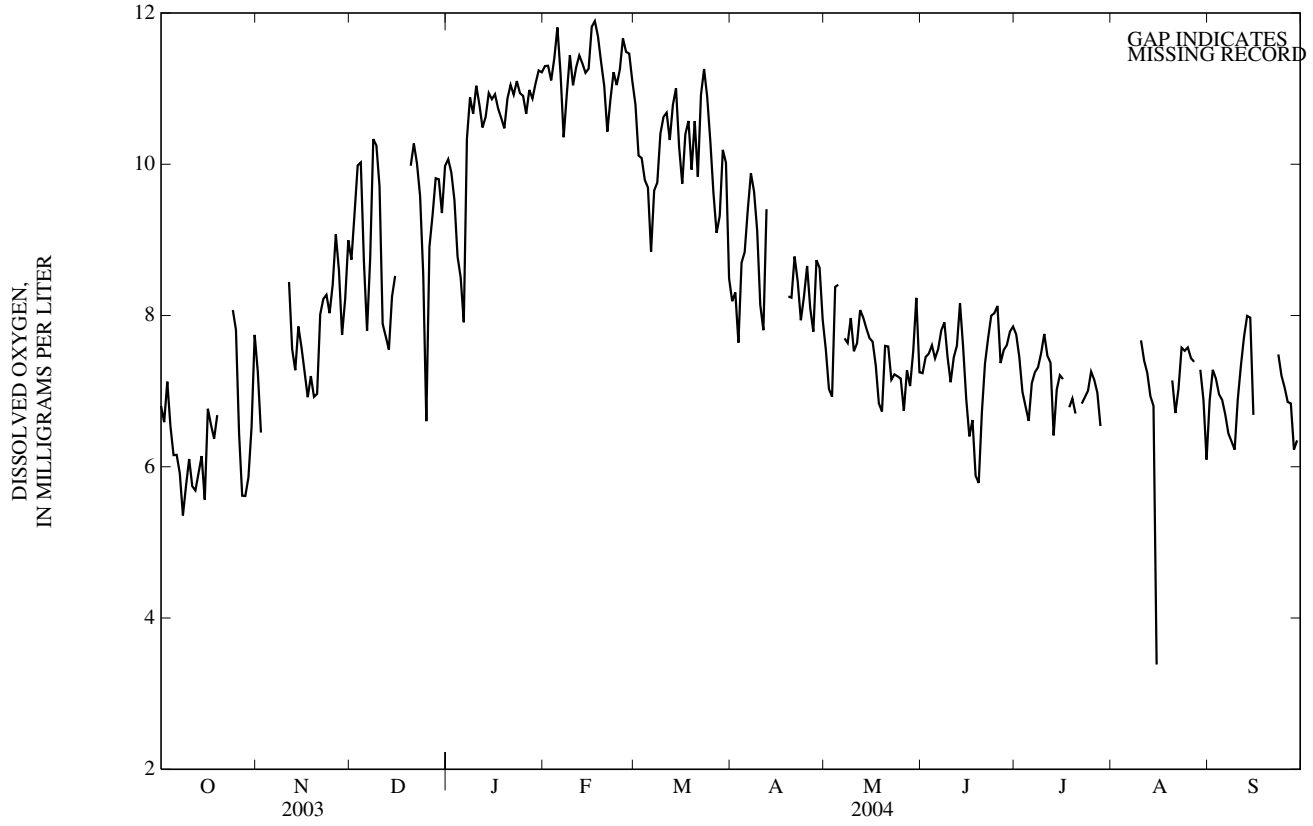
DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	7.1	6.4	6.8	7.6	6.8	7.3	8.9	8.7	8.7	10.2	9.9	10.1
2	7.0	6.4	6.6	6.9	5.9	6.5	9.7	8.9	9.4	10.1	9.7	9.9
3	7.3	7.0	7.1	---	---	---	10.2	9.7	10	9.7	9.0	9.5
4	7.0	6.1	6.5	---	---	---	10.2	9.6	10.0	9.0	8.5	8.8
5	6.3	6.0	6.2	---	---	---	9.6	8.0	8.7	8.8	7.9	8.5
6	6.4	6.0	6.2	---	---	---	8.8	5.7	7.8	9.2	7.3	7.9
7	6.2	5.5	5.9	---	---	---	10.2	5.6	8.8	10.8	9.2	10.3
8	5.6	5.0	5.4	---	---	---	10.5	10.1	10.3	11.0	10.7	10.9
9	6.3	5.1	5.8	---	---	---	10.5	10.0	10.2	10.9	10.6	10.7
10	6.4	5.7	6.1	---	---	---	10.1	8.8	9.7	11.2	10.9	11.0
11	5.9	5.5	5.7	8.8	7.8	8.4	8.8	7.4	7.9	11.1	10.6	10.8
12	5.8	5.6	5.7	7.8	7.3	7.6	9.0	6.0	7.7	10.6	10.4	10.5
13	6.2	5.6	5.9	7.8	7.1	7.3	8.4	7.0	7.5	10.7	10.5	10.6
14	6.4	5.5	6.1	8.0	7.7	7.9	8.9	7.1	8.2	11.1	10.6	10.9
15	6.4	4.8	5.6	7.8	7.4	7.6	8.8	7.5	8.5	11.1	10.6	10.9
16	7.0	6.4	6.8	7.5	7.0	7.2	---	---	---	11.2	10.8	10.9
17	6.8	6.2	6.6	7.1	6.6	6.9	---	---	---	10.9	10.6	10.7
18	6.7	6.2	6.4	7.5	6.8	7.2	---	---	---	10.7	10.5	10.6
19	7.0	6.3	6.7	7.3	6.6	6.9	---	---	---	10.7	10.1	10.5
20	---	---	---	7.4	6.5	7.0	10.2	9.6	10	11.1	10.7	10.9
21	---	---	---	8.3	7.4	8.0	10.5	10.0	10.3	11.1	10.9	11.0
22	---	---	---	8.5	8.0	8.2	10.2	9.7	10.0	11.1	10.8	10.9
23	---	---	---	8.5	8.0	8.3	9.7	9.3	9.6	11.3	10.9	11.1
24	8.3	7.9	8.1	8.4	7.6	8.0	9.3	7.6	8.5	11.2	10.7	10.9
25	8.2	7.0	7.8	9.0	7.6	8.4	7.6	5.9	6.6	11.1	10.8	10.9
26	7.0	5.9	6.4	9.4	8.7	9.1	9.4	7.5	8.9	10.9	10.5	10.7
27	5.9	5.2	5.6	8.8	8.3	8.6	9.6	9.1	9.3	11.4	10.7	11.0
28	5.8	5.2	5.6	8.3	7.2	7.7	10.1	9.4	9.8	11.0	10.6	10.9
29	6.9	3.4	5.9	8.8	7.3	8.2	10.0	9.5	9.8	11.2	10.9	11.1
30	7.7	2.0	6.5	9.2	8.8	9.0	9.6	9.2	9.4	11.5	11.0	11.2
31	8.0	7.4	7.7	---	---	---	10.2	9.6	10	11.5	11.0	11.2
MONTH	8.3	2.0	6.4	9.4	5.9	7.8	10.5	5.6	9.1	11.5	7.3	10.5
		FEBRUARY			MARCH			APRIL			MAY	
1	11.4	11.1	11.3	11.3	10.2	10.8	8.6	7.8	8.2	7.7	7.2	7.5
2	11.4	11.2	11.3	10.6	9.6	10.1	8.8	7.8	8.3	7.2	6.5	7.0
3	11.3	10.9	11.1	10.7	9.6	10.1	8.6	6.7	7.6	7.7	6.4	6.9
4	11.6	11.0	11.4	10.5	9.3	9.8	9.3	8.2	8.7	8.8	7.7	8.4
5	12.0	11.5	11.8	10.5	8.9	9.7	9.1	8.5	8.8	8.7	7.8	8.4
6	11.7	10.6	11.2	9.3	8.6	8.8	11.2	8.3	9.4	---	---	---
7	10.6	10.2	10.4	10.4	8.7	9.7	10.9	8.8	9.9	8.0	7.0	7.7
8	11.1	10.4	10.9	10.3	9.2	9.8	10.7	8.7	9.6	8.2	6.8	7.6
9	11.7	11.0	11.4	11.0	9.8	10.4	9.6	8.5	9.1	8.2	7.5	8.0
10	11.3	10.9	11.0	11.1	10.2	10.6	8.7	6.5	8.1	7.8	7.1	7.5
11	11.7	10.9	11.3	11.2	9.9	10.7	8.8	6.3	7.8	8.2	7.1	7.6
12	11.7	11.2	11.4	10.8	9.9	10.3	9.8	8.8	9.4	8.3	7.8	8.1
13	11.6	11.0	11.3	11.4	10.1	10.8	---	---	---	8.2	7.7	8.0
14	11.6	10.8	11.2	11.7	10.2	11.0	---	---	---	8.0	7.6	7.8
15	11.7	10.7	11.3	10.9	9.7	10.2	---	---	---	8.0	7.3	7.7
16	12.1	11.4	11.8	9.9	9.6	9.7	---	---	---	7.8	7.4	7.7
17	12.2	11.7	11.9	11.1	9.7	10.4	---	---	---	7.6	7.0	7.3
18	12.0	11.3	11.7	11.3	9.9	10.6	---	---	---	7.1	6.4	6.8
19	11.7	10.8	11.3	10.6	9.1	9.9	8.7	7.8	8.3	6.9	6.4	6.7
20	11.4	10.4	11.0	11.1	9.8	10.6	8.4	7.9	8.2	7.8	6.9	7.6
21	10.8	10.2	10.4	10.3	9.5	9.8	9.2	8.3	8.8	7.9	7.2	7.6
22	11.4	10.3	10.9	11.7	9.9	10.9	8.8	7.8	8.4	7.4	6.8	7.2
23	11.7	10.8	11.2	11.8	10.7	11.3	8.3	7.6	7.9	7.5	7.0	7.2
24	11.6	10.7	11.0	11.4	10.1	10.9	8.8	7.6	8.2	7.5	6.8	7.2
25	11.7	10.7	11.3	11.2	9.3	10.3	9.3	8.0	8.7	7.3	7.0	7.2
26	12.2	11.2	11.7	10.5	8.7	9.6	8.5	7.4	8.1	7.2	6.4	6.7
27	11.8	11.2	11.5	10.0	8.3	9.1	8.2	7.3	7.8	7.3	7.2	7.3
28	11.8	11.0	11.5	10.4	8.3	9.3	9.2	8.0	8.7	7.3	6.9	7.1
29	11.5	10.5	11.1	11.1	9.5	10.2	8.9	8.1	8.6	8.0	7.1	7.5
30	---	---	---	10.8	9.0	10.0	8.1	7.6	7.9	8.4	8.0	8.2
31	---	---	---	9.0	8.0	8.5	---	---	---	8.2	6.4	7.2
MONTH	12.2	10.2	11.3	11.8	8.0	10.1	11.2	6.3	8.5	8.8	6.4	7.5

01484719 BASSETT CREEK NEAR IRONSHIRE, MD—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	7.4	6.8	7.2	8.0	7.5	7.8	---	---	---	7.3	6.4	6.9
2	7.6	7.3	7.5	7.8	6.9	7.4	---	---	---	7.5	7.1	7.3
3	7.6	7.4	7.5	7.2	6.8	7.0	---	---	---	7.3	7.0	7.2
4	7.7	7.5	7.6	7.0	6.6	6.8	---	---	---	7.2	6.8	7.0
5	7.6	7.3	7.4	6.9	6.4	6.6	---	---	---	7.1	6.7	6.9
6	7.7	7.4	7.6	7.3	6.9	7.1	---	---	---	6.8	6.6	6.7
7	8.0	7.7	7.8	7.4	7.0	7.2	---	---	---	6.7	6.2	6.4
8	8.2	7.7	7.9	7.5	7.1	7.3	---	---	---	6.5	6.2	6.3
9	7.8	7.0	7.5	7.7	7.3	7.5	---	---	---	6.6	6.1	6.2
10	7.4	6.8	7.1	8.0	7.5	7.8	7.9	7.5	7.7	7.1	6.6	6.9
11	7.7	7.0	7.4	7.8	7.0	7.5	7.5	7.3	7.4	7.5	7.1	7.3
12	7.9	7.5	7.6	7.7	7.0	7.4	7.3	7.1	7.2	7.9	7.5	7.7
13	8.4	7.9	8.2	7.2	5.9	6.4	7.2	6.7	6.9	8.2	7.8	8.0
14	8.0	7.2	7.6	7.2	6.8	7.0	7.0	6.4	6.8	8.2	7.8	8.0
15	7.3	6.4	6.9	7.4	7.0	7.2	6.4	0.9	3.4	7.8	5.1	6.7
16	6.7	6.3	6.4	7.4	6.9	7.2	---	---	---	---	---	---
17	6.9	6.3	6.6	---	---	---	---	---	---	---	---	---
18	6.4	5.3	5.9	7.1	6.6	6.8	---	---	---	---	---	---
19	6.0	5.6	5.8	7.0	6.8	6.9	---	---	---	---	---	---
20	7.2	6.0	6.7	7.0	6.3	6.7	7.3	7.0	7.1	---	---	---
21	7.6	7.2	7.4	---	---	---	7.2	5.3	6.7	---	---	---
22	8.2	7.3	7.7	7.1	6.6	6.8	7.5	5.5	7.0	---	---	---
23	8.1	7.8	8.0	7.2	6.7	6.9	7.7	7.4	7.6	7.8	7.2	7.5
24	8.2	7.8	8.0	7.3	6.8	7.0	7.7	7.3	7.5	7.4	7.0	7.2
25	8.3	8.0	8.1	7.4	7.1	7.3	7.7	7.4	7.6	7.3	6.8	7.0
26	8.0	7.1	7.4	7.3	7.0	7.2	7.6	7.3	7.4	7.1	6.6	6.9
27	7.8	7.3	7.5	7.2	6.8	7.0	7.5	7.3	7.4	7.1	6.5	6.8
28	7.7	7.5	7.6	6.9	6.3	6.5	---	---	---	6.6	5.6	6.2
29	7.9	7.6	7.8	---	---	---	7.5	7.1	7.3	6.6	5.6	6.3
30	8.0	7.6	7.9	---	---	---	7.2	6.3	6.9	---	---	---
31	---	---	---	6.2	5.6	5.9	6.4	5.8	6.1	---	---	---
MONTH	8.4	5.3	7.4	8.0	5.6	7.0	7.9	0.9	6.9	8.2	5.1	7.0
YEAR	12.2	0.9	8.4									



DAILY MEAN DISSOLVED OXYGEN - 2004 WATER YEAR

Photo by U. S. Geological Survey personnel

U. S. Geological Survey scientist collecting water-quality parameters

01485000 POCOMOKE RIVER NEAR WILLARDS, MD

LOCATION.--Lat 38°23'20.0", long 75°19'28.0", Worcester County, Hydrologic Unit 02060009, on left bank 30 ft downstream from bridge on State Highway 346, 0.6 mi upstream from Burnt Mill Branch, 1.3 mi east of Willards, 1.3 mi west of Whaleysville, and 50.3 mi upstream from mouth.

DRAINAGE AREA.--60.5 mi^2.

PERIOD OF RECORD.--December 1949 to September 2004 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 13.95 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. U.S. Geological Survey gage-height telemeter at station. Several measurements of water temperature were made during this year. Water-quality records for some prior periods have been collected at this location.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov 7	1145	569	10.34	Dec 25	0500	550	10.23
Nov 20	1500	536	10.13	Feb 7	1215	538	10.14
Dec 12	0900	705	10.87	Apr 14	1930	761	11.07
Dec 15	1415	*803	*11.21	Aug 17	0030	536	10.13

Minimum discharge, 8.6 ft^3/s, July 22 - 24.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	68	229	85	126	67	55	57	65	57	12	95	60
2	62	176	79	116	60	54	68	61	47	12	339	47
3	56	144	75	113	109	52	65	62	39	11	378	40
4	52	119	70	106	257	51	62	64	34	11	311	35
5	49	103	134	118	168	49	56	58	35	11	191	33
6	46	191	334	235	156	52	49	53	36	10	199	32
7	43	561	318	182	519	54	46	48	33	10	126	30
8	41	521	233	139	480	62	44	48	30	9.9	84	28
9	39	392	181	120	340	64	42	45	27	9.6	61	28
10	37	277	152	104	256	59	40	42	24	9.3	50	26
11	37	209	499	90	208	59	54	39	23	9.1	42	24
12	38	171	689	85	169	55	111	35	23	9.9	37	22
13	37	184	559	85	147	50	532	33	22	13	34	21
14	36	168	509	81	128	46	728	31	21	11	38	20
15	59	130	780	78	115	45	726	29	20	11	273	22
16	73	106	705	69	103	49	561	28	19	9.7	408	28
17	62	93	554	63	93	68	387	76	18	9.3	513	26
18	56	86	521	103	96	67	257	128	18	9.6	372	29
19	54	97	415	224	102	81	186	73	17	10	229	42
20	50	505	308	156	112	85	144	53	16	9.5	148	39
21	47	506	233	116	111	78	120	46	15	9.0	112	32
22	46	393	190	100	98	66	109	40	15	8.7	97	28
23	44	282	163	90	85	57	99	35	15	8.7	78	25
24	40	215	362	78	78	52	98	31	14	8.8	65	23
25	39	174	536	68	74	49	89	28	13	9.0	56	21
26	37	141	433	63	67	47	79	62	14	9.1	49	20
27	40	119	309	76	64	45	111	53	13	8.9	45	19
28	47	107	233	158	60	44	104	53	13	10	42	20
29	292	108	189	107	57	42	83	52	12	15	38	23
30	439	96	165	95	---	42	72	41	12	12	35	23
31	318	---	143	80	---	45	---	45	---	10	56	---
TOTAL	2,384	6,603	10,156	3,424	4,379	1,724	5,179	1,557	695	317.1	4,601	866
MEAN	76.9	220	328	110	151	55.6	173	50.2	23.2	10.2	148	28.9
MAX	439	561	780	235	519	85	728	128	57	15	513	60
MIN	36	86	70	63	57	42	40	28	12	8.7	34	19
CFSM	1.27	3.64	5.42	1.83	2.50	0.92	2.85	0.83	0.38	0.17	2.45	0.48
IN.	1.47	4.06	6.24	2.11	2.69	1.06	3.18	0.96	0.43	0.19	2.83	0.53

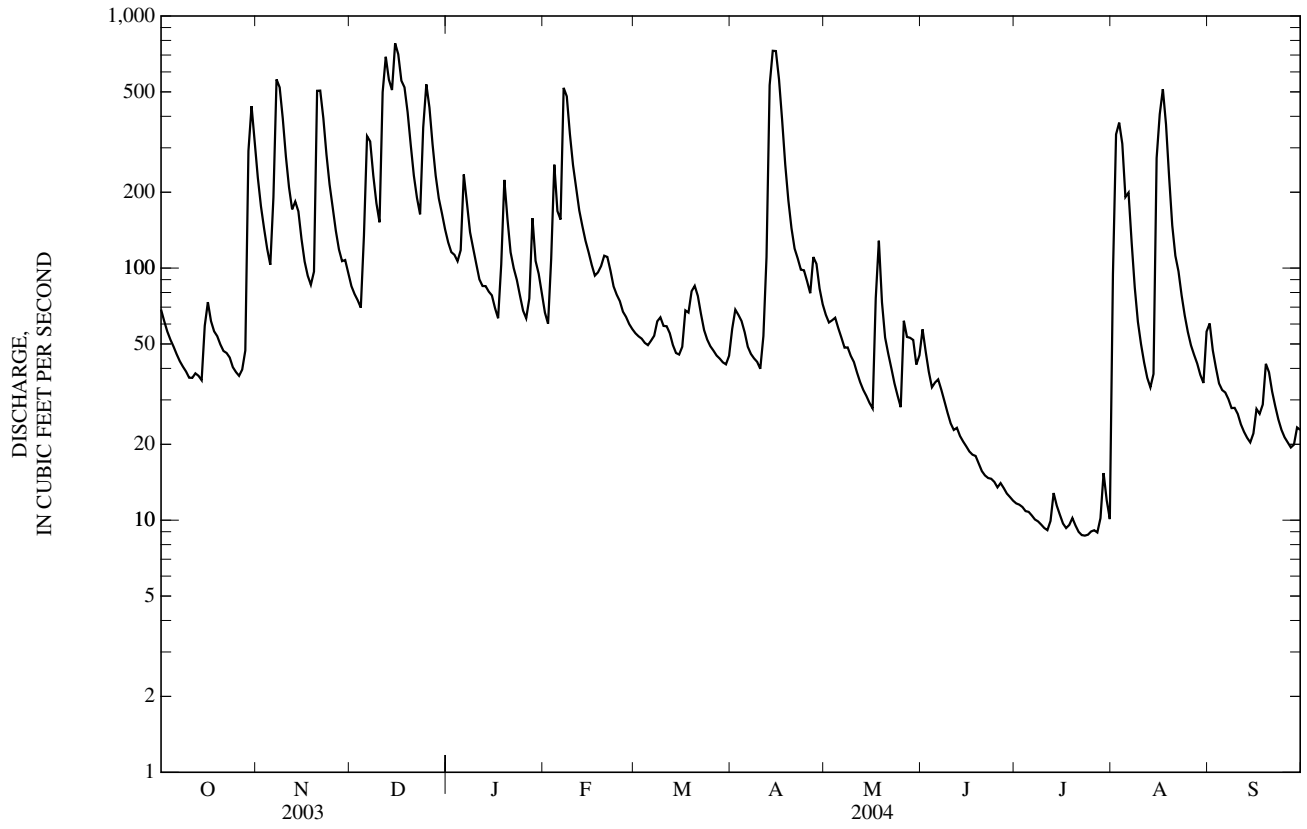
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 2004, BY WATER YEAR (WY)

MEAN	36.8	54.0	84.6	109	129	145	104	59.4	44.4	34.0	51.3	29.1
MAX	164	226	328	322	482	393	277	236	216	217	507	131
(WY)	(1977)	(2003)	(2004)	(1978)	(1998)	(1994)	(1983)	(1978)	(1972)	(1975)	(1989)	(2003)
MIN	2.47	3.36	7.11	15.5	19.1	39.3	29.5	16.1	9.31	5.39	2.66	3.13
(WY)	(1999)	(1999)	(2002)	(1981)	(2002)	(2002)	(1995)	(1985)	(1986)	(2002)	(2002)	(1995)

01485000 POCOMOKE RIVER NEAR WILLARDS, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1950 - 2004	
ANNUAL TOTAL	55,696		41,885.1			
ANNUAL MEAN	153		114		73.7	
HIGHEST ANNUAL MEAN					138	2003
LOWEST ANNUAL MEAN					24.8	1981
HIGHEST DAILY MEAN	863	Apr 12	780	Dec 15	2,580	Aug 20, 1989
LOWEST DAILY MEAN	17	Aug 3	8.7	(a)	1.3	Sep 15, 1995
ANNUAL SEVEN-DAY MINIMUM	19	Jul 29	8.9	Jul 21	1.5	Aug 20, 2002
MAXIMUM PEAK FLOW			803	Dec 15	(b)2,820	Aug 20, 1989
MAXIMUM PEAK STAGE			11.21	Dec 15	15.41	Aug 20, 1989
INSTANTANEOUS LOW FLOW			8.6	(c)	0.93	Aug 22, 2002
ANNUAL RUNOFF (CFSM)	2.52		1.89		1.22	
ANNUAL RUNOFF (INCHES)	34.25		25.75		16.55	
10 PERCENT EXCEEDS	361		310		163	
50 PERCENT EXCEEDS	96		60		41	
90 PERCENT EXCEEDS	33		14		8.5	

a July 22, 23.
b From rating curve extended above 1,600 ft^3/s.
c July 22 - 24.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01485500 NASSAWANGO CREEK NEAR SNOW HILL, MD

LOCATION.--Lat 38°13'44.1", long 75°28'17.2", Worcester County, Hydrologic Unit 02060009, on right bank 15 ft downstream from bridge on State Highway 12, 0.5 mi upstream from Furnace Branch, 0.6 mi downstream from Millville Creek, 5.5 mi northwest of Snow Hill, and 7.3 mi upstream from mouth.

DRAINAGE AREA.--44.9 mi^2.

PERIOD OF RECORD.--December 1949 to current year.

REVISED RECORDS.--WSP 1332: 1953.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 12.29 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. U.S. Geological Survey gage-height telemeter at station.Several measurements of water temperature were made during this year. Water-quality records for some prior periods have been collected at this location.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 280 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov 8	0500	629	6.34	Dec 25	2000	491	6.05
Nov 21	1600	428	5.87	Feb 8	0900	478	6.02
Dec 12	1700	500	6.07	Apr 14	1400	*787	*6.62
Dec 15	2100	554	6.19	Aug 17	0715	540	6.16

Minimum discharge, 1.7 ft^3/s, July 11, 12.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	175	52	77	64	40	39	43	21	3.0	9.9	68
2	36	114	48	71	52	38	44	38	15	2.8	22	52
3	31	77	45	67	61	37	47	38	11	2.7	136	41
4	27	61	42	64	134	36	47	38	9.2	2.8	164	32
5	25	50	60	76	205	35	43	36	13	2.6	162	26
6	23	85	106	154	183	36	39	33	13	2.3	184	24
7	22	393	179	186	285	37	35	30	12	2.1	168	27
8	20	579	170	154	449	45	32	33	9.5	2.1	110	26
9	20	364	125	111	297	46	30	32	7.5	1.9	61	25
10	19	225	91	78	190	46	28	30	6.4	1.8	42	22
11	18	156	211	63	146	46	45	26	6.1	1.8	29	18
12	18	118	456	55	117	44	79	23	14	2.6	22	16
13	16	95	385	56	93	42	339	19	9.1	14	19	14
14	15	78	284	56	79	38	739	17	6.8	10	37	13
15	26	69	485	53	71	36	613	15	6.3	5.8	149	28
16	23	63	475	46	64	39	393	13	7.4	3.9	359	41
17	22	57	329	44	57	44	246	14	7.7	3.2	517	34
18	22	52	322	71	58	48	164	21	9.0	12	386	36
19	21	52	277	170	62	55	113	16	8.1	16	224	42
20	20	153	209	228	67	56	79	25	6.0	16	120	40
21	19	381	160	185	70	56	63	20	4.8	9.9	71	37
22	18	325	125	115	67	51	54	16	4.1	5.9	54	31
23	17	207	100	81	60	47	48	13	4.4	5.1	43	24
24	16	146	183	67	54	43	44	10	4.9	7.6	34	20
25	15	110	429	55	50	40	42	7.9	3.8	11	28	17
26	16	84	403	48	47	37	39	11	5.6	8.5	24	15
27	17	71	251	52	44	34	52	10	5.3	6.7	21	13
28	19	64	177	70	42	32	55	11	4.0	11	19	13
29	104	60	136	83	41	30	54	12	3.6	23	17	20
30	233	55	109	91	---	29	48	9.9	3.2	20	33	21
31	253	---	90	82	---	31	---	16	---	14	75	---
TOTAL	1,193	4,519	6,514	2,809	3,209	1,274	3,693	676.8	241.8	232.1	3,339.9	836
MEAN	38.5	151	210	90.6	111	41.1	123	21.8	8.06	7.49	108	27.9
MAX	253	579	485	228	449	56	739	43	21	23	517	68
MIN	15	50	42	44	41	29	28	7.9	3.2	1.8	9.9	13
CFSM	0.86	3.35	4.68	2.02	2.46	0.92	2.74	0.49	0.18	0.17	2.40	0.62
IN.	0.99	3.74	5.40	2.33	2.66	1.06	3.06	0.56	0.20	0.19	2.77	0.69

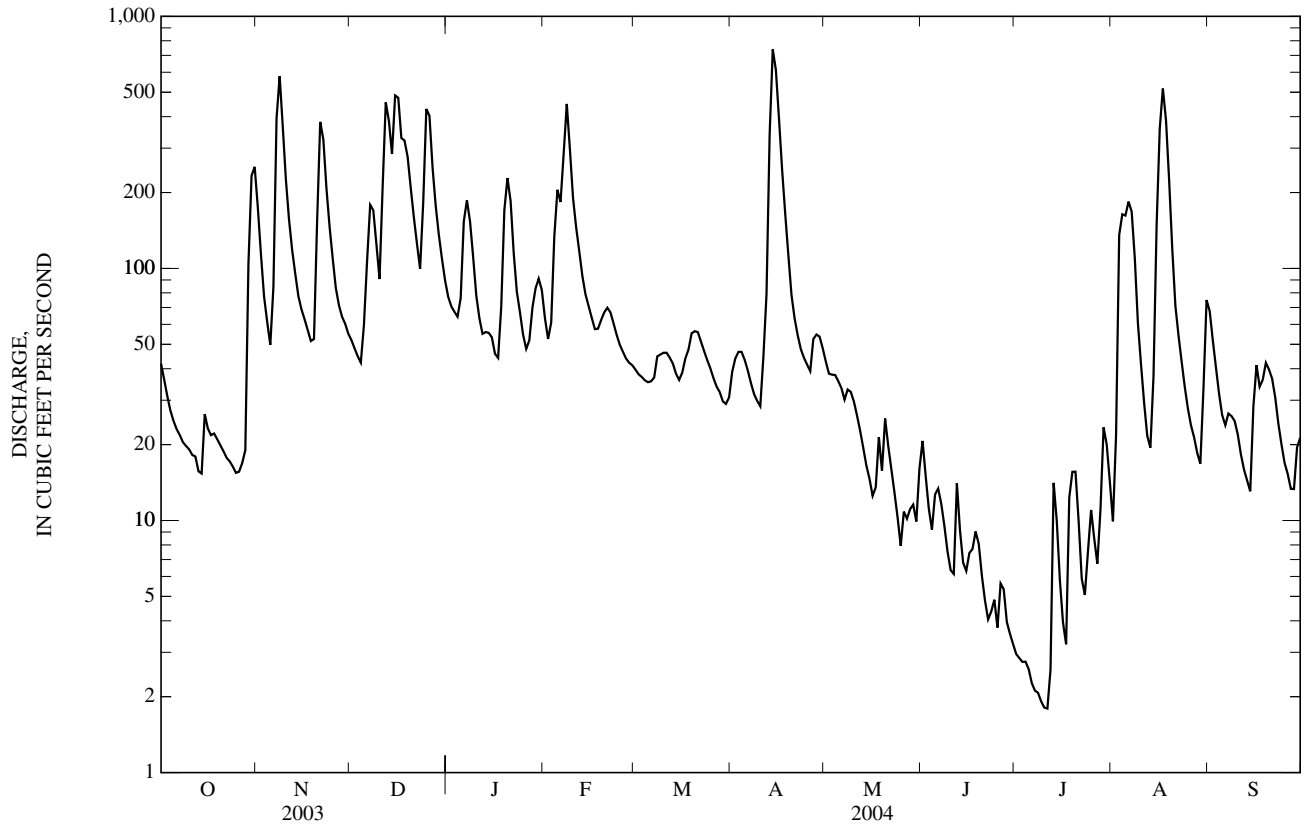
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 2004, BY WATER YEAR (WY)

MEAN	25.4	38.7	58.7	82.9	97.4	114	78.1	43.0	27.4	20.7	39.1	21.9
MAX	150	175	210	261	322	302	202	183	160	120	346	177
(WY)	(1977)	(1980)	(2004)	(1978)	(1998)	(1994)	(1983)	(1978)	(1972)	(1975)	(1989)	(1979)
MIN	1.62	2.39	6.08	10.8	12.4	28.3	17.7	7.10	2.52	1.58	1.24	1.64
(WY)	(1999)	(1999)	(2002)	(1966)	(2002)	(2002)	(1985)	(1986)	(1986)	(2002)	(2002)	(1980)

01485500 NASSAWANGO CREEK NEAR SNOW HILL, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1950 - 2004	
ANNUAL TOTAL	35,424.4		28,537.6			
ANNUAL MEAN	97.1		78.0		54.2	
HIGHEST ANNUAL MEAN					116	1979
LOWEST ANNUAL MEAN					20.7	2002
HIGHEST DAILY MEAN	579	Nov 8	739	Apr 14	2,590	Aug 19, 1989
LOWEST DAILY MEAN	8.7	Jul 1	1.8	(a)	0.72	Aug 15, 2002
ANNUAL SEVEN-DAY MINIMUM	13	Jul 9	2.1	Jul 5	0.74	Aug 11, 2002
MAXIMUM PEAK FLOW			787	Apr 14	(b)3,930	Aug 19, 1989
MAXIMUM PEAK STAGE			6.62	Apr 14	9.07	Aug 19, 1989
INSTANTANEOUS LOW FLOW			1.7	(c)	0.63	Aug 14, 2002
ANNUAL RUNOFF (CFSM)	2.16		1.74		1.21	
ANNUAL RUNOFF (INCHES)	29.35		23.64		16.41	
10 PERCENT EXCEEDS	245		194		127	
50 PERCENT EXCEEDS	57		42		26	
90 PERCENT EXCEEDS	19		7.7		3.4	

a July 10, 11.
b From rating curve extended above 1,300 ft^3/s on basis of contracted-opening measurement at gage height 9.07 ft.
c July 11, 12.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01486000 MANOKIN BRANCH NEAR PRINCESS ANNE, MD

LOCATION.--Lat 38°12'50.0", long 75°40'17.0", Somerset County, Hydrologic Unit 02060009, on right bank 45 ft downstream from farm bridge, 1.4 mi northeast of Princess Anne, and 1.6 mi upstream from confluence with Loretto Branch.

DRAINAGE AREA.--4.80 mi^2.

PERIOD OF RECORD.--April 1951 to September 1971, October 1974 to current year.

REVISED RECORDS.--WDR MD-DE-75-1: Drainage area. WDR MD-DE-85-1: 1983-84 (P).

GAGE.--Water-stage recorder. Datum of gage is 7.03 ft above National Geodetic Vertical Datum of 1929. Artificial control since Apr. 30, 1975. Nov. 26, 1968, to Sept. 30, 1971, water-stage recorder above and nonrecording gage below gage height 1.4 ft. Prior to Nov. 26, 1968, recording gage at site 40 ft upstream at datum 1.0 ft higher.

REMARKS.--Records fair except those above 170 ft^3/s, and estimated daily discharges (stages below intakes), which are poor. Several measurements of water temperature were made during the year. Water-quality data for some prior years have been collected at this location.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 50 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 29	UNKNOWN	UNKNOWN	UNKNOWN
Nov 7	UNKNOWN	UNKNOWN	UNKNOWN
Nov 20	0215	89	3.01
Dec 11	0630	99	3.13
Dec 14	1645	113	3.27
Dec 24	1015	190	3.93
Jan 5	2200	56	2.67
Jan 18	2045	56	2.67
Feb 3	1745	56	2.67
Feb 7	0130	94	3.07
Apr 13	0515	98	3.12
Apr 13	1915	97	3.10
Apr 14	1115	73	2.82
Aug 3	0700	251	4.51
Aug 5	2015	73	2.82
Aug 15	0015	115	3.30
Aug 16	0915	*305	*5.51
Aug 30	1145	82	2.93
Aug 31	0445	129	3.43

Minimum discharge, 0.66 ft^3/s, July 12.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e5.8	e15	6.4	8.6	6.6	3.8	5.8	4.9	2.7	0.89	2.8	28
2	e5.0	e9.8	6.0	8.5	6.5	3.8	7.1	4.6	2.1	0.85	6.7	15
3	e4.3	e7.8	6.3	8.7	24	3.7	5.9	4.8	1.7	0.84	113	11
4	e3.8	e5.6	6.6	8.8	25	3.9	5.0	4.7	1.7	0.82	44	9.1
5	e3.4	e8.5	14	19	17	3.9	4.1	4.1	2.0	0.79	34	7.5
6	e3.2	e14	18	28	24	4.2	3.5	3.7	1.6	0.77	38	6.4
7	e2.9	e62	13	15	63	4.4	3.5	3.6	1.4	0.76	15	5.3
8	e2.7	e36	10	12	25	5.4	3.5	3.9	1.2	0.77	9.1	4.8
9	e2.5	e18	9.3	10	15	4.1	3.5	3.6	1.1	0.74	6.9	4.6
10	e2.3	e15	9.4	8.4	13	4.0	3.4	3.3	1.1	0.72	5.6	4.1
11	e2.2	e12	62	6.8	11	4.3	8.4	3.0	1.1	0.71	4.7	3.5
12	e2.1	e9.6	26	6.5	10	4.0	16	2.9	1.5	3.0	3.9	3.1
13	e1.9	e8.8	17	6.5	9.3	3.5	81	2.8	1.1	2.8	3.5	3.0
14	e1.7	e7.6	51	6.1	8.6	3.3	61	2.7	1.1	1.0	16	2.8
15	e3.2	e6.7	44	6.0	8.1	3.4	41	2.6	1.0	0.92	73	3.4
16	e2.6	e6.1	22	5.3	7.6	4.4	20	2.5	1.0	0.85	161	4.4
17	e2.5	e5.6	26	5.0	7.4	5.6	13	2.5	1.3	0.81	67	3.8
18	e2.4	e5.0	22	25	7.7	5.2	10	2.5	1.8	3.8	27	3.8
19	e2.2	17	16	28	7.8	6.7	8.5	2.5	1.2	3.3	15	3.8
20	e2.0	61	13	14	7.0	6.0	7.2	2.4	1.0	1.8	9.4	3.2
21	e1.9	24	11	10	6.4	5.6	6.2	2.3	1.0	1.4	7.4	2.9
22	e1.9	16	10	8.8	5.6	4.8	5.6	2.2	1.0	1.1	6.3	2.7
23	e1.8	12	9.8	8.0	5.1	4.2	5.2	2.0	1.1	1.2	5.3	2.5
24	e1.8	11	85	7.1	5.1	4.0	5.1	1.9	1.1	4.1	4.5	2.3
25	e1.8	9.3	39	6.2	4.9	3.8	4.8	1.9	1.2	7.5	3.8	2.3
26	e1.8	8.1	21	6.3	4.8	3.8	5.2	2.7	1.9	4.4	3.6	2.2
27	e1.7	7.6	16	10	4.7	3.9	8.6	2.5	1.2	3.1	3.3	2.2
28	e3.9	7.5	12	13	4.6	3.7	6.3	2.6	1.1	6.6	3.0	3.2
29	e66	7.4	11	9.9	4.3	3.5	5.4	2.0	0.96	9.5	2.9	4.0
30	e39	6.7	10	8.6	---	3.5	5.1	1.9	0.89	5.1	41	3.3
31	e20	---	9.2	7.4	---	3.9	---	3.4	---	3.3	84	---
TOTAL	200.3	440.7	632.0	331.5	349.1	132.3	368.9	93.0	40.15	74.24	820.7	158.2
MEAN	6.46	14.7	20.4	10.7	12.0	4.27	12.3	3.00	1.34	2.39	26.5	5.27
MAX	66	62	85	28	63	6.7	81	4.9	2.7	9.5	161	28
MIN	1.7	5.0	6.0	5.0	4.3	3.3	3.4	1.9	0.89	0.71	2.8	2.2
CFSM	1.35	3.06	4.25	2.23	2.51	0.89	2.56	0.62	0.28	0.50	5.52	1.10
IN.	1.55	3.42	4.90	2.57	2.71	1.03	2.86	0.72	0.31	0.58	6.36	1.23

e Estimated

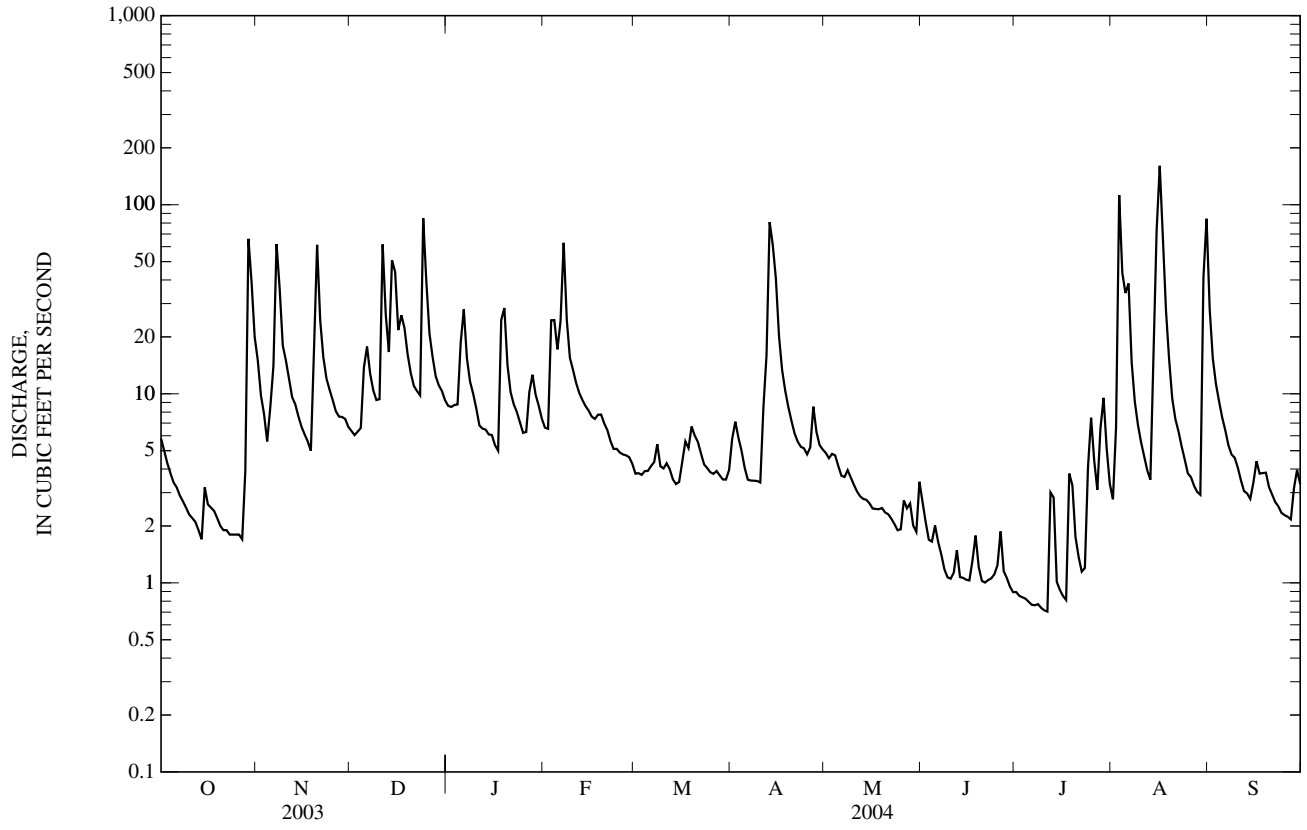
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1971, 1974 - 2004, BY WATER YEAR (WY)

MEAN	1.91	2.76	5.25	8.15	9.44	11.0	7.57	3.92	2.46	1.75	4.01	2.10
MAX	10.5	17.5	22.5	24.9	29.1	30.3	17.3	12.2	12.7	9.20	27.8	18.7
(WY)	(1980)	(1980)	(1997)	(1998)	(1998)	(1994)	(1983)	(1978)	(1979)	(1975)	(1969)	(1979)
MIN	0.03	0.05	0.13	0.51	1.53	2.64	1.64	0.62	0.39	0.16	0.00	0.02
(WY)	(1967)	(1967)	(1967)	(1966)	(2002)	(1981)	(1967)	(1957)	(1964)	(1953)	(1966)	(1966)

01486000 MANOKIN BRANCH NEAR PRINCESS ANNE, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1951 - 1971, 1974 - 2004	
ANNUAL TOTAL	3,465.9		3,641.09			
ANNUAL MEAN	9.50		9.95		5.02	
HIGHEST ANNUAL MEAN					10.3	1979
LOWEST ANNUAL MEAN					1.41	1981
HIGHEST DAILY MEAN	85	Dec 24	161	Aug 16	255	Jan 28, 1998
LOWEST DAILY MEAN	1.5	Jul 13	0.71	Jul 11	0.00	(a)
ANNUAL SEVEN-DAY MINIMUM	1.8	Aug 24	0.75	Jul 5	0.00	Aug 23, 1963
MAXIMUM PEAK FLOW			305	Aug 16	(b)547	Aug 20, 1969
MAXIMUM PEAK STAGE			5.51	Aug 16	(c)7.08	Aug 19, 1985
INSTANTANEOUS LOW FLOW			0.66	Jul 12	0.00	(a)
ANNUAL RUNOFF (CFSM)	1.98		2.07		1.04	
ANNUAL RUNOFF (INCHES)	26.86		28.22		14.20	
10 PERCENT EXCEEDS	20		22		11	
50 PERCENT EXCEEDS	6.1		4.9		2.2	
90 PERCENT EXCEEDS	2.3		1.3		0.35	

a No flow during 1954, 1963, 1964, 1966.
b From rating curve extended above 170 ft^3/s on basis of channel-conveyance study.
c Gage height of 5.44 ft occurred on Aug. 20, 1969 following ditching of the stream channel.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01486500 BEAVERDAM CREEK NEAR SALISBURY, MD

LOCATION.--Lat 38°21'11.2", long 75°34'21.2", Wicomico County, Hydrologic Unit 02060007, on right bank at downstream side of highway bridge on Schumaker Drive, 0.5 mi upstream from Beaglin Branch, 0.8 mi upstream from mouth, and 2 mi from Salisbury.

DRAINAGE AREA.-- 19.5 mi^2.

PERIOD OF RECORD.--October 1929 to August 1933, May 1934 to September 1935, May 1936 to September 1975, October 2000 to current year. Prior to October 1948, published as East Branch Wicomico River near Salisbury.

REVISED RECORDS.--WSP 741: 1931(m). WSP 1232: Drainage area. WSP 1432: 1931, 1936-37, 1940.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 20 ft above sea level, from topographic map. October 1929 to September 27, 1938, at site on left bank above Lake Schumaker Dam at datum of 17.95 ft above sea level (City of Salisbury bench mark), and from September 28, 1938 to September 1975 at site at upstream side of Schumaker Dam between spillway and emergency floodgate at datum of 8.93 ft above sea level (City of Salisbury bench mark).

REMARKS.--Records good except those for estimated daily discharges (missing record), and those above 80 ft^3/s, which are poor. Outflow from lake controlled by spillway valve. Several measurements of water temperature were made during the year. Water-quality data for some prior years have been collected at this location.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,520 ft^3/s, Aug. 16, gage height, 3.63 ft; minimum discharge, 0.90 ft^3/s, Feb. 21, 22.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	36	29	e69	34	25	28	26	17	10	32	33
2	20	27	27	e65	31	26	27	25	13	10	58	24
3	19	24	25	e61	43	25	25	27	12	9.9	115	20
4	19	22	24	e59	50	25	23	24	11	9.4	109	20
5	18	21	47	e125	56	25	21	23	14	9.0	64	27
6	17	117	62	e80	58	29	20	22	12	8.4	66	30
7	17	581	66	68	320	28	19	22	12	8.3	38	22
8	17	164	49	51	197	31	19	25	11	8.4	26	21
9	16	63	39	44	67	27	19	22	11	7.5	21	21
10	16	44	36	38	51	26	18	21	11	7.0	18	18
11	18	37	246	34	51	25	35	19	12	10	16	17
12	20	35	341	34	52	24	48	19	13	19	14	16
13	16	34	126	38	51	23	236	18	11	20	14	16
14	17	32	158	35	50	22	392	17	11	7.9	36	16
15	27	29	441	34	47	22	136	16	11	6.8	124	26
16	19	27	165	48	41	29	95	16	11	6.4	815	24
17	16	26	122	55	35	30	61	17	19	6.8	857	19
18	16	25	127	58	37	29	46	16	21	32	110	22
19	15	45	108	58	38	35	39	16	12	26	51	25
20	15	290	84	58	26	33	36	15	11	11	35	21
21	15	232	73	58	1.0	30	32	16	10	8.5	28	19
22	15	76	67	58	3.3	26	31	15	11	7.8	25	17
23	14	53	64	58	27	24	30	15	12	11	22	16
24	13	43	461	50	30	23	30	14	11	14	21	16
25	12	37	663	39	29	23	27	15	11	13	20	16
26	13	34	159	33	27	23	29	17	14	10	19	15
27	16	32	109	37	27	22	40	13	11	13	18	15
28	22	31	87	42	26	22	34	18	11	41	18	21
29	108	32	77	45	25	20	30	14	10	56	17	25
30	100	30	73	43	---	21	27	12	10	16	110	25
31	58	---	68	40	---	22	---	19	---	12	58	---
TOTAL	745	2,279	4,223	1,615	1,530.3	795	1,653	574	367	436.1	2,975	623
MEAN	24.0	76.0	136	52.1	52.8	25.6	55.1	18.5	12.2	14.1	96.0	20.8
MAX	108	581	663	125	320	35	392	27	21	56	857	33
MIN	12	21	24	33	1.0	20	18	12	10	6.4	14	15
CFSM	1.23	3.90	6.99	2.67	2.71	1.32	2.83	0.95	0.63	0.72	4.92	1.06
IN.	1.42	4.35	8.06	3.08	2.92	1.52	3.15	1.10	0.70	0.83	5.68	1.19

e Estimated

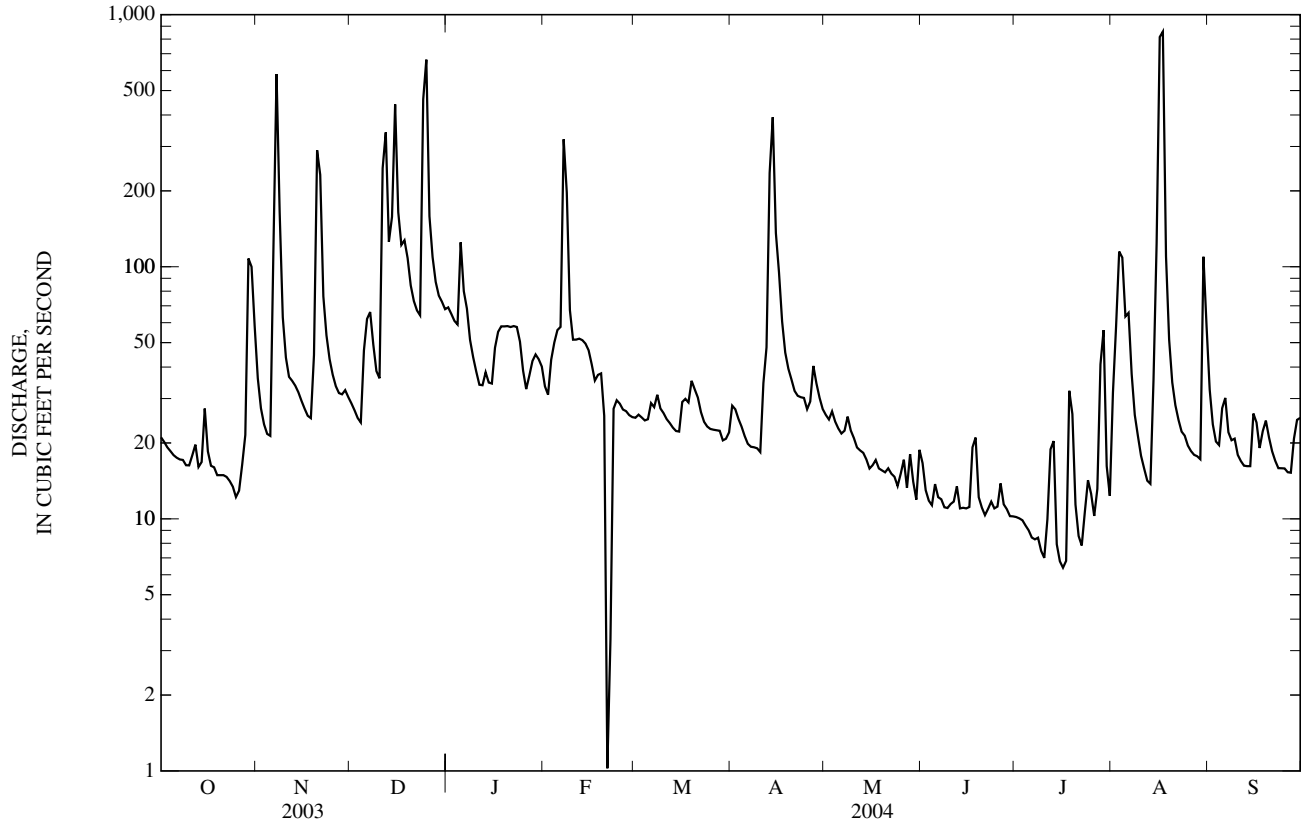
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 1933, 1935, 1938 - 1975, 2001 - 2004, BY WATER YEAR (WY)

MEAN	15.3	19.8	26.4	30.2	35.9	40.7	33.6	23.5	18.4	14.3	23.3	15.1
MAX	48.3	76.0	136	62.2	89.2	82.4	72.8	74.5	76.1	53.0	104	71.8
(WY)	(1956)	(2004)	(2004)	(1962)	(1961)	(2001)	(1958)	(1958)	(1948)	(1975)	(1948)	(2002)
MIN	3.69	4.02	3.78	4.17	3.96	4.60	11.5	9.02	5.60	2.63	3.68	3.75
(WY)	(1931)	(1931)	(1931)	(1931)	(1931)	(1931)	(1931)	(1930)	(2002)	(2002)	(2002)	(1930)

01486500 BEAVERDAM CREEK NEAR SALISBURY, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1930 - 1933, 1935 1938 - 1975, 2001 - 2004	
ANNUAL TOTAL	18,031.6		17,815.4			
ANNUAL MEAN	49.4		48.7		24.7	
HIGHEST ANNUAL MEAN					48.7	2004
LOWEST ANNUAL MEAN					6.56	1931
HIGHEST DAILY MEAN	663	Dec 25	857	Aug 17	1,360	Sep 1, 2002
LOWEST DAILY MEAN	4.3	Jul 1	1.0	Feb 21	0.00	(a)
ANNUAL SEVEN-DAY MINIMUM	14	Oct 20	8.3	Jul 4	0.00	Feb 21, 2002
MAXIMUM PEAK FLOW			1,520	Aug 16	(b)2,450	Sep 1, 2002
MAXIMUM PEAK STAGE			3.63	Aug 16	(c)14.31	Aug 4, 1948
INSTANTANEOUS LOW FLOW			0.90(d)		0.00	(f)
ANNUAL RUNOFF (CFSM)	2.53		2.50		1.27	
ANNUAL RUNOFF (INCHES)	34.40		33.99		17.19	
10 PERCENT EXCEEDS	84		81		47	
50 PERCENT EXCEEDS	31		25		17	
90 PERCENT EXCEEDS	16		11		6.7	

a Feb. 21-28, March 1, 2002.
b From rating curve extended above 95 ft^3/s.
c At previous site and datum, from high-water mark in well.
d Feb. 21, 22.
f Jan. 29, 30, 2001, Feb. 20-28, March 1, 2, 4, 5, 2002, June 23, 24, 2003.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01487000 NANTICOKE RIVER NEAR BRIDGEVILLE, DE

LOCATION.--Lat 38°43'42.0", long 75°33'42.7", Sussex County, Hydrologic Unit 02060008, on left bank at downstream side of highway bridge on county road No. 545, 800 ft downstream from Gum Branch, 2.5 mi southeast of Bridgeville, and 50.5 mi upstream from mouth.

DRAINAGE AREA.--75.4 mi^2.

PERIOD OF RECORD.--April 1943 to current year. Prior to October 1955, published as Gravelly Fork near Bridgeville.

REVISED RECORDS.--WSP 1111: 1947. WSP 1232: 1945-49.

GAGE.--Water-stage recorder. Datum of gage is 13.64 ft above National Geodetic Vertical Datum of 1929 (levels by Soil Conservation Service). Prior to Apr. 19, 1947, nonrecording gage, and Apr. 19, 1947 to Dec. 18, 1969, recording gage at present site and datum. Timber control Sept. 3, 1947 to Dec. 18, 1969. Feb. 18, 1970 to Oct. 1, 1973, recording gage at site 300 ft downstream at same datum.

REMARKS.--No estimated daily discharges. Records good. U.S. Geological Survey gage-height telemeter at station.Several measurements of water temperature were made during this year. Water-quality records for some prior periods have been collected at this location.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, about 11.0 ft in September 1935, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 360 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov 7	0500	585	6.97	Dec 24	2200	564	6.75
Nov 20	1215	506	6.71	Feb 4	0030	671	7.00
Dec 11	1715	653	6.96	Feb 7	0830	*793	*7.25
Dec 15	0430	605	6.85	Apr 14	1815	580	6.79

Minimum discharge, 34 ft^3/s, July 9.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	118	121	185	207	105	100	97	124	71	47	46	65
2	114	115	171	198	102	100	98	121	66	45	52	51
3	110	112	158	194	226	98	95	128	63	43	48	48
4	107	110	150	188	456	98	95	128	61	44	45	47
5	105	109	221	191	215	97	92	119	70	45	94	46
6	100	265	340	226	210	104	88	116	70	44	63	45
7	96	500	296	207	679	108	86	113	66	38	51	45
8	93	286	243	189	372	105	85	114	63	39	47	44
9	90	224	217	180	253	101	84	108	61	38	45	44
10	88	200	207	169	221	98	81	133	58	37	43	43
11	87	188	477	157	204	96	83	132	59	38	39	41
12	86	184	483	155	186	95	91	118	63	42	39	41
13	84	215	339	156	177	92	390	111	59	94	42	41
14	82	209	357	146	168	89	482	103	58	65	45	39
15	100	188	550	142	159	90	482	100	57	51	62	43
16	93	177	395	132	146	95	346	93	58	46	75	43
17	86	171	356	125	139	102	264	90	64	43	68	41
18	83	162	394	157	139	98	224	88	62	49	57	45
19	80	171	337	235	136	102	201	85	58	46	52	43
20	78	426	297	179	130	99	187	81	55	43	49	41
21	78	343	261	154	129	101	172	79	52	41	50	40
22	78	279	241	144	120	97	162	77	50	39	49	39
23	76	241	228	138	113	93	152	69	54	38	46	37
24	73	223	368	128	112	91	143	66	51	40	45	36
25	71	213	486	119	110	90	135	65	49	41	45	38
26	71	200	361	116	107	90	135	88	61	40	42	38
27	77	190	309	118	105	91	175	77	55	38	41	38
28	90	187	271	131	103	89	157	84	51	46	40	45
29	143	213	248	118	102	87	137	77	47	46	40	58
30	169	200	235	114	---	86	128	68	47	41	51	49
31	134	---	219	109	---	90	---	71	---	40	85	---
TOTAL	2,940	6,422	9,400	4,922	5,424	2,972	5,147	3,026	1,759	1,387	1,596	1,314
MEAN	94.8	214	303	159	187	95.9	172	97.6	58.6	44.7	51.5	43.8
MAX	169	500	550	235	679	108	482	133	71	94	94	65
MIN	71	109	150	109	102	86	81	65	47	37	39	36
CFSM	1.26	2.84	4.02	2.11	2.48	1.27	2.28	1.29	0.78	0.59	0.68	0.58
IN.	1.45	3.17	4.64	2.43	2.68	1.47	2.54	1.49	0.87	0.68	0.79	0.65

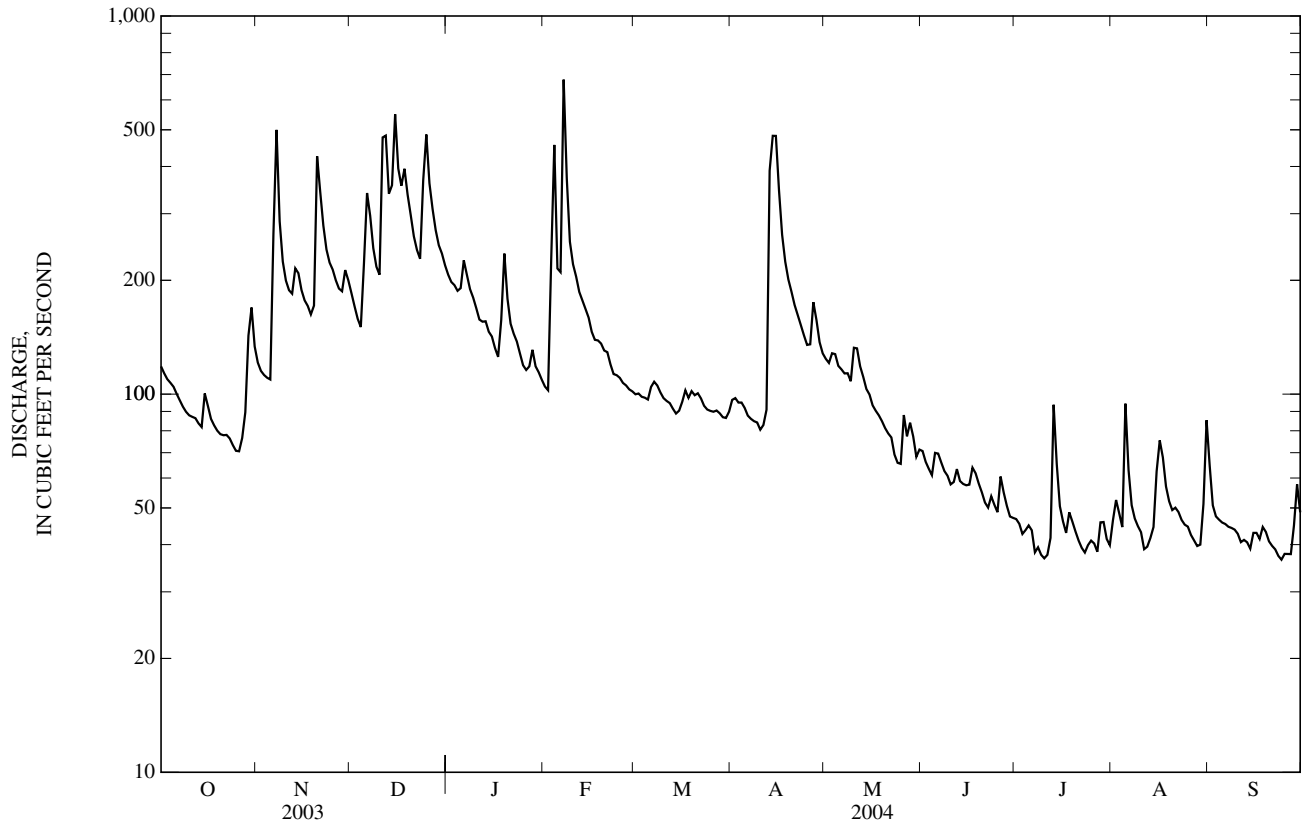
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 2004, BY WATER YEAR (WY)

MEAN	48.2	65.2	92.3	119	139	162	141	103	77.3	58.5	63.9	51.0
MAX	137	243	303	311	388	421	300	219	298	210	412	234
(WY)	(1980)	(2003)	(2004)	(1978)	(1998)	(1994)	(1958)	(1990)	(1948)	(1959)	(1967)	(1960)
MIN	17.9	21.2	23.6	23.8	36.3	51.7	47.8	45.8	29.3	17.5	13.6	10.1
(WY)	(1944)	(1988)	(1999)	(1966)	(2002)	(2002)	(1985)	(1951)	(1986)	(1944)	(1943)	(1943)

01487000 NANTICOKE RIVER NEAR BRIDGEVILLE, DE—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1943 - 2004	
ANNUAL TOTAL	70,227		46,309			
ANNUAL MEAN	192		127		93.5	
HIGHEST ANNUAL MEAN					189	2003
LOWEST ANNUAL MEAN					43.8	1985
HIGHEST DAILY MEAN	1,080	Feb 24	679	Feb 7	2,880	Feb 26, 1979
LOWEST DAILY MEAN	71	(a)	36	Sep 24	6.6	Sep 29, 1943
ANNUAL SEVEN-DAY MINIMUM	75	Oct 21	38	Sep 21	7.8	Sep 23, 1943
MAXIMUM PEAK FLOW			793	Feb 7	3,020	Feb 26, 1979
MAXIMUM PEAK STAGE			7.25	Feb 7	10.31	Feb 26, 1979
INSTANTANEOUS LOW FLOW			34	Jul 9	(b)6.3	Sep 29, 1943
ANNUAL RUNOFF (CFSM)	2.55		1.68		1.24	
ANNUAL RUNOFF (INCHES)	34.65		22.85		16.84	
10 PERCENT EXCEEDS	314		241		181	
50 PERCENT EXCEEDS	170		96		68	
90 PERCENT EXCEEDS	96		43		27	

a Oct. 25, 26.
b Minimum discharge observed.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01487060 MIFFLIN DITCH NEAR GEORGETOWN, DE

LOCATION.--Lat 38°43'41.4", long 56°24'52.7", Sussex County, Hydrologic Unit 02060008, on downstream side of culvert on U.S. highway 113, 3.1 mi north of Georgetown, and 3.7 mi upstream from confluence (mouth) with Deep Creek.

DRAINAGE AREA.--1.25 mi^2.

PERIOD OF RECORD.--October 2000 to September 2004 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 45 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges (ice effect, missing record), which are fair.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 20 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 29	0900	36	4.79	Dec 11	0800	44	5.09
Nov 6	1530	54	*5.15	Dec 14	1345	44	5.09
Nov 20	0145	41	5.07	Dec 24	0945	*58	5.15
Dec 6	0600	29	4.99	Feb 6	2245	27	4.93

Minimum discharge, 0.00 ft^3/s, on many days.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	15	4.0	5.5	1.0	0.70	1.2	0.42	0.25	0.00	0.31	0.71
2	1.5	12	2.8	4.7	0.85	0.70	1.3	0.37	0.18	0.00	0.05	0.49
3	0.91	10	2.0	4.4	4.4	0.69	1.1	0.63	0.14	0.00	0.01	0.37
4	0.66	10	1.6	3.9	7.7	0.67	0.92	0.88	0.09	0.00	0.00	0.36
5	0.51	11	14	5.7	5.3	0.68	0.76	0.58	0.12	0.00	0.27	0.38
6	0.35	35	28	10	8.6	1.5	0.53	0.43	0.14	0.00	0.09	0.39
7	0.27	32	26	6.5	26	2.0	0.42	0.33	0.13	0.00	0.03	0.35
8	0.25	24	21	4.5	23	1.9	0.37	0.32	0.09	0.00	0.01	0.35
9	0.25	16	18	3.7	17	1.5	0.31	0.32	0.07	0.00	0.00	0.30
10	0.25	10	15	2.8	12	1.3	0.26	0.27	0.06	0.00	0.00	0.28
11	0.27	6.4	35	1.8	7.7	e1.1	0.27	0.26	0.06	0.00	0.00	0.22
12	0.45	5.4	33	1.6	5.4	0.88	1.4	0.24	0.07	0.00	0.00	0.20
13	0.38	15	28	e1.5	4.5	0.71	13	0.22	0.06	0.00	0.00	0.12
14	0.41	11	34	e1.4	3.6	0.60	15	0.21	0.05	0.00	0.03	0.07
15	1.7	6.5	35	e1.3	3.0	0.57	15	0.17	0.04	0.00	0.30	0.06
16	1.0	4.1	29	1.2	2.4	1.0	11	0.16	0.04	0.00	0.55	0.06
17	0.58	2.7	27	0.94	1.9	2.0	7.3	0.75	0.04	0.00	0.21	0.03
18	0.49	2.0	23	4.1	1.9	1.7	4.5	0.80	0.03	0.00	0.09	0.04
19	0.44	6.3	18	8.3	2.0	2.2	2.3	0.47	0.03	0.00	0.05	0.04
20	0.36	34	13	4.9	2.0	2.0	1.3	0.36	0.02	0.00	0.04	0.01
21	0.37	29	7.0	3.0	2.0	1.7	0.84	0.30	0.01	0.00	1.9	0.00
22	0.31	24	4.4	2.3	1.7	1.3	0.57	0.21	0.01	0.00	0.98	0.00
23	0.36	19	3.0	2.0	1.5	0.88	0.44	0.16	0.02	0.00	0.28	0.00
24	0.28	14	31	1.6	1.4	0.66	0.34	0.12	0.01	0.00	0.13	0.00
25	0.25	11	36	1.1	1.2	0.57	0.27	0.16	0.01	0.00	0.08	0.00
26	0.25	7.1	31	1.0	1.0	0.51	0.31	0.67	0.01	0.00	0.09	0.00
27	0.34	5.2	26	1.4	0.94	0.49	2.3	0.46	0.00	0.00	0.08	0.00
28	1.0	4.3	20	2.3	0.86	0.39	1.7	0.54	0.00	0.00	0.06	0.00
29	27	8.1	14	2.1	0.77	0.32	0.85	0.38	0.00	0.00	0.05	0.00
30	24	5.6	10	1.9	---	0.28	0.55	0.23	0.00	0.00	0.27	0.00
31	18	---	6.9	1.4	---	0.45	---	0.24	---	0.00	1.8	---
TOTAL	85.39	395.7	596.7	98.84	151.62	31.95	86.41	11.66	1.78	0.00	7.76	4.83
MEAN	2.75	13.2	19.2	3.19	5.23	1.03	2.88	0.38	0.06	0.00	0.25	0.16
MAX	27	35	36	10	26	2.2	15	0.88	0.25	0.00	1.9	0.71
MIN	0.25	2.0	1.6	0.94	0.77	0.28	0.26	0.12	0.00	0.00	0.00	0.00
CFSM	2.20	10.6	15.4	2.55	4.18	0.82	2.30	0.30	0.05	0.00	0.20	0.13
IN.	2.54	11.78	17.76	2.94	4.51	0.95	2.57	0.35	0.05	0.00	0.23	0.14

e Estimated

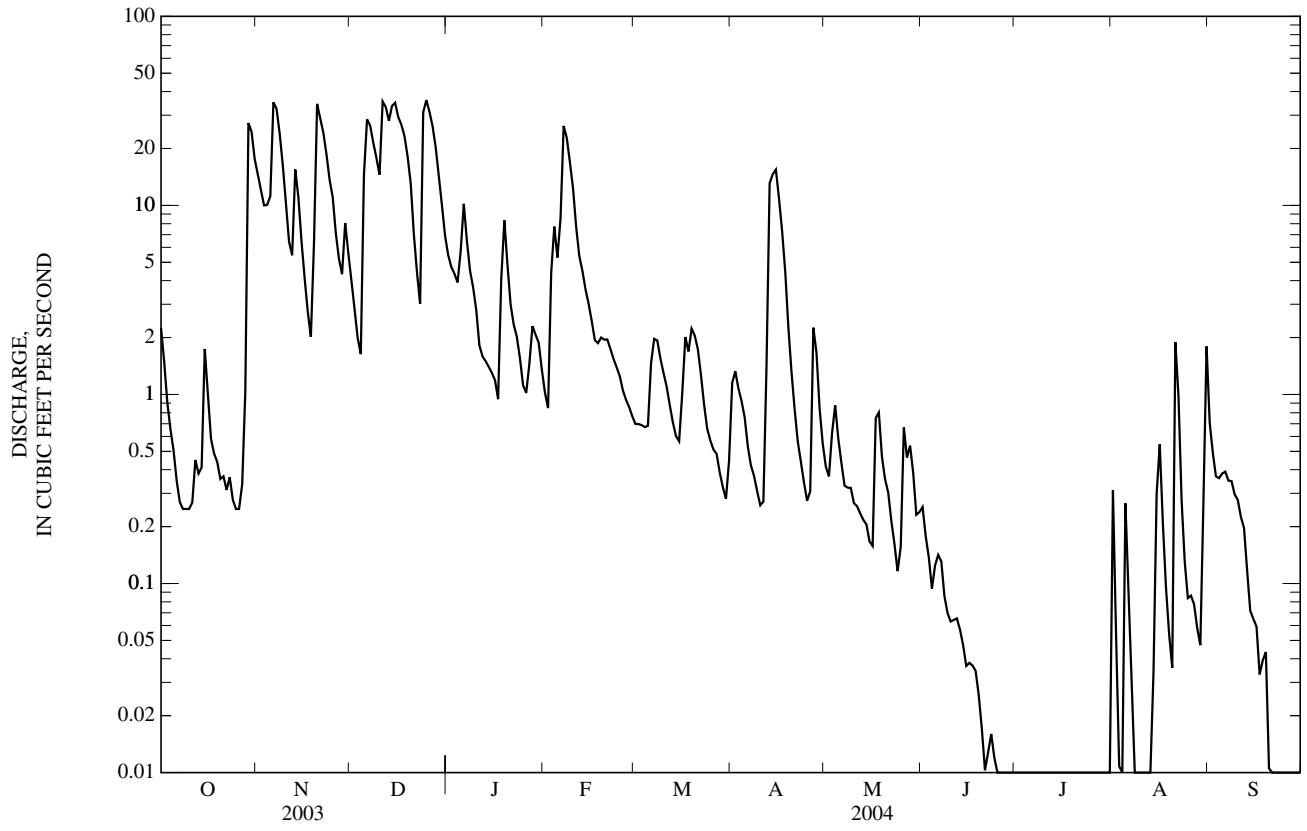
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2004, BY WATER YEAR (WY)

MEAN	0.79	4.12	5.63	1.34	5.01	3.03	2.81	0.75	1.56	0.09	1.85	1.48
MAX	2.75	13.2	19.2	3.19	13.4	7.10	6.42	2.28	5.00	0.33	5.35	5.08
(WY)	(2004)	(2004)	(2004)	(2004)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2001)	(2003)
MIN	0.00	0.00	0.00	0.00	0.00	0.25	0.48	0.17	0.00	0.00	0.00	0.04
(WY)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2001)	(2002)	(2002)	(2002)	(2001)

01487060 MIFFLIN DITCH NEAR GEORGETOWN, DE—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 2001 - 2004	
ANNUAL TOTAL	2,348.62		1,472.64			
ANNUAL MEAN	6.43		4.02		2.35	
HIGHEST ANNUAL MEAN					4.02	2004
LOWEST ANNUAL MEAN					0.13	2002
HIGHEST DAILY MEAN	94	Feb 23	36	Dec 25	94	Feb 23, 2003
LOWEST DAILY MEAN	0.08	(a)	0.00	(b)	0.00	(b)
ANNUAL SEVEN-DAY MINIMUM	0.10	Jul 22	0.00	Jun 27	0.00	Jul 13, 2001
MAXIMUM PEAK FLOW			58	Dec 24	(c)129	Feb 23, 2003
MAXIMUM PEAK STAGE			5.15	Dec 24	5.67	Feb 23, 2003
INSTANTANEOUS LOW FLOW			0.00	(b)	0.00	(b)
ANNUAL RUNOFF (CFSM)	5.15		3.22		1.88	
ANNUAL RUNOFF (INCHES)	69.89		43.83		25.54	
10 PERCENT EXCEEDS	20		15		5.5	
50 PERCENT EXCEEDS	2.0		0.57		0.32	
90 PERCENT EXCEEDS	0.27		0.00		0.00	

a July 26, 27.
b Many Days.
c From rating curve extended above 11.5 ft^3/s.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01487060 MIFFLIN DITCH NEAR GEORGETOWN, DE—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--May to June 2004.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sample type	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Ammonia water, fltrd, mg/L as N (00608)
MAY												
27...	0840	Environmental	1028	80020	.49	--	--	--	--	--	--	.26
JUN												
01...	1135	Environmental	1028	80020	.24	3.6	5.1	55	19.0	1	2	.17

Date	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, wat unf by analysis, mg/L (62855)	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)	Pheophytin a, phytoplankton, ug/L (62360)	Chlorophyll a phytoplankton, fluoro, ug/L (70953)
MAY												
27...	<.06	E.005	--	.011	.055	.95	--	--	--	--	--	--
JUN												
01...	<.06	<.008	.24	.007	.044	.74	2.9	<.1	2.9	13.0	2.9	1.0

Remark codes used in this table:
< -- Less than
E -- Estimated value

Agency collecting sample: 1028 - U.S. Geological Survey
Agency analyzing sample: 80020 - USGS-National Water Quality Lab, Denver, CO

Photo by A. J. Tallman

01487060 MIFFLIN DITCH NEAR GEORGETOWN, DE

LOCATION.--Lat 38°39'20.4", long 75°35'47.7", Sussex County, Hydrologic Unit 02060008, left bank, at Seaford, and 0.2 mi upstream from confluence of Herring Run.

DRAINAGE AREA.--0.25 mi^2.

PERIOD OF RECORD.--October 2000 to September 2004 (Discontinued).

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

REMARKS.--Records fair except those above 10 ft^3/s and those for estimated daily discharges (missing record), which are poor. Several measurements of water temperature were made during the year.

EXTREMES FOR 2001 WATER YEAR.--Peak discharges greater than base discharge of 25 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar 21	1330	27	5.14	Aug 11	1500	113	6.55
May 26	1645	26	5.10	Aug 11	1630	*147	*6.97
Jun 17	0345	46	5.52	Aug 13	2015	26	4.99

Minimum discharge, 0.00 ft^3/s, on many days.

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	e0.03	0.00	0.00	0.00	0.00	0.00	0.32	0.01	0.00	0.00	0.00	0.00
2	e0.02	0.00	0.00	0.00	0.00	0.00	0.21	0.01	0.80	0.00	0.00	0.00
3	e0.01	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.08	0.00	0.00	0.00
4	e0.01	0.00	0.00	0.00	0.00	0.17	0.04	0.00	0.00	0.00	0.00	0.21
5	e0.01	0.00	0.00	0.00	2.6	0.24	0.02	0.00	0.23	0.03	0.00	0.05
6	e0.01	0.00	0.00	0.00	0.44	0.01	0.01	0.00	0.00	0.00	0.00	0.00
7	e0.00	0.00	0.00	0.00	0.12	0.00	0.00	0.01	3.2	0.00	0.00	0.00
8	e0.00	0.00	0.00	0.00	0.02	0.00	0.01	0.01	0.05	0.00	0.00	0.00
9	e0.00	0.02	0.00	0.00	0.00	0.00	0.39	0.00	0.00	0.00	0.00	0.00
10	e0.00	0.14	0.00	0.00	0.00	0.00	0.27	0.00	0.00	0.00	0.00	0.23
11	e0.02	0.00	0.00	0.00	0.00	0.00	1.2	0.00	0.00	0.00	23	0.00
12	e0.01	0.00	0.00	0.00	0.00	0.00	0.56	0.00	0.00	0.00	17	0.00
13	0.01	0.00	0.00	0.00	0.02	1.6	0.15	0.00	0.00	0.00	11	0.00
14	0.01	0.15	0.99	0.00	0.00	0.09	0.01	0.00	0.00	0.00	5.8	0.00
15	0.00	0.02	0.02	0.00	0.00	0.53	0.01	0.00	0.00	0.00	0.28	0.00
16	0.01	0.01	0.29	0.00	0.03	0.29	0.02	0.00	0.19	0.00	0.00	0.00
17	0.00	0.01	2.3	0.00	0.69	0.04	0.19	0.00	7.2	0.00	0.00	0.00
18	0.01	0.00	0.48	0.00	0.02	0.01	0.26	0.00	0.06	0.00	0.00	0.00
19	0.01	0.00	0.04	0.93	0.00	0.00	0.01	0.08	0.00	0.00	0.00	0.00
20	0.01	0.01	0.01	2.7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	0.01	0.01	0.10	0.87	0.00	8.0	0.00	0.50	0.00	0.00	0.00	0.29
22	0.01	0.01	0.01	0.20	0.00	1.3	0.00	1.5	0.00	0.00	0.00	0.00
23	0.02	0.01	0.00	0.06	0.12	0.29	0.00	0.46	0.00	0.00	0.39	0.00
24	0.00	0.02	0.00	0.02	0.03	0.06	0.04	0.00	0.00	0.00	0.95	0.67
25	0.00	0.02	0.00	0.00	0.33	0.01	0.02	0.00	0.00	0.00	0.00	0.02
26	0.00	1.4	0.00	0.00	0.11	0.14	0.01	6.0	0.00	0.44	0.00	0.00
27	0.00	0.01	0.00	0.00	0.01	0.02	0.00	1.2	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	---	0.63	0.00	0.00	0.00	0.12	0.00	0.00
30	0.00	0.02	0.00	0.20	---	3.4	0.00	0.00	0.00	0.05	1.6	0.00
31	0.00	---	0.00	0.01	---	0.58	---	0.00	---	0.00	0.00	---
MEAN	0.01	0.06	0.14	0.16	0.16	0.56	0.13	0.32	0.39	0.02	1.94	0.05
MAX	0.03	1.4	2.3	2.7	2.6	8.0	1.2	6.0	7.2	0.44	23	0.67
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CFSM	0.03	0.25	0.55	0.64	0.65	2.25	0.51	1.26	1.57	0.08	7.74	0.20
IN.	0.03	0.28	0.63	0.74	0.68	2.59	0.57	1.46	1.76	0.10	8.93	0.22

e Estimated

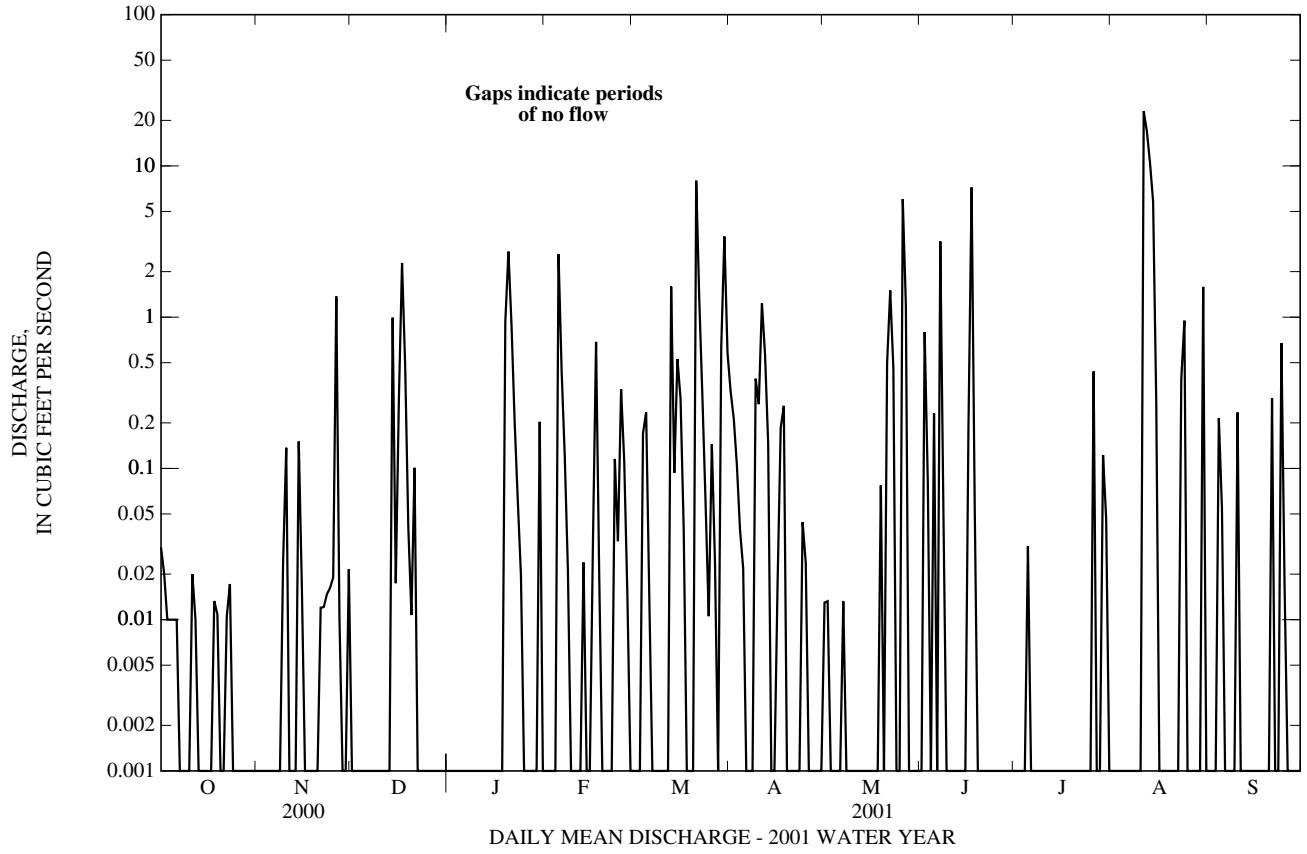
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2001, BY WATER YEAR (WY)

MEAN	0.01	0.06	0.14	0.16	0.16	0.56	0.13	0.32	0.39	0.02	1.94	0.05
MAX	0.01	0.06	0.14	0.16	0.16	0.56	0.13	0.32	0.39	0.02	1.94	0.05
(WY)	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)
MIN	0.01	0.06	0.14	0.16	0.16	0.56	0.13	0.32	0.39	0.02	1.94	0.05
(WY)	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)

01487195 HERRING RUN TRIBUTARY AT SEAFORD, DE—Continued

SUMMARY STATISTICS	FOR 2001 WATER YEAR	
ANNUAL MEAN	0.33	
HIGHEST DAILY MEAN	23	Aug 11
LOWEST DAILY MEAN	0.00	(a)
ANNUAL SEVEN-DAY MINIMUM	0.00	Oct 24
MAXIMUM PEAK FLOW	(b)147	Aug 11
MAXIMUM PEAK STAGE	6.97	Aug 11
INSTANTANEOUS LOW FLOW	0.00	(a)
ANNUAL RUNOFF (CFSM)	1.32	
ANNUAL RUNOFF (INCHES)	17.98	
10 PERCENT EXCEEDS	0.39	
50 PERCENT EXCEEDS	0.00	
90 PERCENT EXCEEDS	0.00	

a Many days.
b From rating curve extended above 10 ft^3/s.



01487195 HERRING RUN TRIBUTARY AT SEAFORD, DE—Continued

EXTREMES FOR 2002 WATER YEAR.--Peak discharges greater than base discharge of 25 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 2	0845	30	5.11	Sep 1	0615	34	5.20
Sep 1	0445	35	5.23	Sep 1	0845	*75	*5.99

Minimum discharge, 0.00 ft^3/s, on many days.

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	0.00	0.00	0.00	e0.00	e0.00	0.00	1.7	0.00	0.00	0.00	0.00	21
2	0.00	0.00	0.00	e0.00	e0.00	0.02	0.07	2.7	0.00	0.00	0.00	4.8
3	0.00	0.00	0.00	e0.00	e0.00	0.68	0.17	0.21	0.00	0.00	0.00	0.28
4	0.00	0.00	0.00	e0.00	e0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.05
5	0.00	0.00	0.00	e0.00	e0.00	0.00	0.00	0.19	0.00	0.00	0.00	0.03
6	0.00	0.00	0.00	e0.00	e0.00	0.00	0.00	0.00	0.50	0.00	0.00	0.03
7	0.00	0.00	0.00	e0.20	e0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00
8	0.00	0.00	0.18	e0.10	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.01	e0.00	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	e0.00	e0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.50	e0.00	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	e0.00	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.31
16	0.00	0.00	0.00	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.6
17	0.00	0.00	0.00	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06
18	0.00	0.00	1.4	e0.00	0.00	1.5	0.00	0.26	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	e0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	e0.00	0.00	1.9	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	e0.00	0.00	0.47	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	e0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00
24	0.00	0.00	0.93	e0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00
25	0.00	0.00	0.00	e0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.00
26	0.00	0.00	0.00	e0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.12
27	0.00	0.00	0.00	e0.00	0.00	0.68	0.00	0.00	0.00	0.42	0.00	0.00
28	0.00	0.00	e0.00	e0.00	0.00	0.00	2.3	0.00	0.00	0.00	0.32	0.00
29	0.00	0.00	e0.00	e0.00	---	0.00	0.11	0.00	0.00	0.00	2.8	0.00
30	0.00	0.00	e0.00	e0.00	---	0.00	0.00	0.00	0.00	0.00	0.03	0.00
31	0.00	---	e0.00	e0.00	---	1.9	---	0.00	---	0.00	0.15	---
MEAN	0.00	0.00	0.10	0.01	0.00	0.23	0.15	0.11	0.02	0.02	0.11	0.94
MAX	0.00	0.00	1.4	0.20	0.00	1.9	2.3	2.7	0.50	0.42	2.8	21
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CFSM	0.00	0.00	0.39	0.04	0.00	0.93	0.59	0.44	0.07	0.09	0.43	3.77
IN.	0.00	0.00	0.45	0.04	0.00	1.07	0.66	0.51	0.08	0.10	0.49	4.21

e Estimated

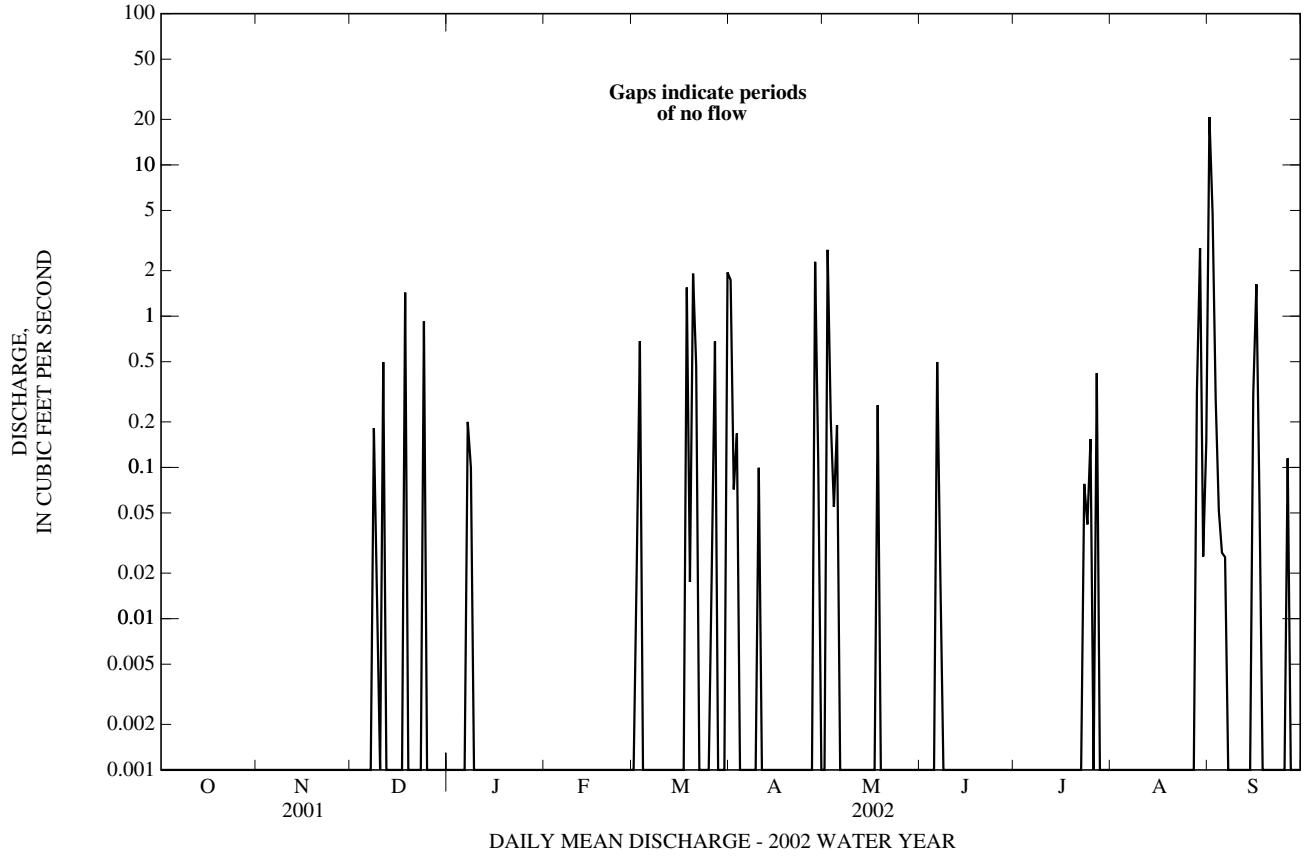
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2002, BY WATER YEAR (WY)

MEAN	0.00	0.03	0.12	0.09	0.08	0.40	0.14	0.21	0.21	0.02	1.02	0.50
MAX	0.01	0.06	0.14	0.16	0.16	0.56	0.15	0.32	0.39	0.02	1.94	0.94
(WY)	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)	(2002)	(2001)	(2001)	(2002)	(2001)	(2002)
MIN	0.00	0.00	0.10	0.01	0.00	0.23	0.13	0.11	0.02	0.02	0.11	0.05
(WY)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2001)	(2002)	(2002)	(2001)	(2002)	(2001)

01487195 HERRING RUN TRIBUTARY AT SEAFORD, DE—Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 2001 - 2002	
ANNUAL MEAN	0.32		0.14		0.24	
HIGHEST ANNUAL MEAN					0.33	2001
LOWEST ANNUAL MEAN					0.14	2002
HIGHEST DAILY MEAN	23	Aug 11	21	Sep 1	23	Aug 11, 2001
LOWEST DAILY MEAN	0.00	(a)	0.00	(a)	0.00	(b)
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 1	0.00	Oct 1	0.00	Oct 24, 2000
MAXIMUM PEAK FLOW			75	Sep 1	(c)147	Aug 11, 2001
MAXIMUM PEAK STAGE			5.99	Sep 1	6.97	Aug 11, 2001
INSTANTANEOUS LOW FLOW			0.00	(a)	0.00	(b)
ANNUAL RUNOFF (CFSM)	1.29		0.561		0.943	
ANNUAL RUNOFF (INCHES)	17.49		7.61		12.81	
10 PERCENT EXCEEDS	0.35		0.05		0.21	
50 PERCENT EXCEEDS	0.00		0.00		0.00	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

a Many days.
b Many days during the 2001-2002 Water Years.
c From rating curve extended above 10 ft^3/s.



DAILY MEAN DISCHARGE - 2002 WATER YEAR

01487195 HERRING RUN TRIBUTARY AT SEAFORD, DE—Continued

EXTREMES FOR 2003 WATER YEAR.--Peak discharges greater than base discharge of 25 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 16	1002	*28	*5.00	No other peak greater than base discharge.			

Minimum discharge, 0.00 ft^3/s, on many days.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.23	0.24	1.4	0.77	0.68	0.14	0.00	0.40	0.00	0.00	0.00
2	0.00	0.07	0.21	0.91	0.17	1.6	0.13	0.00	0.01	0.93	0.00	0.00
3	0.00	0.02	0.20	1.0	0.06	0.99	0.14	0.00	0.00	1.8	0.60	0.32
4	0.00	0.01	0.18	0.60	0.97	0.53	0.00	0.00	0.48	0.00	0.01	2.9
5	0.00	0.25	0.73	0.36	0.17	1.6	0.00	0.00	0.39	0.00	2.4	0.25
6	0.00	1.1	0.74	0.28	0.07	2.7	0.00	0.00	0.14	0.00	2.1	0.00
7	0.00	0.19	0.44	0.21	0.35	1.2	1.1	0.04	8.2	0.00	1.8	0.00
8	0.00	0.07	0.35	0.18	0.13	0.70	0.41	0.02	3.4	0.00	0.54	0.00
9	0.00	0.05	0.29	0.16	0.10	0.55	3.7	0.00	e0.50	0.51	0.01	0.00
10	0.87	0.02	0.26	0.12	0.29	0.38	1.3	0.02	e0.03	0.07	0.21	0.00
11	4.5	0.77	2.7	0.08	0.15	0.39	4.6	0.00	0.09	0.00	0.00	0.00
12	0.56	2.6	0.90	0.07	0.10	0.35	2.5	0.00	0.29	0.00	0.00	0.58
13	0.06	1.6	1.3	0.05	0.06	0.23	0.95	0.00	0.02	0.00	0.00	0.69
14	0.01	0.49	1.1	0.04	0.05	0.04	0.50	0.00	0.00	2.5	0.00	0.00
15	0.00	0.26	0.44	0.04	0.98	0.01	0.27	0.00	0.00	0.00	0.00	0.14
16	2.1	3.5	0.25	0.03	0.27	0.40	0.09	6.9	0.00	0.00	1.2	0.00
17	0.32	7.0	0.14	0.03	1.7	1.3	0.02	3.1	0.00	0.00	0.22	0.00
18	0.07	1.9	0.10	0.03	1.5	0.46	0.00	1.1	0.00	0.00	0.00	6.0
19	0.01	0.73	0.08	0.03	1.1	0.08	0.01	0.44	2.9	0.00	0.00	3.8
20	0.00	0.41	1.7	0.03	1.4	1.2	0.00	0.03	4.6	0.00	0.00	0.19
21	0.00	0.51	0.51	0.03	1.7	1.2	0.00	0.95	1.8	0.00	0.00	0.00
22	0.00	1.0	0.27	0.03	7.9	0.69	0.00	1.3	0.38	0.00	0.00	0.00
23	0.00	0.43	0.17	0.01	7.6	0.40	0.00	1.4	0.01	0.00	0.00	4.2
24	0.00	0.29	0.31	0.01	1.8	0.22	0.00	0.66	0.00	0.00	0.00	0.60
25	0.01	0.24	1.9	0.01	0.91	0.08	0.00	0.45	0.00	0.00	e0.00	0.09
26	1.3	0.19	0.56	0.01	0.63	0.08	0.00	2.7	0.00	0.00	e0.00	0.11
27	0.09	0.21	0.27	0.01	0.68	0.12	0.00	0.87	0.00	0.00	0.02	0.00
28	0.06	0.17	0.18	0.00	1.2	0.06	0.00	2.7	0.00	0.29	0.00	0.04
29	1.7	0.20	0.14	0.01	---	0.60	0.00	1.3	0.00	0.54	0.59	0.01
30	1.7	0.24	0.11	0.01	---	1.4	0.00	0.76	0.00	0.00	0.18	0.00
31	0.97	---	0.11	0.02	---	0.51	---	0.48	---	0.00	0.00	---
MEAN	0.46	0.82	0.54	0.19	1.17	0.67	0.53	0.81	0.79	0.21	0.32	0.66
MAX	4.5	7.0	2.7	1.4	7.9	2.7	4.6	6.9	8.2	2.5	2.4	6.0
MIN	0.00	0.01	0.08	0.00	0.05	0.01	0.00	0.00	0.00	0.00	0.00	0.00
CFSM	1.85	3.30	2.18	0.75	4.69	2.68	2.11	3.25	3.15	0.86	1.27	2.66
IN.	2.13	3.68	2.51	0.86	4.88	3.09	2.36	3.75	3.52	0.99	1.47	2.96

e Estimated

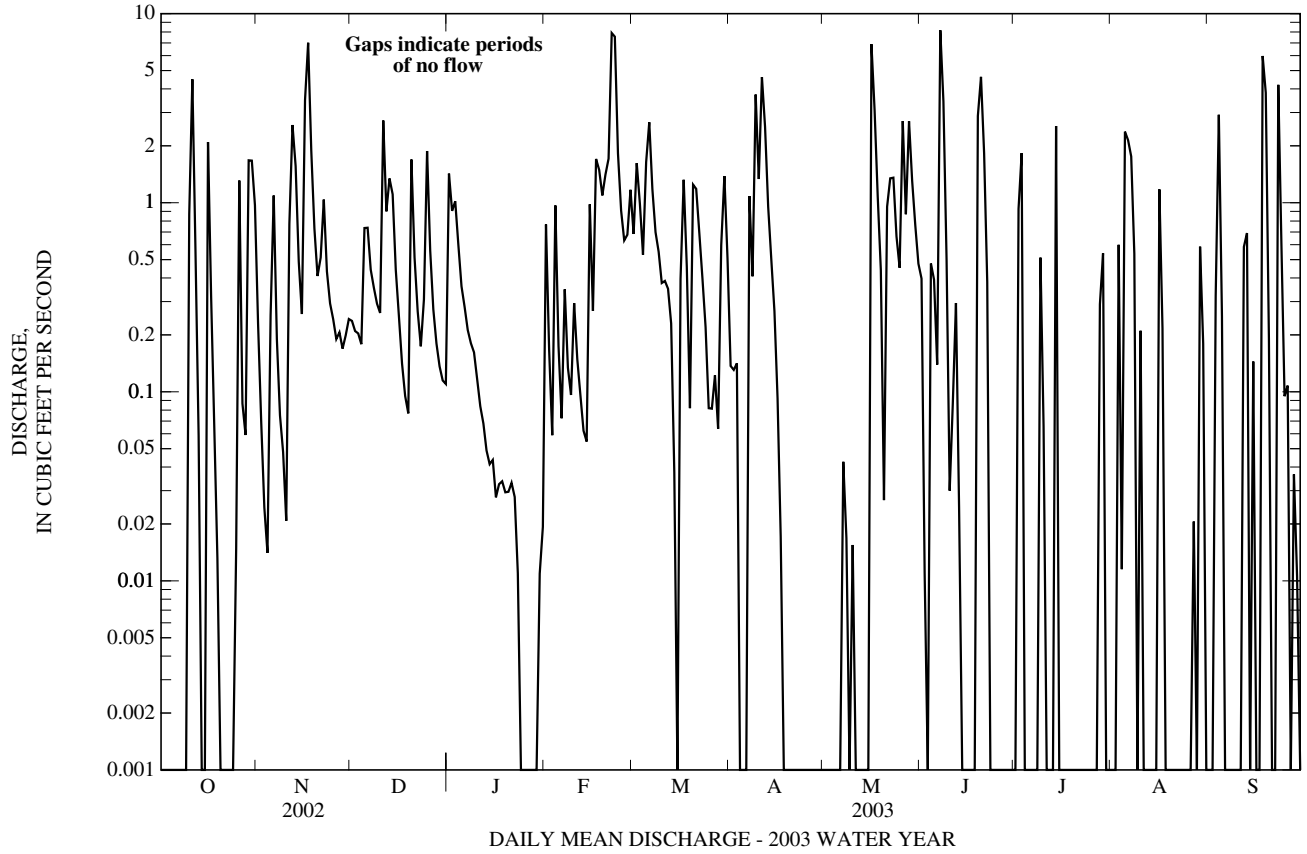
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2003, BY WATER YEAR (WY)

MEAN	0.16	0.30	0.26	0.12	0.44	0.49	0.27	0.41	0.40	0.09	0.79	0.55
MAX	0.46	0.82	0.54	0.19	1.17	0.67	0.53	0.81	0.79	0.21	1.94	0.94
(WY)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2001)	(2002)
MIN	0.00	0.00	0.10	0.01	0.00	0.23	0.13	0.11	0.02	0.02	0.11	0.05
(WY)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2001)	(2002)	(2002)	(2001)	(2002)	(2001)

01487195 HERRING RUN TRIBUTARY AT SEAFORD, DE—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 2001 - 2003	
ANNUAL MEAN	0.29		0.59		0.35	
HIGHEST ANNUAL MEAN					0.59	2003
LOWEST ANNUAL MEAN					0.14	2002
HIGHEST DAILY MEAN	21	Sep 1	8.2	Jun 7	23	Aug 11, 2001
LOWEST DAILY MEAN	0.00	(a)	0.00	(a)	0.00	(a)
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 9	0.00	Oct 1	0.00	Oct 24, 2000
MAXIMUM PEAK FLOW			28	May 16	(b)147	Aug 11, 2001
MAXIMUM PEAK STAGE			5.00	May 16	6.97	Aug 11, 2001
INSTANTANEOUS LOW FLOW			0.00	(a)	0.00	(a)
ANNUAL RUNOFF (CFSM)	1.14		2.37		1.42	
ANNUAL RUNOFF (INCHES)	15.49		32.21		19.28	
10 PERCENT EXCEEDS	0.61		1.7		0.87	
50 PERCENT EXCEEDS	0.00		0.12		0.00	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

a Many days.
b Many days during the 2001-2003 Water Years.
c From rating curve extended above 10 ft^3/s.



DAILY MEAN DISCHARGE - 2003 WATER YEAR

01487195 HERRING RUN TRIBUTARY AT SEAFORD, DE—Continued

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 25 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Aug. 21	1606	*21	*4.73	No other peak greater than base discharge			

Minimum discharge, 0.00 ft^3/s, on many days.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.15	0.01	0.00	0.00	0.11	0.00	0.00	0.00	0.28	0.00
2	0.00	0.00	0.06	0.07	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.04	0.02	2.1	0.00	0.00	0.06	0.00	0.00	0.04	0.00
4	0.00	0.00	0.04	0.01	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.06	4.2	1.4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	7.2	2.4	0.58	2.7	0.14	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	2.2	0.89	0.06	2.5	0.00	0.00	0.01	0.00	0.00	0.00	0.00
8	0.00	0.60	0.47	0.01	0.12	0.00	0.00	0.01	0.00	0.00	0.00	0.00
9	0.00	0.23	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.09	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.02	6.6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.85	1.4	0.00	0.00	0.00	2.0	0.00	0.00	0.69	0.00	0.00
13	0.00	1.5	0.53	0.00	0.00	0.00	4.9	0.00	0.00	0.07	0.00	0.00
14	0.31	0.26	4.0	0.00	0.00	0.00	2.7	0.00	0.00	0.00	0.99	0.00
15	0.47	0.09	1.7	0.00	0.00	0.00	1.5	0.00	0.00	0.00	0.16	0.00
16	0.00	0.04	0.65	0.00	0.00	0.34	0.17	0.00	0.00	0.00	1.6	0.00
17	0.00	0.06	1.6	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
18	0.00	0.06	0.76	2.3	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00
19	0.00	3.8	0.39	0.69	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	5.0	0.17	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	1.1	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.3	0.00
22	0.00	0.49	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
23	0.00	0.16	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.11	4.8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.24	1.2	0.00	0.00	0.00	0.00	0.50	0.00	0.00	0.00	0.00
26	0.00	0.11	0.51	0.00	0.00	0.00	0.58	0.03	0.00	0.00	0.00	0.00
27	0.49	0.06	0.24	0.10	0.00	0.00	0.24	0.00	0.00	0.00	0.00	0.00
28	0.18	0.49	0.09	0.02	0.00	0.00	0.00	0.54	0.00	0.11	0.00	0.47
29	4.4	0.76	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.22	0.28	0.09	0.00	---	0.00	0.00	0.00	0.00	0.00	2.3	0.03
31	0.00	---	0.02	0.00	---	0.00	---	0.22	---	0.00	1.9	---
MEAN	0.20	0.86	1.09	0.17	0.27	0.02	0.41	0.04	0.00	0.03	0.28	0.02
MAX	4.4	7.2	6.6	2.3	2.7	0.34	4.9	0.54	0.00	0.69	2.3	0.47
MIN	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CFSM	0.78	3.45	4.38	0.69	1.06	0.08	1.63	0.18	0.00	0.13	1.11	0.07
IN.	0.90	3.85	5.05	0.79	1.15	0.09	1.82	0.20	0.00	0.14	1.28	0.07

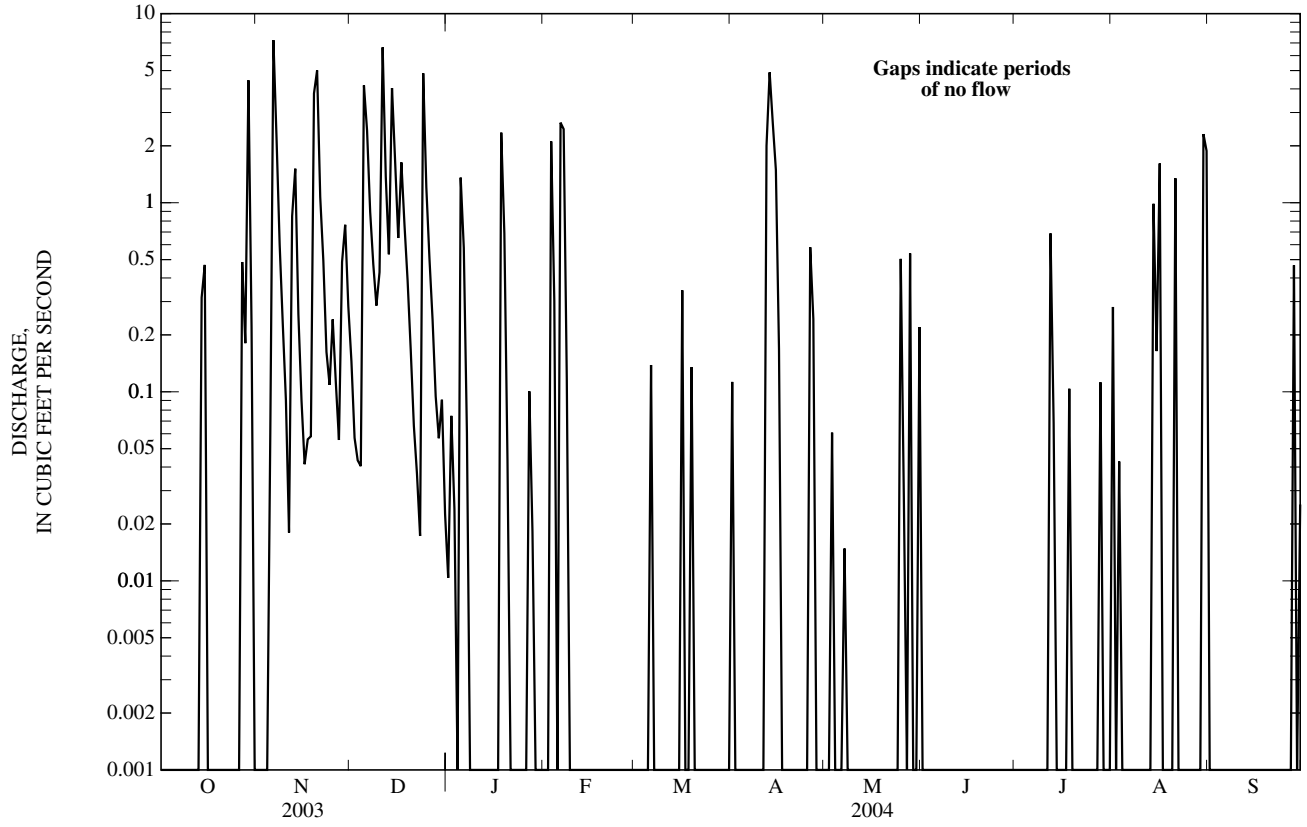
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2004, BY WATER YEAR (WY)

MEAN	0.17	0.44	0.47	0.13	0.40	0.37	0.30	0.32	0.30	0.07	0.66	0.42
MAX	0.46	0.86	1.09	0.19	1.17	0.67	0.53	0.81	0.79	0.21	1.94	0.94
(WY)	(2003)	(2004)	(2004)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2001)	(2002)
MIN	0.00	0.00	0.10	0.01	0.00	0.02	0.13	0.04	0.00	0.02	0.11	0.02
(WY)	(2002)	(2002)	(2002)	(2002)	(2002)	(2004)	(2001)	(2004)	(2004)	(2001)	(2002)	(2004)

01487195 HERRING RUN TRIBUTARY AT SEAFORD, DE—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 2001 - 2004	
ANNUAL MEAN	0.62		0.28		0.34	
HIGHEST ANNUAL MEAN					0.59	2003
LOWEST ANNUAL MEAN					0.14	2002
HIGHEST DAILY MEAN	8.2	Jun 7	7.2	Nov 6	23	Aug 11, 2001
LOWEST DAILY MEAN	0.00	(a)	0.00	(a)	0.00	(b)
ANNUAL SEVEN-DAY MINIMUM	0.00	Apr 20	0.00	Oct 1	0.00	Oct 24, 2000
MAXIMUM PEAK FLOW			21	Nov 6	(c)147	Aug 11, 2001
MAXIMUM PEAK STAGE			4.73	Aug 21	6.97	Aug 11, 2001
INSTANTANEOUS LOW FLOW			0.00	(a)	0.00	(b)
ANNUAL RUNOFF (CFSM)	2.48		1.13		1.35	
ANNUAL RUNOFF (INCHES)	33.68		15.35		18.29	
10 PERCENT EXCEEDS	1.7		0.66		0.77	
50 PERCENT EXCEEDS	0.07		0.00		0.00	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

a Many days.
b Many days during the 2001-2004 Water Years.
c From rating curve extended above 10 ft^3/s.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01487500 TRAP POND OUTLET NEAR LAUREL, DE

LOCATION.--Lat 38°31'40.4", long 75°28'56.7", Sussex County, Hydrologic Unit 02060008, on left bank at downstream end of concrete spillway channel, 200 ft downstream from Trap Pond, and 5 mi southeast of Laurel.

DRAINAGE AREA.--16.7 mi^2.

PERIOD OF RECORD.--June 1951 to September 1971, October 2000 to September 2004 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 27.57 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except those for estimated daily discharges (missing record), which are poor. Several measurements of water temperature were made during the year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov 7	0500	*188	*2.90
Nov 20	1500	168	2.79
Dec 11	1845	182	2.86
Dec 15	0445	176	2.83
Dec 24	2245	184	2.87
Feb 7	1315	164	2.78
Apr 14	0615	166	2.79

Minimum discharge, 1.0 ft^3/s, July 27.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	29	26	29	18	15	17	18	e16	3.8	1.7	14
2	15	24	23	29	17	15	17	17	e13	3.0	2.8	10
3	14	20	21	28	31	14	17	18	e10	2.1	13	8.0
4	13	18	19	27	74	14	15	17	e7.0	2.0	13	7.3
5	12	16	38	31	49	14	14	16	e7.5	2.1	12	7.3
6	11	50	86	45	45	16	13	14	e8.0	2.2	10	6.9
7	11	162	77	42	138	16	12	13	e7.0	2.1	7.0	6.4
8	10	92	52	32	100	18	11	14	e6.0	2.1	5.0	6.5
9	10	54	40	28	61	18	11	13	e5.0	2.0	4.2	6.7
10	10	40	36	25	47	e17	10	12	4.7	1.7	3.8	5.5
11	10	33	117	22	42	e16	17	10	3.5	1.6	3.3	4.9
12	11	32	126	21	36	14	28	9.5	3.5	1.6	3.2	4.5
13	9.5	41	73	22	32	13	126	8.6	4.0	1.7	3.0	4.0
14	10	43	79	21	30	13	147	8.1	4.2	1.5	8.7	3.6
15	17	33	152	20	27	12	129	7.6	6.0	1.9	26	6.6
16	14	28	93	18	25	17	91	7.1	6.5	2.1	41	7.5
17	13	25	69	17	24	20	58	8.7	5.8	2.2	60	6.5
18	12	24	76	30	24	21	43	e8.5	5.9	2.1	32	9.8
19	11	31	57	55	24	24	34	e20	4.4	2.2	19	9.3
20	10	133	45	45	25	25	28	e16	3.6	2.4	13	7.8
21	9.8	107	38	32	23	21	29	e14	3.4	2.6	9.7	5.1
22	8.9	65	33	27	22	19	26	e12	3.6	2.4	8.0	4.3
23	8.2	48	31	24	20	16	24	e11	3.8	2.4	6.4	5.4
24	7.9	39	100	21	19	15	31	e9.5	3.8	2.0	6.8	4.3
25	7.7	34	138	19	18	13	29	e8.5	3.9	1.5	6.3	3.6
26	8.1	31	80	20	17	13	25	e18	4.2	1.3	5.6	2.4
27	9.7	28	56	21	16	12	32	e15	4.2	1.2	5.1	3.6
28	11	27	45	28	15	12	32	e13	3.9	1.4	4.9	9.1
29	48	30	39	27	15	11	25	e12	4.0	1.5	4.6	8.8
30	71	29	35	24	---	12	21	e12	4.1	1.7	17	5.9
31	41	---	32	21	---	13	---	e14	---	1.8	26	---
TOTAL	471.8	1,366	1,932	851	1,034	489	1,112	395.1	170.5	62.2	382.1	195.6
MEAN	15.2	45.5	62.3	27.5	35.7	15.8	37.1	12.7	5.68	2.01	12.3	6.52
MAX	71	162	152	55	138	25	147	20	16	3.8	60	14
MIN	7.7	16	19	17	15	11	10	7.1	3.4	1.2	1.7	2.4
CFSM	0.91	2.73	3.73	1.64	2.14	0.94	2.22	0.76	0.34	0.12	0.74	0.39
IN.	1.05	3.04	4.30	1.90	2.30	1.09	2.48	0.88	0.38	0.14	0.85	0.44

e Estimated

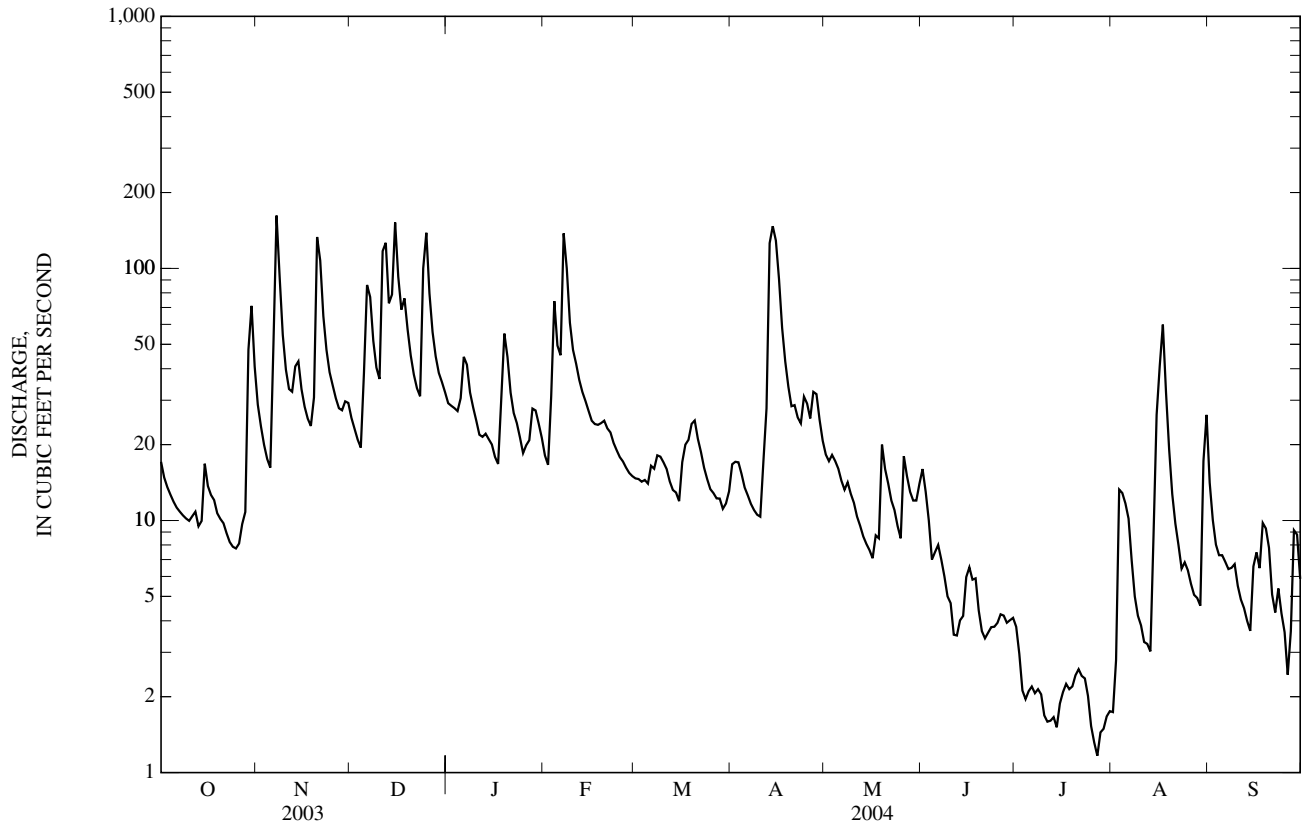
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1971, 2001 - 2004, BY WATER YEAR (WY)

MEAN	5.91	11.4	17.9	22.0	29.8	34.5	27.0	15.8	10.3	4.87	12.2	5.65
MAX	19.2	46.6	62.3	47.2	75.0	68.2	56.5	45.3	30.7	13.3	70.7	22.0
(WY)	(1956)	(2003)	(2004)	(1962)	(1961)	(1958)	(1958)	(1958)	(2003)	(1958)	(1967)	(1967)
MIN	0.25	0.33	1.56	1.19	4.14	9.08	9.49	6.73	3.31	0.80	0.02	0.20
(WY)	(1958)	(1969)	(1966)	(1966)	(2002)	(2002)	(1967)	(1957)	(1969)	(2002)	(2002)	(1957)

01487500 TRAP POND OUTLET NEAR LAUREL, DE—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1951 - 1971, 2001 - 2004	
ANNUAL TOTAL	11,848.7		8,461.3			
ANNUAL MEAN	32.5		23.1		16.4	
HIGHEST ANNUAL MEAN					29.9	2003
LOWEST ANNUAL MEAN					4.58	2002
HIGHEST DAILY MEAN	212	Feb 23	162	Nov 7	360	Aug 25, 1967
LOWEST DAILY MEAN	3.8	Aug 25	1.2	Jul 27	0.00	(a)
ANNUAL SEVEN-DAY MINIMUM	4.5	Aug 23	1.5	Jul 25	0.00	Aug 7, 2002
MAXIMUM PEAK FLOW			188	Nov 7	608	Aug 25, 1967
MAXIMUM PEAK STAGE			2.90	Nov 7	4.09	Aug 25, 1967
INSTANTANEOUS LOW FLOW			1.0	Jul 27	0.00	(b)
ANNUAL RUNOFF (CFSM)	1.94		1.38		0.984	
ANNUAL RUNOFF (INCHES)	26.39		18.85		13.37	
10 PERCENT EXCEEDS	74		48		36	
50 PERCENT EXCEEDS	23		15		10	
90 PERCENT EXCEEDS	6.9		3.4		1.3	

a Aug. 12-14, Sept. 6, 1957, Sept. 11-13, 1966, April 20, 21, 1969, Aug. 7-31, 2002.
b Aug. 11-15, 18, 19, Sept. 5-7, 1957, Sept. 11-13, 1966, April 20, 21, 1969, July 25, Aug. 5-31, Sept. 1, 2002.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01487698 DUKES AND JOBS DITCH NEAR LAUREL, DE

LOCATION.--Lat 38°35'15.0", long 75°30'59.1", Sussex County, Hydrologic Unit 02060008, right bank at downstream of highway culverts on Sycamore Road (No. 475), 0.6 mi upstream from Elliott Pond Branch, 0.8 mi downstream from confluence of Dukes Ditch and Jobs Ditch, and 4.0 mi north east of Laurel.

DRAINAGE AREA.--3.23 mi^2.

PERIOD OF RECORD.--October 2000 to September 2004 (discontinued).

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

REMARKS.--No estimated daily discharges. Records good. U.S. Geological Survey gage-height telemeter at station. Several measurements of water temperature were made during the year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 50 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 29	0815	86	2.61	Dec 24	1100	*210	*3.77
Nov 6	1745	206	3.74	Jan 18	1600	51	2.15
Nov 20	0200	77	2.50	Feb 3	1630	153	3.28
Dec 11	0615	138	3.13	Feb 6	2330	128	3.03
Dec 14	1545	105	2.81	Apr 13	0145	51	2.42

Minimum discharge, 0.37 ft^3/s, July 12.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.3	6.6	7.8	8.6	4.7	4.8	6.4	5.6	2.4	1.0	15	4.5
2	6.7	6.3	7.4	8.4	4.6	4.7	6.0	5.6	2.1	1.0	12	4.0
3	6.3	6.2	7.0	8.3	40	4.7	5.8	6.3	1.8	1.0	6.7	3.8
4	6.1	5.9	7.0	8.0	13	4.7	5.8	5.8	1.7	0.97	2.7	3.8
5	5.6	5.7	23	11	7.9	4.7	5.7	5.6	2.3	1.1	2.4	3.7
6	5.4	66	20	11	26	5.2	5.5	5.4	2.1	0.80	2.3	3.6
7	5.2	34	13	8.6	43	4.9	5.6	5.1	1.9	0.66	2.1	3.4
8	5.0	17	11	8.0	13	5.1	5.3	5.1	1.7	0.53	2.0	3.2
9	4.9	12	9.5	7.7	9.5	4.8	5.2	5.0	1.6	0.44	2.0	3.1
10	4.9	10	9.4	7.2	8.7	4.9	5.1	4.8	1.9	0.45	1.9	2.8
11	4.9	9.6	66	6.9	8.1	4.8	5.9	4.3	2.3	0.45	1.9	2.6
12	4.9	9.6	22	6.8	7.6	4.8	11	3.9	1.8	1.0	1.9	2.5
13	4.7	17	15	6.7	7.4	4.6	25	3.6	1.5	4.9	2.0	2.3
14	4.6	10	44	6.2	7.3	4.7	15	3.4	1.6	0.73	4.2	2.2
15	8.6	8.9	30	6.2	6.7	5.0	16	3.2	1.5	0.64	8.7	2.6
16	4.8	8.3	18	5.9	6.3	6.0	9.5	2.8	1.4	0.57	15	2.4
17	4.7	7.9	19	5.7	6.3	5.8	7.7	2.6	1.5	0.54	5.6	2.4
18	4.6	7.5	16	21	6.3	5.5	6.8	2.6	1.4	0.88	4.9	2.5
19	4.5	20	13	9.6	6.3	6.3	6.5	2.6	1.4	0.66	4.5	2.2
20	4.3	41	11	6.8	6.0	5.8	6.2	2.6	1.3	0.60	4.1	2.0
21	4.4	17	10	6.2	5.9	6.2	6.0	2.5	1.2	0.56	4.6	1.9
22	4.4	13	9.5	6.1	5.5	5.7	5.7	2.4	1.2	0.54	4.1	1.9
23	4.2	11	9.0	5.7	5.4	5.6	5.5	2.1	1.2	0.54	3.7	1.8
24	3.8	10	83	5.5	5.4	5.6	5.6	2.0	1.1	0.56	3.4	1.8
25	3.6	9.6	31	5.2	5.2	5.6	5.6	2.0	1.1	0.61	3.1	1.8
26	3.8	9.0	18	5.3	5.0	5.6	5.9	2.3	1.2	0.63	3.0	1.8
27	4.2	8.5	14	6.8	5.0	5.8	7.2	2.1	1.1	0.98	2.9	1.7
28	4.4	8.8	12	7.9	4.9	5.6	6.1	3.2	1.1	1.6	2.7	2.6
29	32	10	11	5.8	4.9	5.6	5.7	2.1	1.1	1.0	2.6	2.4
30	8.6	8.3	10	5.4	---	5.6	5.6	2.0	1.1	0.80	6.8	2.1
31	7.0	---	9.2	4.9	---	5.8	---	2.7	---	0.83	8.1	---
TOTAL	188.4	414.7	585.8	233.4	285.9	164.5	224.9	111.3	46.6	27.57	146.9	79.4
MEAN	6.08	13.8	18.9	7.53	9.86	5.31	7.50	3.59	1.55	0.89	4.74	2.65
MAX	32	66	83	21	43	6.3	25	6.3	2.4	4.9	15	4.5
MIN	3.6	5.7	7.0	4.9	4.6	4.6	5.1	2.0	1.1	0.44	1.9	1.7
CFSM	1.88	4.28	5.85	2.33	3.05	1.64	2.32	1.11	0.48	0.28	1.47	0.82
IN.	2.17	4.78	6.75	2.69	3.29	1.89	2.59	1.28	0.54	0.32	1.69	0.91

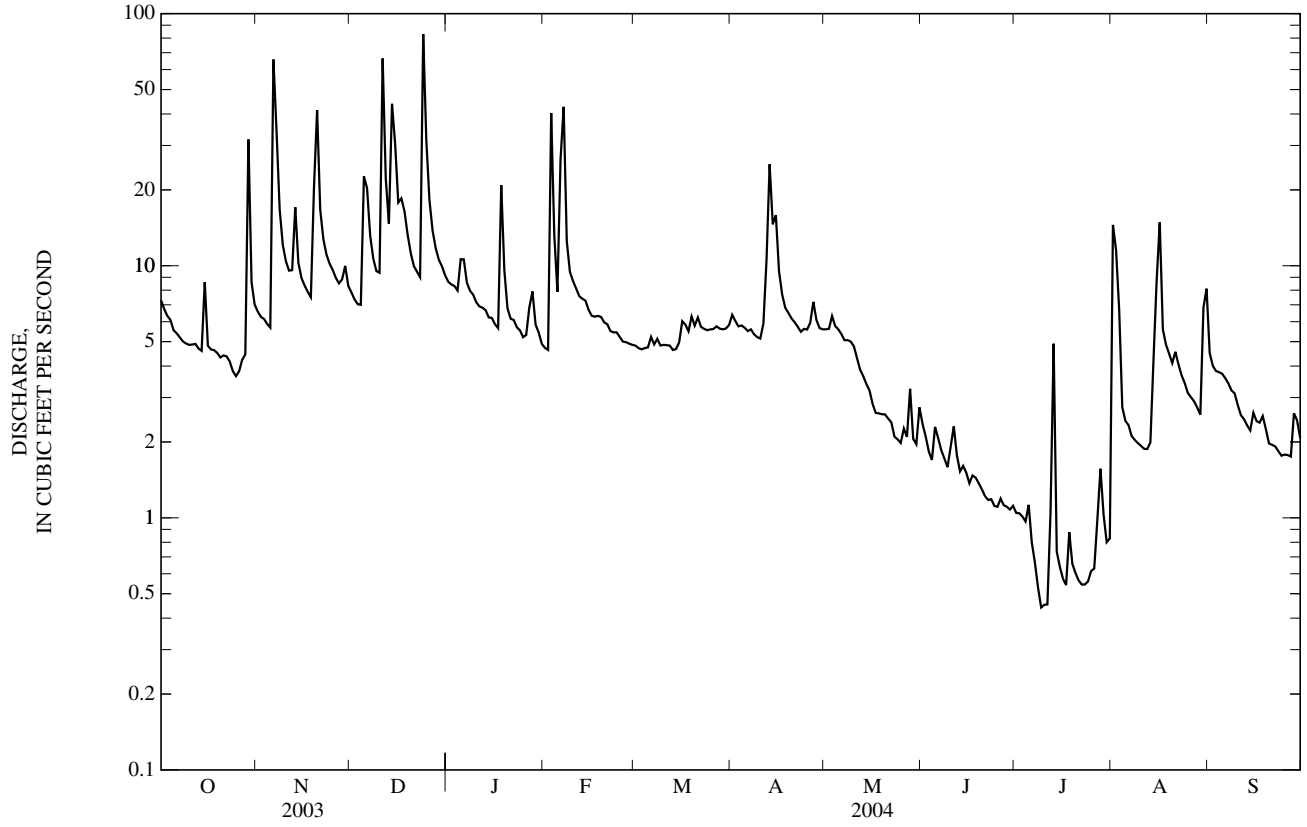
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2004, BY WATER YEAR (WY)

MEAN	3.36	6.74	7.53	4.54	7.10	5.68	6.53	4.88	4.36	2.60	8.21	7.37
MAX	6.08	13.8	18.9	7.53	11.5	8.23	8.87	8.82	11.5	7.34	19.0	20.9
(WY)	(2004)	(2004)	(2004)	(2004)	(2003)	(2001)	(2003)	(2003)	(2003)	(2003)	(2001)	(2003)
MIN	1.76	1.14	0.97	1.23	1.31	1.76	3.93	2.75	0.97	0.40	0.17	2.65
(WY)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2004)

01487698 DUKES AND JOBS DITCH NEAR LAUREL, DE—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 2001 - 2004	
ANNUAL TOTAL	3,922.9		2,509.37			
ANNUAL MEAN	10.7		6.86		5.73	
HIGHEST ANNUAL MEAN					9.13	2003
LOWEST ANNUAL MEAN					1.63	2002
HIGHEST DAILY MEAN	88	Sep 19	83	Dec 24	164	Aug 11, 2001
LOWEST DAILY MEAN	3.6	Aug 3	0.44	Jul 9	0.10	Aug 17, 2002
ANNUAL SEVEN-DAY MINIMUM	4.0	Jul 29	0.58	Jul 20	0.10	Aug 17, 2002
MAXIMUM PEAK FLOW			210	Dec 24	(a)551	Aug 11, 2001
MAXIMUM PEAK STAGE			3.77	Dec 24	5.78	Aug 11, 2001
INSTANTANEOUS LOW FLOW			0.37	Jul 12	0.37	Jul 12, 2004
ANNUAL RUNOFF (CFSM)	3.33		2.12		1.77	
ANNUAL RUNOFF (INCHES)	45.18		28.90		24.09	
10 PERCENT EXCEEDS	18		12		10	
50 PERCENT EXCEEDS	7.3		5.2		4.0	
90 PERCENT EXCEEDS	4.4		1.2		0.99	

a From rating curve extended above 25 ft^3/s.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01491000 CHOPTANK RIVER NEAR GREENSBORO, MD

LOCATION.--Lat 38°59'49.9", long 75°47'08.9", Caroline County, Hydrologic Unit 02060005, on left bank at highway bridge (removed), 0.1 mi upstream from Gravelly Branch, 2.0 mi northeast of Greensboro, and 60 mi upstream from mouth.

DRAINAGE AREA.--113 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1948 to current year.

REVISED RECORDS.--WSP 1622: 1948. WDR MD-DE-79-1: 1961(P).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 3.51 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges (missing record, ice effect, lagging intake), which are fair. Diversions for irrigation of about 500 acres upstream from station. U.S. Geological Survey gage-height telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1935 is believed to have been higher than that of Aug. 4, 1967, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov 7	1315	1,220	7.10	Feb 7	1715	2,130	8.81
Dec 15	1630	1,270	7.21	Apr 14	1830	*2,470	*9.35
Dec 25	1045	1,320	7.32				

Minimum discharge, 16 ft^3/s, July 11, 12, Sept. 26, 27.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	157	271	267	221	107	100	148	169	44	e38	e44	46
2	142	208	221	208	93	103	208	162	42	e38	e58	33
3	130	180	191	204	122	104	250	168	72	e37	63	31
4	120	165	174	202	441	101	237	186	61	e36	48	29
5	110	157	253	200	408	102	230	189	71	e36	e34	26
6	104	484	574	221	314	132	208	176	89	e34	e29	25
7	99	1,130	575	228	1,670	200	171	162	79	e32	e26	23
8	93	756	411	198	1,110	204	158	154	66	e31	e24	24
9	89	473	303	181	518	172	150	140	51	e30	e23	30
10	94	301	263	e165	335	152	140	139	43	e30	e21	30
11	79	233	e700	e170	280	139	130	150	e55	e31	e20	25
12	76	221	e1,000	155	253	130	137	133	80	e33	e50	20
13	72	346	579	155	227	117	643	115	66	153	40	19
14	71	438	478	150	211	104	2,050	109	49	469	e29	20
15	108	300	1,050	142	194	100	2,100	98	42	208	e26	23
16	132	237	e820	e130	177	110	1,010	94	38	107	e24	29
17	109	212	564	e135	164	153	571	85	151	67	e22	28
18	90	188	611	138	160	165	434	82	356	80	e38	30
19	79	199	541	182	155	158	352	81	179	182	35	30
20	75	571	407	e185	138	164	261	79	106	246	33	26
21	73	819	301	e160	140	158	241	68	77	145	31	23
22	73	517	252	e145	145	144	220	71	67	e100	30	23
23	71	352	232	e125	134	130	201	70	53	e70	25	21
24	66	252	444	e115	126	116	199	57	45	56	26	19
25	64	246	1,170	e100	125	108	189	51	39	60	25	18
26	62	227	734	94	117	108	180	101	e42	56	24	17
27	68	207	492	116	110	106	226	99	e40	51	23	18
28	130	196	375	117	106	106	250	82	e39	70	23	41
29	372	259	294	108	102	98	213	68	e39	69	22	62
30	635	324	261	103	---	93	183	54	e38	57	23	49
31	446	---	241	94	---	106	---	46	---	43	43	---
TOTAL	4,089	10,469	14,778	4,847	8,182	3,983	11,690	3,438	2,219	2,695	982	838
MEAN	132	349	477	156	282	128	390	111	74.0	86.9	31.7	27.9
MAX	635	1,130	1,170	228	1,670	204	2,100	189	356	469	63	62
MIN	62	157	174	94	93	93	130	46	38	30	20	17
CFSM	1.17	3.09	4.22	1.38	2.50	1.14	3.45	0.98	0.65	0.77	0.28	0.25
IN.	1.35	3.45	4.86	1.60	2.69	1.31	3.85	1.13	0.73	0.89	0.32	0.28

e Estimated

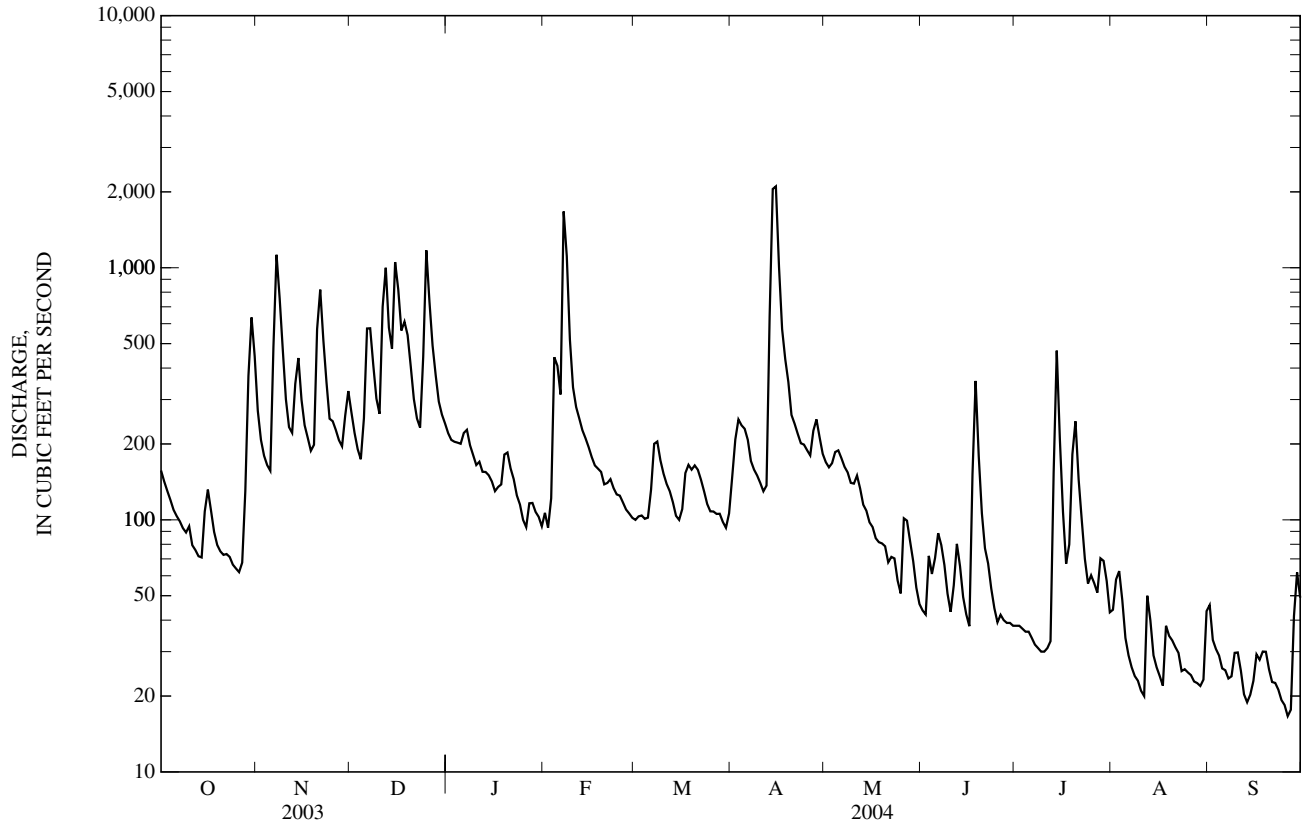
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 2004, BY WATER YEAR (WY)

MEAN	56.0	95.0	157	196	227	271	206	135	106	62.1	81.4	59.0
MAX	402	476	680	559	646	826	649	457	509	421	829	425
(WY)	(1972)	(1957)	(1997)	(1978)	(1979)	(1994)	(1983)	(1989)	(2003)	(1975)	(1967)	(1999)
MIN	9.85	10.9	13.3	17.9	31.2	43.7	47.2	30.3	19.5	9.49	5.31	9.38
(WY)	(1966)	(1966)	(1966)	(1966)	(2002)	(1966)	(1966)	(1977)	(1986)	(1977)	(1966)	(1987)

01491000 CHOPTANK RIVER NEAR GREENSBORO, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1948 - 2004	
ANNUAL TOTAL	117,418		68,210			
ANNUAL MEAN	322		186		136	
HIGHEST ANNUAL MEAN					305	2003
LOWEST ANNUAL MEAN					26.6	1966
HIGHEST DAILY MEAN	2,720	Feb 24	2,100	Apr 15	6,160	Aug 4, 1967
LOWEST DAILY MEAN	55	(a)	17	Sep 26	(e)0.35	Aug 19, 2002
ANNUAL SEVEN-DAY MINIMUM	64	Sep 6	20	Sep 21	0.64	Aug 17, 2002
MAXIMUM PEAK FLOW			2,470	Apr 14	(b)6,970	Aug 4, 1967
MAXIMUM PEAK STAGE			9.35	Apr 14	14.47	Aug 4, 1967
INSTANTANEOUS LOW FLOW			16	(c)	0.26	(d)
ANNUAL RUNOFF (CFSM)	2.85		1.65		1.21	
ANNUAL RUNOFF (INCHES)	38.65		22.45		16.41	
10 PERCENT EXCEEDS	667		418		292	
50 PERCENT EXCEEDS	217		117		74	
90 PERCENT EXCEEDS	85		29		16	

a Sept. 10-12, 2003.
e Estimated.
b From rating curve extended above 3,600 ft^3/s.
c July 11, 12, Sept. 26, 27.
d Aug. 19, 20, 2002.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01491000 CHOPTANK RIVER NEAR GREENSBORO, MD—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1974 to September 1981, October 1984 to September 1991.
WATER TEMPERATURE: October 1974 to September 1991.
SUSPENDED-SEDIMENT DISCHARGE: October 1980 to September 1991.

REMARKS.--On May 5 and Nov. 15, 1994 samples were collected and analyzed using ultraclean methodologies. Data on trace metals for these dates are available from the University of Delaware. Data on organics for these dates are available from George Mason University.Sample for Sept. 17, 1999 was collected at highway bridge on MD State Rte. 287, approximately 3 mi upstream from gaging station.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE (water years 1975-81, 1988, 1990-91): Maximum daily, 313 microsiemens/cm, Dec. 20, 1987; minimum daily, 40 microsiemens/cm, Jan. 31, 1980.
WATER TEMPERATURE (water years 1975-81, 1985, 1988-91): Maximum daily, 28.5°C, Aug. 14, 1988; minimum daily, 0.0°C, on many days during winter periods.
SEDIMENT CONCENTRATION: Maximum daily mean, 107 mg/L, Dec. 26, 1986; minimum daily mean, 1 mg/L, on many days during water years 1982-91.
SEDIMENT LOAD: Maximum daily, 448 tons, Dec. 26, 1986; minimum daily, 0.02 ton, Aug. 30, Sept. 7, 1982, July 25, 1986, Oct. 16, 23, 26, 27, 1987, Sept. 23, 1988.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sample type	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Sampling method, code (82398)	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, air, deg C (00020)
OCT												
09...	1015	Environmental	1028	80020	88	40	766	9.8	98	7.2	138	24.5
09...	*1020*	*Replicate*	*1028*	*80020*	--	*70*	--	--	--	--	--	--
28...	1030	Environmental	1028	80020	128	40	759	9.4	91	7.2	144	14.0
NOV												
07...	1045	Environmental	1028	80020	1,200	10	765	6.5	67	--	100	15.5
17...	1115	Environmental	1028	80020	213	40	766	11.5	101	7.0	119	15.0
17...	*1120*	*Replicate*	*1028*	*80020*	--	*70*	--	--	--	--	--	--
DEC												
09...	1045	Environmental	1028	80020	304	40	768	13.4	97	6.8	119	5.0
09...	*1046*	*Replicate*	*1028*	*80020*	--	*70*	--	--	--	--	--	--
JAN												
14...	1130	Environmental	1028	80020	152	40	765	13.7	97	8.1	145	-1.5
FEB												
12...	1130	Environmental	1028	80020	254	40	766	11.9	89	6.9	107	5.0
MAR												
03...	1000	Environmental	1028	80020	105	40	768	10.7	94	7.5	135	14.5
APR												
07...	1030	Environmental	1028	80020	171	40	754	11.4	104	7.4	120	21.0
07...	*1035*	*Replicate*	*1028*	*80020*	--	*40*	--	--	--	--	--	--
14...	0945	Environmental	1028	80020	1,970	10	751	10.9	101	6.7	71	12.0
MAY												
12...	0945	Environmental	1028	80020	135	40	765	7.0	80	7.5	123	28.0
12...	*0950*	*Replicate*	*1028*	*80020*	--	*40*	--	--	--	--	--	--
JUN												
01...	1100	Environmental	1028	80020	43	40	754	7.2	--	--	--	25.0
01...	*1105*	*Replicate*	*1028*	*80020*	--	*40*	--	--	--	--	--	--
JUL												
07...	1130	Environmental	1028	80020	32	8010	756	7.0	85	7.2	156	32.0
07...	*1135*	*Replicate*	*1028*	*80020*	--	*8010*	--	--	--	--	--	--
07...	*1140*	*Blank*	*1028*	*80020*	--	*8010*	--	--	--	--	--	--
07...	*1145*	*Blank*	*1028*	*80020*	--	*8010*	--	--	--	--	--	--
AUG												
03...	0830	Environmental	1028	80020	63	40	757	6.4	79	7.5	138	25.0
03...	*0835*	*Replicate*	*1028*	*80020*	--	*40*	--	--	--	--	--	--
SEP												
07...	0915	Environmental	1028	80020	24	8010	762	7.6	85	7.5	147	25.5
07...	*0920*	*Replicate*	*1028*	*80020*	--	*8010*	--	--	--	--	--	--

Agency collecting sample: 1028 - U.S. Geological Survey
Agency analyzing sample: 80020 - USGS-National Water Quality Lab, Denver, CO

Sample method: 40- Multiple verticals
70 - Grab sample
10 - Equal width increment
8010- Other

01491000 CHOPTANK RIVER NEAR GREENSBORO, MD—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Temperature, water, deg C (00010)	Hardness, water, 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)	Alkalinity, wat flt fxd end lab, mg/L as CaCO3 (29801)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Residue fixed nonfilterable, mg/L (00540)
OCT													
09...	15.5	41	10.5	3.57	2.76	7.59	21	12.5	<.2	20.8	15.4	99	--
09...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	13.5	--	--	--	--	--	--	--	--	15.8	--	--	--
NOV													
07...	17.0	--	--	--	--	--	--	--	--	12.1	--	--	--
17...	10.0	--	--	--	--	--	--	--	--	19.7	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--	--	--
DEC													
09...	2.5	--	--	--	--	--	--	--	--	16.4	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
14...	1.5	39	10.1	3.42	2.13	7.28	--	12.0	<.2	19.6	16.9	91	--
FEB													
12...	3.5	--	--	--	--	--	--	--	--	15.8	--	--	--
MAR													
03...	10.0	--	--	--	--	--	--	--	--	16.7	--	--	--
APR													
07...	10.5	35	8.89	2.99	2.24	7.83	15	12.4	<.2	14.2	14.4	95	--
07...	--	*35*	*8.99*	*3.03*	*2.29*	*7.91*	*15*	*12.2*	*<.2*	*14.6*	*14.4*	*92*	--
14...	11.6	18	4.61	1.49	3.05	3.58	9	5.67	<.2	6.46	7.1	53	24
MAY													
12...	22.5	--	--	--	--	--	--	--	--	15.6	--	--	--
12...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
01...	20.5	--	--	--	--	--	--	--	--	18.2	--	--	--
01...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
07...	25.0	42	11.4	3.39	2.45	8.12	--	13.6	<.2	16.5	15.7	102	--
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	*.02*	*<.008*	*<.16*	*E.05*	--	*<.20*	*<.2*	*.08*	*<.2*	*<10*	--
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
03...	25.3	--	--	--	--	--	--	--	--	18.6	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP													
07...	21.3	--	--	--	--	--	--	--	--	16.3	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--	--

01491000 CHOPTANK RIVER NEAR GREENSBORO, MD—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Residue total at 105 deg. C, suspended, mg/L (00530)	Residue volatile, suspended, mg/L (00535)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Particulate nitrogen, susp, water, mg/L (49570)	Organic nitrogen, water, fltrd, mg/L (00607)	Organic nitrogen, water, unfltrd mg/L (00605)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)
OCT													
09...	<10	<10	.26	.33	E.03	1.60	1.60	.008	--	--	--	.017	.021
09...	--	--	--	--	--	--	--	--	*<.02*	--	--	--	*.02*
28...	<10	<10	.33	.41	<.04	1.50	1.51	.010	--	--	--	.020	.024
NOV													
07...	14	<10	.72	.99	<.04	.43	.43	.005	--	--	--	.068	.096
17...	<10	<10	.43	.53	.04	1.42	1.42	.006	--	.39	.49	.030	.038
17...	--	--	--	--	--	--	--	--	*<.02*	--	--	--	*.04*
DEC													
09...	<13	<13	.47	.52	.05	1.44	1.44	.006	--	.42	.47	.024	.032
09...	--	--	--	--	--	--	--	--	*<.02*	--	--	--	*.03*
JAN													
14...	<10	<10	.22	--	--	--	2.17	--	<.02	--	--	E.01	.03
FEB													
12...	<10	11	.35	--	--	--	1.43	--	<.02	--	--	.02	.02
MAR													
03...	<10	<10	--	--	<.04	1.53	1.54	.008	.06	--	--	E.004	<.01
APR													
07...	<10	<10	--	--	<.04	1.17	1.18	.006	.04	--	--	.014	<.01
07...	*<20*	*<20*	--	--	*<.04*	*1.17*	*1.18*	*.006*	*.06*	--	--	*.012*	*.01*
14...	37	13	--	--	.21	.74	.75	.013	.71	--	--	.025	.04
MAY													
12...	<20	<10	--	--	.05	1.11	1.13	.018	.03	--	--	.015	.01
12...	--	--	--	--	--	--	--	--	--	--	--	--	*.024*
JUN													
01...	<10	<10	--	--	.05	1.65	1.67	.022	.06	--	--	.015	.03
01...	--	--	--	--	--	--	--	--	--	--	--	--	*.029*
JUL													
07...	<10	<10	--	--	E.02	1.10	1.10	.003	<.02	--	--	.017	.028
07...	--	--	--	--	--	--	--	--	--	--	--	--	*.03*
07...	*<10*	*<10*	--	--	*<.04*	--	*<.06*	*<.002*	*<.02*	--	--	*<.006*	*<.004*
07...	--	--	--	--	--	--	--	--	--	--	--	--	*<.01*
AUG													
03...	<33	<33	--	--	E.03	.97	.98	.007	<.02	--	--	.016	.028
03...	--	--	--	--	--	--	--	--	--	--	--	--	*.02*
SEP													
07...	<10	<10	--	--	<.04	1.15	1.15	.004	<.02	--	--	.019	.026
07...	--	--	--	--	--	--	--	--	--	--	--	--	*.03*

01491000 CHOPTANK RIVER NEAR GREENSBORO, MD—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Phos-phorus, water, unfltrd mg/L (00665)	Total nitro-gen, wat flt by anal ysis, mg/L (62854)	Total nitro-gen, water, fltrd, mg/L (00602)	Total nitro-gen, water, unfltrd mg/L (00600)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inor-ganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	Organic carbon, water, unfltrd mg/L (00680)	Iron, water, fltrd, ug/L (01046)	Mangan-ese, water, fltrd, ug/L (01056)	Suspnd. sedi-ment, sieve diametr percent <.063mm (70331)	Sus-pended sedi-ment concen-tration mg/L (80154)
OCT													
09...	.065	--	1.9	1.9	--	--	--	--	4.5	517	56.1	--	3
09...	--	*1.89*	--	--	*.3*	*<.1*	--	*3.9*	--	--	--	--	--
28...	.085	--	1.8	1.9	--	--	--	--	5.8	--	--	--	6
NOV													
07...	.22	--	1.2	1.4	--	--	--	--	16.5	--	--	--	22
17...	.080	--	1.9	2.0	--	--	--	--	9.3	--	--	--	4
17...	--	*1.84*	--	--	*.3*	*<.1*	--	*7.8*	--	--	--	--	--
DEC													
09...	.068	--	1.9	2.0	--	--	--	--	7.7	--	--	--	7
09...	--	*1.93*	--	--	*.5*	*<.1*	--	*7.4*	--	--	--	--	--
JAN													
14...	--	2.40	2.4	--	.5	<.1	--	3.1	--	361	87.4	--	5
FEB													
12...	--	1.71	1.8	--	.5	<.1	.5	5.0	--	--	--	--	6
MAR													
03...	--	1.88	--	--	.5	<.1	.5	3.2	--	--	--	--	5
APR													
07...	--	1.41	--	--	.6	<.1	.6	6.5	--	412	38.8	--	5
07...	--	*1.48*	--	--	*.5*	*<.1*	*.5*	*6.2*	--	*458*	*40.4*	--	*4*
14...	--	1.51	--	--	6.0	.1	5.9	9.9	--	310	58.5	90	85
MAY													
12...	--	1.58	--	--	.4	--	--	5.7	--	--	--	--	8
12...	*.114*	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
01...	--	1.97	--	--	.3	<.1	.3	4.7	--	--	--	--	6
01...	*.132*	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
07...	.080	1.36	--	--	.2	<.1	.2	4.5	--	103	63.3	--	4
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	*<.004*	*<.03*	--	--	*<.1*	*<.1*	*<.1*	*.9*	--	*<6*	*<.8*	--	*.0*
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
03...	.100	1.30	--	--	.5	<.1	.4	4.4	--	--	--	--	5
03...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP													
07...	.072	1.40	--	--	.2	<.1	.2	3.7	--	--	--	--	4
07...	--	--	--	--	--	--	--	--	--	--	--	--	--

01491000 CHOPTANK RIVER NEAR GREENSBORO, MD—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Suspended sediment discharge, tons/d (80155)	Sampler type, code (84164)
OCT		
09...	.71	3060
09...	--	*3060*
28...	2.1	3060
NOV		
07...	71	3051
17...	2.3	3060
17...	--	*3060*
DEC		
09...	5.7	3060
09...	--	*3060*
JAN		
14...	2.1	3060
FEB		
12...	4.1	3060
MAR		
03...	1.4	3060
APR		
07...	2.3	3060
07...	--	*3060*
14...	452	3053
MAY		
12...	2.9	3060
12...	--	*3060*
JUN		
01...	.70	3060
01...	--	*3060*
JUL		
07...	.35	8010
07...	--	*8010*
07...	--	*8010*
07...	--	*8010*
AUG		
03...	.85	3060
03...	--	*3060*
SEP		
07...	.26	8010
07...	--	*8010*

Remark codes used in this table:
< -- Less than.
E -- Estimated.

Sampler type: 3060 - Weighted-bottle sampler
3051 - US DH-95 Teflon Bottle
3053 - US D-95 Teflon bottle
8010 - Other

Photo by A. J. Tallman

01491000 CHOPTANK RIVER NEAR GREENSBORO, MD

01491500 TUCKAHOE CREEK NEAR RUTHSBURG, MD

LOCATION.--Lat 38°58'00.5", long 75°56'35.0", Queen Annes County, Hydrologic Unit 02060005, on right bank 100 ft upstream from highway bridge on Crouse Mill Road, 0.1 mi downstream from Blockston Branch, 2.6 mi downstream from confluence of German Branch and Mason Branch, and 2.6 mi south of Ruthsburg.

DRAINAGE AREA.--85.2 mi^2.

PERIOD OF RECORD.--March 1951 to September 1956, November 2000 to current year.

REVISED RECORDS.--WDR MD-DE-02-1.

GAGE.--Water-stage recorder. Elevation of gage is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good. No estimated daily discharges. Several measurements of water temperature were made during the year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 750 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 30	0030	884	4.99	Dec 15	0900	872	4.97
Nov 7	0615	758	4.77	Feb 7	0900	*2,310	*6.64
Dec 11	2145	977	5.14	Apr 15	0015	1,060	5.27

Minimum discharge, 6.7 ft^3/s, July 11, 12.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	79	162	193	149	72	84	157	104	61	14	34	36
2	79	133	160	140	69	88	224	96	61	13	45	28
3	74	117	140	143	105	95	201	110	84	13	48	24
4	69	110	128	140	371	95	161	122	69	12	41	23
5	66	115	206	141	281	94	155	108	74	9.7	46	22
6	63	435	521	174	320	127	129	98	79	8.6	43	21
7	61	671	313	157	1,860	191	113	93	70	8.4	36	21
8	59	357	221	128	691	139	107	89	64	9.3	33	23
9	59	221	188	125	287	118	103	84	60	9.5	29	26
10	60	173	183	110	207	105	96	89	55	7.7	26	27
11	60	155	539	94	190	100	90	91	55	6.7	27	24
12	58	171	632	98	171	103	102	83	61	11	31	21
13	54	266	300	107	157	95	506	77	54	46	35	17
14	55	252	297	108	145	88	949	73	48	79	37	18
15	123	186	726	101	137	83	941	67	45	61	46	23
16	111	154	400	92	122	94	454	64	46	44	45	31
17	75	139	323	83	114	134	261	63	57	33	39	29
18	67	129	507	105	115	123	197	62	99	78	34	38
19	62	137	325	160	116	115	165	62	57	189	34	40
20	57	416	245	115	114	112	152	63	42	126	31	27
21	55	419	206	96	114	103	142	65	36	69	33	24
22	61	247	182	91	109	93	133	63	32	57	28	22
23	63	192	172	91	100	87	126	57	34	49	24	23
24	57	167	240	84	99	87	133	51	34	41	22	20
25	52	161	563	75	101	87	118	46	30	39	21	19
26	52	150	315	72	97	87	113	146	27	36	20	19
27	67	144	230	82	91	85	157	152	25	36	20	19
28	176	139	197	85	88	86	147	98	21	43	21	29
29	470	333	178	81	86	79	119	72	18	46	22	77
30	615	299	171	79	---	81	107	61	16	43	21	52
31	245	---	164	76	---	95	---	59	---	37	37	---
TOTAL	3,304	6,750	9,165	3,382	6,529	3,153	6,558	2,568	1,514	1,274.9	1,009	823
MEAN	107	225	296	109	225	102	219	82.8	50.5	41.1	32.5	27.4
MAX	615	671	726	174	1,860	191	949	152	99	189	48	77
MIN	52	110	128	72	69	79	90	46	16	6.7	20	17
CFSM	1.25	2.64	3.47	1.28	2.64	1.19	2.57	0.97	0.59	0.48	0.38	0.32
IN.	1.44	2.95	4.00	1.48	2.85	1.38	2.86	1.12	0.66	0.56	0.44	0.36

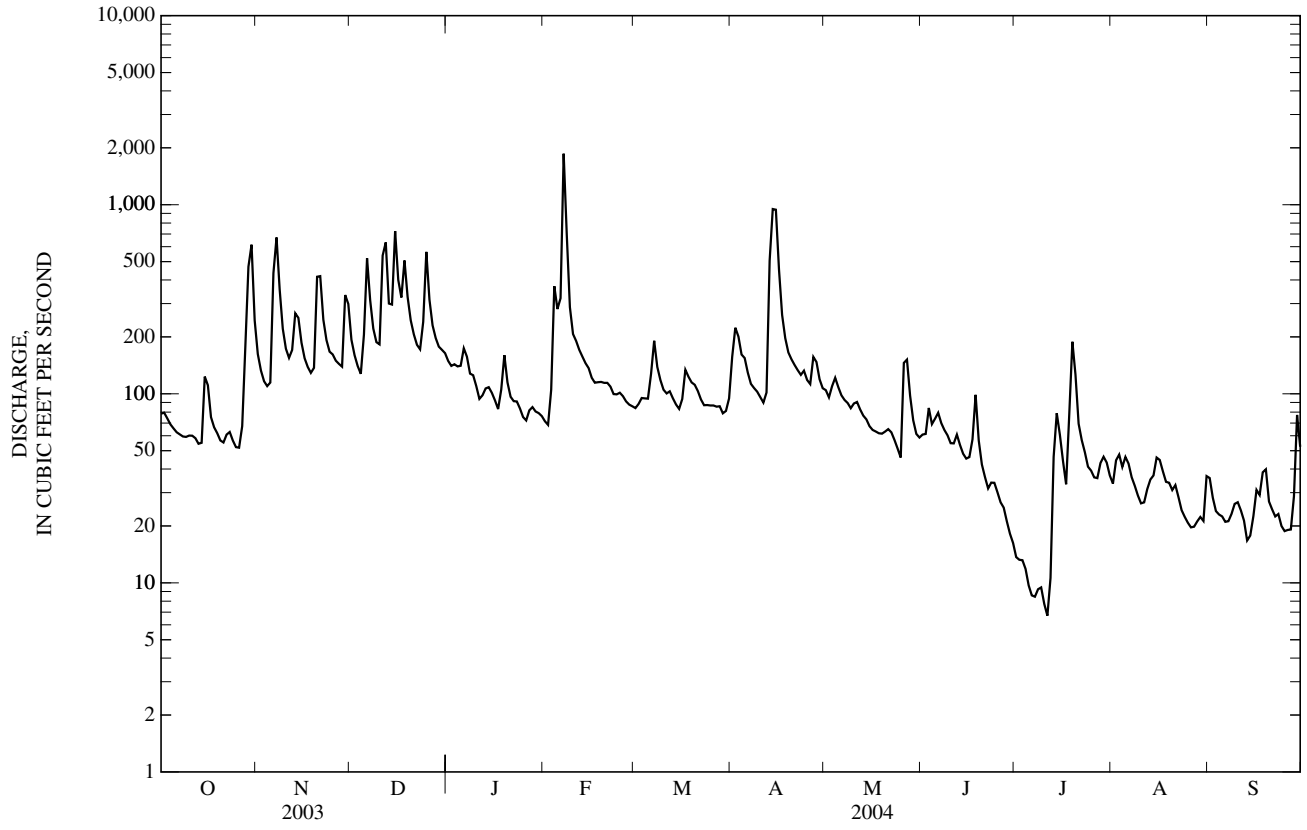
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1956, 2001- 2004, BY WATER YEAR (WY)

MEAN	42.8	93.1	133	119	149	190	149	105	94.7	64.3	67.0	45.6
MAX	107	225	296	230	265	377	266	226	333	228	181	123
(WY)	(2004)	(2004)	(2004)	(1952)	(2003)	(2003)	(1952)	(2003)	(2003)	(2003)	(1955)	(2003)
MIN	18.1	27.9	28.8	32.1	25.8	40.2	47.1	34.5	24.3	3.45	4.61	16.5
(WY)	(1955)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(1955)	(2002)	(2002)	(2002)	(1956)

01491500 TUCKAHOE CREEK NEAR RUTHSBURG, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1951 - 1956, 2001 - 2004	
ANNUAL TOTAL	81,103		46,029.9			
ANNUAL MEAN	222		126		105	
HIGHEST ANNUAL MEAN					209	2003
LOWEST ANNUAL MEAN					31.2	2002
HIGHEST DAILY MEAN	1,410	Feb 24	1,860	Feb 7	1,860	Feb 7, 2004
LOWEST DAILY MEAN	50	Sep 11	6.7	Jul 11	1.6	(a)
ANNUAL SEVEN-DAY MINIMUM	57	Oct 20	8.6	Jul 5	1.7	Aug 4, 2002
MAXIMUM PEAK FLOW			2,310	Feb 7	(b)2,310	Feb 7, 2004
MAXIMUM PEAK STAGE			6.64	Feb 7	6.64	Feb 7, 2004
INSTANTANEOUS LOW FLOW			6.7	(c)	1.5	(d)
ANNUAL RUNOFF (CFSM)	2.61		1.48		1.23	
ANNUAL RUNOFF (INCHES)	35.41		20.10		16.68	
10 PERCENT EXCEEDS	492		246		227	
50 PERCENT EXCEEDS	154		87		58	
90 PERCENT EXCEEDS	72		23		19	

a Aug. 7-9, 2002.
b From rating curve extended above 1,730 ft^3/s.
c July 11, 12.
d Aug. 8, 9, 2002.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01492500 SALLIE HARRIS CREEK NEAR CARMICHAEL, MD

LOCATION.--Lat 38°57'53.6", long 76°06'31.8", Queen Anne County, Hydrologic Unit 02060002, on left bank at downstream side of eastbound lanes of bridge on U.S. Highway 50, 2.0 mi northeast of Carmichael, 2.2 mi northwest of Wye Mills, and 2.4 mi upstream from mouth.

DRAINAGE AREA.--8.09 mi^2.

PERIOD OF RECORD.--June 1951 to September 1956. Annual maximum, water years 1957-81. October 2000 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 5.96 ft above National Geodetic Vertical Datum of 1929. June 1951 to September 1956 recording gage at site 30 ft upstream from present site at datum 9.38 ft higher.

REMARKS.--Records good except those for estimated daily discharges (missing record, ice effect) which are fair. U.S. Geological Survey gage-height telemeter at station. Several measurements of water temperature were made during the year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 150 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 29	1345	164	4.17	Feb 7	0000	*352	*5.51
Dec 11	1200	165	4.18	Jul 18	1100	169	4.22

Minimum discharge, 2.1 ft^3/s, Sept. 23-28.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.9	10	12	10	6.8	7.3	37	7.6	5.1	3.3	6.3	3.6
2	5.9	8.9	10	10	6.5	7.7	29	7.3	5.0	3.2	5.6	3.1
3	5.7	8.5	9.4	10	17	8.1	21	16	8.5	3.2	4.6	3.0
4	5.5	8.2	9.0	10	36	8.1	14	12	4.7	3.2	4.0	3.0
5	5.5	9.9	38	11	21	8.2	11	8.6	9.2	3.3	4.3	3.0
6	5.5	90	43	13	97	22	8.9	7.5	7.7	3.2	3.9	2.9
7	e5.5	58	19	9.7	170	18	8.5	7.1	5.8	3.1	3.5	2.9
8	5.5	21	13	8.4	37	11	8.0	7.6	4.9	3.3	3.3	3.1
9	5.5	13	12	8.5	16	9.2	7.9	6.7	4.5	3.5	3.3	3.4
10	5.5	11	13	7.8	15	8.2	7.4	32	4.2	3.2	3.2	2.9
11	5.5	10	104	6.8	14	7.9	7.3	9.9	4.4	3.2	4.3	2.7
12	5.3	14	38	7.2	12	7.6	15	7.3	5.3	5.4	4.4	2.7
13	5.1	27	15	8.7	12	7.0	65	6.4	4.3	9.1	3.8	2.7
14	6.3	15	47	8.6	11	6.8	67	6.0	4.1	4.8	4.5	2.6
15	23	12	69	8.1	11	6.8	51	5.6	4.0	3.8	5.9	3.2
16	8.1	11	21	7.8	8.9	10	16	5.5	4.0	3.4	5.4	3.2
17	6.2	10	31	6.4	8.2	14	12	5.5	7.3	3.2	4.2	2.7
18	6.2	10	36	11	8.5	9.7	11	5.5	6.9	69	3.8	27
19	5.9	13	17	14	8.8	9.4	10	5.5	4.5	20	3.7	7.8
20	5.7	62	14	8.7	8.8	8.6	9.5	5.5	3.9	5.2	3.4	3.0
21	5.6	24	12	7.2	9.1	8.2	8.8	5.5	3.7	4.2	3.4	2.5
22	5.7	14	11	7.0	9.0	7.5	8.7	5.3	3.6	3.9	3.3	2.4
23	5.7	12	11	7.0	8.4	7.0	8.7	5.0	3.7	4.1	3.2	2.2
24	5.7	11	29	6.7	8.2	6.7	11	4.5	3.8	4.2	3.1	2.2
25	5.7	12	38	6.1	8.2	7.6	8.6	5.3	3.6	4.1	3.1	2.2
26	5.7	11	15	6.5	7.7	7.9	9.6	14	3.7	4.1	3.1	2.2
27	15	10	13	6.8	7.6	7.6	16	5.8	3.5	4.0	3.0	2.1
28	26	13	11	7.4	7.5	7.6	9.5	5.3	3.3	6.3	2.9	12
29	108	36	11	7.3	7.3	7.1	8.2	4.7	3.3	5.0	2.8	28
30	36	16	11	7.3	---	6.9	7.6	4.4	3.3	4.0	3.6	6.5
31	13	---	11	e7.2	---	9.2	---	4.6	---	3.7	8.8	---
TOTAL	365.4	581.5	743.4	262.2	598.5	278.9	513.2	239.5	143.8	207.2	125.7	150.8
MEAN	11.8	19.4	24.0	8.46	20.6	9.00	17.1	7.73	4.79	6.68	4.05	5.03
MAX	108	90	104	14	170	22	67	32	9.2	69	8.8	28
MIN	5.1	8.2	9.0	6.1	6.5	6.7	7.3	4.4	3.3	3.1	2.8	2.1
CFSM	1.46	2.40	2.96	1.05	2.55	1.11	2.11	0.95	0.59	0.83	0.50	0.62
IN.	1.68	2.67	3.42	1.21	2.75	1.28	2.36	1.10	0.66	0.95	0.58	0.69

e Estimated

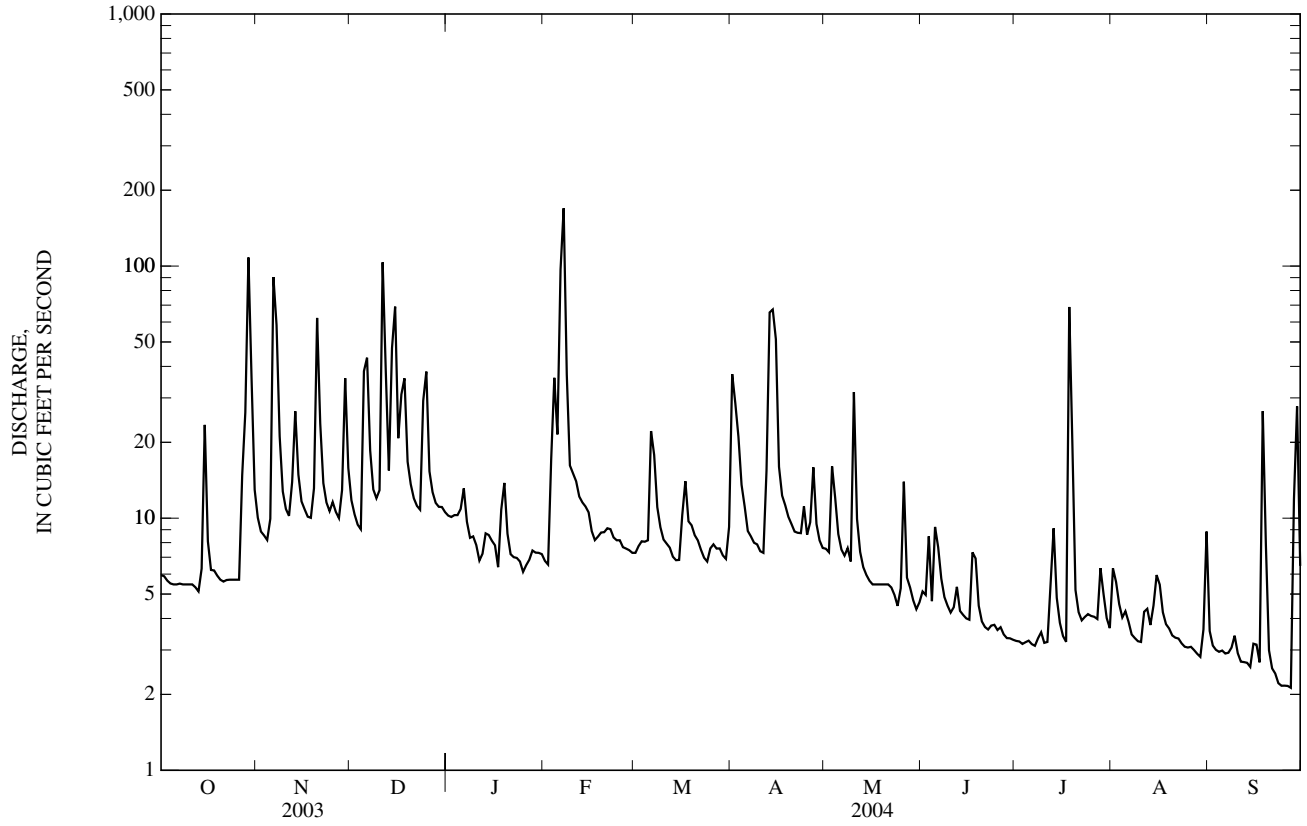
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1956, 2001 - 2004, BY WATER YEAR (WY)

MEAN	4.83	8.99	11.4	9.41	12.4	15.0	12.8	9.50	7.36	4.92	7.25	5.65
MAX	11.8	19.4	24.0	17.2	23.7	27.9	29.8	19.6	22.4	11.0	24.3	17.1
(WY)	(2004)	(2004)	(2004)	(1953)	(2003)	(2003)	(1952)	(2003)	(2003)	(2003)	(1955)	(2003)
MIN	2.15	3.84	3.66	3.65	3.27	6.67	5.03	2.68	2.67	2.16	1.57	2.03
(WY)	(1955)	(2002)	(1956)	(1955)	(2002)	(2002)	(1955)	(1955)	(1956)	(2002)	(2002)	(1954)

01492500 SALLIE HARRIS CREEK NEAR CARMICHAEL, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1951 - 1956, 2001 - 2004	
ANNUAL TOTAL	6,475.1		4,210.1			
ANNUAL MEAN	17.7		11.5		9.20	
HIGHEST ANNUAL MEAN					16.4	2003
LOWEST ANNUAL MEAN					3.98	2002
HIGHEST DAILY MEAN	170	Feb 23	170	Feb 7	428	Aug 13, 1955
LOWEST DAILY MEAN	4.3	Sep 11	2.1	Sep 27	1.2	(a)
ANNUAL SEVEN-DAY MINIMUM	4.9	Sep 6	2.3	Sep 21	1.2	Aug 15, 2002
MAXIMUM PEAK FLOW			352	Feb 7	(b)1,030	Aug 13, 1955
MAXIMUM PEAK STAGE			5.51	Feb 7	(c)7.02	Aug 13, 1955
INSTANTANEOUS LOW FLOW			2.1	(d)	0.67	Aug 21, 2002
ANNUAL RUNOFF (CFSM)	2.19		1.42		1.14	
ANNUAL RUNOFF (INCHES)	29.77		19.36		15.45	
10 PERCENT EXCEEDS	38		21		16	
50 PERCENT EXCEEDS	10		7.4		5.1	
90 PERCENT EXCEEDS	5.7		3.2		2.2	

a Aug. 17-20, 2002.
b From rating curve extended above 370 ft^3/s by logarithmic plotting at previous site and datum.
c At previous site and datum.
d Sept. 23-28.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01493000 UNICORN BRANCH NEAR MILLINGTON, MD

LOCATION.--Lat 39°14'58.9", long 75°51'40.7", Queen Annes County, Hydrologic Unit 02060002, on right bank 20 ft upstream from bridge on State Highway 313, 0.9 mi upstream from mouth, and 1.4 mi southwest of Millington.

DRAINAGE AREA.--19.7 mi^2.

PERIOD OF RECORD.--January 1948 to current year.

REVISED RECORDS.--WSP 1382: 1952(P). WRD MD-DE-95-1: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 3.57 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Occasional regulation at low and medium flow by Unicorn Lake Dam upstream from station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 180 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec 11	2030	199	3.64	Jun 17	0230	*731	*5.32
Feb 7	0630	641	5.12	Jul 13	0900	209	3.70
Apr 15	1030	262	4.01				

Minimum discharge, 8.1 ft^3/s, Sept. 15, 24, 27.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	36	49	42	25	21	38	23	15	16	23	15
2	20	30	41	40	23	21	47	23	16	18	22	12
3	20	27	38	31	24	21	46	30	15	16	19	12
4	19	26	37	28	40	21	41	29	12	18	19	11
5	19	27	38	40	44	21	38	25	18	16	18	11
6	19	50	94	46	95	35	30	22	19	14	16	10
7	19	80	72	45	449	48	28	21	16	14	14	11
8	19	54	52	38	143	36	24	20	14	14	14	11
9	19	40	49	31	66	29	24	18	13	13	12	11
10	19	33	48	31	43	25	22	26	18	10	11	9.7
11	19	31	100	30	46	24	21	21	26	10	16	10
12	18	44	131	29	40	22	27	19	21	36	17	10
13	18	65	66	29	36	21	88	17	16	158	17	9.9
14	20	51	60	29	34	21	167	17	16	46	18	10
15	28	39	132	28	31	20	229	16	13	29	21	10
16	21	35	85	24	29	24	105	15	119	20	18	11
17	19	33	71	21	26	34	57	15	427	18	16	12
18	19	29	103	22	26	29	43	14	87	62	19	18
19	18	34	70	28	26	31	36	16	36	113	19	13
20	19	91	53	32	26	29	33	16	25	44	15	11
21	18	88	49	30	26	27	29	15	22	26	15	10
22	18	52	47	28	25	23	29	15	20	21	15	10
23	18	43	46	25	24	21	28	13	20	20	14	10
24	18	38	47	24	24	20	29	13	19	19	13	9.7
25	17	37	96	24	24	20	27	13	21	19	12	9.9
26	18	35	69	24	23	20	30	14	23	18	13	9.8
27	25	33	52	23	22	20	44	13	19	18	13	10
28	37	35	49	23	21	20	34	13	18	18	12	25
29	91	64	47	24	21	19	28	12	18	18	12	27
30	109	56	46	25	---	19	25	12	17	17	13	14
31	49	---	45	25	---	21	---	13	---	16	24	---
TOTAL	811	1,336	1,982	919	1,482	763	1,447	549	1,139	895	500	364.0
MEAN	26.2	44.5	63.9	29.6	51.1	24.6	48.2	17.7	38.0	28.9	16.1	12.1
MAX	109	91	132	46	449	48	229	30	427	158	24	27
MIN	17	26	37	21	21	19	21	12	12	10	11	9.7
CFSM	1.33	2.26	3.25	1.51	2.60	1.25	2.45	0.90	1.93	1.47	0.82	0.62
IN.	1.53	2.53	3.75	1.74	2.80	1.44	2.74	1.04	2.15	1.69	0.95	0.69

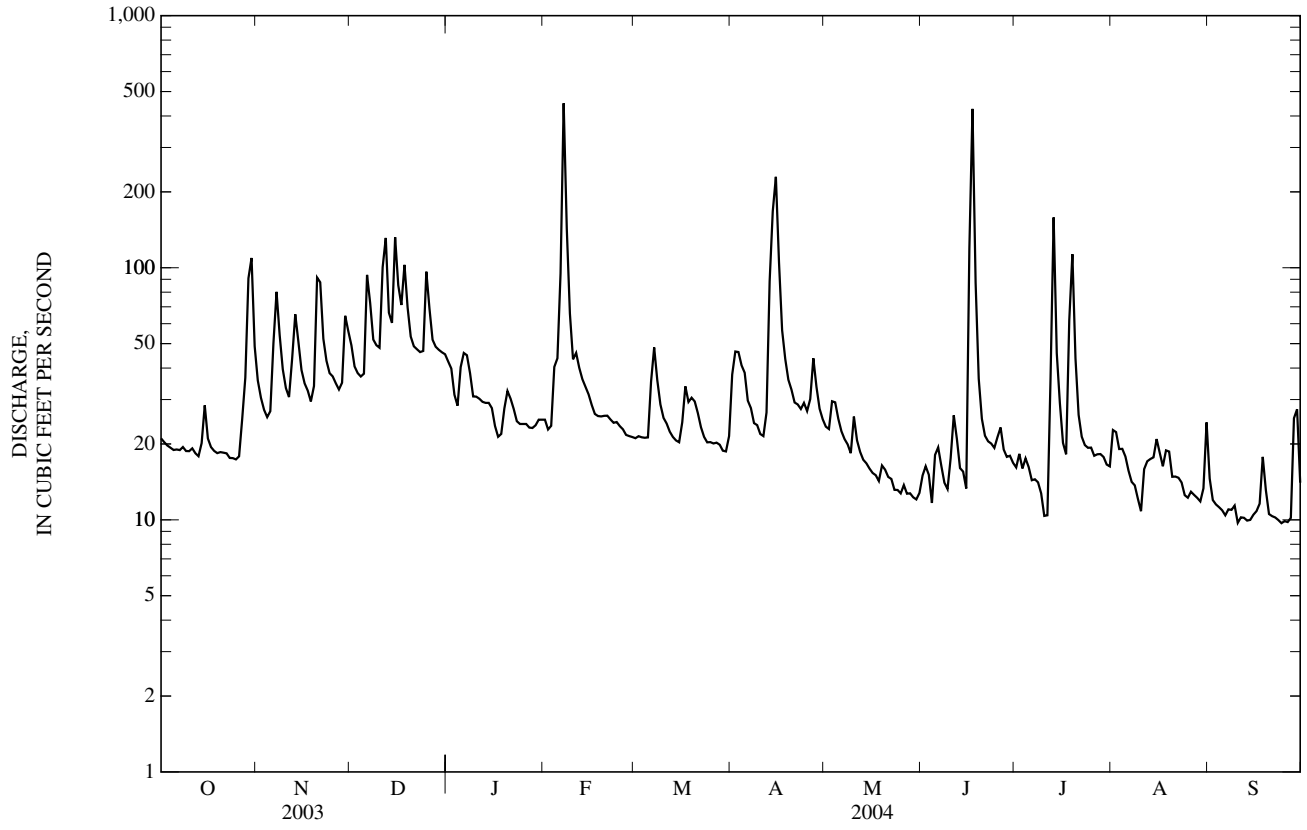
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 2004, BY WATER YEAR (WY)

MEAN	14.8	17.9	26.5	32.2	37.1	44.2	37.0	27.1	22.9	17.2	17.5	16.7
MAX	91.5	65.4	124	83.7	83.7	105	109	66.8	98.0	56.6	62.5	112
(WY)	(1972)	(1972)	(1997)	(1978)	(1961)	(1994)	(1983)	(1989)	(2003)	(2003)	(1967)	(1999)
MIN	5.27	4.99	5.32	5.80	8.22	9.29	10.7	8.64	4.51	5.22	3.15	4.79
(WY)	(1966)	(1966)	(1966)	(1966)	(2002)	(1966)	(1966)	(1977)	(1966)	(1977)	(1966)	(1977)

01493000 UNICORN BRANCH NEAR MILLINGTON, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1948 - 2004	
ANNUAL TOTAL	19,783		12,187.0			
ANNUAL MEAN	54.2		33.3		25.8	
HIGHEST ANNUAL MEAN					51.8	1972
LOWEST ANNUAL MEAN					7.08	1966
HIGHEST DAILY MEAN	511	Jun 22	449	Feb 7	1,200	Sep 16, 1999
LOWEST DAILY MEAN	11	Jan 21	9.7	(a)	0.10	Jun 9, 1965
ANNUAL SEVEN-DAY MINIMUM	17	Sep 6	9.9	Sep 21	0.14	Jun 8, 1965
MAXIMUM PEAK FLOW			731	Jun 17	(b)2,600	Sep 16, 1999
MAXIMUM PEAK STAGE			5.32	Jun 17	9.40	Sep 16, 1999
INSTANTANEOUS LOW FLOW			8.1	(c)	0.00	(d)
ANNUAL RUNOFF (CFSM)	2.75		1.69		1.31	
ANNUAL RUNOFF (INCHES)	37.39		23.04		17.81	
10 PERCENT EXCEEDS	108		55		48	
50 PERCENT EXCEEDS	39		23		17	
90 PERCENT EXCEEDS	19		13		7.3	

a Sept. 10, 24.
b From rating curve extended above 600 ft^3/s on basis of USGS Cap Culvert Analysis Program of peak flow.
c Sept. 15, 24, 27.
d No flow for part of each day June 13, 14, 1965, and Jan. 6, 7, 10, 13-16,20, 21, 23, 24, 27, 31, Feb. 2, 3, 14, 20, 1997, caused by regulation at Unicorn Lake Dam.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01493500 MORGAN CREEK NEAR KENNEDYVILLE, MD

LOCATION.--Lat 39°16'48.1", long 76°00'52.4", Kent County, Hydrologic Unit 02060002, on right bank 200 ft upstream from highway bridge, 2.0 mi southwest of Kennedyville, and 4.5 mi upstream from mouth.

DRAINAGE AREA.--12.7 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1951 to current year.

REVISED RECORDS.--WSP 1552: 1952, 1953(P), 1954(M), 1955, 1956-57(M). WDR MD-DE-76-1: Drainage area. WDR MD-DE- 79-1: 1961(M). WDR MD-DE-80-1: 1976(P).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1.76 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good except those for estimated daily discharges (backwater from storm tides), which are fair. U.S. Geological Survey gage-height telemeter at station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb 6	2145	809	7.30	Sep 29	0100	*2,560	*10.38
Jul 13	0430	404	5.60				

Minimum discharge, 4.0 ft^3/s, Jan. 16, 23.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.9	8.5	11	11	9.4	8.6	30	9.4	11	6.3	e8.0	6.6
2	7.5	9.3	9.9	12	9.5	9.9	22	9.7	9.6	6.5	9.7	5.8
3	7.0	8.5	9.5	13	23	9.5	17	25	9.3	6.1	7.8	5.7
4	7.3	7.6	9.4	12	71	9.6	14	20	7.5	6.3	7.0	5.6
5	7.0	22	20	14	54	9.6	11	11	14	6.5	9.3	5.6
6	6.4	80	26	15	241	33	9.2	10	12	6.1	7.2	5.6
7	7.1	38	14	11	269	19	9.2	9.7	9.3	5.8	6.0	e5.8
8	6.9	16	11	10	48	12	9.0	9.3	7.8	5.9	5.8	6.1
9	6.6	11	11	11	21	10	9.3	9.2	7.4	5.7	6.4	e6.6
10	6.7	11	15	9.1	18	9.9	8.6	17	15	5.4	8.3	6.2
11	7.1	9.8	101	9.0	15	9.3	8.7	10	46	5.4	9.3	5.8
12	e6.2	22	34	11	13	e9.1	17	8.7	24	21	10	5.6
13	6.2	20	13	12	13	8.3	53	8.6	10	209	13	5.5
14	e6.7	12	44	11	14	10	44	8.3	8.0	42	9.3	5.4
15	e19	10	80	10	12	10	27	7.5	7.5	18	9.1	6.5
16	13	9.6	18	8.8	10	15	14	7.5	9.0	11	7.8	6.8
17	8.4	9.7	40	9.3	10	16	12	7.7	39	7.4	7.0	6.9
18	7.4	9.7	42	13	10	11	11	7.7	29	20	7.0	47
19	6.9	18	17	13	11	15	11	9.7	11	20	7.2	59
20	6.6	64	13	10	12	e12	10	8.8	7.8	9.4	6.4	17
21	7.0	19	13	9.4	11	9.9	10	8.9	7.4	7.3	6.3	e12
22	8.0	12	12	9.6	10	8.5	10	8.6	7.1	6.6	6.4	6.9
23	8.9	11	12	8.8	9.8	8.3	13	8.0	7.5	6.6	6.0	6.2
24	9.2	15	23	9.0	10	8.4	20	7.2	7.2	6.5	5.9	6.2
25	5.7	12	25	8.8	11	9.0	11	7.0	11	7.7	5.9	6.4
26	6.2	10	14	9.4	10	8.8	19	8.6	21	7.1	6.2	6.1
27	19	9.9	13	10	9.6	9.4	22	8.4	9.0	7.8	6.0	6.2
28	43	13	12	11	9.3	9.2	11	7.9	7.3	9.5	6.0	160
29	95	24	12	10	8.8	8.6	10	7.2	6.8	7.9	6.2	682
30	45	13	12	10	---	8.7	9.8	7.0	6.4	6.9	7.5	e54
31	14	---	12	9.9	---	11	---	9.9	---	e6.2	8.6	---
TOTAL	418.9	535.6	698.8	331.1	973.4	346.6	482.8	303.5	384.9	503.9	232.6	1,171.1
MEAN	13.5	17.9	22.5	10.7	33.6	11.2	16.1	9.79	12.8	16.3	7.50	39.0
MAX	95	80	101	15	269	33	53	25	46	209	13	682
MIN	5.7	7.6	9.4	8.8	8.8	8.3	8.6	7.0	6.4	5.4	5.8	5.4
CFSM	1.06	1.41	1.77	0.84	2.64	0.88	1.27	0.77	1.01	1.28	0.59	3.07
IN.	1.23	1.57	2.05	0.97	2.85	1.02	1.41	0.89	1.13	1.48	0.68	3.43

e Estimated

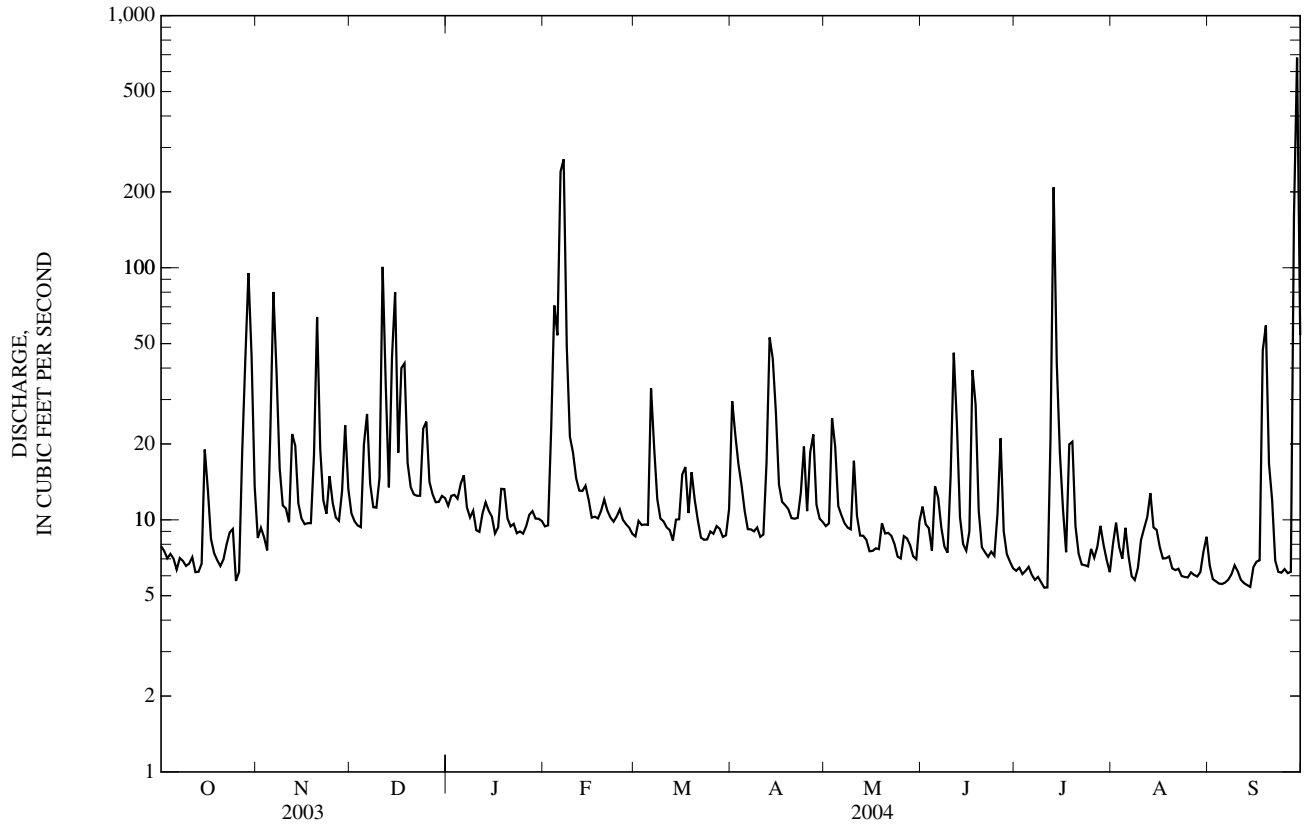
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 2004, BY WATER YEAR (WY)

MEAN	7.62	9.24	12.2	13.5	14.5	14.6	11.0	9.52	13.2	8.80	8.42	10.7
MAX	32.3	30.7	51.3	45.6	47.1	36.7	29.5	20.6	113	26.9	27.8	135
(WY)	(1972)	(1973)	(1997)	(1978)	(1979)	(1994)	(1983)	(1990)	(1972)	(1989)	(1971)	(1999)
MIN	2.98	3.14	3.21	3.74	5.09	4.47	4.49	3.77	1.96	1.11	1.41	2.07
(WY)	(1964)	(1966)	(1966)	(1966)	(1968)	(1966)	(1966)	(1955)	(1966)	(1966)	(1966)	(1967)

01493500 MORGAN CREEK NEAR KENNEDYVILLE, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1951 - 2004	
ANNUAL TOTAL	6,745.4		6,383.2			
ANNUAL MEAN	18.5		17.4		11.1	
HIGHEST ANNUAL MEAN					24.2	1972
LOWEST ANNUAL MEAN					3.67	1966
HIGHEST DAILY MEAN	164	Feb 23	682	Sep 29	3,600	Sep 16, 1999
LOWEST DAILY MEAN	4.3	Feb 16	5.4	(a)	0.70	(b)
ANNUAL SEVEN-DAY MINIMUM	5.9	Jan 22	5.7	Sep 2	0.71	Sep 7, 1966
MAXIMUM PEAK FLOW			2,560	Sep 29	(c)11,200	Sep 16, 1999
MAXIMUM PEAK STAGE			10.38	Sep 29	(d)15.03	Sep 16, 1999
INSTANTANEOUS LOW FLOW			3.4	Jan 23	0.60	(f)
ANNUAL RUNOFF (CFSM)	1.46		1.37		0.876	
ANNUAL RUNOFF (INCHES)	19.76		18.70		11.90	
10 PERCENT EXCEEDS	37		24		17	
50 PERCENT EXCEEDS	11		9.7		6.5	
90 PERCENT EXCEEDS	6.8		6.2		3.2	

a July 10, 11, Sept. 4, 8-13, 1966.
b July 21, Aug. 28-31, Sept. 4, 8-13, 1966.
c From rating curve extended above 640 ft^3/s on basis of USGS Cap Culvert Analysis and flow-over-road measurement of peak flow.
d From floodmark.
f Aug. 28, 29, 1966.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01493500 MORGAN CREEK NEAR KENNEDYVILLE, MD—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973-80, 1991, 1998 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sample type	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Sampling method, code (82398)	UV absorbance, 254 nm, wat flt units /cm (50624)	SUVA, 254 nm, abs L/ (mgDOC* meter) (63162)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)
NOV												
18...	1130	Environmental	1028	80020	10	10	--	--	772	9.3	79	6.0
JAN												
08...	1100	Environmental	1028	80020	11	10	--	--	774	13.5	94	5.8
MAR												
03...	1100	Environmental	1028	80020	10	10	--	--	774	--	--	7.2
APR												
06...	*1100*	*Blank*	*1028*	*80097*	--	*4030*	*.004*	*.4*	--	--	--	--
06...	1400	Environmental	1028	80097	9.0	10	.097	2.6	767	4.7	41	6.3
APR												
12-15	1600	Composite (time)	1028	80097	--	50	.222	3.0	--	--	--	--
APR												
26-27	1147	Composite (time)	1028	80097	--	50	.244	3.3	--	--	--	--
MAY												
03-05	0120	Composite (time)	1028	80097	--	50	.227	3.1	--	--	--	--
04...	1100	Environmental	1028	80097	21	10	.237	3.1	767	4.1	38	6.6
JUN												
03...	1000	Environmental	1028	80097	10	10	.124	2.8	765	8.0	86	6.9
JUN												
05-06	1545	Composite (time)	1028	80097	--	50	.159	2.8	--	--	--	--
JUN												
10-12	1815	Composite (time)	1028	80097	--	50	.226	2.9	--	--	--	--
10...	1816	Environmental	1028	80097	10	50	.122	2.8	--	--	--	6.7
10...	2215	Environmental	1028	80097	37	50	.158	2.7	--	--	--	6.5
11...	0215	Environmental	1028	80097	45	50	.199	2.8	--	--	--	6.5
11...	0615	Environmental	1028	80097	50	50	.197	2.7	--	--	--	6.7
11...	1415	Environmental	1028	80097	49	50	.247	2.9	--	--	--	6.6
12...	0149	Environmental	1028	80097	31	50	.209	2.8	--	--	--	6.7
12...	0949	Environmental	1028	80097	25	50	.215	3.1	--	--	--	6.8
JUL												
12-14	1825	Composite (time)	1028	80097	--	50	.294	3.0	--	--	--	--
12...	1826	Environmental	1028	80097	22	50	.183	3.2	--	7.9	--	7.3
12...	2225	Environmental	1028	80097	76	50	.235	2.8	--	6.1	--	6.6
13...	0225	Environmental	1028	80097	280	50	--	--	--	4.7	--	5.9
13...	0625	Environmental	1028	80097	353	50	.197	3.1	--	4.5	--	6.6
13...	1425	Environmental	1028	80097	179	50	.306	3.1	--	4.8	--	6.5
13...	2225	Environmental	1028	80097	70	50	.107	2.5	--	4.8	--	--
14...	1425	Environmental	1028	80097	37	50	.114	2.5	--	--	--	--
JUL												
18-20	0930	Environmental	1028	80097	--	50	.224	3.1	--	--	--	--
JUL												
18-20	*0935*	*Replicate*	*1028*	*80097*	--	*50*	*.228*	*3.2*	--	--	--	--
20...	1030	Environmental	1028	80020	10	10	--	--	765	6.6	75	6.8
SEP												
18-20	0700	Composite (time)	1028	80097	--	50	.339	3.4	--	--	--	--

Agency collecting sample: 1028 - U.S. Geological Survey

Agency analyzing sample: 80020 - USGS-National Water Quality Lab, Denver, CO
80097 - USGS, Carbon Research Lab, Boulder, CO

Sample method: 10 - Equal-width increment
4030 - Suction pump
50 - Point sample

01493500 MORGAN CREEK NEAR KENNEDYVILLE, MD—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Specif. conduct-ance, wat unf uS/cm 25 degC (00095)	Temper-ature, air, deg C (00020)	Temper-ature, water, deg C (00010)	Hard-ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes-ium, water, fltrd, mg/L (00925)	Potas-sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	Alka-linity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicar-bonate, wat flt incrm. titr., field, mg/L (00453)	Chlor-ide, water, fltrd, mg/L (00940)	Fluor-ide, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)
NOV													
18...	192	11.0	9.0	--	--	--	--	--	--	--	17.4	--	--
JAN													
08...	187	-1.0	1.0	--	--	--	--	--	--	--	20.2	--	--
MAR													
03...	189	19.0	8.5	--	--	--	--	--	--	--	17.9	--	--
APR													
06...	--	--	--		*.11*	*.012*	*<.16*	*.16*	--	--	*<.20*	*<.2*	*.05*
06...	187	13.5	9.5	63	15.5	5.99	4.22	8.15	30	37	17.4	<.2	8.03
APR													
12-15	--	--	--	47	11.4	4.38	6.49	6.59	32	39	13.8	<.2	5.31
APR													
26-27	--	--	--	67	17.4	5.82	6.52	7.94	44	54	15.9	.2	7.92
MAY													
03-05	--	--	--	60	15.2	5.46	5.60	7.55	--	--	14.7	.2	8.78
04...	186	13.0	12.0	62	15.4	5.63	5.70	7.23	46	56	15.4	<.2	8.55
JUN													
03...	176	21.0	19.0	64	16.6	5.51	3.35	6.78	42	50	15.6	<.2	11.3
JUN													
05-06	--	--	--	65	16.9	5.60	5.56	7.32	41	50	17.2	<.2	10.5
JUN													
10-12	--	--	--	46	11.9	3.91	7.51	5.36	26	32	12.1	<.2	7.07
10...	124	--	--	50	12.7	4.42	5.37	6.41	30	37	14.5	<.2	9.37
10...	103	--	--	35	9.21	2.99	6.52	4.42	20	24	9.86	.2	5.96
11...	124	19.5	--	43	11.2	3.75	8.53	5.26	23	29	13.2	.2	7.13
11...	116	19.5	--	43	11.3	3.63	7.93	5.21	23	29	12.0	.2	6.85
11...	123	16.0	--	45	11.9	3.82	7.01	4.89	24	29	11.7	<.2	6.80
12...	150	18.0	--	53	13.6	4.56	8.17	6.26	32	39	14.0	.2	7.45
12...	142	18.0	--	54	13.9	4.63	7.81	6.52	34	41	14.3	.2	7.71
JUL													
12-14	--	--	--	23	5.92	2.04	8.53	2.54	17	21	7.01	<.2	3.78
12...	95	--	23.5	48	12.6	3.99	4.86	5.92	17	21	14.6	.2	8.67
12...	64	--	22.5	25	6.32	2.17	7.99	2.97	17	21	7.90	<.2	4.43
13...	59	--	--	22	5.47	1.95	8.89	2.49	15	19	7.36	<.2	3.76
13...	57	--	--	21	5.38	1.88	8.30	2.41	15	18	7.10	<.2	3.58
13...	55	--	--	20	5.15	1.77	9.03	2.03	15	19	6.21	<.2	3.12
13...	64	--	--	26	6.56	2.26	9.10	2.60	20	24	7.03	<.2	4.29
14...	67	--	--	30	7.76	2.66	6.94	2.52	24	29	6.53	<.2	5.33
JUL													
18-20	--	--	--	48	12.2	4.17	7.25	5.26	33	40	12.5	<.2	8.82
JUL													
18-20	--	--	--	*48*	*12.4*	*4.23*	*7.31*	*5.18*	--	--	*12.5*	*.2*	*8.98*
20...	174	26.0	22.0	--	--	--	--	--	43	52	14.5	--	--
SEP													
18-20	--	--	--	41	10.2	3.67	10.2	5.11	--	--	12.7	<.2	9.23

01493500 MORGAN CREEK NEAR KENNEDYVILLE, MD—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia water, fltrd, mg/L as N (00608)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, wat unf by analysis, mg/L (62855)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inorganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)
NOV													
18...	9.2	--	.44	3.13	3.23	.097	<.02	.008	.099	4.04	.4	<.1	.4
JAN													
08...	10.6	--	.34	4.80	4.83	.035	.12	.010	.108	5.33	1.1	<.1	1.0
MAR													
03...	8.1	--	.24	3.60	3.65	.053	.29	.013	.118	4.87	1.5	<.1	1.5
APR													
06...	*<.2*	*<10*	*<.04*	--	*<.06*	*<.008*	*<.02*	*<.006*	*E.003*	*.03*	*.2*	*<.1*	*.2*
06...	8.2	125	.24	4.12	4.17	.045	.09	.025	.106	5.06	.6	<.1	.6
APR													
12-15	9.9	140	<.04	2.40	2.45	.050	.68	.013	.59	4.56	5.1	<.1	5.1
APR													
26-27	8.3	131	.74	2.50	2.58	.088	.41	.060	.45	4.91	3.0	.3	2.7
MAY													
03-05	7.2	116	.26	2.25	2.33	.079	.17	.037	.37	3.95	1.3	<.1	1.3
04...	8.6	112	.66	2.32	2.40	.075	.14	.067	.30	4.04	1.2	<.1	1.2
JUN													
03...	5.6	127	.18	2.60	2.68	.081	.11	.010	.134	3.60	.7	<.1	.7
JUN													
05-06	11.1	206	.76	2.85	2.97	.124	.27	.025	.039	4.38	2.4	<.1	2.4
JUN													
10-12	10.6	149	.45	2.52	2.62	.107	1.03	.056	.89	3.58	8.5	.2	8.3
10...	5.2	163	<.04	2.98	3.09	.110	2.02	.042	1.69	6.05	17.2	.2	16.9
10...	6.7	103	.14	2.54	2.64	.093	3.36	.065	2.29	3.49	26.1	.4	25.7
11...	10.6	186	.74	2.56	2.74	.182	1.89	.080	1.32	3.29	14.8	.3	14.5
11...	8.8	173	.80	2.77	2.89	.125	1.42	.058	1.02	2.56	12.2	<.1	12.0
11...	11.4	139	.39	2.64	2.73	.090	.96	.049	.60	4.12	8.9	<.1	8.9
12...	12.8	201	.47	2.37	2.46	.094	.56	.045	.46	2.90	5.2	<.1	5.2
12...	11.7	214	.54	2.49	2.61	.126	.32	.061	.42	3.31	2.8	<.1	2.8
JUL													
12-14	7.0	82	.12	.88	.92	.031	.66	.091	.016	2.04	4.6	<.1	4.5
12...	5.0	145	.10	2.32	2.34	.025	2.21	.023	.79	4.07	19.8	<.1	19.7
12...	7.2	96	.11	1.15	1.18	.030	.72	.105	.96	1.94	5.7	<.1	5.6
13...	7.1	89	.18	.97	1.01	.037	.75	.071	.72	2.44	5.5	<.1	5.4
13...	5.3	87	.15	.95	.98	.032	.51	.111	.44	1.59	3.2	<.1	3.2
13...	6.0	89	.09	.82	.84	.028	.34	.131	.40	1.84	2.2	<.1	2.2
13...	9.3	123	.10	.58	.60	.019	.32	.076	.34	.63	2.7	<.1	2.7
14...	8.5	126	.09	.65	.67	.021	.08	.043	.23	.65	.7	<.1	.7
JUL													
18-20	9.8	106	.13	1.13	1.16	.032	.26	.056	.32	2.24	2.1	<.1	2.1
JUL													
18-20	*9.7*	*101*	*.12*	*1.15*	*1.18*	*.032*	*.39*	*.057*	*.32*	*2.28*	*3.6*	*<.1*	*3.6*
20...	7.1	--	.13	1.88	1.92	.041	.07	.032	.151	2.67	.6	<.1	.6
SEP													
18-20	7.4	97	.10	1.08	1.10	.017	--	.119	.55	2.53	--	--	--

01493500 MORGAN CREEK NEAR KENNEDYVILLE, MD—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Organic carbon, water, fltrd, mg/L (00681)	Pheophytin a, phytoplankton, ug/L (62360)	Chlorophyll a phytoplankton, fluoro, ug/L (70953)	Iron, water, fltrd, ug/L (01046)	Manganese, water, fltrd, ug/L (01056)	1-Naphthol, water, fltrd 0.7u GF ug/L (49295)	2,6-Diethylaniline water fltrd 0.7u GF ug/L (82660)	2-[(2-Ethyl-6methylphenyl)amino]2oxoESA ug/L (62850)	2Chloro-2,6'-'diethyl acetanilide wat flt ug/L (61618)	CIAT, water, fltrd, ug/L (04040)	2-Ethyl-6-methylaniline water, fltrd, ug/L (61620)	3,4-Dichloroaniline water fltrd, ug/L (61625)	4Chloro 2methyl phenol, water, fltrd, ug/L (61633)
NOV													
18...	3.6	--	--	--	--	--	<.006	--	--	<.006	--	--	--
JAN													
08...	3.1	--	--	--	--	--	<.006	--	--	E.079	--	--	--
MAR													
03...	2.8	--	--	--	--	--	<.006	--	--	E.078	--	--	--
APR													
06...	*.9*	--	--	*<6*	*3.0*	*<.09*	*<.006*	*<.02*	*<.005*	*<.006*	*<.004*	*<.004*	*<.006*
06...	3.7	--	--	196	197	<.09	<.006	.06	<.005	E.059	<.004	<.004	<.006
APR													
12-15	7.4	--	--	209	116	<.09	<.006	.04	<.005	E.035	<.004	<.004	<.006
APR													
26-27	7.5	--	--	300	210	<.09	<.006	.02	<.005	E.094	<.004	<.004	<.006
MAY													
03-05	7.4	--	--	418	201	<.09	<.006	.03	<.005	E.119	<.004	<.004	<.006
04...	7.6	--	--	535	259	--	<.006	.04	--	E.174	--	--	--
JUN													
03...	4.5	2.9	1.3	127	232	--	<.006	.06	<.005	E.151	<.004	<.004	--
JUN													
05-06	5.7	--	--	282	173	<.09	<.006	.05	<.005	E.155	<.004	.006	<.006
JUN													
10-12	7.7	--	--	230	97.4	<.09	<.006	.06	<.005	E.483	<.004	<.004	<.006
10...	4.4	--	--	32	E.5	<.09	<.006	.04	<.005	E.072	<.004	<.004	<.006
10...	5.9	--	--	82	1.6	<.09	<.006	.08	<.005	E.267	<.004	<.004	<.006
11...	7.1	--	--	116	112	<.09	<.006	.04	<.005	E.367	<.004	<.004	<.006
11...	7.3	--	--	134	130	<.09	<.006	.06	<.005	E.358	<.004	<.004	<.006
11...	8.5	--	--	429	190	<.09	<.006	.06	<.005	E.516	<.004	<.004	<.006
12...	7.6	--	--	276	151	<.09	<.006	.10	<.005	E.531	<.004	<.004	<.006
12...	7.0	--	--	422	74.4	<.09	<.006	.10	<.005	E.376	<.004	<.004	<.006
JUL													
12-14	9.7	--	--	339	116	<.09	<.006	.04	<.005	E.056	<.004	<.004	<.006
12...	5.7	--	--	88	3.1	<.09	<.006	.03	<.005	E.071	<.004	<.004	<.006
12...	8.5	--	--	155	134	<.09	<.006	.04	<.005	E.084	<.004	<.004	<.006
13...	3.9	--	--	330	193	<.09	<.006	.03	<.005	E.043	<.004	<.004	<.006
13...	6.5	--	--	481	157	<.09	<.006	.03	<.005	E.062	<.004	<.004	<.006
13...	9.7	--	--	412	118	<.09	<.006	<.02	<.005	E.052	<.004	<.004	<.006
13...	4.4	--	--	371	44.2	<.09	<.006	<.02	<.005	E.067	<.004	<.004	<.006
14...	4.6	--	--	280	92.8	<.09	<.006	.10	<.005	E.051	<.004	<.004	<.006
JUL													
18-20	7.3	--	--	345	37.3	<.09	<.006	.15	<.005	E.058	<.004	<.004	<.006
JUL													
18-20	*7.3*	--	--	*359*	*37.6*	*<.09*	*<.006*	*.18*	*<.005*	*E.066*	*<.004*	*<.004*	*<.006*
20...	7.6	--	--	--	--	--	<.006	--	--	E.057	--	--	--
SEP													
18-20	10.0	--	--	551	81.0	<.09	<.006	.03	<.005	E.017	<.004	<.004	<.006

01493500 MORGAN CREEK NEAR KENNEDYVILLE, MD—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Aceto-chlor ESA, water, fltrd 0.7u GF ug/L (61029)	Aceto-chlor OA, water, fltrd 0.7u GF ug/L (61030)	Aceto-chlor SAA, water, fltrd, ug/L (62847)	Aceto-chlor, water, fltrd, ug/L (49260)	Ala-chlor ESA SA, water, fltrd, ug/L (62849)	Ala-chlor ESA, water, fltrd 0.7u GF ug/L (50009)	Ala-chlor OA, water, fltrd 0.7u GF ug/L (61031)	Ala-chlor SAA, water, fltrd, ug/L (62848)	Ala-chlor, water, fltrd, ug/L (46342)	alpha-HCH, water, fltrd, ug/L (34253)	alpha-HCH-d6, surrog, Sch2003 wat flt percent recovry (99995)	alpha-HCH-d6, surrog, wat flt 0.7u GF percent recovry (91065)	Atra-zine, water, fltrd, ug/L (39632)
NOV													
18...	--	--	--	<.006	--	--	--	--	<.005	<.005	--	93.9	<.007
JAN													
08...	--	--	--	<.006	--	--	--	--	.069	<.005	--	99.6	.053
MAR													
03...	--	--	--	<.006	--	--	--	--	.081	<.005	--	90.5	.043
APR													
06...	*<.02*	*<.02*	*<.02*	*<.006*	*<.02*	*<.02*	*<.02*	*<.02*	*<.005*	--	*80.8*	--	*<.007*
06...	<.02	<.02	<.02	<.006	<.02	.42	.11	<.02	.043	--	77.2	--	.108
APR													
12-15	<.02	<.02	<.02	<.006	<.02	.27	.11	<.02	.037	--	82.0	--	.361
APR													
26-27	<.02	.02	<.02	.401	<.02	.31	.15	<.02	.058	--	83.7	--	4.58
MAY													
03-05	.08	.08	.02	.182	<.02	.39	.14	<.02	.049	--	96.7	--	2.75
04...	.15	.12	.04	.227	<.02	.42	.16	.02	.067	<.005	--	91.6	4.00
JUN													
03...	.10	.02	<.02	<.006	<.02	.55	.19	<.02	.048	--	84.1	--	2.69
JUN													
05-06	.23	.29	.10	.113	<.02	.47	.16	<.02	.057	--	78.0	--	2.26
JUN													
10-12	.62	.84	.08	.467	<.02	.34	.10	<.02	.026	--	98.3	--	5.40
10...	.13	.08	<.02	.014	<.02	.47	.12	<.02	.028	--	98.5	--	.410
10...	<.02	<.02	<.02	<.006	<.02	.22	.05	<.02	.014	--	94.7	--	3.80
11...	.24	.31	<.02	.513	<.02	.16	.13	<.02	.039	--	95.7	--	5.55
11...	.61	.75	.08	.390	<.02	.42	.14	<.02	.026	--	79.5	--	6.83
11...	.72	.85	.10	.412	<.02	.33	.06	<.02	.020	--	98.1	--	4.99
12...	1.13	1.47	.19	.675	<.02	.34	.10	<.02	.027	--	95.3	--	5.44
12...	1.15	1.47	.19	.578	<.02	.43	.11	<.02	.025	--	79.2	--	5.53
JUL													
12-14	.06	.06	<.02	.042	<.02	.02	<.02	<.02	.015	--	90.9	--	1.19
12...	.05	.05	<.02	.009	<.02	.36	.11	<.02	.032	--	83.1	--	.292
12...	<.02	<.02	<.02	<.006	<.02	.04	.02	<.02	.017	--	80.1	--	7.95
13...	.04	.02	<.02	.042	<.02	.04	<.02	<.02	.016	--	92.9	--	.630
13...	.04	.03	<.02	.043	<.02	.02	<.02	<.02	<.010	--	92.7	--	.955
13...	.13	.21	.07	.044	<.02	.09	<.02	<.02	.015	--	75.4	--	.526
13...	.15	.17	.05	.024	<.02	.09	.03	<.02	.012	--	90.3	--	1.14
14...	.17	.17	<.02	.034	<.02	.04	.03	<.02	.014	--	69.5	--	.349
JUL													
18-20	.12	.11	<.02	.019	<.02	.28	.08	<.02	.031	--	92.7	--	.730
JUL													
18-20	*.12*	*.11*	*<.02*	*.019*	*<.02*	*.31*	*.08*	*<.02*	*.033*	--	*96.2*	--	*.744*
20...	--	--	--	.008	--	--	--	--	.034	<.005	--	94.4	.305
SEP													
18-20	.06	.03	<.02	<.006	<.02	.22	.05	<.02	.008	--	76.1	--	.038

01493500 MORGAN CREEK NEAR KENNEDYVILLE, MD—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Azinphos-methyl oxon, water, fltrd, ug/L (61635)	Azinphos-methyl, water, fltrd 0.7u GF ug/L (82686)	Benfluralin, water, fltrd 0.7u GF ug/L (82673)	Butylate, water, fltrd, ug/L (04028)	Carbaryl, water, fltrd 0.7u GF ug/L (82680)	Carbofuran, water, fltrd 0.7u GF ug/L (82674)	Chlorpyrifos oxon, water, fltrd, ug/L (61636)	Chlorpyrifos water, fltrd, ug/L (38933)	cis-Permethrin water fltrd 0.7u GF ug/L (82687)	Cyanazine, water, fltrd, ug/L (04041)	Cyfluthrin, water, fltrd, ug/L (61585)	Cypermethrin water, fltrd, ug/L (61586)	DCPA, water fltrd 0.7u GF ug/L (82682)
NOV													
18...	--	<.050	<.010	<.004	<.041	<.020	--	<.005	<.006	<.018	--	--	<.003
JAN													
08...	--	<.050	<.010	.008	<.041	<.020	--	<.005	<.006	<.018	--	--	.003
MAR													
03...	--	<.050	<.010	.007	<.041	E.009	--	<.005	<.006	<.018	--	--	<.003
APR													
06...	*<.02*	*<.050*	*<.010*	--	*<.041*	--	*<.06*	*<.005*	*<.006*	--	*<.008*	*<.009*	*E.002*
06...	<.02	<.050	<.010	--	<.041	--	<.06	<.005	<.006	--	<.008	<.009	<.003
APR													
12-15	<.02	<.050	<.010	--	<.041	--	<.06	<.005	<.006	--	<.008	<.009	<.003
APR													
26-27	<.02	<.050	<.010	--	<.041	--	<.06	<.005	<.006	--	<.008	<.009	<.003
MAY													
03-05	<.02	<.050	<.010	--	<.041	--	<.06	<.005	<.006	--	<.008	<.009	E.001
04...	--	<.050	<.010	<.010	<.041	<.020	--	<.005	<.006	<.018	--	--	<.003
JUN													
03...	--	<.050	<.010	--	<.041	--	<.06	<.005	<.006	--	<.008	<.009	<.003
JUN													
05-06	<.02	<.050	<.010	--	<.041	--	<.06	<.005	<.006	--	<.008	<.009	.004
JUN													
10-12	<.02	<.050	<.010	--	<.041	--	<.06	<.005	<.006	--	<.008	<.009	<.003
10...	<.02	<.050	<.010	--	<.041	--	<.06	<.005	<.006	--	<.008	<.009	<.003
10...	<.02	<.050	<.010	--	<.041	--	<.06	<.005	<.006	--	<.008	<.009	<.003
11...	<.02	<.050	<.010	--	<.041	--	<.06	<.005	<.006	--	<.008	<.009	<.003
11...	<.02	<.050	<.010	--	<.041	--	<.06	<.005	<.006	--	<.008	<.009	<.003
11...	<.02	<.050	<.010	--	<.041	--	<.06	<.005	<.006	--	<.008	<.009	<.003
12...	<.02	<.050	<.010	--	<.041	--	<.06	<.005	<.006	--	<.008	<.009	<.003
12...	<.02	<.050	<.010	--	<.041	--	<.06	<.005	<.006	--	<.008	<.009	<.003
JUL													
12-14	<.07	<.050	<.010	--	E.011	--	<.06	<.005	<.006	--	<.008	<.009	<.003
12...	<.07	<.050	<.010	--	<.041	--	<.06	<.005	<.006	--	<.008	<.009	<.003
12...	<.07	<.050	<.010	--	E.019	--	<.06	<.005	<.006	--	<.008	<.009	<.003
13...	<.07	<.050	<.010	--	<.041	--	<.06	<.005	<.006	--	<.008	<.009	<.003
13...	<.07	<.050	<.010	--	<.041	--	<.06	<.005	<.006	--	<.008	<.009	<.003
13...	<.07	<.050	<.010	--	<.041	--	<.06	<.005	<.006	--	<.008	<.009	<.003
13...	<.07	<.050	<.010	--	E.016	--	<.06	<.005	<.006	--	<.008	<.009	<.003
14...	<.07	<.050	<.010	--	<.041	--	<.06	<.005	<.006	--	<.008	<.009	<.003
JUL													
18-20	<.07	<.050	<.010	--	<.041	--	<.06	<.005	<.006	--	<.008	<.009	<.003
JUL													
18-20	*<.07*	*<.050*	*<.010*	--	*<.041*	--	*<.06*	*<.005*	*<.006*	--	*<.008*	*<.009*	*<.003*
20...	--	<.050	<.010	<.004	<.041	<.020	--	<.005	<.006	<.018	--	--	<.003
SEP													
18-20	<.07	<.050	<.010	--	<.041	--	<.06	<.005	<.006	--	<.008	<.009	<.003

01493500 MORGAN CREEK NEAR KENNEDYVILLE, MD—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Desulfinyl fipronil, water, fltrd, ug/L (62170)	Diazinon oxon, water, fltrd, ug/L (61638)	Diazinon, water, fltrd, ug/L (39572)	Diazinon-d10 surrog, Sch2003 wat flt percent recovry (99994)	Diazinon-d10 surrog. wat flt 0.7u GF percent recovry (91063)	Dicrotophos, water fltrd, ug/L (38454)	Dieldrin, water, fltrd, ug/L (39381)	Dimethenamid ESA, water, fltrd, ug/L (61951)	Dimethenamid OA, water, fltrd, ug/L (62482)	Dimethenamid water, fltrd, ug/L (61588)	Dimethoate, water, fltrd 0.7u GF ug/L (82662)	Disulfoton, water, fltrd 0.7u GF ug/L (82677)	EPTC, water, fltrd 0.7u GF ug/L (82668)
NOV													
18...	<.012	--	<.005	--	118	--	<.009	--	--	--	--	<.02	<.004
JAN													
08...	<.012	--	<.005	--	119	--	<.009	--	--	--	--	<.02	<.004
MAR													
03...	<.012	--	<.005	--	124	--	<.009	--	--	--	--	<.02	<.004
APR													
06...	*<.012*	*<.01*	*<.005*	*101*	--	*<.08*	*<.009*	*<.02*	*<.02*	*<.02*	*<.006*	--	--
06...	<.012	<.01	<.005	90.6	--	<.08	<.009	.03	<.02	.06	<.006	--	--
APR													
12-15	<.012	<.01	<.005	92.3	--	<.08	<.009	.03	<.02	.20	<.006	--	--
APR													
26-27	<.012	<.01	<.005	97.3	--	<.08	<.009	.03	<.02	.23	<.006	--	--
MAY													
03-05	<.012	<.01	<.005	106	--	<.08	<.009	.02	<.02	.14	<.006	--	--
04...	<.012	--	.011	--	113	--	<.009	.02	<.02	.19	--	<.02	E.004
JUN													
03...	<.012	<.01	<.005	103	--	<.12	<.009	.03	<.02	<.02	<.031	--	--
JUN													
05-06	<.012	<.01	.009	E135	--	<.08	<.009	.03	.04	.08	<.006	--	--
JUN													
10-12	<.012	<.01	<.005	115	--	<.08	<.009	.12	.26	.07	<.006	--	--
10...	<.012	<.01	<.005	127	--	<.08	<.009	<.02	<.02	<.02	<.006	--	--
10...	<.012	<.01	<.005	117	--	<.08	<.009	.04	.07	<.02	<.006	--	--
11...	<.012	<.01	<.005	117	--	<.08	<.009	.03	.08	.07	<.006	--	--
11...	<.012	<.01	<.005	90.1	--	<.08	<.009	.03	.07	.06	<.006	--	--
11...	<.012	<.01	<.005	113	--	<.08	<.009	.19	.38	.09	<.006	--	--
12...	<.012	<.01	<.005	104	--	<.08	<.009	.24	.46	.16	<.006	--	--
12...	<.012	<.01	<.005	89.0	--	<.08	<.009	.17	.33	.14	<.006	--	--
JUL													
12-14	<.012	<.01	<.005	156	--	<.08	<.009	<.02	<.02	<.02	<.006	--	--
12...	<.012	<.01	<.005	278	--	<.08	<.009	.02	<.02	<.02	<.006	--	--
12...	<.012	<.01	<.005	225	--	<.08	<.009	<.02	<.02	<.02	<.006	--	--
13...	<.012	<.01	<.005	137	--	<.08	<.009	<.02	<.02	<.02	<.006	--	--
13...	<.012	<.01	<.005	195	--	<.08	<.009	<.02	<.02	<.02	<.006	--	--
13...	<.012	<.01	<.005	125	--	<.08	<.009	<.02	<.02	<.02	<.006	--	--
13...	<.012	<.01	<.005	181	--	<.08	<.009	.04	.06	<.02	<.006	--	--
14...	<.012	<.01	<.005	99.0	--	<.08	<.009	<.02	<.02	<.02	<.006	--	--
JUL													
18-20	<.012	<.01	<.005	128	--	<.08	<.009	<.02	<.02	.16	<.006	--	--
JUL													
18-20	*<.012*	*<.01*	*<.005*	*133*	--	*<.08*	*<.009*	*<.02*	*<.02*	*<.02*	*<.006*	--	--
20...	<.012	--	<.005	--	113	--	<.009	--	--	--	--	<.02	<.007
SEP													
18-20	<.012	<.01	<.005	107	--	<.08	<.009	<.02	<.02	<.02	<.006	--	--

01493500 MORGAN CREEK NEAR KENNEDYVILLE, MD—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Ethalfluralin, water, fltrd 0.7u GF ug/L (82663)	Ethion monoxon water, fltrd, ug/L (61644)	Ethion, water, fltrd, ug/L (82346)	Ethoprop, water, fltrd 0.7u GF ug/L (82672)	Fenamiphos sulfone water, fltrd, ug/L (61645)	Fenamiphos sulfoxide, water, fltrd, ug/L (61646)	Fenamiphos, water, fltrd, ug/L (61591)	Desulfinylfipronil 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)	Flufenacet ESA, water, fltrd, ug/L (61952)	Flufenacet OA, water, fltrd, ug/L (62483)
NOV													
18...	<.009	--	--	<.005	--	--	--	<.029	<.013	<.024	<.016	--	--
JAN													
08...	<.009	--	--	<.005	--	--	--	<.029	<.013	<.024	<.016	--	--
MAR													
03...	<.009	--	--	<.005	--	--	--	<.029	<.013	<.024	<.016	--	--
APR													
06...	--	*<.03*	*<.004*	--	*<.008*	*<.03*	*<.03*	*<.029*	*<.013*	*<.024*	*E.016*	*<.02*	*<.02*
06...	--	<.03	<.004	--	<.008	<.03	<.03	<.029	<.013	<.024	E.006	<.02	<.02
APR													
12-15	--	<.03	<.004	--	<.008	<.03	<.03	<.029	<.013	<.024	<.016	<.02	<.02
APR													
26-27	--	<.03	<.004	--	<.008	<.03	<.03	<.029	<.013	<.024	<.016	<.02	<.02
MAY													
03-05	--	<.03	<.004	--	<.008	<.03	<.03	<.029	<.013	<.024	<.016	<.02	<.02
04...	<.009	--	--	<.005	--	--	--	<.029	<.013	<.024	<.016	<.02	<.02
JUN													
03...	--	<.03	<.004	--	<.008	--	<.03	<.029	<.013	<.024	<.016	<.02	<.02
JUN													
05-06	--	<.03	<.004	--	<.008	<.03	<.03	<.029	<.013	<.024	<.016	<.02	<.02
JUN													
10-12	--	<.03	<.004	--	<.008	<.03	<.03	<.029	<.013	<.024	<.016	<.02	<.02
10...	--	<.03	<.004	--	<.008	<.03	<.03	<.029	<.013	<.024	<.016	<.02	<.02
10...	--	<.03	<.004	--	<.008	<.03	<.03	<.029	<.013	<.024	<.016	<.02	<.02
11...	--	<.03	<.004	--	<.008	<.03	<.03	<.029	<.013	<.024	<.016	<.02	<.02
11...	--	<.03	<.004	--	<.008	<.03	<.03	<.029	<.013	<.024	<.016	.03	<.02
11...	--	<.03	<.004	--	<.008	<.03	<.03	<.029	<.013	<.024	<.016	<.02	<.02
12...	--	<.03	<.004	--	<.008	<.03	<.03	<.029	<.013	<.024	<.016	<.02	<.02
12...	--	<.03	<.004	--	<.008	<.03	<.03	<.029	<.013	<.024	<.016	<.02	<.02
JUL													
12-14	--	<.0020	<.004	--	<.049	<.04	<.03	<.029	<.013	<.024	<.016	<.02	<.02
12...	--	<.0020	<.004	--	<.049	<.04	<.03	<.029	<.013	<.024	<.016	<.02	<.02
12...	--	<.0020	<.004	--	<.049	<.04	<.03	<.029	<.013	<.024	<.016	<.02	<.02
13...	--	<.0020	<.004	--	<.049	<.04	<.03	<.029	<.013	<.024	<.016	<.02	<.02
13...	--	<.0020	<.004	--	<.049	<.04	<.03	<.029	<.013	<.024	<.016	<.02	<.02
13...	--	<.0020	<.004	--	<.049	<.04	<.03	<.029	<.013	<.024	<.016	<.02	<.02
13...	--	<.0020	<.004	--	<.049	<.04	<.03	<.029	<.013	<.024	<.016	<.02	<.02
14...	--	<.0020	<.004	--	<.049	<.04	<.03	<.029	<.013	<.024	<.016	<.02	<.02
JUL													
18-20	--	<.0020	<.004	--	<.049	<.04	<.03	<.029	<.013	<.024	<.016	<.02	<.02
JUL													
18-20	--	*<.0020*	*<.004*	--	*<.049*	*<.04*	*<.03*	*<.029*	*<.013*	*<.024*	*<.016*	*<.02*	*<.02*
20...	<.009	--	--	<.005	--	--	--	<.029	<.013	<.024	<.016	--	--
SEP													
18-20	--	<.0020	<.004	--	<.049	<.04	<.03	<.029	<.013	<.024	<.016	<.02	<.02

01493500 MORGAN CREEK NEAR KENNEDYVILLE, MD—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Flufenacet, water, fltrd, ug/L (62481)	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)	Lindane water, fltrd, ug/L (39341)	Linuron water fltrd 0.7u GF ug/L (82666)	Malaoxon, water, fltrd, ug/L (61652)	Malathion, water, fltrd, ug/L (39532)	Metalaxyl, water, fltrd, ug/L (61596)	Methialthion water, fltrd, ug/L (61598)	Methyl paraoxon, water, fltrd, ug/L (61664)
NOV													
18...	--	--	<.003	--	--	--	<.004	<.035	--	<.027	--	--	--
JAN													
08...	--	--	<.003	--	--	--	<.004	<.035	--	<.027	--	--	--
MAR													
03...	--	--	<.003	--	--	--	<.004	<.035	--	<.027	--	--	--
APR													
06...	*<.02*	*<.002*	*<.003*	*<.013*	*<1*	*<.003*	--	--	*<.008*	*<.027*	*<.005*	*<.006*	*<.03*
06...	<.02	<.002	<.003	<.013	<1	<.003	--	--	<.008	<.027	E.010	<.006	<.03
APR													
12-15	<.02	<.002	<.003	<.013	<1	<.003	--	--	<.008	<.027	<.005	<.006	<.03
APR													
26-27	<.02	<.002	<.003	<.013	<1	<.003	--	--	<.008	<.027	<.005	<.006	<.03
MAY													
03-05	<.02	<.002	<.003	<.013	<1	<.003	--	--	<.008	<.027	<.005	<.006	<.03
04...	<.02	--	<.003	--	--	--	<.004	<.035	--	<.027	--	--	--
JUN													
03...	<.02	<.002	<.003	<.013	<1	<.003	--	--	<.008	<.027	<.005	<.006	<.03
JUN													
05-06	<.02	<.002	<.003	<.013	<1	<.003	--	--	<.008	<.027	<.005	<.006	<.03
JUN													
10-12	<.02	<.002	<.003	<.013	<1	<.003	--	--	<.008	<.027	<.130	<.006	<.03
10...	<.02	<.002	<.003	<.013	<1	<.003	--	--	<.008	<.027	<.220	<.006	<.03
10...	<.02	<.002	<.003	<.013	<1	<.003	--	--	<.008	<.030	<.005	<.006	<.03
11...	<.02	<.002	<.003	<.013	<1	<.003	--	--	<.008	<.027	<.160	<.006	<.03
11...	.04	<.002	<.003	<.013	<1	<.003	--	--	<.008	<.027	<.005	<.006	<.03
11...	<.02	<.002	<.003	<.013	<1	<.003	--	--	<.008	<.027	<.005	<.006	<.03
12...	<.02	<.002	<.003	<.013	<1	<.003	--	--	<.008	<.027	<.005	<.006	<.03
12...	<.02	<.002	<.003	<.013	<1	<.003	--	--	<.008	<.027	<.005	<.006	<.03
JUL													
12-14	<.02	<.003	<.003	<.013	<.387	<.003	--	--	<.030	<.027	<.180	<.006	<.03
12...	<.02	<.003	<.003	<.013	<.387	<.003	--	--	<.030	<.027	<.180	<.006	<.03
12...	<.02	<.003	<.003	<.013	<.387	<.003	--	--	<.030	<.027	<.150	<.006	<.03
13...	<.02	<.003	<.003	<.013	<.387	<.003	--	--	<.030	<.027	<.480	<.006	<.03
13...	<.02	<.003	<.003	<.013	<.387	<.003	--	--	<.030	<.027	<.080	<.006	<.03
13...	<.02	<.003	<.003	<.013	<.387	<.003	--	--	<.030	<.027	<.080	<.006	<.03
13...	<.02	<.003	<.003	<.013	<.387	<.003	--	--	<.030	<.027	<.100	<.006	<.03
14...	<.02	<.003	<.003	<.013	<.387	<.003	--	--	<.030	<.027	<.250	<.006	<.03
JUL													
18-20	<.02	<.003	<.003	<.013	<.387	<.003	--	--	<.030	<.027	<.005	<.006	<.03
JUL													
18-20	*<.02*	*<.003*	*<.003*	*<.013*	*<.387*	*<.003*	--	--	*<.030*	*<.027*	*<.005*	*<.006*	*<.03*
20...	--	--	<.003	--	--	--	<.004	<.035	--	<.027	--	--	--
SEP													
18-20	<.02	<.003	<.003	<.013	<.387	<.003	--	--	<.030	<.027	<.005	<.006	<.03

01493500 MORGAN CREEK NEAR KENNEDYVILLE, MD—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Methyl para-thion, water, fltrd 0.7u GF ug/L (82667)	Metola-chlor ESA, water, fltrd 0.7u GF ug/L (61043)	Metola-chlor OA, water, fltrd 0.7u GF ug/L (61044)	Metola-chlor, water, fltrd, ug/L (39415)	Metri-buzin, water, fltrd, ug/L (82630)	Moli-nate, water, fltrd 0.7u GF ug/L (82671)	Myclo-butanil water, fltrd, ug/L (61599)	Naprop-amide, water, fltrd 0.7u GF ug/L (82684)	p,p-' DDE, water, fltrd, ug/L (34653)	Para-thion, water, fltrd, ug/L (39542)	Peb-ulate, water, fltrd 0.7u GF ug/L (82669)	Pendi-meth-alin, water, fltrd 0.7u GF ug/L (82683)	Phorate oxon, water, fltrd, ug/L (61666)
NOV													
18...	<.015	--	--	<.013	<.006	<.003	--	<.007	<.003	<.010	<.004	<.022	--
JAN													
08...	<.015	--	--	.320	<.006	.004	--	<.007	<.003	<.010	<.004	<.022	--
MAR													
03...	<.015	--	--	.335	<.006	<.003	--	<.007	<.003	<.010	<.004	<.022	--
APR													
06...	*<.015*	*<.02*	*<.02*	*E.027*	*<.006*	--	*<.008*	--	--	--	--	*<.022*	*<.10*
06...	<.015	3.85	.50	.347	<.006	--	<.008	--	--	--	--	<.022	<.10
APR													
12-15	<.015	2.21	.48	.541	<.006	--	<.008	--	--	--	--	<.022	<.10
APR													
26-27	<.015	2.24	.54	2.82	.010	--	<.008	--	--	--	--	E.010	<.10
MAY													
03-05	<.015	4.51	.62	2.94	<.008	--	<.008	--	--	--	--	E.011	<.10
04...	<.015	4.38	.79	3.75	.008	<.003	--	<.007	<.003	<.010	<.004	E.018	--
JUN													
03...	<.015	2.75	.54	.769	<.006	--	<.008	--	--	--	--	<.022	<.10
JUN													
05-06	<.015	3.47	.65	1.76	<.006	--	<.008	--	--	--	--	<.022	<.10
JUN													
10-12	<.015	2.75	1.16	2.12	.018	--	<.008	--	--	--	--	.068	<.10
10...	<.015	2.60	.42	.390	<.006	--	<.008	--	--	--	--	<.022	<.10
10...	<.015	2.58	1.10	6.15	<.006	--	<.008	--	--	--	--	.148	<.10
11...	<.015	1.78	.71	2.66	<.006	--	<.008	--	--	--	--	.091	<.10
11...	<.015	2.91	1.29	2.41	<.006	--	<.008	--	--	--	--	.048	<.10
11...	<.015	2.83	1.11	1.89	.029	--	<.008	--	--	--	--	.048	<.10
12...	<.015	3.02	1.46	2.28	<.025	--	<.008	--	--	--	--	.056	<.10
12...	<.015	3.10	1.86	2.20	<.015	--	<.008	--	--	--	--	.055	<.10
JUL													
12-14	<.015	.62	.28	.811	<.006	--	<.008	--	--	--	--	<.022	<.10
12...	<.015	2.06	.35	.399	<.006	--	<.008	--	--	--	--	<.022	<.10
12...	<.015	.70	.22	1.92	<.006	--	<.008	--	--	--	--	<.040	<.10
13...	<.015	.55	.20	.818	<.006	--	<.008	--	--	--	--	<.022	<.10
13...	<.015	.62	.22	.657	<.006	--	<.008	--	--	--	--	<.022	<.10
13...	<.015	1.35	.53	.549	<.006	--	<.008	--	--	--	--	<.022	<.10
13...	<.015	2.07	.80	.524	<.006	--	<.008	--	--	--	--	<.022	<.10
14...	<.015	1.90	.95	1.07	<.006	--	<.008	--	--	--	--	<.022	<.10
JUL													
18-20	<.015	3.45	.69	1.02	<.006	--	<.008	--	--	--	--	<.022	<.10
JUL													
18-20	*<.015*	*3.94*	*.70*	*1.03*	*<.006*	--	*<.008*	--	--	--	--	*<.022*	*<.10*
20...	<.015	--	--	.545	<.006	<.003	--	<.007	<.003	<.010	<.004	<.022	--
SEP													
18-20	<.015	1.78	.41	.172	<.006	--	<.008	--	--	--	--	<.022	<.10

01493500 MORGAN CREEK NEAR KENNEDYVILLE, MD—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	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)	Propyzamide, water, fltrd 0.7u GF ug/L (82676)	Propachlor ESA, water, fltrd 0.7u GF ug/L (62766)	Propachlor OA, water, fltrd 0.7u GF ug/L (62767)	Propachlor, water, fltrd, ug/L (04024)	Propanil, water, fltrd 0.7u GF ug/L (82679)	Propargite, water, fltrd 0.7u GF ug/L (82685)	Simazine, water, fltrd, ug/L (04035)	Tebuthiuron water fltrd 0.7u GF ug/L (82670)
NOV													
18...	<.011	--	--	<.01	--	<.004	--	--	<.025	<.011	<.02	<.005	<.02
JAN													
08...	<.011	--	--	<.01	--	<.004	--	--	<.025	<.011	<.02	.228	<.02
MAR													
03...	<.011	--	--	<.01	--	<.004	--	--	<.025	<.011	<.02	.028	<.02
APR													
06...	*<.011*	--	--	*<.01*	*<.005*	*<.004*	*<.05*	*<.02*	--	--	--	*<.005*	*<.02*
06...	<.011	--	--	<.01	<.005	<.004	<.05	<.02	--	--	--	.264	<.02
APR													
12-15	<.011	<.06	<.008	E.01	<.005	<.004	<.05	<.02	--	--	--	.260	<.02
APR													
26-27	<.011	<.06	<.008	<.01	<.005	<.004	<.05	<.02	--	--	--	1.34	<.02
MAY													
03-05	<.011	--	<.008	<.01	<.005	<.004	<.05	<.02	--	--	--	.669	<.02
04...	<.011	--	--	.01	--	<.004	<.05	<.02	<.025	<.011	<.02	.798	<.02
JUN													
03...	<.011	<.12	<.008	<.01	<.005	<.004	<.05	<.02	--	--	--	.143	--
JUN													
05-06	<.011	<.06	<.008	<.01	<.005	<.004	<.05	<.02	--	--	--	.228	<.02
JUN													
10-12	<.011	<.06	<.008	.01	<.005	<.004	<.05	<.02	--	--	--	1.80	<.02
10...	<.011	<.06	<.008	<.01	<.005	<.004	<.05	<.02	--	--	--	.091	<.02
10...	<.011	<.06	<.008	.01	<.005	<.004	<.05	<.02	--	--	--	2.30	<.02
11...	<.011	<.06	<.008	.01	<.005	<.004	<.05	<.02	--	--	--	.748	<.02
11...	<.011	--	<.008	<.01	<.005	<.004	<.05	<.02	--	--	--	1.04	<.02
11...	<.011	--	<.008	.01	<.005	<.004	<.05	<.02	--	--	--	2.31	<.02
12...	<.011	--	<.008	.03	<.005	<.004	<.05	<.02	--	--	--	1.82	<.02
12...	<.011	--	<.008	.02	<.005	<.004	<.05	<.02	--	--	--	1.18	<.02
JUL													
12-14	<.011	<.05	<.008	.12	<.005	<.004	<.05	<.02	--	--	--	.198	<.02
12...	<.011	<.05	<.008	<.02	<.005	<.004	<.05	<.02	--	--	--	.109	<.02
12...	<.011	<.05	<.008	<.01	<.005	<.004	<.05	<.02	--	--	--	.104	<.02
13...	<.011	<.05	<.008	.14	<.005	<.004	<.05	<.02	--	--	--	.198	<.02
13...	<.011	<.05	<.008	.11	<.005	<.004	<.05	<.02	--	--	--	.140	<.02
13...	<.011	<.05	<.008	.20	<.005	<.004	<.05	<.02	--	--	--	.140	<.02
13...	<.011	<.05	<.008	.03	<.005	<.004	<.05	<.02	--	--	--	.069	<.02
14...	<.011	<.05	<.008	.05	<.005	<.004	<.05	<.02	--	--	--	.942	<.02
JUL													
18-20	<.011	<.05	<.008	.06	<.005	<.004	<.05	<.02	--	--	--	.590	<.02
JUL													
18-20	*<.011*	*<.05*	*<.008*	*.07*	*<.005*	*<.004*	*<.05*	*<.02*	--	--	--	*.589*	*<.02*
20...	<.011	--	--	E.02	--	<.004	--	--	<.025	<.011	<.02	.371	<.02
SEP													
18-20	<.011	<.05	<.008	<.01	<.005	<.004	<.05	<.02	--	--	--	.115	<.02

01493500 MORGAN CREEK NEAR KENNEDYVILLE, MD—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Terbacil, water, fltrd 0.7u GF ug/L (82665)	Terbufos oxon sulfone water, fltrd, ug/L (61674)	Terbufos, water, fltrd 0.7u GF ug/L (82675)	Terbuthylazine, water, fltrd, ug/L (04022)	Thiobencarb water fltrd 0.7u GF ug/L (82681)	Triallate, water, fltrd 0.7u GF ug/L (82678)	Trifluralin, water, fltrd 0.7u GF ug/L (82661)	Dichlorvos, water fltrd, ug/L (38775)	Suspended sediment concentration mg/L (80154)	Suspended sediment discharge, tons/d (80155)	Sampler type, code (84164)
NOV											
18...	<.034	--	<.02	--	<.010	<.002	<.009	--	12	.32	8010
JAN											
08...	<.034	--	<.02	--	<.010	<.002	<.009	--	20	.59	8010
MAR											
03...	<.034	--	<.02	--	<.010	<.002	<.009	--	15	.41	8010
APR											
06...	--	*<.07*	*<.02*	*<.01*	--	--	*<.009*	*<.01*	--	--	*4030*
06...	--	<.07	<.02	<.01	--	--	<.009	<.01	12	.29	8010
APR											
12-15	--	<.07	<.02	<.01	--	--	<.009	<.01	151	--	4115
APR											
26-27	--	<.07	<.02	<.01	--	--	<.009	<.01	105	--	4115
MAY											
03-05	--	<.07	<.02	<.01	--	--	<.009	<.01	88	--	4115
04...	<.034	--	<.02	--	<.010	<.002	<.009	--	30	1.7	8010
JUN											
03...	--	<.07	<.02	<.01	--	--	<.009	<.01	--	--	8010
JUN											
05-06	--	<.07	<.02	<.01	--	--	<.009	<.01	73	--	4115
JUN											
10-12	--	<.07	<.02	E.01	--	--	<.009	<.01	343	--	4115
10...	--	<.07	<.02	<.01	--	--	<.009	<.01	703	19	4115
10...	--	<.07	<.02	<.01	--	--	<.009	<.01	1,290	129	4115
11...	--	<.07	<.02	E.01	--	--	<.009	<.01	554	67	4115
11...	--	<.07	<.02	.01	--	--	<.009	<.01	507	68	4115
11...	--	<.07	<.02	E.01	--	--	<.009	<.01	223	30	4115
12...	--	<.07	<.02	E.01	--	--	<.009	<.01	121	10	4115
12...	--	<.07	<.02	E.01	--	--	<.009	<.01	132	8.9	4115
JUL											
12-14	--	<.07	<.02	<.01	--	--	<.009	<.01	--	--	4115
12...	--	<.07	<.02	<.01	--	--	<.009	<.01	437	26	4115
12...	--	<.07	<.02	<.01	--	--	<.009	<.01	503	103	4115
13...	--	<.07	<.02	<.01	--	--	<.009	<.01	325	246	4115
13...	--	<.07	<.02	<.01	--	--	<.009	<.01	141	134	4115
13...	--	<.07	<.02	<.01	--	--	<.009	<.01	60	29	4115
13...	--	<.07	<.02	<.01	--	--	<.009	<.01	152	29	4115
14...	--	<.07	<.02	<.01	--	--	<.009	<.01	63	6.3	4115
JUL											
18-20	--	<.07	<.02	<.01	--	--	<.009	<.01	68	--	4115
JUL											
18-20	--	*<.07*	*<.02*	*<.01*	--	--	*<.009*	*<.01*	--	--	*8010*
20...	<.034	--	<.02	--	<.010	<.002	<.009	--	13	.35	3045
SEP											
18-20	--	<.07	<.02	<.01	--	--	<.009	<.01	--	--	4115

Sampler type: 8010 - Other
4030 - Suction pump
4115 - Sampler, Point, Automatic
3045 - US DH-81 With Teflon cap and nozzle

Remark codes used in this table:
< -- Less than.
E -- Estimated.
M-- Presence verified but not quantified.

01495000 BIG ELK CREEK AT ELK MILLS, MD

LOCATION.--Lat 39°39'25.4", long 75°49'20.5", Cecil County, Hydrologic Unit 02060002, on right bank 100 ft downstream from highway bridge at Elk Mills (State Highway 277), 3.5 mi north of Elkton, and 7 mi upstream from confluence with Little Elk Creek.

DRAINAGE AREA.--52.6 mi^2.

PERIOD OF RECORD.--April 1932 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WSP 1432: 1932-33, 1934(M), 1935, 1936(M), 1938, 1919-40(M), 1942(M), 1943-51, 1952-53(P).

GAGE.--Water-stage recorder. Datum of gage is 68.69 ft above National Geodetic Vertical Datum of 1929. Prior to May 17, 1946, nonrecording gage at bridge 100 ft upstream at same datum.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair. Slight diurnal fluctuation caused by mills upstream from station. U.S. Geological Survey gage-height telemeter at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 1884 reached a stage of about 19 ft, from information by local residents; discharge, about 18,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,700 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 27	1700	2,260	6.26	Jul 12	1415	2,310	6.31
Dec 11	0930	3,180	7.08	Jul 28	0000	1,970	5.97
Feb 6	1745	3,940	7.85	Sep 18	1530	4,260	8.18
Jun 18	0200	2,950	6.88	Sep 28	2145	*5,270	*9.30

Minimum discharge, 47 ft^3/s, Jan. 25.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63	95	88	88	e53	67	173	70	62	60	298	63
2	61	86	82	90	e52	72	141	70	64	59	112	57
3	59	83	77	90	366	73	170	116	60	56	84	55
4	62	80	76	88	381	72	169	129	53	54	94	54
5	63	80	89	108	161	72	122	81	100	54	104	53
6	58	97	95	102	1,430	231	89	76	112	52	73	53
7	56	110	85	83	787	130	82	72	72	170	66	53
8	56	81	82	81	206	104	78	74	60	145	63	53
9	56	74	79	80	126	84	88	67	55	64	60	58
10	55	72	162	70	152	77	75	446	55	56	59	53
11	55	73	1,500	77	137	74	72	110	136	53	60	51
12	52	161	183	84	104	71	95	84	85	614	172	50
13	51	98	123	79	96	66	269	74	61	201	272	50
14	57	80	189	e64	95	64	204	70	63	133	101	50
15	302	76	268	e62	88	65	130	66	526	126	85	55
16	74	74	131	69	78	84	97	96	309	79	75	55
17	65	73	446	80	e72	102	88	71	390	68	69	54
18	69	72	188	105	75	95	83	67	773	178	65	1,280
19	61	331	127	104	77	155	78	111	136	133	63	208
20	57	486	114	77	80	114	75	93	98	80	62	95
21	58	130	105	70	83	87	72	111	83	69	96	75
22	57	102	102	71	79	75	72	102	100	64	96	67
23	54	92	102	63	74	70	71	70	114	63	65	61
24	53	87	226	67	74	69	109	63	79	62	60	58
25	53	93	151	64	75	70	73	59	75	59	58	57
26	55	83	109	e60	70	68	133	67	76	58	57	56
27	1,110	80	102	e64	69	68	157	62	68	162	56	55
28	316	140	97	e62	67	67	86	59	64	428	55	1,510
29	479	245	95	e59	67	62	76	54	73	95	54	918
30	159	98	97	e56	---	62	72	52	63	77	101	160
31	107	---	90	e54	---	71	---	58	---	69	108	---
TOTAL	3,933	3,532	5,460	2,371	5,274	2,641	3,299	2,800	4,065	3,641	2,843	5,517
MEAN	127	118	176	76.5	182	85.2	110	90.3	136	117	91.7	184
MAX	1,110	486	1,500	108	1,430	231	269	446	773	614	298	1,510
MIN	51	72	76	54	52	62	71	52	53	52	54	50
CFSM	2.41	2.24	3.35	1.45	3.46	1.62	2.09	1.72	2.58	2.23	1.74	3.50
IN.	2.78	2.50	3.86	1.68	3.73	1.87	2.33	1.98	2.87	2.58	2.01	3.90

e Estimated

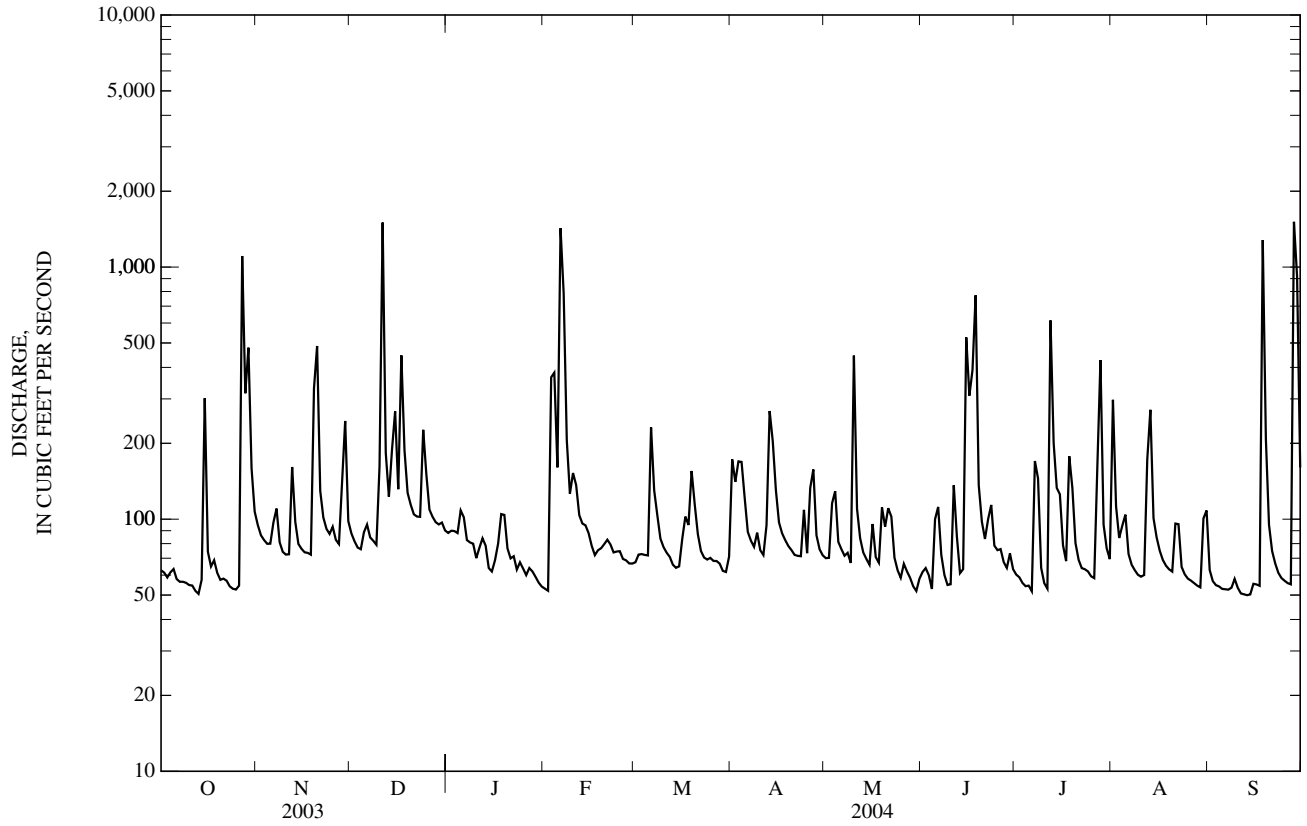
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 2004, BY WATER YEAR (WY)

MEAN	42.6	54.8	70.3	86.0	98.6	102	89.7	76.0	60.3	55.8	51.3	48.4
MAX	152	125	276	283	236	247	191	160	216	248	241	205
(WY)	(1997)	(1997)	(1997)	(1979)	(1936)	(1994)	(1993)	(1958)	(1972)	(1975)	(1933)	(1999)
MIN	11.1	16.6	18.7	19.2	25.8	35.6	34.5	26.8	21.4	9.90	6.15	9.95
(WY)	(1964)	(2002)	(1966)	(1966)	(2002)	(1981)	(1963)	(1955)	(1963)	(2002)	(2002)	(1932)

01495000 BIG ELK CREEK AT ELK MILLS, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1932 - 2004	
ANNUAL TOTAL	41,523		45,376			
ANNUAL MEAN	114		124		69.7	
HIGHEST ANNUAL MEAN					124	2004
LOWEST ANNUAL MEAN					24.6	2002
HIGHEST DAILY MEAN	1,500	Dec 11	1,510	Sep 28	4,570	Sep 16, 1999
LOWEST DAILY MEAN	(e)22	(a)	50	(b)	(e, c)1.8	(d)
ANNUAL SEVEN-DAY MINIMUM	24	Jan 25	52	Sep 10	2.1	Aug 11, 2002
MAXIMUM PEAK FLOW			5,270	Sep 28	(f)10,600	Jul 5, 1937
MAXIMUM PEAK STAGE			9.30	Sep 28	(g)14.54	Sep 16, 1999
INSTANTANEOUS LOW FLOW			47	Jan 25	(h)4.5	Jan 21, 1955
ANNUAL RUNOFF (CFSM)	2.16		2.36		1.33	
ANNUAL RUNOFF (INCHES)	29.37		32.09		18.01	
10 PERCENT EXCEEDS	186		180		115	
50 PERCENT EXCEEDS	68		76		47	
90 PERCENT EXCEEDS	36		55		20	

e Estimated.
a Jan. 30, 31, 2003.
b Sept. 12-14.
c May have been lower during period of doubtful gage-height record.
d Aug. 16, 17, 2002.
f From rating curve extended above 1,700 ft^3/s on basis of velocity-area and conveyance studies.
g From floodmarks.
h Measured discharge, may have been lower during period of doubtful gage-height record.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD

LOCATION.--Lat 39°39'28.1", long 76°10'28.2", Harford County, Hydrologic Unit 02050306, at downstream side of Conowingo Dam, 1.0 mi southwest of Conowingo, and 9.9 mi upstream from mouth.

DRAINAGE AREA.--27,100 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 5.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good except those for estimated daily discharges (missing record, equipment malfunction), which are fair. Flow regulated by Conowingo Reservoir beginning October 1928, usable capacity, 55,070,000,000 gal; dead storage, 45,290,000,000 gal. Records do not include a small infrequent diversion upstream from station to augment municipal supply of city of Baltimore. Records of diversion available from Baltimore City Department of Public Works. U.S. Geological Survey gage-height telemeter at station.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 620,000 ft^3/s, Sept. 19, gage height, 30.07 ft; minimum discharge, 599 ft^3/s, Feb. 2.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	76,500	110,000	84,000	73,500	11,000	34,300	86,000	81,400	52,200	18,400	113,000	e28,000
2	68,000	88,200	83,700	72,800	22,700	34,700	82,600	57,700	54,700	14,100	135,000	e38,000
3	68,900	90,700	80,100	78,200	15,700	50,100	89,100	77,100	46,900	11,800	118,000	e46,000
4	57,600	52,200	73,900	61,000	33,500	73,100	100,000	72,200	39,000	11,400	88,100	e40,000
5	34,000	69,100	60,600	79,200	29,100	103,000	112,000	87,300	34,600	13,200	70,700	e34,000
6	44,100	66,400	54,900	131,000	35,800	146,000	90,200	87,300	50,600	10,300	53,200	e28,000
7	47,200	59,300	46,800	178,000	56,400	186,000	88,800	86,000	54,600	13,700	63,600	e24,000
8	36,500	48,100	58,500	147,000	44,900	224,000	81,100	66,200	41,000	16,700	46,000	e20,000
9	41,800	58,100	60,000	115,000	39,000	201,000	68,000	58,500	43,700	13,900	e38,000	e48,000
10	40,400	55,500	44,000	91,900	30,000	161,000	53,500	70,700	27,300	18,900	e32,000	e140,000
11	22,400	45,900	63,400	78,500	26,500	127,000	53,400	79,200	30,700	9,910	e28,000	e170,000
12	21,000	45,800	169,000	68,300	25,000	104,000	53,400	71,200	27,500	26,300	e24,000	e150,000
13	27,400	59,500	230,000	55,600	31,700	81,400	71,200	80,800	30,200	27,300	e40,000	e120,000
14	27,600	53,700	206,000	56,100	35,200	73,600	88,100	84,500	33,900	41,000	e48,000	96,600
15	28,300	27,200	156,000	48,700	27,700	68,700	113,000	57,000	46,100	47,600	e52,000	89,500
16	39,500	24,100	126,000	49,900	27,900	67,500	172,000	60,900	35,300	33,000	e56,000	64,500
17	42,300	37,600	106,000	25,900	19,300	70,600	144,000	62,600	35,700	29,200	e46,000	59,400
18	35,800	41,700	95,700	25,100	21,900	46,600	107,000	63,700	42,000	24,100	e38,000	152,000
19	48,700	43,000	78,500	33,200	21,400	55,800	89,400	50,200	25,400	35,700	e32,000	496,000
20	50,700	59,500	79,400	31,100	26,100	48,300	81,300	44,600	21,600	28,900	e36,000	545,000
21	39,400	147,000	68,700	28,500	22,100	49,300	75,100	52,200	31,600	35,400	e40,000	337,000
22	40,700	194,000	61,200	26,700	18,900	78,700	62,500	57,400	33,100	42,000	e46,000	207,000
23	43,700	152,000	65,700	33,300	39,400	66,900	56,400	52,500	27,800	38,500	e60,000	164,000
24	35,600	127,000	64,400	19,700	29,800	87,600	55,600	85,900	31,100	35,400	e66,000	141,000
25	25,300	107,000	62,600	20,600	35,900	83,400	46,800	83,500	23,400	23,000	e58,000	128,000
26	14,000	87,500	124,000	31,200	35,200	82,100	66,800	58,700	17,500	35,400	e52,000	97,900
27	40,600	81,900	140,000	12,400	33,400	70,000	86,500	60,600	11,400	34,600	e42,000	92,500
28	56,900	70,000	120,000	18,400	26,700	61,300	87,500	70,000	16,300	48,100	e36,000	82,600
29	78,600	73,400	96,900	15,200	18,400	85,500	88,100	71,700	15,300	127,000	e30,000	132,000
30	127,000	76,400	89,900	19,600	---	84,900	87,600	47,400	17,200	161,000	e26,000	122,000
31	132,000	---	86,600	15,800	---	82,900	---	55,400	---	125,000	e24,000	---
TOTAL	1,492,500	2,251,800	2,936,500	1,741,400	840,600	2,789,300	2,537,000	2,094,400	997,700	1,150,810	1,637,600	3,893,000
MEAN	48,150	75,060	94,730	56,170	28,990	89,980	84,570	67,560	33,260	37,120	52,830	129,800
MAX	132,000	194,000	230,000	178,000	56,400	224,000	172,000	87,300	54,700	161,000	135,000	545,000
MIN	14,000	24,100	44,000	12,400	11,000	34,300	46,800	44,600	11,400	9,910	24,000	20,000
CFSM	1.78	2.77	3.50	2.07	1.07	3.32	3.12	2.49	1.23	1.37	1.95	4.79
IN.	2.05	3.09	4.03	2.39	1.15	3.83	3.48	2.87	1.37	1.58	2.25	5.34

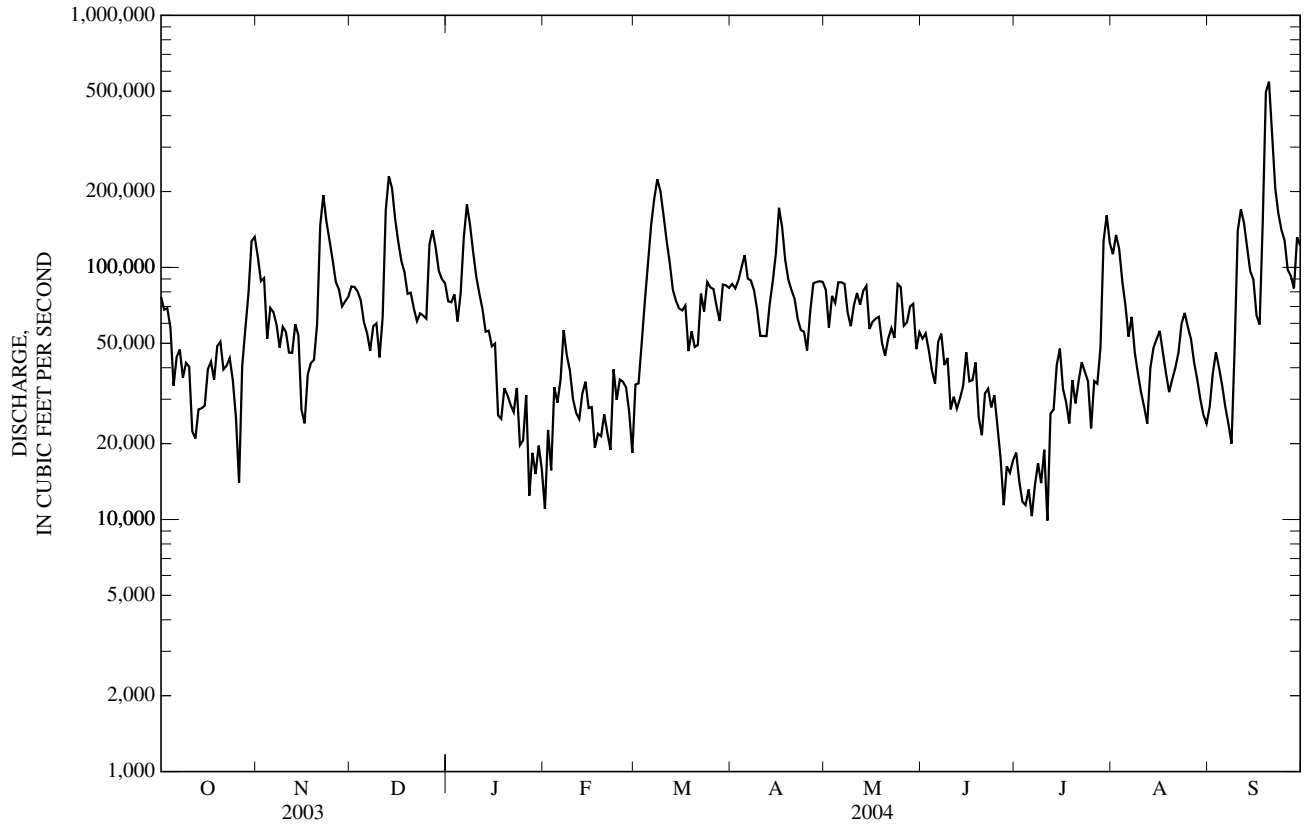
e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 2004, BY WATER YEAR (WY)

MEAN	23,230	35,140	48,640	42,050	50,730	73,880	78,630	48,830	36,040	19,820	15,070	19,750
MAX	81,800	75,060	113,700	122,500	115,800	147,800	250,100	108,200	208,000	59,050	52,830	129,800
(WY)	(1977)	(2004)	(1997)	(1996)	(1984)	(1994)	(1993)	(1989)	(1972)	(1972)	(2004)	(2004)
MIN	5,557	5,465	6,733	7,164	13,050	28,320	33,850	18,810	7,691	5,338	4,803	3,476
(WY)	(1970)	(1999)	(1999)	(1981)	(1980)	(1969)	(1995)	(2001)	(1999)	(1999)	(2002)	(1995)

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1968 - 2004	
ANNUAL TOTAL	22,148,730		24,362,610			
ANNUAL MEAN	60,680		66,560		40,900	
HIGHEST ANNUAL MEAN					66,560	2004
LOWEST ANNUAL MEAN					22,850	1999
HIGHEST DAILY MEAN	271,000	Mar 22	545,000	Sep 20	1,120,000	Jun 24, 1972
LOWEST DAILY MEAN	3,680	Jan 26	9,910	Jul 11	269	Jul 13, 1969
ANNUAL SEVEN-DAY MINIMUM	15,600	Feb 14	13,000	Jul 3	1,810	Sep 24, 1980
MAXIMUM PEAK FLOW			620,000	Sep 19	1,130,000	Jun 24, 1972
MAXIMUM PEAK STAGE			30.07	Sep 19	36.83	Jun 24, 1972
INSTANTANEOUS LOW FLOW			599	Feb 22	144	Mar 2, 1969
ANNUAL RUNOFF (CFSM)	2.24		2.46		1.51	
ANNUAL RUNOFF (INCHES)	30.40		33.44		20.50	
10 PERCENT EXCEEDS	117,000		127,000		85,600	
50 PERCENT EXCEEDS	49,800		54,800		27,600	
90 PERCENT EXCEEDS	19,300		22,600		5,700	



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1978 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: June 1979 to April 1981, July 1984 to September 1992.
WATER TEMPERATURE: June 1979 to April 1981, July 1984 to September 1992.
SUSPENDED-SEDIMENT DISCHARGE: October 1979 to April 1981, July 1984 to September 1992.

REMARKS.--During the period Oct. 1994 to Jan. 1995, monthly samples were collected and analyzed using ultraclean methodologies. Data on trace metals for this period are available from the University of Delaware. Data on organics for this period are available from George Mason University.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE (water years 1980, 1985-89, 1991-92): Maximum daily, 475 microsiemens/cm, Nov. 13-15, 1980 and Aug. 31, 1991; minimum daily, 100 microsiemens/cm, May 1, 1991.
WATER TEMPERATURE (water years 1980, 1985-89, 1991-92): Maximum daily, 30.5°C, Aug. 18, 1988; minimum daily, 1.0°C, Feb. 5, 6, 9, 1980, Feb. 12, 1988.
SEDIMENT CONCENTRATION: Maximum daily mean, 207 mg/L, Mar. 17, 1986; minimum daily mean, 1 mg/L, June 27, 1987, May 27, 28, 30, Nov. 1-3, 10, 11, Dec. 22-24, 27, 30, 31, 1991.
SEDIMENT LOAD: Maximum daily, 197,000 tons, Mar. 16, 17, 1986; minimum daily, 4.4 tons, Feb. 10, 1985.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sample type	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Sampling method, code (82398)	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)
OCT											
14...	0900	Environmental	1028	80020	45,200	40	756	10.8	110	7.8	226
14...	*0905*	*Replicate*	*1028*	*80020*	--	*70*	--	--	--	--	--
30...	1000	Environmental	1028	80020	95,700	40	766	11.8	110	7.8	229
NOV											
13...	0930	Environmental	1028	80020	79,600	40	750	11.9	110	7.8	205
13...	*0935*	*Replicate*	*1028*	*80020*	--	*70*	--	--	--	--	--
21...	0945	Environmental	1028	80020	82,700	40	759	12.9	112	--	238
DEC											
17...	0945	Environmental	1028	80020	79,800	40	751	15.7	120	8.1	167
17...	*0946*	*Replicate*	*1028*	*80020*	--	*70*	--	--	--	--	--
JAN											
22...	1030	Environmental	1028	80020	51,400	40	754	16.8	121	7.9	262
FEB											
10...	1030	Environmental	1028	80020	87,200	40	761	14.6	104	7.8	304
MAR											
05...	1000	Environmental	1028	80020	82,500	40	763	14.3	112	8.0	287
16...	0930	Environmental	1028	80020	87,200	40	763	13.5	107	7.7	168
APR											
06...	0900	Environmental	1028	80020	90,500	40	760	13.1	--	--	--
06...	*0905*	*Replicate*	*1028*	*80020*	--	*40*	--	--	--	--	--
15...	0845	Environmental	1028	80020	88,600	40	760	12.2	107	7.9	218
MAY											
05...	*1015*	*Blank*	*1028*	*80020*	--	*40*	--	--	--	--	--
05...	*1025*	*Blank*	*1028*	*80020*	--	*40*	--	--	--	--	--
05...	1030	Environmental	1028	80020	87,200	40	759	11.7	123	8.0	197
05...	*1040*	*Replicate*	*1028*	*80020*	--	*40*	--	--	--	--	--
JUN											
16...	0845	Environmental	1028	80020	13,900	40	763	7.1	84	7.8	234
16...	*0850*	*Replicate*	*1028*	*80020*	--	*40*	--	--	--	--	--
JUL											
06...	1015	Environmental	1028	80020	5,450	40	757	6.3	81	7.4	300
06...	*1020*	*Replicate*	*1028*	*80020*	--	*40*	--	--	--	--	--
AUG											
05...	0900	Environmental	1028	80020	54,400	40	753	8.3	101	6.5	169
05...	*0905*	*Replicate*	*1028*	*80020*	--	*40*	--	--	--	--	--

Agency collecting sample: 1028 - U.S. Geological Survey

Agency analyzing sample: 80020 - USGS-National Water Quality Lab, Denver, CO

Sampling method code: - 40 - Multiple verticals
70 - Grab sample

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, 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)	Alkalinity, wat flt fxd end lab, mg/L as CaCO3 (29801)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)
OCT													
14...	15.0	16.0	88	23.8	6.85	1.78	8.26	53	12.9	<.2	5.11	30.5	128
14...	--	--	--	--	--	--	--	--	--	--	--	--	--
30...	16.0	12.5	--	--	--	--	--	--	--	--	4.2	--	--
NOV													
13...	10.0	11.0	--	--	--	--	--	49	11.9	--	5.6	24.0	--
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	9.5	9.0	--	--	--	--	--	--	--	--	5.0	--	--
DEC													
17...	7.5	3.5	--	--	--	--	--	33	12.0	--	5.4	18.9	--
17...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
22...	.0	1.5	100	27.3	7.66	1.60	9.86	53	16.5	<.2	6.55	34.8	142
FEB													
10...	9.5	1.5	--	--	--	--	--	--	27.5	--	5.3	34.5	--
MAR													
05...	7.5	5.0	--	--	--	--	--	--	--	--	4.2	--	--
16...	2.0	5.5	--	--	--	--	--	32	12.4	--	5.3	21.8	--
APR													
06...	5.0	8.0	69	19.4	4.93	1.48	7.98	38	12.6	<.2	5.05	19.1	115
06...	--	--	*69*	*19.5*	*4.96*	*1.41*	*8.00*	*38*	*12.8*	*<.2*	*5.09*	*19.1*	*116*
15...	12.0	9.5	--	--	--	--	--	--	--	--	--	--	--
MAY													
05...	--	--	--	--	--	--	--	--	--	--	*<.2*	--	--
05...	--	--	--	--	--	--	--	*<2*	*<.20*	--	--	*<.2*	--
05...	17.5	17.5	--	--	--	--	--	--	--	--	2.7	--	--
05...	--	--	--	--	--	--	--	*42*	*13.3*	--	--	*24.1*	--
JUN													
16...	26.0	24.0	--	--	--	--	--	55	16.4	--	3.6	26.8	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
06...	30.0	28.0	110	29.5	7.78	2.05	11.5	64	18.9	<.2	2.89	37.1	156
06...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
05...	24.0	24.8	--	--	--	--	--	--	--	--	5.6	--	--
05...	--	--	--	--	--	--	--	--	--	--	--	--	--

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Residue fixed non-filterable, mg/L (00540)	Residue total at 105 deg. C, suspended, mg/L (00530)	Residue volatile, suspended, mg/L (00535)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite + nitrate water unfltrd mg/L as N (00630)	Nitrite water, fltrd, mg/L as N (00613)	Particulate nitrogen, susp, water, mg/L (49570)	Organic nitrogen, water, fltrd, mg/L (00607)	Organic nitrogen, water, unfltrd mg/L (00605)
OCT													
14...	--	<10	<10	.16	.26	<.04	1.37	1.37	--	.006	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	*.09*	--	--
30...	--	15	<10	.23	.34	E.02	1.25	1.25	--	.007	--	--	--
NOV													
13...	--	<10	<10	.23	.27	E.03	1.28	1.28	--	.006	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	*.07*	--	--
21...	--	11	<10	.19	.26	E.04	1.54	1.54	--	.008	--	--	--
DEC													
17...	24	35	11	.24	.31	E.04	1.34	1.34	--	.004	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	*.08*	--	--
JAN													
22...	--	<10	<10	.12	.19	.05	2.10	2.10	--	.008	<.02	.07	.13
FEB													
10...	--	<10	<10	.69	.89	--	--	2.17	--	--	.12	--	--
MAR													
05...	--	<10	<10	--	--	.07	1.76	1.78	--	.013	.08	--	--
16...	--	<10	<10	--	.23	.05	1.27	1.27	--	.006	.04	--	.17
APR													
06...	--	<10	<10	--	.34	E.03	1.40	1.41	--	.010	.10	--	--
06...	--	*<20*	*<20*	--	*.41*	*E.03*	*1.38*	*1.39*	--	*.009*	*.13*	--	--
15...	8	18	10	--	--	E.03	1.39	1.40	--	.010	.06	--	--
MAY													
05...	--	*<10*	*<10*	--	--	*<.04*	--	*<.06*	--	*<.002*	*<.02*	--	--
05...	--	--	--	--	--	*<.04*	--	*<.06*	--	*<.008*	--	--	--
05...	.0	12	12	--	--	<.04	1.13	1.14	--	.009	.15	--	--
05...	--	--	--	--	--	*<.04*	*1.12*	*1.13*	--	*.008*	--	--	--
JUN													
16...	2	15	13	--	.35	.08	1.30	1.33	--	.031	.13	--	.27
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
06...	--	<10	<10	--	.51	.16	1.45	1.51	--	.052	.14	--	.34
06...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
05...	--	<10	<10	--	--	E.03	1.03	1.04	--	.011	.06	--	--
05...	--	--	--	--	--	--	--	--	--	--	--	--	--

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Ortho-phos-phate, water, fltrd, mg/L as P (00671)	Phos-phorus, water, fltrd, mg/L (00666)	Phos-phorus, water, unfltrd mg/L (00665)	Total nitro-gen, wat flt by anal ysis, mg/L (62854)	Total nitro-gen, wat unf by anal ysis, mg/L (62855)	Total nitro-gen, water, fltrd, mg/L (00602)	Total nitro-gen, water, unfltrd mg/L (00600)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inor-ganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	Organic carbon, water, unfltrd mg/L (00680)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)
OCT													
14...	E.003	.010	.034	--	--	1.5	1.6	--	--	--	--	2.8	--
14...	--	*.01*	--	*1.49*	--	--	--	*.6*	*<.1*	--	*2.2*	--	--
30...	.019	.030	.074	--	--	1.5	1.6	--	--	--	--	4.3	--
NOV													
13...	.011	.018	.038	--	--	1.5	1.6	--	--	--	--	3.2	--
13...	--	*<.01*	--	*1.59*	--	--	--	*.5*	*<.1*	*.5*	*2.4*	--	--
21...	.018	.023	.064	--	--	1.7	1.8	--	--	--	--	3.3	--
DEC													
17...	.006	.013	.066	--	--	1.6	1.7	--	--	--	--	4.6	--
17...	--	*<.01*	--	*1.52*	--	--	--	*.9*	*<.1*	--	*2.2*	--	--
JAN													
22...	E.006	.01	.023	2.11	2.10	2.2	2.3	<.1	<.1	<.1	1.5	--	--
FEB													
10...	.08	.10	.169	2.68	--	2.9	3.1	.9	<.1	.9	2.8	--	--
MAR													
05...	.009	<.01	--	2.01	--	--	--	.5	<.1	.5	1.6	--	--
16...	.007	<.01	.036	1.46	--	--	1.5	.3	<.1	.3	1.8	--	--
APR													
06...	.008	<.01	.050	1.55	--	--	1.8	1.0	<.1	.9	2.1	--	--
06...	*.008*	*<.01*	*.049*	*1.53*	--	--	*1.8*	*.7*	*<.1*	*.7*	*2.0*	--	--
15...	.007	.01	--	1.59	--	--	--	.8	<.1	.8	1.7	--	--
MAY													
05...	*<.006*	*<.01*	--	*<.03*	--	--	--	*<.1*	*<.1*	*<.1*	*E.3*	--	--
05...	*<.006*	*.009*	*<.004*	--	*<.03*	--	--	--	--	--	--	--	--
05...	<.006	.01	--	1.26	--	--	--	1.2	<.1	1.1	1.8	--	--
05...	*<.006*	*.056*	*.046*	--	*1.46*	--	--	--	--	--	--	--	--
JUN													
16...	.010	.01	.073	1.65	--	--	1.7	1.0	<.1	1.0	2.8	--	--
16...	--	*.01*	--	--	--	--	--	--	--	--	--	--	--
JUL													
06...	.080	.009	.030	1.85	--	--	2.0	.8	<.1	.8	2.4	--	--
06...	--	*<.01*	--	--	--	--	--	--	--	--	--	--	--
AUG													
05...	.021	.033	.065	1.30	--	--	--	.7	<.1	.7	3.5	--	--
05...	--	*.03*	--	--	--	--	--	--	--	--	--	--	--

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	COD, low level, water, unfltrd mg/L (00335)	Pheophytin a, phyto-plankton, ug/L (62360)	Chlorophyll a phyto-plankton, fluoro, ug/L (70953)	Iron, water, fltrd, ug/L (01046)	Manganese, water, fltrd, ug/L (01056)	Strontium, water, fltrd, ug/L (01080)	2,6-Diethylaniline water fltrd 0.7u GF ug/L (82660)	CIAT, water, fltrd, ug/L (04040)	Acetochlor, water, fltrd, ug/L (49260)	Alachlor, water, fltrd, ug/L (46342)	alpha-HCH, water, fltrd, ug/L (34253)	alpha-HCH-d6, surrog, wat flt 0.7u GF percent recovry (91065)	Atrazine, water, fltrd, ug/L (39632)
OCT													
14...	--	--	--	41	24.3	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--	--	--
NOV													
13...	--	--	--	--	--	--	<.006	E.016	<.006	<.005	<.005	94.5	.021
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
DEC													
17...	--	--	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
22...	--	--	--	53	118	130	<.006	E.018	<.006	<.005	<.005	99.9	.017
FEB													
10...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
05...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	<.006	E.014	<.006	<.005	<.005	108	.013
APR													
06...	--	--	--	26	53.5	--	<.006	E.015	E.005	<.005	<.005	96.7	.016
06...	--	--	--	*23*	*54.0*	--	*<.006*	*E.013*	*<.006*	*<.005*	*<.005*	*93.1*	*.016*
15...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
05...	--	--	--	--	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	*<.006*	*<.006*	*<.006*	*<.005*	*<.005*	*94.0*	*<.007*
05...	--	--	--	--	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	*<.006*	*E.015*	*.013*	*.005*	*<.005*	*89.8*	*.106*
JUN													
16...	--	--	--	--	--	--	<.006	E.041	.021	.007	<.005	103	.365
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
06...	--	--	--	11	96.0	148	<.006	E.046	.013	<.005	<.005	80.1	.259
06...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
05...	--	--	--	--	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--	--	--	--	--

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Azinphos-methyl, water, fltrd 0.7u GF ug/L (82686)	Benfluralin, water, fltrd 0.7u GF ug/L (82673)	Butylate, water, fltrd, ug/L (04028)	Carbaryl, water, fltrd 0.7u GF ug/L (82680)	Carbofuran, water, fltrd 0.7u GF ug/L (82674)	Chlorpyrifos water, fltrd, ug/L (38933)	cis-Permethrin water fltrd 0.7u GF ug/L (82687)	Cyanazine, water, fltrd, ug/L (04041)	DCPA, water fltrd 0.7u GF ug/L (82682)	Desulfinyl fipronil, water, fltrd, ug/L (62170)	Diazinon, water, fltrd, ug/L (39572)	Diazinon-d10 surrog. wat flt 0.7u GF percent recovry (91063)	Dieldrin, water, fltrd, ug/L (39381)
OCT													
14...	--	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--	--	--
NOV													
13...	<.050	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.012	<.005	104	<.009
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
DEC													
17...	--	--	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
22...	<.050	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.012	<.005	108	<.009
FEB													
10...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
05...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	<.050	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.012	<.005	117	<.009
APR													
06...	<.050	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.012	<.005	111	<.009
06...	*<.050*	*<.010*	*<.004*	*<.041*	*<.020*	*<.005*	*<.006*	*<.018*	*<.003*	*<.012*	*<.005*	*111*	*<.009*
15...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
05...	--	--	--	--	--	--	--	--	--	--	--	--	--
05...	*<.050*	*<.010*	*<.004*	*<.041*	*<.020*	*<.005*	*<.006*	*<.018*	*<.003*	*<.012*	*<.005*	*108*	*<.009*
05...	--	--	--	--	--	--	--	--	--	--	--	--	--
05...	*<.050*	*<.010*	*<.004*	*E.006*	*<.020*	*<.005*	*<.006*	*<.018*	*<.003*	*<.012*	*E.004*	*104*	*<.009*
JUN													
16...	<.050	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.012	E.003	122	<.009
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
06...	<.050	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.012	<.005	102	<.009
06...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
05...	--	--	--	--	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--	--	--	--	--

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Disulfoton, water, fltrd 0.7u GF ug/L (82677)	EPTC, water, fltrd 0.7u GF ug/L (82668)	Ethalfluralin, water, fltrd 0.7u GF ug/L (82663)	Ethoprop, water, fltrd 0.7u GF ug/L (82672)	Desulfinylfipronil 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 water, fltrd, ug/L (04095)	Lindane water, fltrd, ug/L (39341)	Linuron water fltrd 0.7u GF ug/L (82666)	Malathion, water, fltrd, ug/L (39532)	Methyl parathion, water, fltrd 0.7u GF ug/L (82667)
OCT													
14...	--	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--	--	--
NOV													
13...	<.02	<.004	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035	<.027	<.015
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
DEC													
17...	--	--	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
22...	<.02	<.004	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035	<.027	<.015
FEB													
10...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
05...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	<.02	<.004	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035	<.027	<.015
APR													
06...	<.02	<.004	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035	<.027	<.015
06...	*<.02*	*<.004*	*<.009*	*<.005*	*<.029*	*<.013*	*<.024*	*<.016*	*<.003*	*<.004*	*<.035*	*<.027*	*<.015*
15...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
05...	--	--	--	--	--	--	--	--	--	--	--	--	--
05...	*<.02*	*<.004*	*<.009*	*<.005*	*<.029*	*<.013*	*<.024*	*<.016*	*<.003*	*<.004*	*<.035*	*<.027*	*<.015*
05...	--	--	--	--	--	--	--	--	--	--	--	--	--
05...	*<.02*	*<.004*	*<.009*	*<.005*	*<.029*	*<.013*	*<.024*	*<.016*	*<.003*	*<.004*	*<.035*	*<.027*	*<.015*
JUN													
16...	<.02	<.004	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035	<.027	<.015
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
06...	<.02	<.004	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035	<.027	<.015
06...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
05...	--	--	--	--	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--	--	--	--	--

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Metolachlor, water, fltrd, ug/L (39415)	Metribuzin, water, fltrd, ug/L (82630)	Molinate, water, fltrd 0.7u GF ug/L (82671)	Napropamide, water, fltrd 0.7u GF ug/L (82684)	p,p'-DDE, water, fltrd, ug/L (34653)	Parathion, water, fltrd, ug/L (39542)	Pebulate, water, fltrd 0.7u GF ug/L (82669)	Pendimethalin, water, fltrd 0.7u GF ug/L (82683)	Phorate water fltrd 0.7u GF ug/L (82664)	Prometon, water, fltrd, ug/L (04037)	Propyzamide, water, fltrd 0.7u GF ug/L (82676)	Propachlor, water, fltrd, ug/L (04024)	Propanil, water, fltrd 0.7u GF ug/L (82679)
OCT													
14...	--	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--	--	--
NOV													
13...	E.011	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011	M	<.004	<.025	<.011
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
DEC													
17...	--	--	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
22...	.013	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011	M	<.004	<.025	<.011
FEB													
10...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
05...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	E.009	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.025	<.011
APR													
06...	E.012	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011	M	<.004	<.025	<.011
06...	*E.013*	*<.006*	*<.003*	*<.007*	*<.003*	*<.010*	*<.004*	*<.022*	*<.011*	*<.01*	*<.004*	*<.025*	*<.011*
15...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
05...	--	--	--	--	--	--	--	--	--	--	--	--	--
05...	*<.013*	*<.006*	*<.003*	*<.007*	*<.003*	*<.010*	*<.004*	*<.022*	*<.011*	*<.01*	*<.004*	*<.025*	*<.011*
05...	--	--	--	--	--	--	--	--	--	--	--	--	--
05...	*.067*	*<.006*	*<.003*	*<.007*	*<.003*	*<.010*	*<.004*	*<.022*	*<.011*	*.01*	*<.004*	*<.025*	*<.011*
JUN													
16...	.128	<.006	<.003	<.007	<.003	<.010	<.004	E.011	<.011	.03	<.004	<.025	<.011
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
06...	.063	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011	.01	<.004	<.025	<.011
06...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
05...	--	--	--	--	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--	--	--	--	--

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Propargite, water, fltrd 0.7u GF ug/L (82685)	Simazine, water, fltrd, ug/L (04035)	Tebuthiuron water fltrd 0.7u GF ug/L (82670)	Terbacil, water, fltrd 0.7u GF ug/L (82665)	Terbufos, water, fltrd 0.7u GF ug/L (82675)	Thiobencarb water fltrd 0.7u GF ug/L (82681)	Triallate, water, fltrd 0.7u GF ug/L (82678)	Trifluralin, water, fltrd 0.7u GF ug/L (82661)	Suspended sediment concentration mg/L (80154)	Suspended sediment discharge, tons/d (80155)	Sampler type, code (84164)
OCT											
14...	--	--	--	--	--	--	--	--	7	854	3060
14...	--	--	--	--	--	--	--	--	--	--	*3060*
30...	--	--	--	--	--	--	--	--	16	4,130	3060
NOV											
13...	<.02	.007	<.02	<.034	<.02	<.010	<.002	<.009	8	1,720	3060
13...	--	--	--	--	--	--	--	--	--	--	*3060*
21...	--	--	--	--	--	--	--	--	16	3,570	3060
DEC											
17...	--	--	--	--	--	--	--	--	31	6,680	3060
17...	--	--	--	--	--	--	--	--	--	--	*3060*
JAN											
22...	<.02	.005	<.02	<.034	<.02	<.010	<.002	<.009	2	278	3060
FEB											
10...	--	--	--	--	--	--	--	--	16	3,770	3060
MAR											
05...	--	--	--	--	--	--	--	--	8	1,780	3060
16...	<.02	<.005	<.02	<.034	<.02	<.010	<.002	<.009	11	2,590	3060
APR											
06...	<.02	.008	<.02	<.034	<.02	<.010	<.002	<.009	18	4,400	3060
06...	*<.02*	*.008*	*<.02*	*<.034*	*<.02*	*<.010*	*<.002*	*<.009*	*20*	--	*3060*
15...	--	--	--	--	--	--	--	--	15	3,590	3060
MAY											
05...	--	--	--	--	--	--	--	--	*.0*	--	*3060*
05...	*<.02*	*<.005*	*<.02*	*<.034*	*<.02*	*<.010*	*<.002*	*<.009*	--	--	*3060*
05...	--	--	--	--	--	--	--	--	16	3,770	3060
05...	*<.02*	*.020*	*<.02*	*<.034*	*<.02*	*<.010*	*<.002*	*<.009*	--	--	*3060*
JUN											
16...	<.02	.037	<.02	<.034	<.02	<.010	<.002	<.009	19	713	3060
16...	--	--	--	--	--	--	--	--	--	--	*3060*
JUL											
06...	<.02	.028	<.02	<.034	<.02	<.010	<.002	<.009	6	88	3060
06...	--	--	--	--	--	--	--	--	--	--	*3060*
AUG											
05...	--	--	--	--	--	--	--	--	17	2,500	3060
05...	--	--	--	--	--	--	--	--	--	--	*3060*

Sampler type: 3060 - Weighted-bottle sampler

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Time	Sample type	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Sampling method, code (82398)	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, air, deg C (00020)
SEP												
13...	0915	Environmental	1028	80020	--	40	765	9.4	105	7.5	169	24.5
13...	*0920*	*Replicate*	*1028*	*80020*	--	*40*	--	--	--	--	--	--
20...	0900	Environmental	1028	80020	597,000	40	771	9.4	95	7.5	104	17.0
20...	*0905*	*Replicate*	*1028*	*80020*	--	*40*	--	--	--	--	--	--
22...	0915	Environmental	1028	80020	205,000	40	766	11.1	112	7.5	120	22.0
22...	*0920*	*Replicate*	*1028*	*80020*	--	*40*	--	--	--	--	--	--

Date	Temperature, water, deg C (00010)	Alkalinity, wat flt fxd end lab, mg/L as CaCO3 (29801)	Chloride, water, fltrd, mg/L (00940)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue fixed nonfilterable, mg/L (00540)	Residue total at 105 deg. C, suspended, mg/L (00530)	Residue volatile, suspended, mg/L (00535)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)
SEP													
13...	21.0	41	9.31	4.7	21.7	--	32	<10	.41	E.03	.72	.73	.011
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	16.5	--	--	5.0	--	122	489	367	--	.35	.78	.78	.008
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
22...	16.1	--	--	6.0	--	52	61	9	--	.04	.76	.77	.004
22...	--	--	--	--	--	--	--	--	--	--	--	--	--

Date	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, wat flt by analysis, mg/L (62854)	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)	2,6-Diethylaniline water fltrd 0.7u GF ug/L (82660)	CIAT, water, fltrd, ug/L (04040)	Acetochlor, water, fltrd, ug/L (49260)
SEP													
13...	.08	.014	.021	.080	.91	1.1	1.0	<.1	1.0	3.4	<.006	E.008	E.004
13...	--	--	*.02*	--	--	--	--	--	--	--	--	--	--
20...	18.6	E.003	.013	1.17	1.45	--	233	18.5	214	3.9	--	--	--
20...	--	--	*<.01*	--	--	--	--	--	--	--	--	--	--
22...	.20	.011	.019	.118	1.06	--	2.3	<.1	2.3	3.4	--	--	--
22...	--	--	*<.01*	--	--	--	--	--	--	--	--	--	--

Date	Alachlor, water, fltrd, ug/L (46342)	alpha-HCH, water, fltrd, ug/L (34253)	alpha-HCH-d6, surrog, wat flt 0.7u GF percent recovry (91065)	Atrazine, water, fltrd, ug/L (39632)	Azinphosmethyl, water, fltrd 0.7u GF ug/L (82686)	Benfluralin, water, fltrd 0.7u GF ug/L (82673)	Butylate, water, fltrd, ug/L (04028)	Carbaryl, water, fltrd 0.7u GF ug/L (82680)	Carbofuran, water, fltrd 0.7u GF ug/L (82674)	Chlorpyrifos water, fltrd, ug/L (38933)	cis-Permethrin water fltrd 0.7u GF ug/L (82687)	Cyanazine, water, fltrd, ug/L (04041)	DCPA, water fltrd 0.7u GF ug/L (82682)
SEP													
13...	E.003	<.005	87.8	.028	<.050	<.010	<.004	E.006	<.020	<.005	<.006	E.008	<.003
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--	--

Agency collecting sample: 1028 - U.S. Geological Survey

Agency analyzing sample: 80020 - USGS-National Water Quality Lab, Denver, CO

Sampling method code: 40 - Multiple verticals

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Desulfinyl fipronil, water, fltrd, ug/L (62170)	Diazinon, water, fltrd, ug/L (39572)	Diazinon-d10 surrog. wat flt 0.7u GF percent recovry (91063)	Dieldrin, water, fltrd, ug/L (39381)	Disulfoton, water, fltrd 0.7u GF ug/L (82677)	EPTC, water, fltrd 0.7u GF ug/L (82668)	Ethalfluralin, water, fltrd 0.7u GF ug/L (82663)	Ethoprop, water, fltrd 0.7u GF ug/L (82672)	Desulfinyl 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 water, fltrd, ug/L (04095)
SEP													
13...	<.012	<.005	93.6	<.009	<.02	<.004	<.009	<.005	<.029	<.013	<.024	<.016	<.003
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--	--

Date	Lindane water, fltrd, ug/L (39341)	Linuron water fltrd 0.7u GF ug/L (82666)	Malathion, water, fltrd, ug/L (39532)	Methyl parathion, water, fltrd 0.7u GF ug/L (82667)	Metolachlor, water, fltrd, ug/L (39415)	Metribuzin, water, fltrd, ug/L (82630)	Molinate, water, fltrd 0.7u GF ug/L (82671)	Napropamide, water, fltrd 0.7u GF ug/L (82684)	p,p'-DDE, water, fltrd, ug/L (34653)	Parathion, water, fltrd, ug/L (39542)	Pebulate, water, fltrd 0.7u GF ug/L (82669)	Pendimethalin, water, fltrd 0.7u GF ug/L (82683)	Phorate water fltrd 0.7u GF ug/L (82664)
SEP													
13...	<.004	<.035	<.027	<.015	E.012	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--	--

Date	Prometon, water, fltrd, ug/L (04037)	Propyzamide, water, fltrd 0.7u GF ug/L (82676)	Propachlor, water, fltrd, ug/L (04024)	Propanil, water, fltrd 0.7u GF ug/L (82679)	Propargite, water, fltrd 0.7u GF ug/L (82685)	Simazine, water, fltrd, ug/L (04035)	Tebuthiuron water fltrd 0.7u GF ug/L (82670)	Terbacil, water, fltrd 0.7u GF ug/L (82665)	Terbufos, water, fltrd 0.7u GF ug/L (82675)	Thiobencarb water fltrd 0.7u GF ug/L (82681)	Triallate, water, fltrd 0.7u GF ug/L (82678)	Trifluralin, water, fltrd 0.7u GF ug/L (82661)	Suspnd. sediment, sieve diametr percent <.063mm (70331)
SEP													
13...	.01	<.004	<.025	<.011	<.02	.006	<.02	<.034	<.02	<.010	<.002	<.009	--
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	92
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--	--

Date	Suspended sediment concentration mg/L (80154)	Suspended sediment discharge, tons/d (80155)	Sampler type, code (84164)
SEP			
13...	35	--	3060
13...	--	--	*3060*
20...	3,680	5,940,000	3060
20...	--	--	*3060*
22...	110	60,900	3060
22...	--	--	*3060*

Remark codes used in this table:
< -- Less than.
E -- Estimated.
M-- Presence verified but not quantified.
Sampler type : 3060 - Weighted-bottle sampler

Photo by U.S. Geological Survey personnel

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD

01580000 DEER CREEK AT ROCKS, MD

LOCATION.--Lat 39°37'47.9", long 76°24'11.9", Harford County, Hydrologic Unit 02050306, on right bank 0.3 mi upstream from bridge on Cherry Hill Road, 0.8 mi southeast of Rocks, 1.2 mi upstream from Stirrup Run, and 23.5 mi upstream from mouth.

DRAINAGE AREA.--94.4 mi^2.

PERIOD OF RECORD.--October 1926 to current year. Monthly discharge only for November and December 1926, published in WSP 1302.

REVISED RECORDS.--WSP 726: Drainage area. WSP 1502: 1927-36 (maximum and minimum only 1927-29, maximum only 1930-32, 1936).

GAGE.--Water-stage recorder. Concrete control since Sept. 7, 1938. Datum of gage is 250.40 ft above National Geodetic Vertical Datum of 1929.(Baltimore City bench mark).

REMARKS.--Records good except those for estimated daily discharges (ice effect, equipment malfunction), which are fair. Prior to 1965, some regulation at low flow by mills upstream from station. U.S. Geological Survey gage-height telemeter at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1888, that of Aug. 23, 1933.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,900 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec 11	1015	3,320	7.99	Aug 1	0300	1,950	5.96
Feb 6	1645	3,330	8.00	Aug 1	2015	2,850	7.33
Jun 14	2315	*6,510	*12.21	Sep 28	2100	3,020	7.58
Jul 7	1900	2,940	7.46				

Minimum discharge, 77 ft^3/s, Sept. 13, 14, 26-28.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	140	196	206	216	e178	144	210	168	159	124	1,210	86
2	135	179	189	221	e176	152	267	169	151	122	503	84
3	128	168	178	216	421	149	278	229	137	117	259	83
4	148	163	174	212	435	143	234	183	121	116	204	83
5	138	163	194	232	205	143	198	175	307	122	178	81
6	127	179	197	218	e1,400	323	171	182	341	113	153	81
7	123	178	183	191	e900	220	165	162	186	607	139	82
8	121	155	173	184	e330	215	158	159	154	303	132	88
9	118	143	168	186	e233	179	175	150	138	155	128	113
10	116	141	190	e190	328	167	153	236	134	129	125	92
11	114	141	1,640	e190	307	159	146	151	199	128	e250	83
12	111	263	457	182	226	153	177	140	199	420	e180	81
13	108	198	318	180	216	143	326	135	144	240	223	80
14	122	162	348	172	211	138	306	131	e1,240	188	144	78
15	347	154	423	e173	186	138	222	133	943	161	132	83
16	144	149	314	e170	164	155	193	155	306	139	125	85
17	129	146	599	e175	155	177	182	130	448	132	119	84
18	135	140	406	191	156	164	172	129	353	169	118	623
19	124	438	323	182	198	202	165	189	216	148	115	150
20	119	568	296	e180	240	170	158	143	184	129	115	105
21	119	258	271	e175	243	157	156	161	169	119	117	93
22	122	217	262	e173	204	144	153	152	165	115	122	86
23	115	199	259	e175	177	137	258	133	187	147	108	81
24	110	192	419	e180	174	135	344	127	157	185	104	79
25	107	207	323	e185	169	134	188	217	165	129	103	79
26	110	180	270	e188	154	131	260	402	164	121	101	77
27	608	172	253	e190	150	134	274	165	138	170	99	77
28	340	261	242	e185	145	131	200	148	132	201	96	833
29	567	403	237	e180	144	125	183	131	142	129	91	803
30	287	223	236	e180	---	123	174	125	129	117	91	199
31	220	---	223	e180	---	127	---	132	---	111	91	---
TOTAL	5,452	6,336	9,971	5,852	8,225	4,912	6,246	5,142	7,608	5,306	5,675	4,732
MEAN	176	211	322	189	284	158	208	166	254	171	183	158
MAX	608	568	1,640	232	1,400	323	344	402	1,240	607	1,210	833
MIN	107	140	168	170	144	123	146	125	121	111	91	77
CFSM	1.86	2.24	3.41	2.00	3.00	1.68	2.21	1.76	2.69	1.81	1.94	1.67
IN.	2.15	2.50	3.93	2.31	3.24	1.94	2.46	2.03	3.00	2.09	2.24	1.86

e Estimated

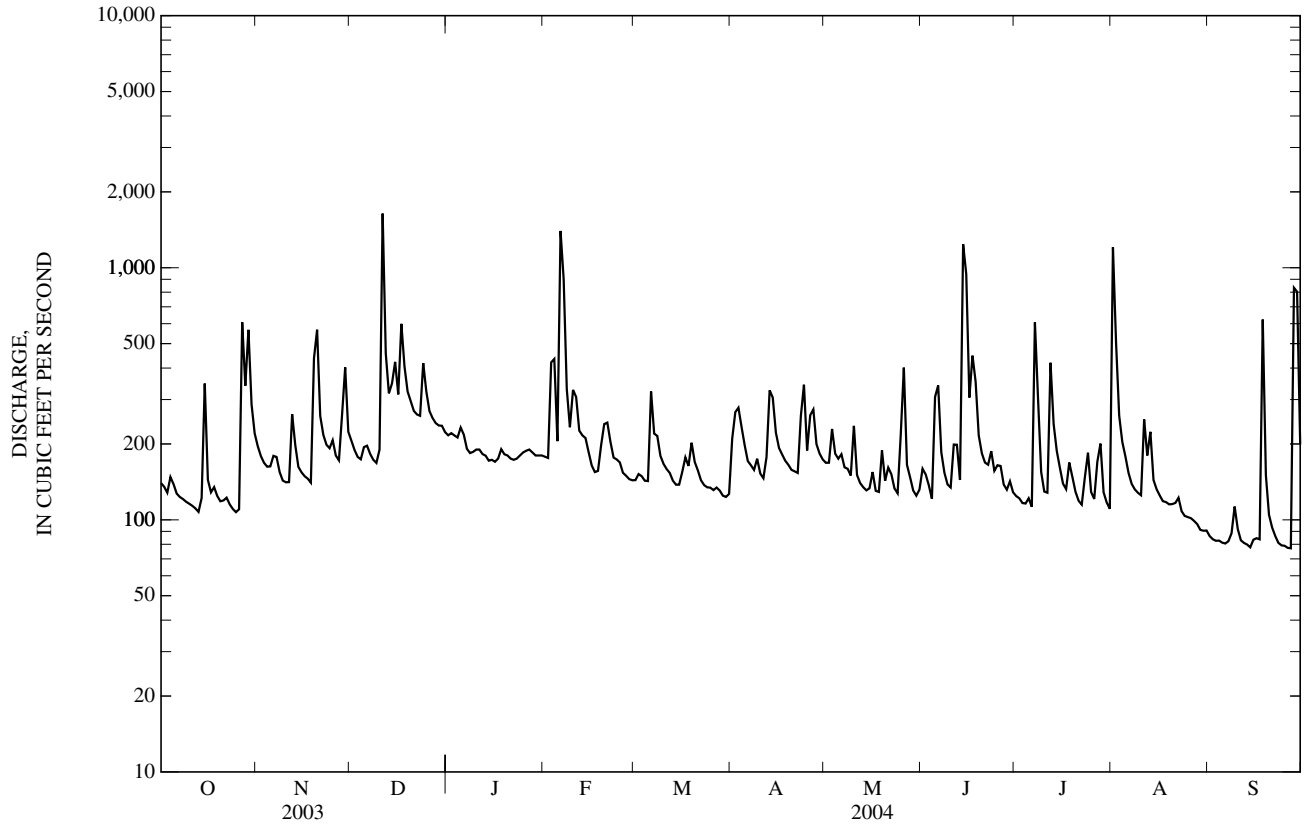
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1927 - 2004, BY WATER YEAR (WY)

MEAN	83.8	103	118	143	163	171	168	149	126	104	94.4	88.2
MAX	317	266	392	422	415	486	379	421	576	279	362	345
(WY)	(1980)	(1927)	(1997)	(1996)	(1979)	(1994)	(1984)	(1989)	(1972)	(1972)	(1933)	(1975)
MIN	26.0	32.5	37.8	41.7	37.6	59.8	47.8	47.7	35.2	15.7	14.7	26.1
(WY)	(1964)	(1932)	(1966)	(1966)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)

01580000 DEER CREEK AT ROCKS, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1927 - 2004	
ANNUAL TOTAL	77,780		75,457			
ANNUAL MEAN	213		206		126	
HIGHEST ANNUAL MEAN					224	1972
LOWEST ANNUAL MEAN					36.3	2002
HIGHEST DAILY MEAN	1,640	Dec 11	1,640	Dec 11	6,610	Jun 22, 1972
LOWEST DAILY MEAN	(e)74	Feb 14	77	(a)	4.0	Aug 22, 2002
ANNUAL SEVEN-DAY MINIMUM	82	Feb 9	82	Sep 21	5.0	Aug 17, 2002
MAXIMUM PEAK FLOW			6,510	Jun 14	(b)13,600	Aug 23, 1933
MAXIMUM PEAK STAGE			12.21	Jun 14	(c)17.70	Aug 23, 1933
INSTANTANEOUS LOW FLOW			77	(d)	3.5	Aug 22, 2002
ANNUAL RUNOFF (CFSM)	2.26		2.18		1.33	
ANNUAL RUNOFF (INCHES)	30.65		29.74		18.09	
10 PERCENT EXCEEDS	362		323		213	
50 PERCENT EXCEEDS	167		168		94	
90 PERCENT EXCEEDS	105		110		44	

e Estimated.
a Sept. 26, 27.
b From rating curve extended above 3,000 ft^3/s, on basis of slope-area measurements at gage heights 13.3 and 17.7 ft.
c From floodmarks.
d Sept. 13, 14, 26-28.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01581500 BYNUM RUN AT BEL AIR, MD

LOCATION.--Lat 39°32'29.3", long 76°19'48.4", Harford County, Hydrologic Unit 02060003, on right bank 30 ft downstream from bridge on State Highway 22, 1.0 mi east of Bel Air, and 8.5 mi upstream from mouth.

DRAINAGE AREA.--8.52 mi^2.

PERIOD OF RECORD.--June 1944 to April 1951, July 1955 to September 1970, June 1999 to current year.

GAGE.--Water-stage recorder. Datum of gage is 251.43 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair. U.S. Geological gage-height telemeter at station.Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 440 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 14	2230	934	4.59	Feb 6	1300	864	4.46
Oct 27	0345	658	4.04	Jun 14	2100	1,340	5.24
Oct 27	0930	822	4.38	Jul 27	1915	464	3.54
Oct 27	1530	578	3.85	Jul 27	2245	*2,160	*6.24
Nov 19	1645	822	4.38	Sep 28	2015	1,070	4.83
Dec 11	0445	946	4.61				

Minimum discharge, 1.8 ft^3/s, on Sept. 5-7, 12-15, 25-27.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.9	10	10	9.0	6.9	7.6	52	6.7	5.3	3.8	31	2.3
2	7.7	9.4	9.2	11	6.9	8.3	99	8.4	4.7	3.9	17	2.1
3	7.4	9.2	8.4	9.6	87	7.9	33	31	4.6	3.6	9.0	2.0
4	9.4	9.3	8.2	9.4	35	7.4	33	13	3.8	4.4	7.9	2.0
5	7.6	12	12	21	12	7.3	14	7.9	72	6.3	7.5	2.1
6	7.3	26	15	11	298	86	10	7.1	21	4.5	6.8	1.8
7	7.3	27	13	8.5	97	19	9.5	6.9	7.4	9.2	5.7	1.9
8	7.4	9.2	11	8.0	22	16	9.2	6.5	5.5	6.4	5.5	6.5
9	6.9	7.8	10	8.1	14	11	14	6.1	5.0	3.5	5.3	6.2
10	6.9	7.4	69	7.5	26	11	8.7	5.9	10	3.0	4.9	3.3
11	6.9	7.5	305	7.3	17	9.8	8.1	5.6	38	3.0	35	2.0
12	6.9	70	22	7.7	13	9.3	53	5.3	15	30	19	1.8
13	6.8	15	13	7.8	12	8.5	75	5.2	7.1	8.2	53	1.9
14	95	11	57	7.5	12	8.2	26	5.1	156	5.9	12	1.8
15	66	9.6	41	7.4	11	8.3	14	7.0	50	4.9	9.6	2.0
16	11	9.0	18	e7.3	8.8	22	11	8.0	12	3.6	6.3	2.1
17	8.3	8.6	124	7.2	8.0	16	9.4	5.1	9.2	3.3	5.3	2.3
18	8.0	8.1	24	e10	8.3	11	8.8	4.8	8.0	8.5	4.9	48
19	7.5	150	14	9.0	9.1	23	8.1	7.4	7.0	5.1	4.9	5.5
20	7.3	59	12	e7.2	9.1	12	7.8	5.4	6.1	3.6	4.6	2.9
21	7.4	15	11	7.2	9.9	9.6	7.5	28	5.9	3.0	4.1	2.4
22	8.0	12	11	7.1	8.7	8.3	7.4	7.4	7.9	3.0	3.7	2.6
23	7.7	11	11	6.8	7.9	7.8	18	5.1	7.4	7.0	3.3	2.4
24	7.3	11	102	7.0	8.6	7.6	13	4.5	5.4	5.8	3.3	2.2
25	7.3	13	20	6.9	8.5	7.7	7.8	13	5.3	4.1	3.0	1.9
26	10	10	13	7.3	7.6	7.4	25	8.8	5.3	3.5	2.6	1.8
27	321	9.4	11	7.3	7.4	9.2	15	5.3	4.4	347	2.6	1.8
28	40	70	10	7.3	7.2	7.7	8.4	5.3	4.3	87	2.3	215
29	114	39	10	7.1	7.4	7.1	7.3	4.0	4.7	14	2.3	46
30	18	13	10	6.9	---	7.0	6.9	3.9	4.3	9.3	2.3	11
31	12	---	9.3	6.9	---	7.3	---	4.1	---	8.0	2.5	---
TOTAL	852.2	678.5	1,014.1	264.3	786.3	396.3	619.9	247.8	502.6	616.4	287.2	387.6
MEAN	27.5	22.6	32.7	8.53	27.1	12.8	20.7	7.99	16.8	19.9	9.26	12.9
MAX	321	150	305	21	298	86	99	31	156	347	53	215
MIN	6.8	7.4	8.2	6.8	6.9	7.0	6.9	3.9	3.8	3.0	2.3	1.8
CFSM	3.23	2.65	3.84	1.00	3.18	1.50	2.43	0.94	1.97	2.33	1.09	1.52
IN.	3.72	2.96	4.43	1.15	3.43	1.73	2.71	1.08	2.19	2.69	1.25	1.69

e Estimated

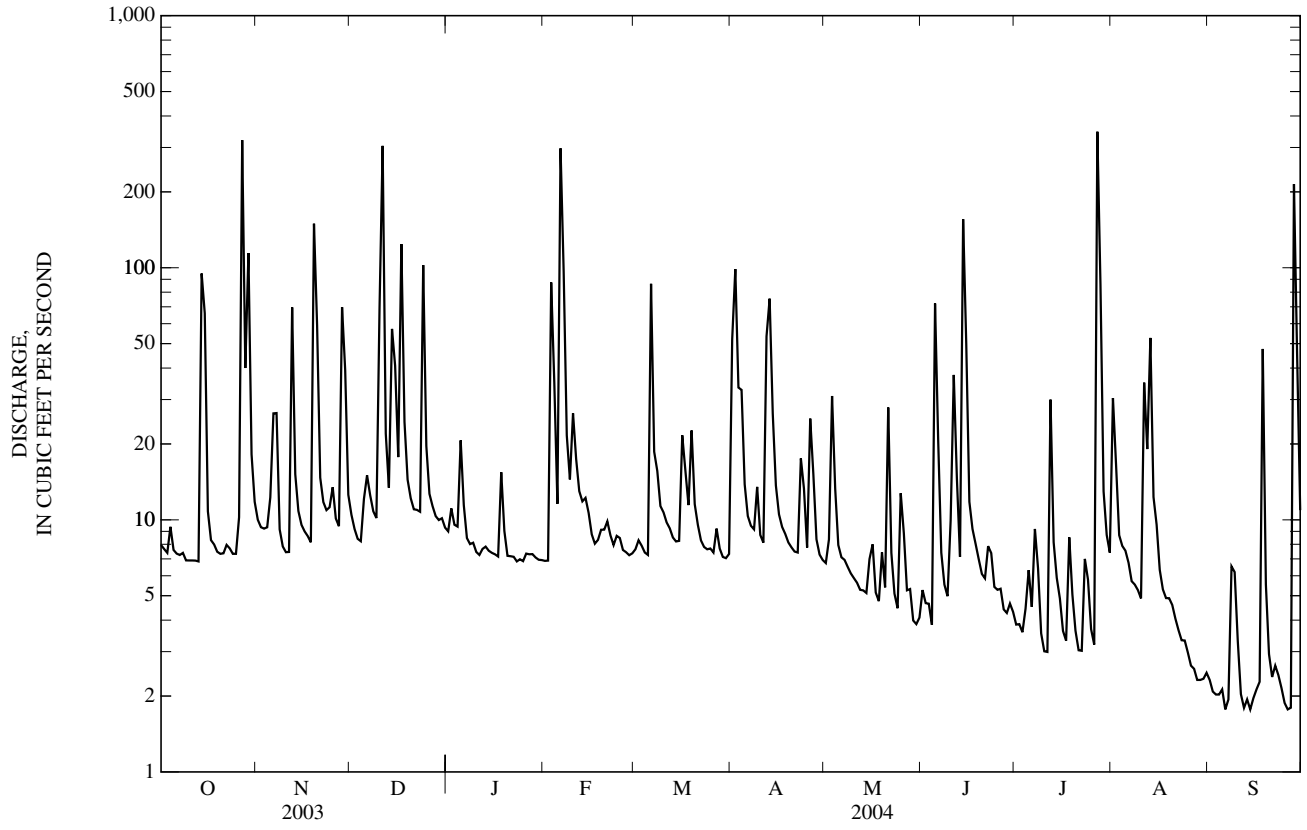
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 1950, 1955 - 1970, 1999 - 2004, BY WATER YEAR (WY)

MEAN	5.74	8.96	13.3	12.5	17.0	18.1	13.9	10.4	9.23	6.65	8.67	10.8
MAX	27.5	22.6	36.5	33.4	35.2	38.2	29.7	25.2	47.2	21.7	63.0	90.1
(WY)	(2004)	(2004)	(1958)	(1958)	(1961)	(1958)	(1961)	(1948)	(2003)	(1945)	(1967)	(1999)
MIN	0.95	1.74	1.74	2.46	3.19	5.68	4.17	2.89	2.07	0.92	0.96	0.97
(WY)	(1964)	(1966)	(1966)	(1966)	(2002)	(1966)	(1963)	(1963)	(1969)	(1963)	(1966)	(1962)

01581500 BYNUM RUN AT BEL AIR, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1944 - 1950 1955 - 1970, 1999 - 2004	
ANNUAL TOTAL	9,392.4		6,648.2			
ANNUAL MEAN	25.7		18.2		11.0	
HIGHEST ANNUAL MEAN					23.3	2003
LOWEST ANNUAL MEAN					4.96	2002
HIGHEST DAILY MEAN	567	Sep 23	347	Jul 27	2,320	Sep 16, 1999
LOWEST DAILY MEAN	4.2	Jul 31	1.8	(a)	0.01	Aug 22, 2002
ANNUAL SEVEN-DAY MINIMUM	4.6	Jul 28	2.0	Sep 11	0.05	Aug 16, 2002
MAXIMUM PEAK FLOW			2,160	Jul 27	(b)7,330	Sep 16, 1999
MAXIMUM PEAK STAGE			6.24	Jul 27	9.91	Sep 16, 1999
INSTANTANEOUS LOW FLOW			1.8	(c)	0.00	(d)
ANNUAL RUNOFF (CFSM)	3.02		2.13		1.29	
ANNUAL RUNOFF (INCHES)	41.01		29.03		17.49	
10 PERCENT EXCEEDS	51		34		20	
50 PERCENT EXCEEDS	11		8.0		5.1	
90 PERCENT EXCEEDS	5.9		3.3		1.6	

a Sept. 6, 12, 14, 26, 27.
b From rating curve extended above 560 ft^3/s on basis of contracted-opening measurement at gage height 6.18 ft.
c Sept. 5-7, 12-15, 25-27.
d Sept. 8-10, 1966.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01581700 WINTERS RUN NEAR BENSON, MD

LOCATION.--Lat 39°31'11.8", long 76°22'22.7", Harford County, Hydrologic Unit 02060003, on left bank 30 ft downstream from bridge on U.S. Highway 1, 0.1 mi upstream from Heavenly Waters, 1.2 mi northeast of Benson, 1.8 mi southwest of Bel Air, and 10.5 mi upstream from mouth.

DRAINAGE AREA.--34.8 mi^2.

PERIOD OF RECORD.--August 1967 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 195 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good below 200 ft^3/s and fair above and those for estimated daily discharges (ice effect, equipment malfunction). U.S. Geological Survey gage-height telemeter at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 14	2245	1,010	4.40	Jun 14	2230	1,920	5.89
Nov 19	1745	1,100	4.57	Jul 27	2230	1,390	5.08
Dec 11	0745	*2,610	*6.81	Aug 1	1945	1,420	5.13
Feb 6	1345	2,240	6.33	Sep 28	1830	1,770	5.68

Minimum discharge, 17 ft^3/s, Sept. 2-6.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	63	63	75	e68	59	111	52	39	29	226	19
2	40	59	58	80	e70	62	218	55	37	29	131	18
3	39	56	54	76	e260	61	138	96	37	27	45	18
4	45	53	53	75	156	58	111	67	34	28	35	18
5	41	59	66	93	75	58	80	55	157	35	32	18
6	38	73	68	80	884	215	67	51	86	33	29	18
7	37	72	60	69	403	99	63	50	51	97	27	19
8	37	57	58	e67	146	90	59	48	42	59	27	21
9	37	52	57	68	104	72	69	47	39	32	26	27
10	36	51	108	e63	159	67	58	46	39	29	25	21
11	36	51	922	e65	121	63	56	44	76	28	120	19
12	34	126	151	70	95	60	103	42	65	79	77	18
13	33	70	104	65	90	56	172	42	43	e39	65	e17
14	131	57	167	63	87	55	119	41	252	e33	38	e17
15	174	53	169	62	80	55	83	41	227	e32	33	19
16	51	51	110	e62	71	78	69	44	59	e27	30	20
17	43	49	320	e65	69	75	65	41	50	28	27	20
18	42	48	143	79	69	65	61	41	51	36	27	242
19	39	292	105	65	74	85	58	49	41	31	26	37
20	38	182	94	e62	76	66	55	43	37	28	27	25
21	38	78	87	e60	78	61	53	85	35	26	26	22
22	37	67	85	e60	73	54	52	48	37	25	25	21
23	36	60	85	e58	69	52	94	41	40	30	23	19
24	36	59	240	61	70	51	113	38	35	29	22	19
25	35	64	118	59	68	52	61	52	34	27	22	19
26	37	56	94	72	63	51	100	54	35	26	22	19
27	509	53	87	77	62	55	95	41	31	275	21	19
28	132	151	82	e72	59	51	63	39	30	210	21	421
29	253	135	81	e70	59	49	56	36	32	50	20	177
30	94	71	81	68	---	48	54	35	29	38	20	53
31	72	---	76	e68	---	49	---	37	---	34	20	---
TOTAL	2,291	2,368	4,046	2,129	3,758	2,072	2,556	1,501	1,800	1,529	1,315	1,420
MEAN	73.9	78.9	131	68.7	130	66.8	85.2	48.4	60.0	49.3	42.4	47.3
MAX	509	292	922	93	884	215	218	96	252	275	226	421
MIN	33	48	53	58	59	48	52	35	29	25	20	17
CFSM	2.12	2.27	3.75	1.97	3.72	1.92	2.45	1.39	1.72	1.42	1.22	1.36
IN.	2.45	2.53	4.33	2.28	4.02	2.21	2.73	1.60	1.92	1.63	1.41	1.52

e Estimated

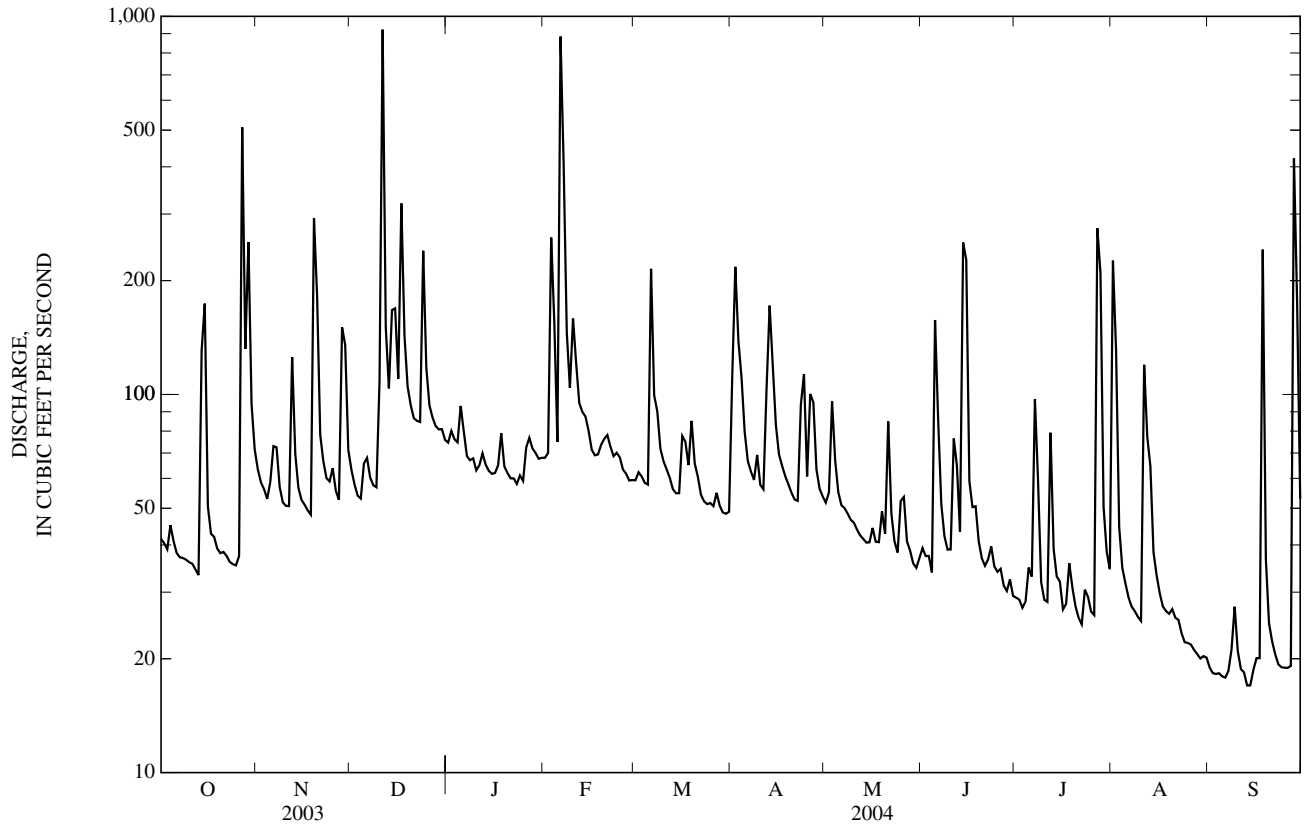
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 2004, BY WATER YEAR (WY)

MEAN	36.3	45.3	55.4	62.7	68.8	70.4	63.4	58.5	51.8	42.3	36.2	41.1
MAX	94.0	93.5	149	167	151	163	134	162	204	133	137	140
(WY)	(1980)	(1997)	(1997)	(1996)	(1979)	(1994)	(1983)	(1989)	(1972)	(1975)	(1971)	(1975)
MIN	10.3	12.5	16.1	16.9	14.6	22.5	20.5	17.9	11.9	5.56	3.40	10.4
(WY)	(2002)	(1982)	(2002)	(1981)	(2002)	(1981)	(2002)	(1969)	(2002)	(2002)	(2002)	(1986)

01581700 WINTERS RUN NEAR BENSON, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1967 - 2004	
ANNUAL TOTAL	30,326		26,785			
ANNUAL MEAN	83.1		73.2		52.4	
HIGHEST ANNUAL MEAN					86.0	1972
LOWEST ANNUAL MEAN					14.5	2002
HIGHEST DAILY MEAN	922	Dec 11	922	Dec 11	3,000	Jun 22, 1972
LOWEST DAILY MEAN	24	Feb 16	17	(a)	0.38	Aug 22, 2002
ANNUAL SEVEN-DAY MINIMUM	26	Jan 23	18	Sep 1	0.55	Aug 17, 2002
MAXIMUM PEAK FLOW			2,610	Dec 11	(b)7,600	Jun 22, 1972
MAXIMUM PEAK STAGE			6.81	Dec 11	11.60	Jun 22, 1972
INSTANTANEOUS LOW FLOW			17	(c)	0.34	(d)
ANNUAL RUNOFF (CFSM)	2.39		2.10		1.51	
ANNUAL RUNOFF (INCHES)	32.42		28.63		20.45	
10 PERCENT EXCEEDS	150		128		88	
50 PERCENT EXCEEDS	59		56		37	
90 PERCENT EXCEEDS	33		26		15	

a Sept. 13, 14.
b From rating curve extended above 4,600 ft^3/s.
c Sept. 2-6.
d Aug. 22, 23, 2002.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01581752 PLUMTREE RUN NEAR BEL AIR, MD

LOCATION.--Lat 39°29'47.0", long 76°20'52.0", Harford County, Hydrologic Unit 02060003, on downstream side of bridge on Plumtree Road, 0.7 mi upstream from Atkisson Reservoir, and 2.5 mi south of Bel Air.

DRAINAGE AREA.--2.50 mi^2.

PERIOD OF RECORD.--October 2001 to current year.

GAGE.--Water-stage recorder. Datum of gage is 170 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are poor. U.S. Geological Survey gage-height telemeter at station. Several measurements of water temperature were made during the year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 215 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 14	2215	359	4.22	Jun 14	2030	309	4.00
Oct 27	0315	245	3.68	Jul 12	1830	425	4.49
Oct 27	0900	247	3.69	Jul 27	1500	241	3.66
Oct 27	1500	219	3.54	Jul 27	2200	*622	*5.17
Nov 19	1600	243	3.67	Sep 28	1745	216	3.52
Dec 11	0330	216	3.52	Sep 28	2030	223	3.56
Feb 6	1230	226	3.58				

Minimum discharge, 0.66 ft^3/s, Sept. 13, 14.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.1	3.2	3.6	3.6	2.5	2.4	16	2.5	2.5	1.3	4.4	0.79
2	2.8	2.8	3.3	4.6	2.5	2.5	26	3.4	2.0	1.3	2.4	0.77
3	2.7	2.8	3.2	3.7	32	2.3	7.5	11	1.9	1.2	2.0	0.78
4	3.5	2.6	3.2	3.6	8.9	2.3	8.2	3.7	1.4	1.9	1.8	0.77
5	2.8	3.8	5.2	7.3	4.0	2.3	3.8	2.8	27	5.2	2.0	0.76
6	2.5	8.0	5.6	3.9	77	24	3.3	2.6	6.2	1.9	1.5	0.75
7	2.4	4.1	4.1	3.3	20	4.2	3.2	2.5	2.6	2.9	1.3	0.77
8	2.4	2.8	3.6	3.2	5.5	4.0	3.0	2.3	2.0	1.7	1.2	2.9
9	2.4	2.5	3.6	3.2	4.4	3.0	3.5	2.2	1.8	1.3	1.2	1.8
10	2.3	2.5	24	3.2	5.4	2.8	2.8	2.2	2.2	1.2	1.1	0.98
11	2.4	2.4	63	3.3	4.0	2.7	2.6	2.0	7.4	1.1	9.2	0.81
12	2.2	16	6.7	3.1	3.5	2.6	19	1.9	3.1	43	6.2	0.79
13	2.1	3.4	4.7	3.1	3.4	2.4	16	1.9	1.9	5.6	14	0.73
14	36	2.9	21	3.1	3.3	2.3	6.5	1.9	20	2.8	3.8	0.68
15	17	2.9	9.8	3.1	3.1	2.3	4.0	4.7	6.2	1.9	2.4	0.75
16	4.0	2.8	5.1	2.9	2.9	8.7	3.4	4.3	2.6	1.6	1.6	0.84
17	3.2	2.7	35	2.7	2.8	3.7	3.2	2.1	2.6	1.4	1.4	0.77
18	3.0	2.6	7.2	7.2	2.8	2.9	3.0	2.1	2.5	4.6	1.3	23
19	2.7	39	5.0	3.5	2.8	6.8	2.9	2.3	1.9	1.8	1.3	2.1
20	2.6	13	4.6	e2.8	2.8	3.1	2.8	2.0	1.7	1.4	1.2	1.1
21	2.5	4.6	4.4	2.7	2.9	2.8	2.7	7.0	1.6	1.4	1.3	0.98
22	2.5	3.8	4.1	2.6	2.8	2.6	2.6	2.3	2.4	1.5	1.2	0.89
23	2.5	3.5	4.0	e2.8	2.7	2.4	8.1	1.9	1.8	2.6	1.0	0.83
24	2.4	3.5	28	e2.6	2.8	2.3	3.8	1.7	1.5	1.8	1.0	0.81
25	2.3	4.2	6.0	e2.6	2.7	2.3	2.7	8.3	1.5	1.4	0.99	0.79
26	4.3	3.2	4.6	e2.7	2.5	2.3	10	3.4	1.5	1.4	0.95	0.75
27	101	3.1	4.2	e2.7	2.5	3.0	4.0	2.0	1.4	92	0.92	0.78
28	8.3	22	4.0	e2.7	2.4	2.4	2.9	1.8	1.3	19	0.91	51
29	30	7.7	3.9	2.8	2.4	2.2	2.6	1.6	2.1	4.4	0.88	8.6
30	4.8	4.1	4.0	2.5	---	2.2	2.5	1.5	1.3	2.8	0.88	2.7
31	3.6	---	3.7	e2.5	---	2.2	---	1.8	---	2.3	0.85	---
TOTAL	266.3	182.5	292.4	103.6	217.3	114.0	182.6	93.7	115.9	215.7	72.18	110.77
MEAN	8.59	6.08	9.43	3.34	7.49	3.68	6.09	3.02	3.86	6.96	2.33	3.69
MAX	101	39	63	7.3	77	24	26	11	27	92	14	51
MIN	2.1	2.4	3.2	2.5	2.4	2.2	2.5	1.5	1.3	1.1	0.85	0.68
CFSM	3.44	2.43	3.77	1.34	3.00	1.47	2.43	1.21	1.55	2.78	0.93	1.48
IN.	3.96	2.72	4.35	1.54	3.23	1.70	2.72	1.39	1.72	3.21	1.07	1.65

e Estimated

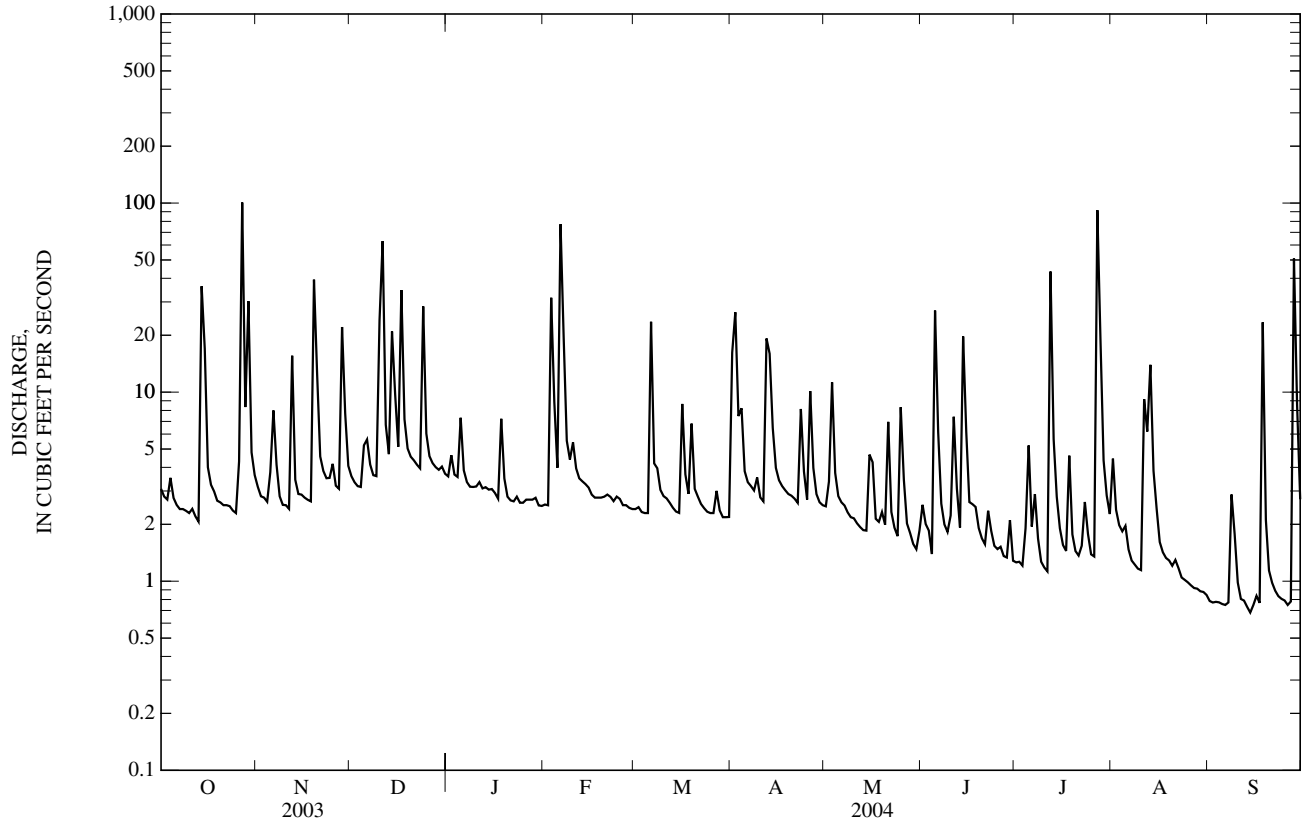
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2002 - 2004, BY WATER YEAR (WY)

MEAN	4.65	3.82	5.57	2.90	5.02	5.36	4.21	3.90	6.14	3.73	3.73	4.90
MAX	8.59	6.08	9.43	3.40	7.49	8.74	6.09	6.46	12.7	6.96	7.95	9.31
(WY)	(2004)	(2004)	(2004)	(2003)	(2004)	(2003)	(2004)	(2003)	(2003)	(2004)	(2003)	(2003)
MIN	0.80	1.13	1.28	1.95	0.98	3.65	2.06	2.22	1.85	0.81	0.91	1.70
(WY)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)

01581752 PLUMTREE RUN NEAR BEL AIR, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 2002 - 2004	
ANNUAL TOTAL	2,646.2		1,966.95			
ANNUAL MEAN	7.25		5.37		4.49	
HIGHEST ANNUAL MEAN					6.47	2003
LOWEST ANNUAL MEAN					1.62	2002
HIGHEST DAILY MEAN	101	Oct 27	101	Oct 27	101	Oct 27, 2003
LOWEST DAILY MEAN	1.3	(a)	0.68	Sep 14	0.07	(b)
ANNUAL SEVEN-DAY MINIMUM	1.5	Jan 25	0.77	Sep 11	0.08	Aug 17, 2002
MAXIMUM PEAK FLOW			622	Jul 27	(c)1,020	Aug 11, 2003
MAXIMUM PEAK STAGE			5.17	Jul 27	6.21	Aug 11, 2003
INSTANTANEOUS LOW FLOW			0.66	(d)	0.07	(f)
ANNUAL RUNOFF (CFSM)	2.90		2.15		1.79	
ANNUAL RUNOFF (INCHES)	39.38		29.27		24.39	
10 PERCENT EXCEEDS	15		8.4		8.3	
50 PERCENT EXCEEDS	3.6		2.7		2.2	
90 PERCENT EXCEEDS	1.8		1.2		0.47	

a July 30, 31, Aug. 3, 2003.
b Aug. 20-22, 2002.
c From rating curve extended above 85 ft^3/s.
d Sept. 13, 14.
f Aug. 19-23, 2002.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01581810 GUNPOWDER FALLS AT HOFFMANVILLE, MD

LOCATION.--Lat 39°41'23.3", long 76°46'53.3", Baltimore County, Hydrologic Unit 02060003, on left bank 500 ft upstream from bridge on Gunpowder Road, 0.4 mi upstream from Walker Run, 0.5 mi north of Hoffmanville, and 0.7 mi upstream from Prettyboy Reservoir.

DRAINAGE AREA.--27.0 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 555 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are poor. Several measurements of water temperature were made during the year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 475 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec 11	0815	*1,260	*5.16
Feb 6	1530	1,090	4.89
Jun 5	1800	733	4.20
Jun 17	1700	583	3.86
Jul 7	1645	660	4.04
Sep 18	0600	1,140	4.97
Sep 28	1930	656	4.03

Minimum discharge, 17 ft^3/s, Sept. 5, 6.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	56	58	55	49	43	84	41	37	33	121	19
2	37	53	53	57	48	47	75	46	34	32	46	18
3	35	50	49	56	123	45	64	74	36	31	42	19
4	43	49	48	56	84	45	65	46	30	31	31	18
5	38	55	54	62	48	43	51	43	272	34	30	18
6	35	56	55	54	513	93	47	40	117	34	27	17
7	34	54	51	48	245	57	46	40	57	199	26	18
8	34	46	48	46	82	72	45	39	48	59	25	20
9	33	43	47	47	60	52	52	37	42	38	23	33
10	32	42	64	e46	72	49	43	35	40	34	23	22
11	32	42	536	e46	68	47	42	34	60	33	23	19
12	32	90	120	47	56	45	76	33	54	36	32	19
13	31	70	91	46	56	42	137	31	41	34	63	19
14	61	51	108	44	53	41	87	31	86	35	29	18
15	119	48	114	43	48	40	65	33	90	31	27	18
16	42	46	91	e43	44	46	58	43	48	29	24	19
17	39	44	172	e47	42	50	54	33	185	28	23	23
18	42	43	101	53	43	45	52	39	77	38	23	384
19	37	146	88	46	81	58	49	68	55	32	32	42
20	35	112	81	e45	92	44	47	39	48	29	49	32
21	35	63	73	e43	76	43	47	59	45	27	48	28
22	40	56	73	e42	59	39	45	40	45	26	33	26
23	36	52	73	42	52	38	50	34	46	31	26	25
24	34	53	98	e42	52	37	51	31	41	32	24	24
25	34	63	76	e42	48	37	43	57	39	27	24	24
26	34	49	67	67	45	37	80	56	39	27	23	23
27	188	47	64	62	43	39	58	37	36	31	23	23
28	76	102	61	55	43	37	47	36	35	38	21	164
29	174	116	61	51	43	35	45	31	38	27	21	86
30	72	62	61	49	---	35	43	30	34	25	20	42
31	60	---	57	48	---	35	---	33	---	25	20	---
TOTAL	1,612	1,859	2,793	1,530	2,368	1,416	1,748	1,269	1,855	1,166	1,002	1,260
MEAN	52.0	62.0	90.1	49.4	81.7	45.7	58.3	40.9	61.8	37.6	32.3	42.0
MAX	188	146	536	67	513	93	137	74	272	199	121	384
MIN	31	42	47	42	42	35	42	30	30	25	20	17
CFSM	1.93	2.30	3.34	1.83	3.02	1.69	2.16	1.52	2.29	1.39	1.20	1.56
IN.	2.22	2.56	3.85	2.11	3.26	1.95	2.41	1.75	2.56	1.61	1.38	1.74

e Estimated

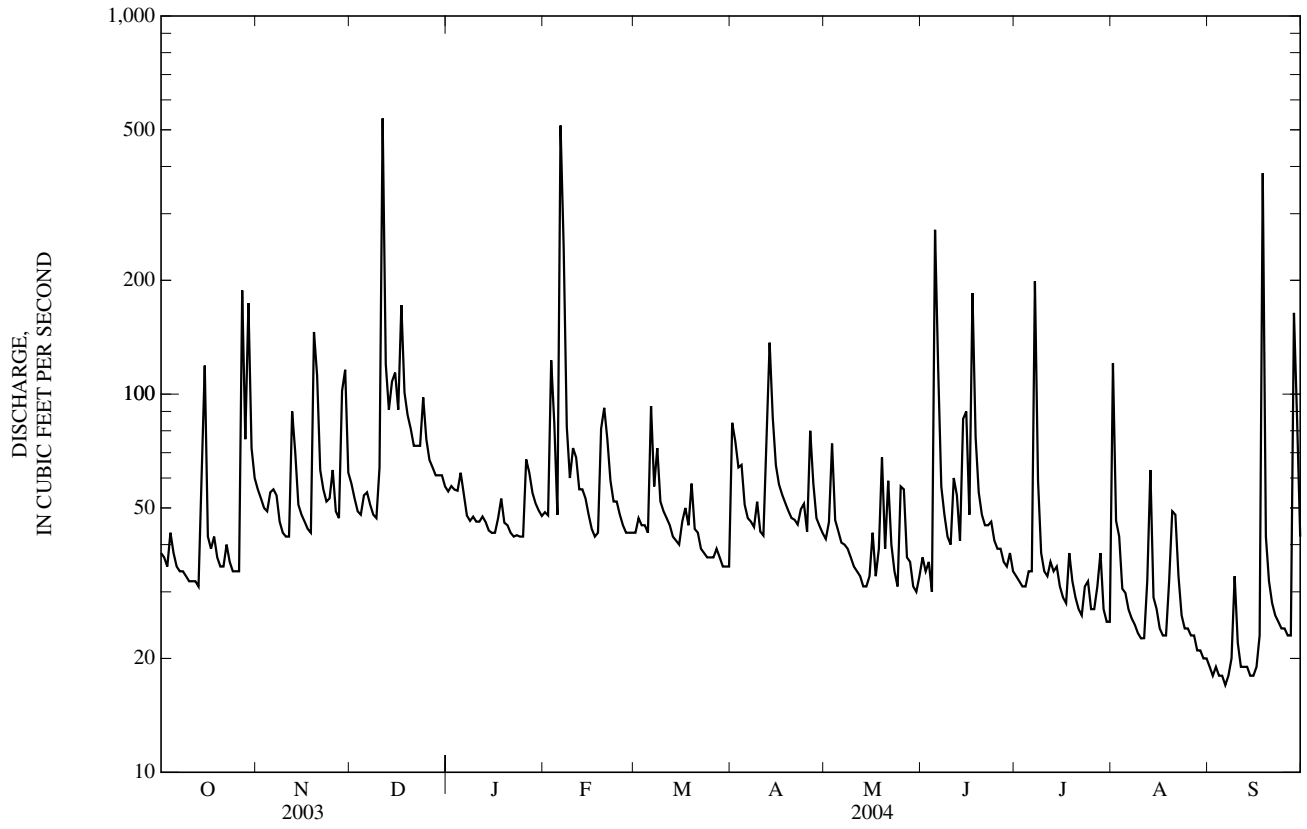
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2004, BY WATER YEAR (WY)

MEAN	26.7	31.0	43.3	36.0	48.1	48.6	40.0	34.3	41.7	24.5	21.2	30.1
MAX	52.0	62.0	90.1	55.3	81.7	88.2	58.3	54.1	81.9	40.9	40.9	56.9
(WY)	(2004)	(2004)	(2004)	(2003)	(2004)	(2003)	(2004)	(2003)	(2003)	(2003)	(2003)	(2003)
MIN	11.5	11.1	12.4	14.9	10.7	17.9	13.4	13.9	8.17	4.34	4.98	9.34
(WY)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)

01581810 GUNPOWDER FALLS AT HOFFMANVILLE, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 2000 - 2004	
ANNUAL TOTAL	22,308		19,878			
ANNUAL MEAN	61.1		54.3		35.8	
HIGHEST ANNUAL MEAN					54.3	2004
LOWEST ANNUAL MEAN					11.1	2002
HIGHEST DAILY MEAN	536	Dec 11	536	Dec 11	536	Dec 11, 2003
LOWEST DAILY MEAN	25	(a)	17	Sep 6	2.0	Aug 11, 2002
ANNUAL SEVEN-DAY MINIMUM	26	Aug 24	18	Sep 1	2.0	Aug 10, 2002
MAXIMUM PEAK FLOW			1,260	Dec 11	(b)1,260	Dec 11, 2003
MAXIMUM PEAK STAGE			5.16	Dec 11	5.16	Dec 11, 2003
INSTANTANEOUS LOW FLOW			17	(c)	1.8	Aug 17, 2002
ANNUAL RUNOFF (CFSM)	2.26		2.01		1.32	
ANNUAL RUNOFF (INCHES)	30.74		27.39		18.00	
10 PERCENT EXCEEDS	106		84		65	
50 PERCENT EXCEEDS	46		44		28	
90 PERCENT EXCEEDS	29		25		9.1	

a Aug. 25, 29, 30, Sept. 11, 17.
b From rating curve extended above 110 ft^3/s.
c Sept. 5, 6.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01581830 GRAVE RUN NEAR BECKLEYSVILLE, MD

LOCATION.--Lat 39°39'17.3", long 76°46'51.3", Baltimore County, Hydrologic Unit 02060003, on left bank off of Gunpowder Road (formerly Upper Beckleysville Road), 1000 ft upstream from Prettyboy Reservoir, 0.9 mi north of Beckleysville, and 1.7 mi downstream from Indian Run.

DRAINAGE AREA.--7.68 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 540.00 ft above National Geodetic Vertical Datum of 1929, from topographic map. Previously operated as a low-flow site during water years 1977-82 at same site.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair. U.S. Geological Survey satellite data collection platform at station. Several measurements of water temperature were made during the year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 150 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec 11	0700	335	3.53	Aug 1	0800	170	2.38
Feb 6	1230	286	3.22	Aug 1	1800	439	4.13
Jun 5	1800	208	2.68	Sep 18	0315	*492	*4.41
Jun 17	1615	239	2.90	Sep 28	1745	218	2.75
Jul 7	1530	240	2.91				

Minimum discharge, 6.6 ft^3/s, Sept. 5, 6.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	17	16	17	e12	12	26	12	10	9.3	94	7.5
2	11	15	15	18	e12	13	24	15	10	9.1	21	7.3
3	11	14	14	17	30	13	20	18	10	8.7	15	7.2
4	12	14	14	17	22	12	19	13	8.9	9.1	15	7.2
5	11	15	16	18	14	12	16	12	65	10	14	7.0
6	10	15	15	17	130	24	14	12	25	9.3	12	6.9
7	10	14	15	15	56	17	14	12	17	46	11	7.1
8	10	13	14	15	23	19	14	11	14	16	11	8.0
9	10	13	14	15	18	15	15	11	13	11	10	12
10	9.8	12	17	e15	21	14	13	11	14	10	9.8	8.2
11	9.7	12	120	e15	20	13	13	10	20	9.9	9.8	7.8
12	9.4	21	30	e15	16	13	22	9.9	16	12	11	7.7
13	9.2	15	24	15	17	12	31	9.6	13	11	15	7.4
14	24	13	29	14	15	12	22	9.5	15	11	11	7.4
15	27	13	28	14	14	12	18	10	14	10	10	7.5
16	12	12	24	e14	e13	13	16	12	12	9.7	9.5	7.5
17	12	12	41	e15	e12	14	15	10	42	9.0	9.3	11
18	12	12	27	16	13	13	15	15	18	11	9.1	94
19	11	37	25	14	20	16	14	19	14	9.9	13	12
20	11	25	23	13	22	13	14	12	13	9.0	12	9.7
21	11	18	21	e12	20	12	14	16	12	9.1	10	9.0
22	11	16	21	e12	17	12	13	12	13	8.3	9.6	8.6
23	10	15	21	e13	15	11	14	10	12	17	8.9	8.1
24	10	16	29	e13	15	11	14	9.6	11	12	8.6	7.9
25	9.8	17	22	e14	14	11	13	14	11	9.7	8.4	7.7
26	9.9	14	20	e20	13	11	22	13	10	9.2	8.2	7.6
27	46	14	20	e16	13	11	17	10	9.8	10	8.0	7.5
28	20	30	19	e13	12	11	14	9.9	9.8	9.9	7.9	45
29	42	25	19	e12	12	10	13	9.1	10	8.6	7.7	19
30	20	18	19	12	---	10	12	8.9	9.4	8.2	7.8	13
31	17	---	18	e12	---	10	---	9.9	---	9.3	7.8	---
TOTAL	449.8	497	750	458	631	402	501	366.4	471.9	352.3	415.4	383.8
MEAN	14.5	16.6	24.2	14.8	21.8	13.0	16.7	11.8	15.7	11.4	13.4	12.8
MAX	46	37	120	20	130	24	31	19	65	46	94	94
MIN	9.2	12	14	12	12	10	12	8.9	8.9	8.2	7.7	6.9
CFSM	1.89	2.16	3.15	1.92	2.83	1.69	2.17	1.54	2.05	1.48	1.74	1.67
IN.	2.18	2.41	3.63	2.22	3.06	1.95	2.43	1.77	2.29	1.71	2.01	1.86

e Estimated

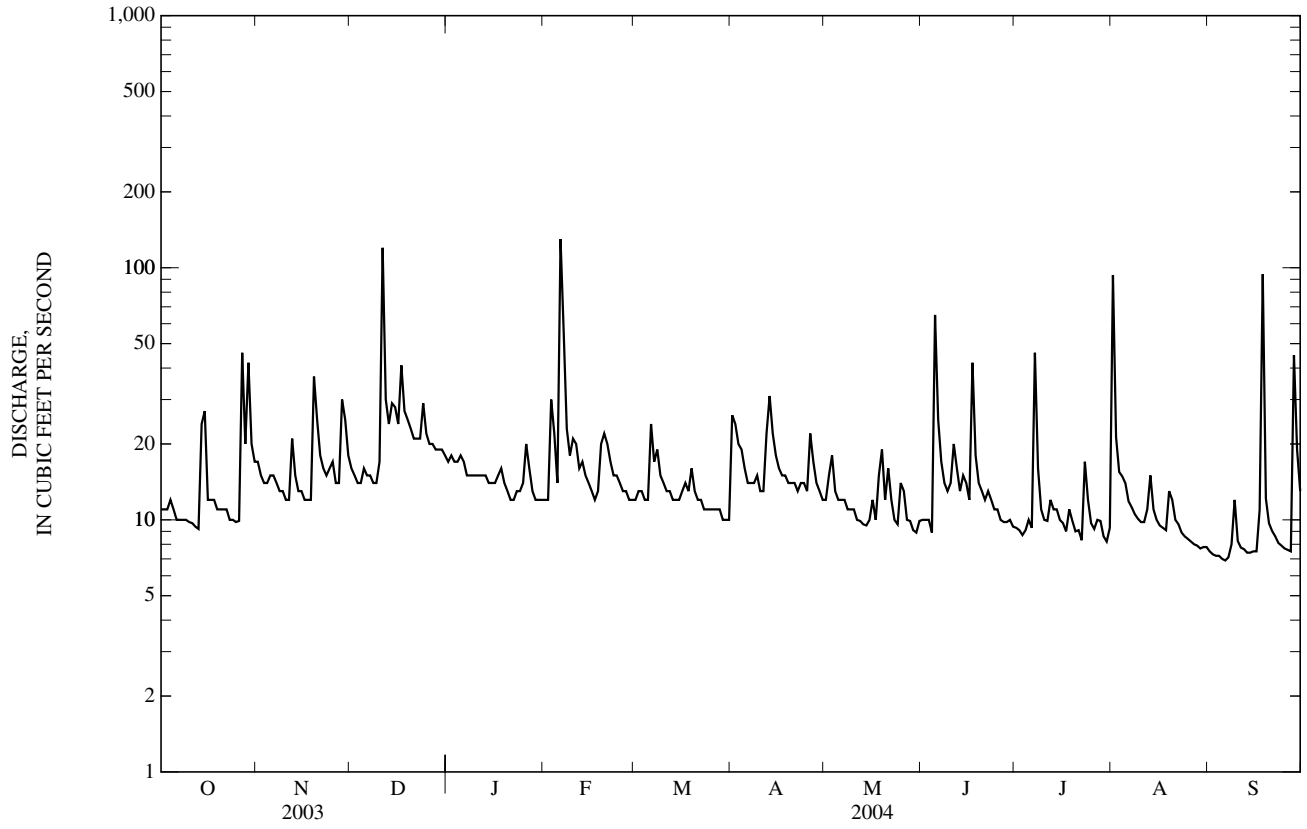
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2004, BY WATER YEAR (WY)

MEAN	7.83	8.68	12.1	10.7	14.2	13.7	12.0	10.4	11.9	7.94	7.21	8.66
MAX	14.5	16.6	24.2	15.7	21.8	24.6	16.7	15.6	24.5	14.9	13.4	14.4
(WY)	(2004)	(2004)	(2004)	(2003)	(2004)	(2003)	(2004)	(2003)	(2003)	(2003)	(2004)	(2003)
MIN	3.81	3.50	3.94	4.62	3.50	5.35	4.40	4.61	3.71	1.81	1.56	2.88
(WY)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)

01581830 GRAVE RUN NEAR BECKLEYSVILLE, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 2000 - 2004	
ANNUAL TOTAL	6,416.8		5,678.6			
ANNUAL MEAN	17.6		15.5		10.5	
HIGHEST ANNUAL MEAN					15.5	2004
LOWEST ANNUAL MEAN					3.64	2002
HIGHEST DAILY MEAN	120	Dec 11	130	Feb 6	130	Feb 6, 2004
LOWEST DAILY MEAN	7.3	Sep 17	6.9	Sep 6	0.54	Aug 22, 2002
ANNUAL SEVEN-DAY MINIMUM	7.9	Aug 25	7.2	Sep 1	0.57	Aug 17, 2002
MAXIMUM PEAK FLOW			492	Sep 18	(a)492	Sep 18, 2004
MAXIMUM PEAK STAGE			4.41	Sep 18	4.41	Sep 18, 2004
INSTANTANEOUS LOW FLOW			6.6	(b)	0.54	Aug 21, 2002
ANNUAL RUNOFF (CFSM)	2.29		2.02		1.37	
ANNUAL RUNOFF (INCHES)	31.08		27.51		18.62	
10 PERCENT EXCEEDS	29		22		19	
50 PERCENT EXCEEDS	14		13		8.9	
90 PERCENT EXCEEDS	9.3		9.0		3.1	

a From rating curve extended above 92 ft^3/s.
b Sept. 5, 6.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01581870 GEORGES RUN NEAR BECKLEYSVILLE, MD

LOCATION.--Lat 39°37'32.5", long 76°46'21.8", Baltimore County, Hydrologic Unit 02060003, on left bank, 20 ft downstream from bridge on Georges Creek Road, 1000 ft upstream from Pretty Boy Reservoir, and 1.0 mi southeast of Beckleysville.

DRAINAGE AREA.--15.8 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 540.00 ft above National Geodetic Vertical Datum of 1929, from topographic map. Previously operated as a low-flow site during water years 1977-82 at same site.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are poor. Several measurements of water temperature were made during the year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 400 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 14	2230	461	2.85	Jul 23	1815	555	3.11
Dec 11	0730	887	3.94	Aug 1	0030	461	2.85
Feb 3	1715	1,110	4.48	Aug 1	0715	852	3.85
Feb 6	1330	922	4.03	Aug 1	1730	602	3.23
Jun 5	1645	402	2.67	Aug 1	2115	499	2.96
Jul 7	1530	676	3.41	Sep 18	0345	971	4.15
Jul 12	1100	*1,210	*4.70	Sep 28	1800	830	3.79

Minimum discharge, 14 ft^3/s, Sept. 5, 6.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	30	30	33	e32	27	56	23	20	17	281	15
2	20	29	28	34	e31	28	52	26	18	17	42	15
3	19	28	27	33	313	28	38	33	19	16	28	15
4	22	27	27	33	106	27	36	25	17	17	24	15
5	21	30	29	36	29	27	28	24	128	18	23	15
6	20	31	29	33	353	54	26	23	42	17	21	15
7	19	29	28	30	127	31	25	23	27	91	20	15
8	19	25	27	29	47	33	24	22	24	29	20	16
9	18	25	27	29	37	26	26	21	22	22	19	20
10	18	24	34	e29	59	24	24	20	36	20	19	16
11	18	24	333	e29	44	24	23	19	44	19	18	16
12	18	42	53	30	36	23	40	19	33	81	20	15
13	18	27	43	29	38	22	61	19	25	24	28	15
14	56	24	53	28	34	22	39	18	31	22	20	15
15	67	23	55	27	31	21	30	19	27	20	19	15
16	26	23	45	e28	30	24	27	23	24	18	18	15
17	24	22	95	e29	29	25	26	21	38	18	19	18
18	24	22	49	e31	28	23	25	27	26	20	18	205
19	23	86	43	29	40	28	24	39	22	19	17	25
20	22	51	40	e27	41	23	23	23	21	17	18	21
21	22	32	38	e26	37	22	23	37	20	17	18	19
22	22	29	38	27	32	21	23	23	20	16	17	18
23	21	27	38	26	30	21	30	20	20	57	17	17
24	21	28	59	e26	30	21	27	19	19	25	16	16
25	20	33	42	e26	29	20	23	25	19	19	16	16
26	20	27	38	e27	28	20	42	25	19	18	16	16
27	120	26	36	e26	27	21	32	20	18	24	16	16
28	42	65	35	e26	27	20	26	19	18	22	16	148
29	101	51	35	e26	27	19	24	18	19	18	15	38
30	39	33	35	e28	---	19	23	18	17	17	15	23
31	32	---	33	34	---	19	---	19	---	24	16	---
TOTAL	952	973	1,522	904	1,752	763	926	710	833	779	870	844
MEAN	30.7	32.4	49.1	29.2	60.4	24.6	30.9	22.9	27.8	25.1	28.1	28.1
MAX	120	86	333	36	353	54	61	39	128	91	281	205
MIN	18	22	27	26	27	19	23	18	17	16	15	15
CFSM	1.94	2.05	3.11	1.85	3.82	1.56	1.95	1.45	1.76	1.59	1.78	1.78
IN.	2.24	2.29	3.58	2.13	4.12	1.80	2.18	1.67	1.96	1.83	2.05	1.99

e Estimated

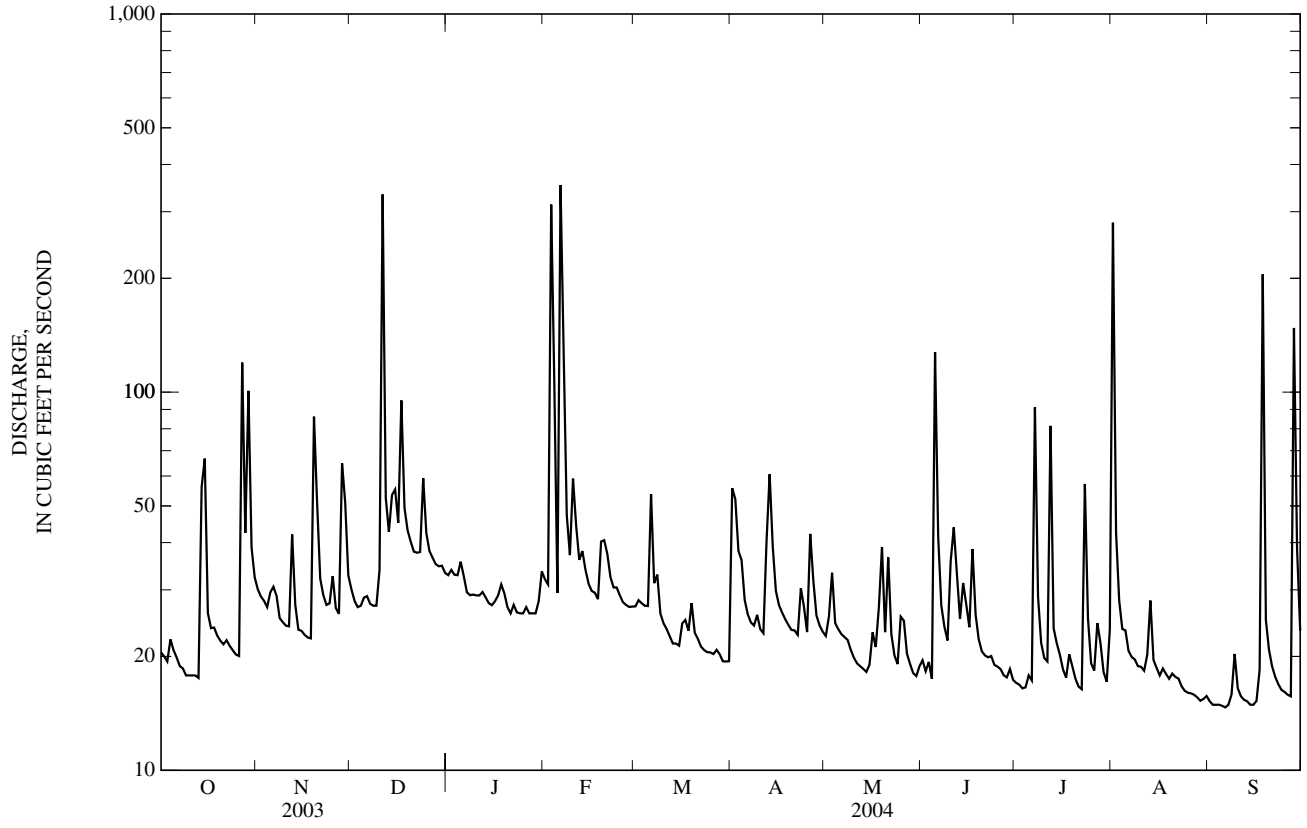
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2004, BY WATER YEAR (WY)

MEAN	16.7	17.6	25.8	22.3	32.8	29.0	23.2	19.7	21.9	16.2	14.1	20.7
MAX	30.7	32.4	49.1	29.2	60.4	53.2	30.9	31.3	42.5	27.5	28.1	34.0
(WY)	(2004)	(2004)	(2004)	(2004)	(2004)	(2003)	(2004)	(2003)	(2003)	(2003)	(2004)	(2003)
MIN	7.08	7.33	8.73	11.0	7.77	12.1	9.15	9.15	8.11	3.55	3.44	6.27
(WY)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)

01581870 GEORGES RUN NEAR BECKLEYSVILLE, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 2000 - 2004	
ANNUAL TOTAL	12,601		11,828			
ANNUAL MEAN	34.5		32.3		21.7	
HIGHEST ANNUAL MEAN					32.3	2004
LOWEST ANNUAL MEAN					7.80	2002
HIGHEST DAILY MEAN	333	Dec 11	353	Feb 6	353	Feb 6, 2004
LOWEST DAILY MEAN	14	(a)	15	(b)	0.95	(c)
ANNUAL SEVEN-DAY MINIMUM	15	Aug 23	15	Sep 1	0.96	Aug 16, 2002
MAXIMUM PEAK FLOW			1,210	Jul 12	(d)1,450	Sep 23, 2003
MAXIMUM PEAK STAGE			4.70	Jul 12	5.19	Sep 23, 2003
INSTANTANEOUS LOW FLOW			14	(f)	0.95	(g)
ANNUAL RUNOFF (CFSM)	2.19		2.05		1.37	
ANNUAL RUNOFF (INCHES)	29.67		27.85		18.63	
10 PERCENT EXCEEDS	56		43		37	
50 PERCENT EXCEEDS	25		25		17	
90 PERCENT EXCEEDS	16		17		6.0	

a Aug. 25, 26, 28, 29, Sept. 10-12, 17, 2003.
b Aug. 29,30, Sept. 1-7, 12-16.
c Aug. 18-22, 2002.
d From rating curve extended above 186 ft^3/s.
f Sept. 5, 6.
g Aug. 15-23, 2002.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01581920 GUNPOWDER FALLS NEAR PARKTON, MD

LOCATION.--Lat 39°37'08.0", long 76°41'25.1", Baltimore County, Hydrologic Unit 02060003, on left bank at downstream side of bridge on Falls Road, and 1.0 mi downstream from Prettyboy Reservoir.

DRAINAGE AREA.--81.5 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 360.0 ft above National Geodetic Vertical Datum of 1929. November 1982 to November 1990, nonrecording gage 100 ft downstream.

REMARKS.--Records good except those for estimated daily discharges (missing record, ice effect) which are fair. Flow regulated by Prettyboy Reservoir 1.0 mi upstream, beginning April 10, 1933, for water supply of Baltimore City (usable capacity, 20,000,000,000 gal; dead storage, 1,080,000,000 gal). U.S. Geological Survey satellite data collection platform at station. Several measurements of water temperature were made during the year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,220 ft^3/s, Feb. 6, 7, gage height, 6.98 ft; minimum discharge, 100 ft^3/s, May 14, 15, 30, June 4.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	116	198	200	172	122	126	162	136	104	104	556	106
2	116	173	178	173	119	128	231	136	104	104	688	105
3	105	162	158	175	162	131	251	189	105	104	335	105
4	107	154	152	175	277	129	237	169	102	104	219	105
5	107	154	166	183	218	127	206	145	235	105	182	105
6	105	162	183	185	617	203	164	134	498	104	148	105
7	104	165	169	169	1,000	215	153	131	283	214	125	105
8	104	155	155	153	552	220	143	125	203	355	116	105
9	104	138	149	153	298	188	156	117	165	212	111	106
10	104	130	151	146	236	170	142	114	148	156	109	105
11	104	127	825	e140	246	156	135	111	173	128	109	105
12	104	161	642	e144	213	155	149	108	194	201	109	105
13	104	200	373	e141	193	137	273	105	158	212	115	104
14	107	163	322	e137	183	123	293	102	173	170	113	105
15	205	138	351	e137	169	126	234	104	269	148	110	105
16	163	133	283	e136	154	131	195	114	208	127	109	105
17	141	130	364	e139	139	146	175	112	235	115	109	106
18	132	124	384	e143	135	144	164	118	322	115	108	208
19	121	176	297	e138	142	163	157	191	227	114	109	209
20	112	365	260	e134	183	152	147	164	177	112	112	156
21	109	250	229	e129	210	159	139	164	150	110	113	128
22	111	203	217	e128	197	132	137	163	138	112	111	113
23	111	179	212	e126	174	118	149	138	136	120	108	107
24	107	170	262	e125	165	114	190	122	127	148	107	106
25	106	186	270	123	160	113	159	118	120	127	107	106
26	105	172	234	e127	145	112	183	153	119	115	107	106
27	210	160	211	e130	136	114	226	135	110	117	107	106
28	308	178	196	e124	130	114	185	124	106	128	106	217
29	398	305	191	e124	128	110	156	112	108	117	106	479
30	332	228	195	e125	---	107	143	103	105	110	106	264
31	236	---	176	127	---	107	---	103	---	109	106	---
TOTAL	4,498	5,339	8,155	4,461	6,803	4,370	5,434	4,060	5,302	4,317	4,876	4,092
MEAN	145	178	263	144	235	141	181	131	177	139	157	136
MAX	398	365	825	185	1,000	220	293	191	498	355	688	479
MIN	104	124	149	123	119	107	135	102	102	104	106	104
(†)	20010	19933	19979	19907	19897	19856	19907	19882	19841	19846	19734	19984

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2004, BY WATER YEAR (WY)

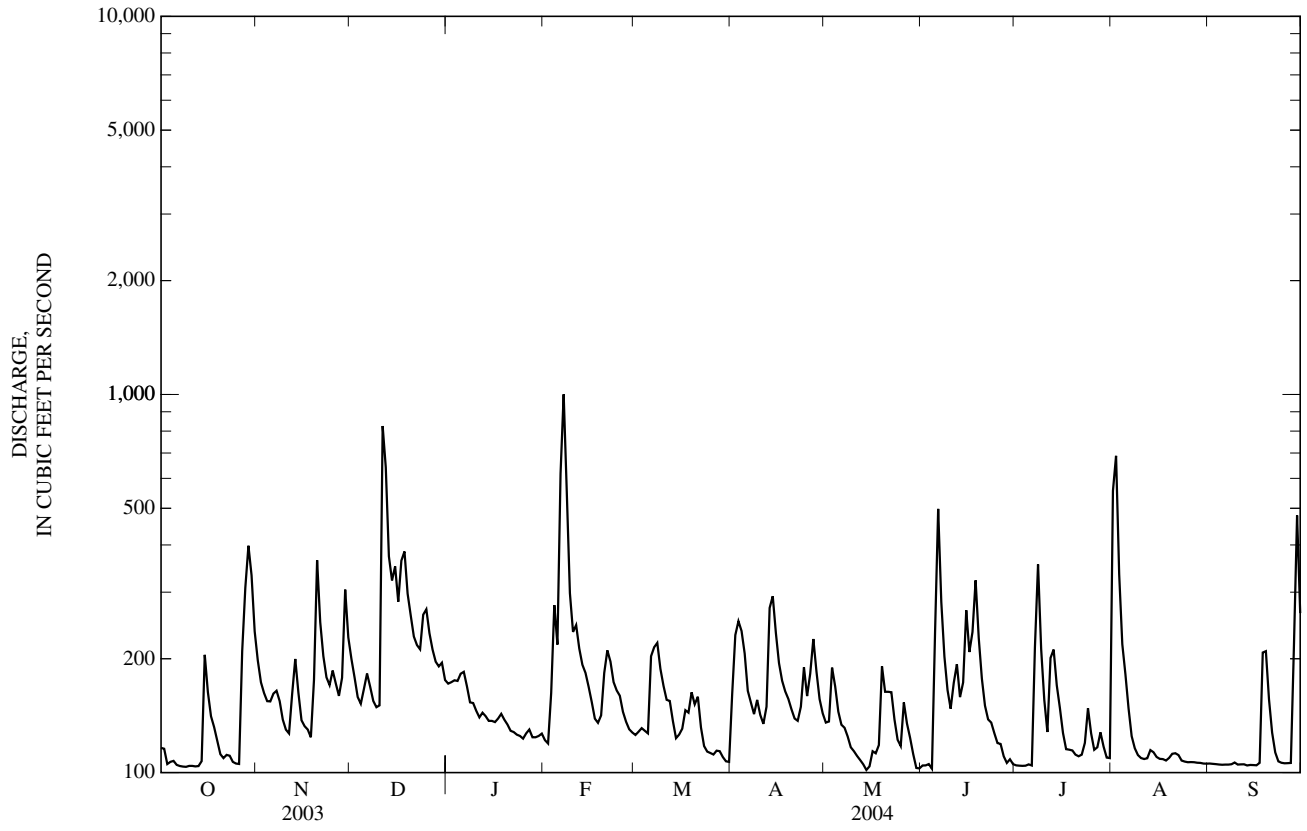
MEAN	110	108	111	85.1	92.1	58.8	98.2	94.8	137	124	127	131
MAX	166	178	263	144	235	141	181	166	252	162	209	188
(WY)	(2002)	(2004)	(2004)	(2004)	(2004)	(2004)	(2004)	(2003)	(2003)	(2003)	(2001)	(2001)
MIN	33.9	14.3	16.7	17.7	19.7	17.5	37.2	35.1	30.8	47.4	63.5	78.6
(WY)	(2003)	(2003)	(2003)	(2003)	(2003)	(2002)	(2002)	(2002)	(2002)	(2002)	(2000)	(2000)

(†) Monthend contents, in millions of gallons, in Prettyboy Reservoir (contents on Sept. 30, 2003, 19,882,000,000 gal). Records furnished by Baltimore City Department of Public Works.

01581920 GUNPOWDER FALLS NEAR PARKTON, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 2000 - 2004	
ANNUAL TOTAL	49,839		61,707			
ANNUAL MEAN	137		169		109	
HIGHEST ANNUAL MEAN					169	2004
LOWEST ANNUAL MEAN					63.0	2002
HIGHEST DAILY MEAN	825	Dec 11	1,000	Feb 7	1,000	Feb 7, 2004
LOWEST DAILY MEAN	16	(a)	102	(b)	12	Oct 27, 2002
ANNUAL SEVEN-DAY MINIMUM	16	Jan 20	104	Oct 7	13	Oct 27, 2002
MAXIMUM PEAK FLOW			1,220	Feb 6	(c)1,220	Feb 7, 2004
MAXIMUM PEAK STAGE			6.99	Feb 6	6.99	Feb 6, 2004
INSTANTANEOUS LOW FLOW			100	(d)	5.0	Oct 24, 2002
ANNUAL RUNOFF (CFSM)	1.68		2.07		1.34	
ANNUAL RUNOFF (INCHES)	22.75		28.17		18.15	
10 PERCENT EXCEEDS	264		247		203	
50 PERCENT EXCEEDS	122		140		104	
90 PERCENT EXCEEDS	17		105		17	

a Jan. 20, 21, 22(estimated), 25-27, March 27-29.
b May 14, June 4.
c From rating curve extended above 500 ft^3/s.
d May 14, 15, 30, June 4.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01581940 MINGO BRANCH NEAR HEREFORD, MD

LOCATION.--Lat 39°36'40.5", long 76°40'30.8", Baltimore County, Hydrologic Unit 02060003, on right bank 0.2 mi upstream from mouth, and 1.5 mi northwest of Hereford, MD.

DRAINAGE AREA.--0.78 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 399 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges (backwater, ice effect, destroyed control/leakage), which are fair. Several measurements of water temperature were made during the year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 25 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb 6	1145	40	1.09
Apr 23	1845	47	1.15
Jun 14	1915	43	1.12
Jul 7	UNKNOWN	*1000	(a)*3.33
Jul 12	1100	99	1.37
Jul 31	2300	32	0.89
Aug 1	0645	113	1.44
Aug 1	1715	107	1.41
Sep 18	0245	49	1.05
Sep 28	1445	668	2.83
Sep 28	1630	584	2.69

' (a) From high-water mark.

Minimum discharge, 0.38 ft^3/s, June 14, 15.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.74	0.74	1.6	2.2	e1.5	1.5	2.1	1.5	1.3	1.4	7.5	1.0
2	0.74	0.74	1.5	2.2	2.1	1.4	2.7	1.6	1.4	1.4	e2.0	1.00
3	0.74	0.76	1.4	2.2	3.8	1.4	2.1	1.8	1.3	1.4	e1.7	0.91
4	1.0	0.86	1.4	2.2	2.1	1.4	2.1	1.6	1.3	1.4	e1.5	0.91
5	0.86	1.0	1.4	2.4	1.8	1.4	1.9	1.5	2.7	2.0	e1.4	0.91
6	e0.78	1.1	1.4	e2.2	9.8	2.0	1.8	1.4	1.8	1.4	1.3	0.91
7	e0.73	0.99	1.4	e2.0	3.8	1.5	1.7	1.4	1.5	25	e1.2	0.91
8	e0.70	0.99	1.4	e1.8	2.5	1.7	1.7	1.4	1.4	e1.8	e1.2	1.1
9	e0.68	0.99	1.4	e1.7	2.1	1.6	1.8	1.4	1.3	e1.7	e1.2	1.6
10	e0.67	0.99	1.6	e1.7	2.7	1.5	1.6	1.4	1.3	e1.6	e1.2	1.1
11	e0.66	0.99	6.5	e1.7	2.0	1.4	1.6	1.4	1.6	1.9	1.3	0.99
12	e0.68	2.0	2.5	e1.8	2.0	1.4	2.4	1.4	1.4	e3.0	e1.4	0.91
13	0.86	1.1	2.1	e1.7	2.0	1.4	2.5	1.4	1.3	1.7	e1.6	0.91
14	1.9	0.99	2.8	e1.6	1.8	1.4	2.2	1.4	3.3	1.7	1.3	0.91
15	0.77	0.99	2.3	e1.6	1.7	1.2	2.0	1.5	1.4	1.7	e1.2	0.91
16	0.70	0.99	2.1	e1.6	e1.7	1.3	2.0	1.5	2.1	1.5	e1.2	0.89
17	0.63	0.99	3.0	e1.7	1.6	1.1	2.0	1.6	2.1	1.3	e1.2	1.2
18	0.59	0.99	2.5	e1.7	1.6	1.1	2.0	1.5	1.3	1.4	1.3	7.2
19	0.56	2.8	2.6	e1.6	1.7	1.2	1.9	1.8	1.2	1.5	e1.4	1.7
20	0.67	2.0	2.6	e1.4	1.7	1.2	1.8	1.6	1.1	1.3	1.6	1.2
21	0.74	1.5	2.5	e1.4	1.7	1.2	1.8	2.0	1.2	1.1	1.4	0.99
22	e0.74	1.3	2.5	e1.5	1.6	1.3	1.7	1.6	1.3	1.7	1.4	0.91
23	e0.70	1.3	2.3	e1.4	1.6	1.4	3.3	1.5	1.2	2.0	1.3	0.91
24	e0.66	1.3	3.0	e1.4	1.7	1.3	1.9	1.4	1.1	1.5	1.3	0.91
25	e0.70	1.5	2.5	e1.4	1.6	1.3	1.8	1.7	1.1	1.3	1.2	0.91
26	1.0	1.3	2.5	e1.5	1.6	1.3	2.5	1.3	1.1	1.3	1.1	0.82
27	3.3	1.1	2.5	e1.4	1.6	1.4	2.1	1.3	1.1	1.3	1.1	0.80
28	1.0	2.2	2.3	e1.4	1.6	1.4	1.9	1.3	1.1	1.4	1.1	28
29	2.0	1.8	2.2	e1.4	1.6	1.3	1.7	1.2	1.3	1.4	1.1	e3.4
30	0.82	1.6	2.2	e1.5	---	1.3	1.6	1.1	1.3	1.3	1.1	2.3
31	0.74	---	2.2	e1.6	---	1.3	---	1.2	---	2.0	1.1	---
TOTAL	28.06	37.90	70.2	52.9	64.6	42.6	60.2	45.7	43.9	72.4	46.9	67.12
MEAN	0.91	1.26	2.26	1.71	2.23	1.37	2.01	1.47	1.46	2.34	1.51	2.24
MAX	3.3	2.8	6.5	2.4	9.8	2.0	3.3	2.0	3.3	25	7.5	28
MIN	0.56	0.74	1.4	1.4	1.5	1.1	1.6	1.1	1.1	1.1	1.1	0.80
CFSM	1.16	1.62	2.90	2.19	2.86	1.76	2.57	1.89	1.88	2.99	1.94	2.87
IN.	1.34	1.81	3.35	2.52	3.08	2.03	2.87	2.18	2.09	3.45	2.24	3.20

e Estimated

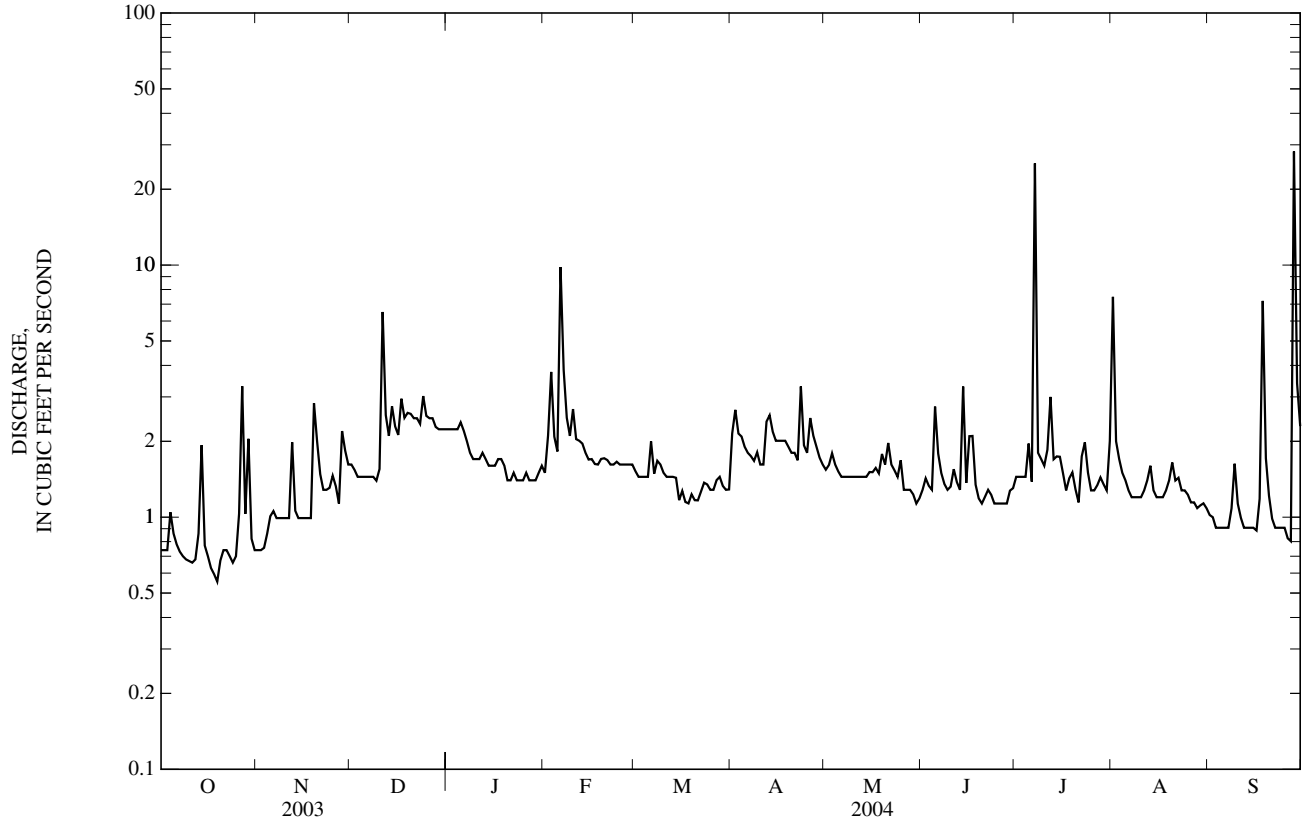
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2004, BY WATER YEAR (WY)

MEAN	0.52	0.63	1.05	0.85	1.08	1.24	1.39	1.21	1.22	1.09	0.71	0.90
MAX	0.91	1.26	2.26	1.71	2.23	1.81	2.02	1.87	2.70	2.34	1.51	2.24
(WY)	(2004)	(2004)	(2004)	(2004)	(2004)	(2003)	(2000)	(2003)	(2003)	(2004)	(2004)	(2004)
MIN	0.28	0.28	0.25	0.35	0.25	0.41	0.33	0.25	0.25	0.08	0.06	0.14
(WY)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)

01581940 MINGO BRANCH NEAR HEREFORD, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 2000 - 2004	
ANNUAL TOTAL	571.30		632.48			
ANNUAL MEAN	1.57		1.73		0.99	
HIGHEST ANNUAL MEAN					1.73	2004
LOWEST ANNUAL MEAN					0.24	2002
HIGHEST DAILY MEAN	11	Feb 22	28	Sep 28	28	Sep 28, 2004
LOWEST DAILY MEAN	0.47	Jan 24	0.56	Oct 19	0.00	(a)
ANNUAL SEVEN-DAY MINIMUM	0.50	Jan 24	0.66	Oct 16	0.00	Aug 4, 2002
MAXIMUM PEAK FLOW			(b)1,000	Jul 7	(b)1,000	Jul 7, 2004
MAXIMUM PEAK STAGE			(c)3.33	Jul 7	(c)3.33	Jul 7, 2004
INSTANTANEOUS LOW FLOW			0.38	(d)	0.00	(f)
ANNUAL RUNOFF (CFSM)	2.01		2.22		1.27	
ANNUAL RUNOFF (INCHES)	27.25		30.16		17.24	
10 PERCENT EXCEEDS	2.5		2.3		2.0	
50 PERCENT EXCEEDS	1.4		1.4		0.75	
90 PERCENT EXCEEDS	0.71		0.91		0.19	

a July 30, 31, Aug. 1, 2, 4-23, 25-27, Oct. 6-10, 2002.
b On basis of slope-area measurement at gage height of 3.33 ft.
c From high-water mark.
d June 14, 15.
f Many days in 2002 and 2003.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01581960 BEETREE RUN AT BENTLEY SPRINGS, MD

LOCATION.--Lat 39°40'23.1", long 76°40'30.7", Baltimore County, Hydrologic Unit 02060003, on left bank at downstream side of bridge on Bentley Road, and 0.43 mi upstream from mouth.

DRAINAGE AREA.--9.72 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 775 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges (ice effect, equipment malfunction), which are fair. U.S. Geological Survey gage-height telemeter at station. Several measurements of water temperature were made during the year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 400 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec 11	0815	505	2.82	Jul 7	1615	482	2.77
Feb 6	1245	615	3.04	Aug 1	1730	548	2.91
Jun 5	1845	404	2.59	Sep 18	0515	1,120	3.83
Jun 14	2030	524	2.86	Sep 28	1715	*1,930	*4.91

Minimum discharge, 8.5 ft^3/s, Sept. 7, 8, 13.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	20	22	23	19	17	25	17	18	16	134	9.9
2	16	19	21	23	17	18	27	20	16	15	29	9.8
3	16	19	20	23	40	18	24	25	15	15	20	9.4
4	18	18	19	23	28	18	23	19	14	15	18	9.5
5	16	19	22	25	19	17	20	18	84	15	17	9.3
6	15	20	21	23	227	32	18	17	32	14	16	9.3
7	15	19	21	21	69	22	18	18	22	83	15	9.0
8	15	18	20	21	34	24	18	17	19	24	14	9.8
9	15	17	19	21	27	20	19	16	17	18	14	15
10	15	17	23	20	30	19	17	16	17	16	13	9.8
11	14	17	166	20	28	18	16	15	24	16	13	9.1
12	14	28	36	19	23	18	24	15	20	21	15	9.1
13	14	22	29	20	23	17	31	14	17	18	17	8.8
14	27	19	36	19	22	17	24	16	73	17	14	9.3
15	32	18	34	19	21	16	21	16	27	16	13	9.6
16	17	17	29	19	20	19	19	18	19	15	12	9.5
17	16	17	46	19	18	20	18	16	54	16	12	10
18	17	17	32	22	18	18	17	17	e40	17	12	154
19	15	56	29	19	28	23	17	26	e24	15	12	17
20	15	37	28	18	30	18	17	17	e22	14	14	13
21	15	24	26	e17	27	18	17	19	e20	14	14	12
22	17	22	26	18	23	17	16	16	22	15	12	11
23	15	21	26	18	21	16	24	15	21	19	11	11
24	14	21	39	e17	20	16	21	14	19	16	11	11
25	14	22	29	e16	19	16	17	37	18	14	11	11
26	14	19	26	e17	18	16	28	22	18	14	11	11
27	55	19	25	e16	18	16	23	16	17	18	11	11
28	26	38	25	e16	17	16	19	16	16	18	10	290
29	51	31	24	e16	17	15	18	14	18	14	10	45
30	26	23	24	e16	---	15	17	14	16	13	10	27
31	22	---	23	e17	---	15	---	16	---	15	10	---
TOTAL	608	674	966	601	921	565	613	552	759	566	545	790.2
MEAN	19.6	22.5	31.2	19.4	31.8	18.2	20.4	17.8	25.3	18.3	17.6	26.3
MAX	55	56	166	25	227	32	31	37	84	83	134	290
MIN	14	17	19	16	17	15	16	14	14	13	10	8.8
CFSM	2.02	2.31	3.21	1.99	3.27	1.88	2.10	1.83	2.60	1.88	1.81	2.71
IN.	2.33	2.58	3.70	2.30	3.52	2.16	2.35	2.11	2.90	2.17	2.09	3.02

e Estimated

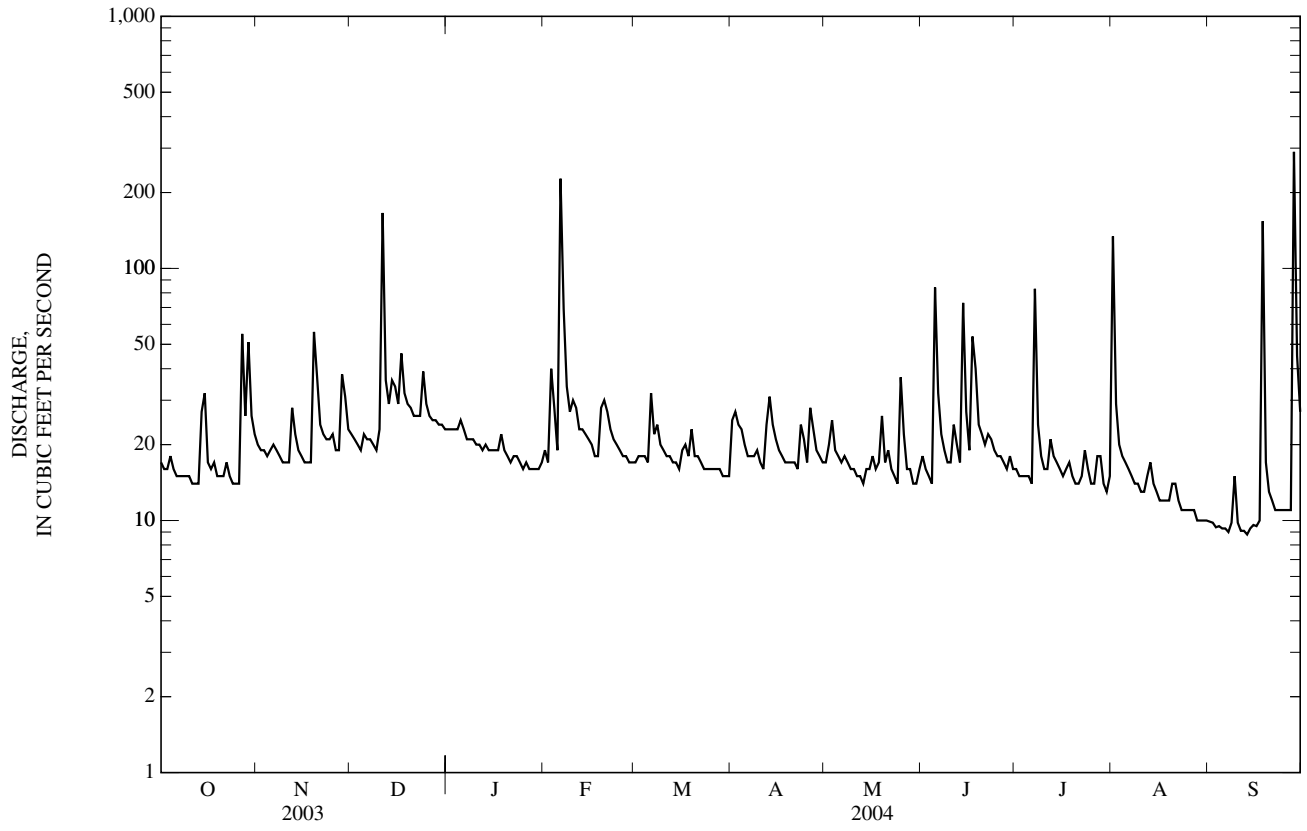
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2004, BY WATER YEAR (WY)

MEAN	10.3	10.4	14.8	12.4	17.2	17.7	15.7	13.2	15.1	10.9	12.1	15.0
MAX	19.6	22.5	31.2	19.4	31.8	31.7	22.1	17.8	26.0	18.3	21.8	26.3
(WY)	(2004)	(2004)	(2004)	(2004)	(2004)	(2003)	(2000)	(2004)	(2003)	(2004)	(2003)	(2004)
MIN	5.17	5.20	5.55	6.14	4.76	7.00	5.24	5.46	4.31	2.45	3.97	5.70
(WY)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)

01581960 BEETREE RUN AT BENTLEY SPRINGS, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 2000 - 2004	
ANNUAL TOTAL	8,236.7		8,160.2			
ANNUAL MEAN	22.6		22.3		13.7	
HIGHEST ANNUAL MEAN					22.3	2004
LOWEST ANNUAL MEAN					5.08	2002
HIGHEST DAILY MEAN	197	Sep 23	290	Sep 28	290	Sep 28, 2004
LOWEST DAILY MEAN	8.8	(a)	8.8	Sep 13	1.1	Aug 22, 2002
ANNUAL SEVEN-DAY MINIMUM	8.9	Feb 9	9.3	Sep 10	1.4	Aug 17, 2002
MAXIMUM PEAK FLOW			(b)1,930	Sep 28	(b)1,930	Sep 28, 2004
MAXIMUM PEAK STAGE			4.91	Sep 28	4.91	Sep 28, 2004
INSTANTANEOUS LOW FLOW			8.5	(c)	1.1	(d)
ANNUAL RUNOFF (CFSM)	2.32		2.29		1.41	
ANNUAL RUNOFF (INCHES)	31.52		31.23		19.16	
10 PERCENT EXCEEDS	33		29		23	
50 PERCENT EXCEEDS	17		18		11	
90 PERCENT EXCEEDS	12		12		4.7	

a Feb. 10, Feb. 11-15 (estimated).
b From rating curve extended above 185 ft^3/s.
c Sept. 7, 8, 13.
d Aug. 19, 21-23, 2002.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01582000 LITTLE FALLS AT BLUE MOUNT, MD

LOCATION.--Lat 39°36'14.7", long 76°37'13.7", Baltimore County, Hydrologic Unit 02060003, on left bank at downstream side of Pennsylvania Railroad bridge, 0.2 mi north of Blue Mount, 0.6 mi upstream from mouth, 0.9 mi downstream from First Mine Branch, and 1.2 mi south of White Hall.

DRAINAGE AREA.--52.9 mi^2.

PERIOD OF RECORD.--June 1944 to current year.

REVISED RECORDS.--WSP 111: 1944(M), 1945-47(P). WDR MD-DE-85-1: 1984(P).

GAGE.--Water-stage recorders. Elevation of gage is 305 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges (ice effect, and equipment malfunction), which are fair. Slight diurnal fluctuation at low flow caused by mill upstream from station. U.S. Geological Survey satellite collection platform at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec 11	0830	1,810	5.74
Feb 6	1845	2,180	6.46
Jun 14	2145	*4,180	*9.97
Jun 17	1745	1,600	5.33
Jul 7	1715	2,640	7.35
Jul 12	1215	2,250	6.61
Aug 1	1915	3,100	8.17
Sep 18	0845	2,250	6.60
Sep 28	1930	3,580	9.00

Minimum discharge, 52 ft^3/s, Sept. 5, 6, 13, 14.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	91	124	127	130	e92	95	122	94	82	75	875	59
2	88	115	119	133	e97	99	144	95	78	73	251	57
3	85	110	113	131	e200	98	153	129	78	70	156	57
4	100	105	111	129	e145	96	128	100	68	71	127	57
5	89	112	125	138	121	93	113	95	245	74	116	55
6	83	116	123	132	723	184	101	92	163	69	101	55
7	81	111	116	118	588	135	97	90	105	500	94	56
8	80	100	111	114	228	136	93	88	90	163	89	62
9	79	94	109	115	146	114	105	85	83	101	84	85
10	78	93	125	107	169	108	92	83	80	88	81	62
11	77	93	763	e111	187	103	89	80	105	84	83	58
12	75	160	221	115	141	99	99	78	99	373	89	57
13	73	119	174	111	129	94	187	76	82	134	127	55
14	108	104	208	107	130	91	170	75	567	112	87	54
15	213	101	214	106	117	89	121	81	256	98	83	57
16	93	96	174	104	107	96	108	90	138	89	79	58
17	86	95	294	e106	102	109	102	84	320	85	81	59
18	89	92	205	e113	101	101	98	82	173	93	76	611
19	81	277	179	e110	116	117	94	140	125	87	79	106
20	80	242	167	103	150	101	90	90	109	80	84	80
21	80	147	155	e96	149	97	90	100	100	76	81	71
22	83	129	151	e98	126	90	88	86	99	85	77	65
23	78	120	150	95	113	87	133	78	100	156	71	62
24	75	119	219	e95	111	85	143	74	90	110	68	61
25	73	128	184	e94	109	85	99	97	87	84	67	59
26	75	112	157	e96	101	84	141	122	86	79	66	58
27	360	108	149	e95	98	85	135	81	81	87	65	58
28	178	195	143	e94	96	84	108	78	79	100	63	927
29	312	207	141	e95	95	81	101	70	85	76	62	292
30	166	138	142	95	---	79	96	68	77	71	62	141
31	137	---	133	e94	---	81	---	75	---	74	62	---
TOTAL	3,446	3,862	5,502	3,380	4,787	3,096	3,440	2,756	3,930	3,517	3,586	3,594
MEAN	111	129	177	109	165	99.9	115	88.9	131	113	116	120
MAX	360	277	763	138	723	184	187	140	567	500	875	927
MIN	73	92	109	94	92	79	88	68	68	69	62	54
CFSM	2.10	2.43	3.36	2.06	3.12	1.89	2.17	1.68	2.48	2.14	2.19	2.26
IN.	2.42	2.72	3.87	2.38	3.37	2.18	2.42	1.94	2.76	2.47	2.52	2.53

e Estimated

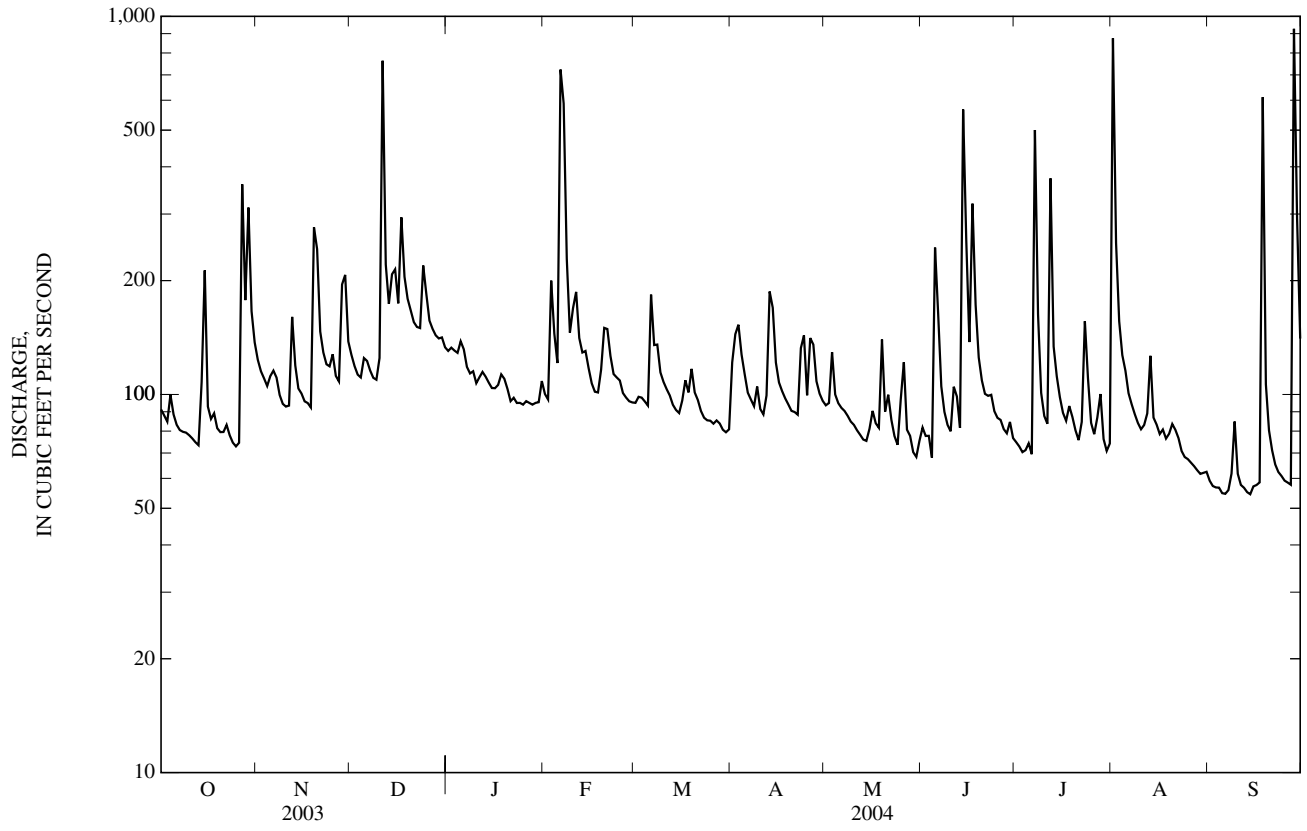
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 2004, BY WATER YEAR (WY)

MEAN	46.1	56.3	66.7	77.3	88.5	94.1	91.6	82.7	70.6	57.3	48.3	49.1
MAX	203	129	198	190	187	261	194	202	353	158	159	227
(WY)	(1980)	(1972)	(1997)	(1996)	(1979)	(1994)	(1952)	(1952)	(1972)	(1972)	(1971)	(1975)
MIN	16.7	22.7	20.9	22.1	22.9	35.6	27.8	27.0	20.3	10.2	9.44	17.2
(WY)	(1964)	(2002)	(1966)	(1981)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(1966)	(1986)

01582000 LITTLE FALLS AT BLUE MOUNT, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1944 - 2004	
ANNUAL TOTAL	44,227		44,896			
ANNUAL MEAN	121		123		69.0	
HIGHEST ANNUAL MEAN					132	1972
LOWEST ANNUAL MEAN					23.3	2002
HIGHEST DAILY MEAN	763	Dec 11	927	Sep 28	4,730	Jun 22, 1972
LOWEST DAILY MEAN	(a)54	(b)	54	Sep 14	4.5	Sep 11, 1966
ANNUAL SEVEN-DAY MINIMUM	57	Feb 9	57	Sep 1	4.8	Sep 6, 1966
MAXIMUM PEAK FLOW			4,180	Jun 14	(c)8,280	Jun 22, 1972
MAXIMUM PEAK STAGE			9.97	Jun 14	18.54	Jun 22, 1972
INSTANTANEOUS LOW FLOW			52	(d)	1.9	Aug 29, 1966
ANNUAL RUNOFF (CFSM)	2.29		2.32		1.30	
ANNUAL RUNOFF (INCHES)	31.10		31.57		17.72	
10 PERCENT EXCEEDS	188		174		119	
50 PERCENT EXCEEDS	97		98		52	
90 PERCENT EXCEEDS	67		71		25	

a Estimated Feb. 13, 14.
b Feb. 13-15.
c From rating curve extended above 1,600 ft^3/s on basis of contracted-opening measurement of peak flow.
d Sept. 5, 6, 13, 14.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01582500 GUNPOWDER FALLS AT GLENCOE, MD

LOCATION.--Lat 39°32'58.9", long 76°38'10.0", Baltimore County, Hydrologic Unit 02060003, on right downstream wingwall of bridge on Glencoe Road at intersection of Upper Glencoe Road and Lower Glencoe Road in Glencoe, and 0.7 mi upstream from Piney Creek.

DRAINAGE AREA.--160 mi^2.

PERIOD OF RECORD.--October 1977 to June 1980, December 1982 to current year.

REVISED RECORDS.--WDR MD-DE-89-1: 1985(M).

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 250 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges (ice effect, recorder malfunction), which are fair. Flow regulated by Prettyboy Reservoir, 12 mi upstream, beginning April 10, 1933, for water supply of Baltimore City (usable capacity, 20,000,000,000 gal; dead storage, 1,080,000,000 gal). U.S. Geological Survey gage-height telemeter at station. Several measurements of water temperature were made during the year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,850 ft^3/s, Sept. 28, gage height, 13.16 ft; minimum discharge, 163 ft^3/s, Sept. 13, 14.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	226	375	391	369	e297	264	321	277	210	192	e2,000	175
2	220	331	349	375	e265	271	459	274	207	189	e1,100	172
3	204	307	314	374	e600	272	484	366	215	185	620	171
4	224	291	300	371	e500	267	435	319	196	184	423	171
5	213	290	330	391	400	263	384	286	414	207	356	169
6	201	312	356	387	1,660	492	317	273	767	194	292	168
7	196	309	331	354	1,900	421	297	263	450	1,210	253	170
8	194	284	303	324	940	424	282	257	332	684	233	175
9	192	259	293	323	564	359	307	243	280	381	221	213
10	190	247	307	303	531	326	279	237	251	281	215	179
11	189	244	1,810	e300	518	305	266	230	298	239	228	171
12	186	356	1,050	305	427	294	303	222	329	679	226	169
13	184	356	678	e300	391	271	552	214	268	400	303	168
14	202	313	638	e298	375	254	547	208	627	309	229	166
15	497	264	711	e297	342	255	435	218	873	268	218	169
16	288	255	570	e292	310	273	361	244	420	231	209	170
17	244	252	778	e300	290	296	330	237	570	210	207	171
18	237	245	730	e317	286	284	312	233	575	218	204	1,020
19	217	492	591	e300	312	322	298	358	403	212	209	362
20	200	749	529	e290	379	292	285	295	319	198	230	259
21	197	482	475	e275	411	292	275	305	277	190	210	216
22	204	399	452	e270	379	263	269	289	256	201	209	190
23	197	353	443	e263	336	243	329	251	261	306	194	177
24	188	330	597	e267	324	236	423	226	240	296	190	173
25	186	365	555	e267	315	234	312	228	226	226	188	171
26	188	330	482	e275	291	231	375	330	224	206	187	170
27	657	306	444	e280	279	237	438	249	208	203	184	170
28	585	400	416	e265	270	233	354	229	198	239	182	1,610
29	e760	634	405	e268	266	223	308	208	209	196	180	1,210
30	591	442	410	e270	---	218	288	193	194	179	179	569
31	444	---	380	347	---	219	---	198	---	174	179	---
TOTAL	8,701	10,572	16,418	9,617	14,158	8,834	10,625	7,960	10,297	9,087	10,058	9,244
MEAN	281	352	530	310	488	285	354	257	343	293	324	308
MAX	760	749	1,810	391	1,900	492	552	366	873	1,210	2,000	1,610
MIN	184	244	293	263	265	218	266	193	194	174	179	166
(†)	20010	19933	19979	19907	19897	19856	19907	19882	19841	19846	19734	19984

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 1980, 1983 - 2004, BY WATER YEAR (WY)

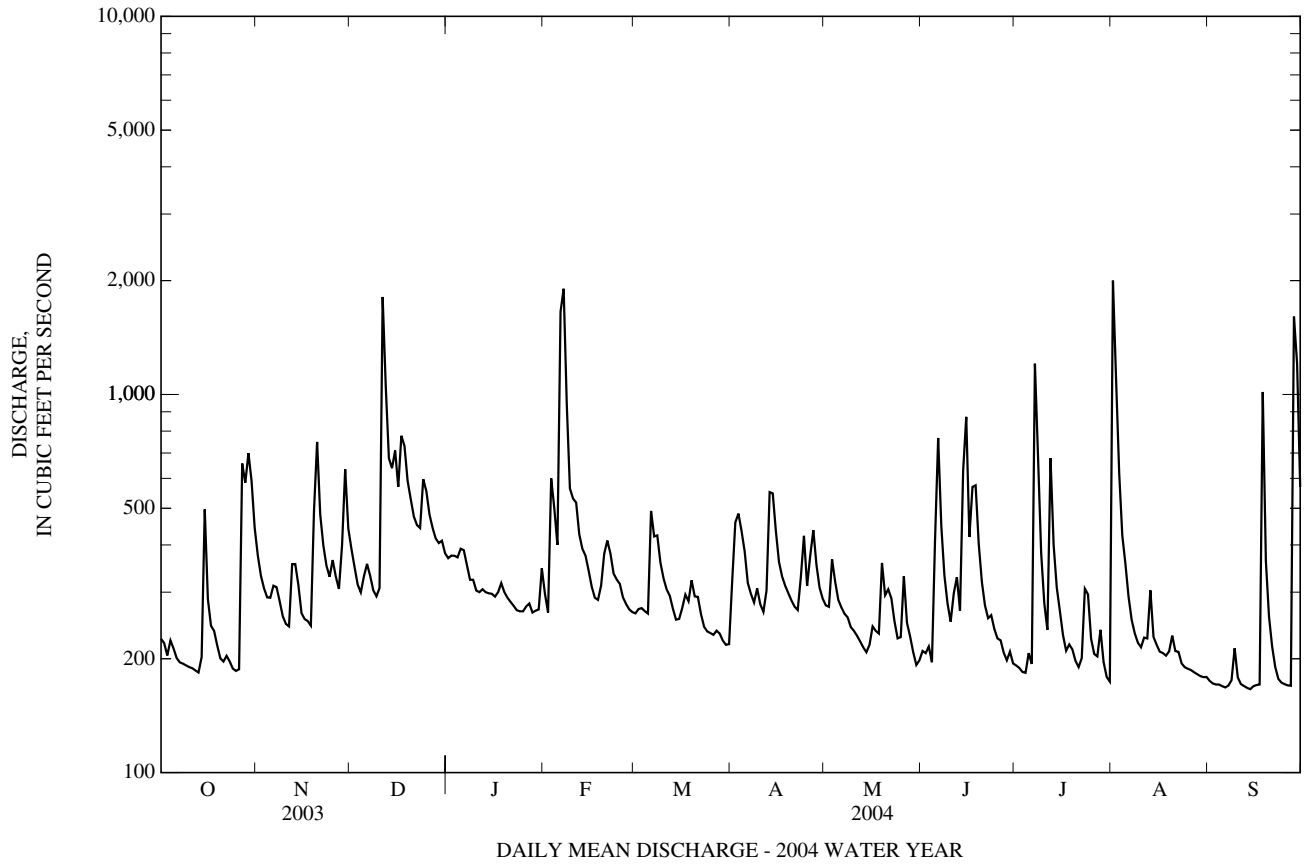
MEAN	164	172	201	224	240	258	261	247	198	182	165	172
MAX	603	352	604	625	598	755	586	476	476	293	324	512
(WY)	(1980)	(2004)	(1997)	(1979)	(1979)	(1994)	(1993)	(1989)	(2003)	(2004)	(2004)	(1979)
MIN	52.4	76.4	76.4	63.3	58.2	65.2	74.8	70.3	55.4	58.7	70.8	69.6
(WY)	(1987)	(2000)	(2002)	(1983)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(1985)	(1983)

† Monthend contents, in millions of gallons, in Prettyboy Reservoir (contents on Sept. 30, 2003, 19,882,000,000 gal). Records furnished by Baltimore City Department of Public Works.

01582500 GUNPOWDER FALLS AT GLENCOE, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS	
ANNUAL TOTAL	114,215		125,571		1978 -1980, 1983 - 2004	
ANNUAL MEAN	313		343		206	
HIGHEST ANNUAL MEAN					343	2004
LOWEST ANNUAL MEAN					91.5	2002
HIGHEST DAILY MEAN	2,590	Feb 23	2,000	Aug 1	4,500	Sep 6, 1979
LOWEST DAILY MEAN	(e)91	Feb 15	166	Sep 14	31	Sep 3, 1999
ANNUAL SEVEN-DAY MINIMUM	92	Feb 9	169	Sep 11	35	Aug 29, 1999
MAXIMUM PEAK FLOW			4,850	Sep 28	(a)6,110	Sep 6, 1979
MAXIMUM PEAK STAGE			13.16	Sep 28	15.30	Sep 6, 1979
INSTANTANEOUS LOW FLOW			163	(b)	30	Sep 3, 1999
ANNUAL RUNOFF (CFSM)	1.96		2.14		1.29	
ANNUAL RUNOFF (INCHES)	26.55		29.20		17.49	
10 PERCENT EXCEEDS	531		558		355	
50 PERCENT EXCEEDS	257		284		163	
90 PERCENT EXCEEDS	131		188		80	

e Estimated
a From rating curve extended above 2,400 ft^3/s on basis of slope-area measurement at gage height of 12.65 ft.
b Sept. 13, 14.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01583100 PINEY RUN AT DOVER, MD

LOCATION.--Lat 39°31'14.2", long 76°46'00.8", Baltimore County, Hydrologic Unit 02060003, on right bank 400 ft downstream from bridge on Maryland Route 128, 0.7 mi upstream from mouth, and 2.4 mi southwest of Butler.

DRAINAGE AREA.--12.3 mi^2.

PERIOD OF RECORD.--May 1982 to February 1988. October 1996 to current year.

REVISED RECORDS.--WDR MD-DE-87-1: 1984-86(P).

GAGE.--Water-stage recorder. Elevation of gage is 380 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are poor. U.S. Geological Survey gage-height telemeter at station. Several measurements of water temperature were made during the year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec 11	0500	591	5.22	Aug 1	0215	831	5.89
Feb 6	1300	*846	*5.93	Aug 1	0900	449	4.75
Jul 7	1630	607	5.27	Sep 18	0515	335	4.28
Jul 12	1245	428	4.67	Sep 28	1945	611	5.28

Minimum discharge, 9.6 ft^3/s, on several days.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	19	21	21	e19	18	40	20	18	15	172	9.8
2	14	18	19	22	e19	19	42	20	16	15	24	11
3	13	17	19	21	61	18	34	25	17	14	18	11
4	15	17	18	21	40	18	29	21	16	14	16	9.9
5	14	19	20	23	23	18	25	20	58	14	15	9.6
6	14	19	20	22	289	42	22	19	33	14	14	9.6
7	13	18	19	21	99	27	21	19	22	79	13	9.7
8	13	17	19	20	34	27	21	19	20	21	13	10
9	14	17	18	20	25	23	21	18	18	15	13	14
10	13	16	21	e20	47	21	20	18	18	14	12	11
11	13	16	216	e20	31	20	20	18	22	13	13	10
12	13	26	35	20	25	19	28	18	21	41	14	10
13	13	20	28	19	26	19	42	17	18	18	19	10
14	30	19	33	19	22	18	31	17	21	16	15	9.7
15	39	17	35	19	21	18	25	17	20	14	14	9.9
16	18	17	28	e19	19	21	23	19	18	13	12	10
17	15	16	57	19	18	21	22	31	18	13	12	10
18	15	16	33	22	19	20	21	22	18	14	12	78
19	14	50	28	20	24	21	20	24	17	14	12	15
20	14	36	26	19	25	19	20	20	16	13	11	13
21	14	23	25	e19	24	19	20	27	16	12	12	12
22	14	20	23	18	22	18	19	20	16	12	12	12
23	14	19	23	e18	20	18	29	18	15	30	11	10
24	14	19	35	e18	20	18	26	17	15	17	11	10
25	14	20	27	e18	19	17	22	26	15	14	10	10
26	14	19	25	19	18	17	29	23	16	14	10	10
27	75	17	24	19	18	18	26	19	15	17	10	10
28	29	41	23	18	18	17	23	18	15	18	10	86
29	58	34	23	e19	18	17	21	17	15	14	10	25
30	26	23	22	19	---	16	20	16	14	13	10	16
31	22	---	21	e19	---	17	---	17	---	13	10	---
TOTAL	615	645	984	611	1,063	619	762	620	577	558	560	482.2
MEAN	19.8	21.5	31.7	19.7	36.7	20.0	25.4	20.0	19.2	18.0	18.1	16.1
MAX	75	50	216	23	289	42	42	31	58	79	172	86
MIN	13	16	18	18	18	16	19	16	14	12	10	9.6
CFSM	1.61	1.75	2.58	1.60	2.98	1.62	2.07	1.63	1.56	1.46	1.47	1.31
IN.	1.86	1.95	2.98	1.85	3.21	1.87	2.30	1.88	1.75	1.69	1.69	1.46

e Estimated

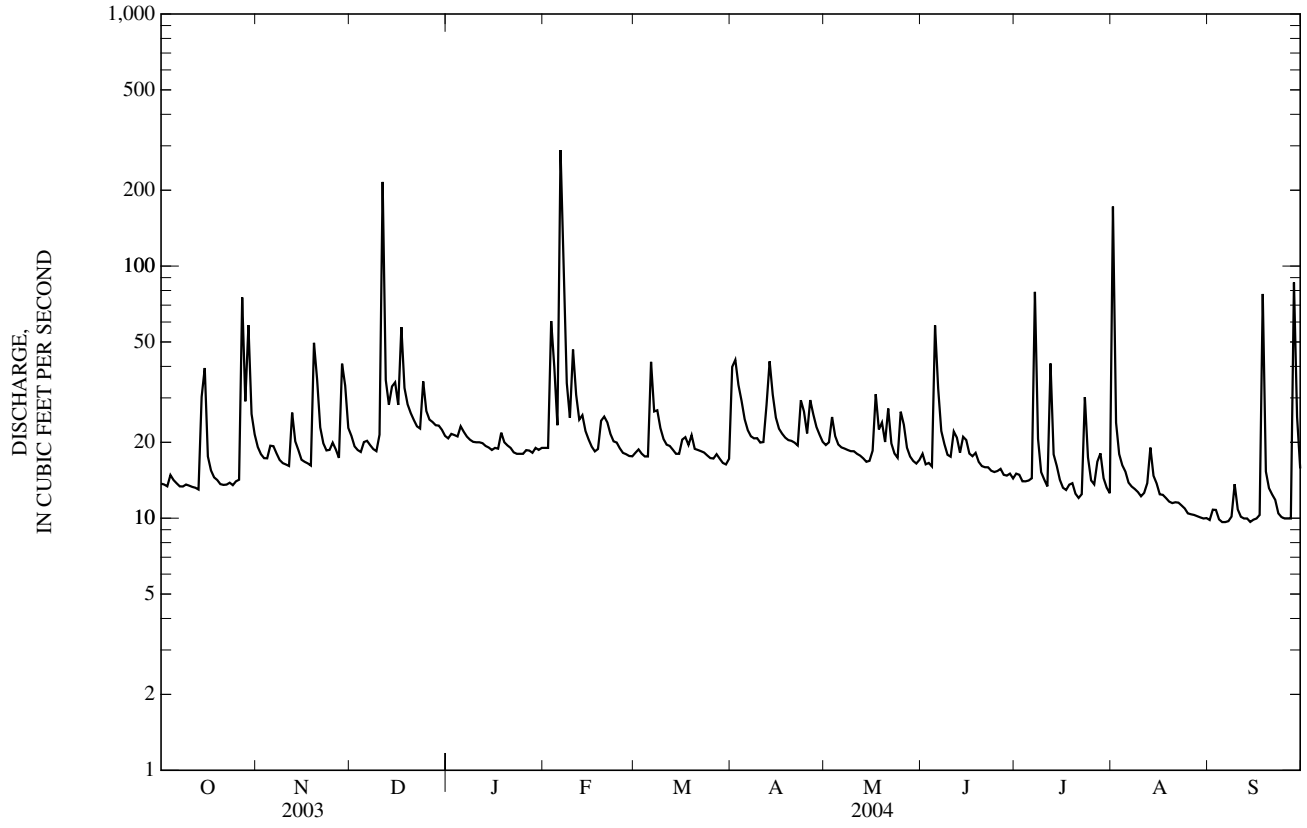
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 1988, 1997 - 2004, BY WATER YEAR (WY)

MEAN	10.3	13.0	17.1	15.8	20.6	19.9	19.8	16.6	13.4	11.0	8.89	10.3
MAX	26.0	28.7	49.8	31.1	37.9	35.5	36.1	28.5	27.7	25.7	18.2	22.9
(WY)	(1997)	(1997)	(1997)	(1997)	(1985)	(1998)	(1983)	(1998)	(2003)	(1984)	(1984)	(2003)
MIN	4.68	5.30	5.85	6.78	5.26	6.92	6.73	6.90	5.57	3.38	2.65	3.95
(WY)	(1987)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(1986)	(2002)	(2002)	(1986)

01583100 PINEY RUN AT DOVER, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1982 - 1988 1997 - 2004	
ANNUAL TOTAL	8,422.5		8,096.2			
ANNUAL MEAN	23.1		22.1		14.7	
HIGHEST ANNUAL MEAN					22.1	2004
LOWEST ANNUAL MEAN					5.38	2002
HIGHEST DAILY MEAN	216	Dec 11	289	Feb 6	599	Feb 12, 1985
LOWEST DAILY MEAN	9.1	Feb 16	9.6	(a)	0.96	Aug 22, 2002
ANNUAL SEVEN-DAY MINIMUM	9.6	Feb 10	9.9	Sep 11	1.1	Aug 16, 2002
MAXIMUM PEAK FLOW			846	Feb 6	(b)3,220	Sep 8, 1987
MAXIMUM PEAK STAGE			5.93	Feb 6	8.28	Sep 8, 1987
INSTANTANEOUS LOW FLOW			9.6	(c)	0.72	(d)
ANNUAL RUNOFF (CFSM)	1.88		1.80		1.20	
ANNUAL RUNOFF (INCHES)	25.47		24.49		16.26	
10 PERCENT EXCEEDS	35		30		25	
50 PERCENT EXCEEDS	18		19		11	
90 PERCENT EXCEEDS	12		12		5.2	

a Sept. 5, 6.
b From rating curve extended above 2,000 ft^3/s.
c Aug. 31, Sept. 1, 4-8, 14, 15.
d Aug. 22, 23, 2002.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01583500 WESTERN RUN AT WESTERN RUN, MD

LOCATION.--Lat 39°30'38.8", long 76°40'35.4", Baltimore County, Hydrologic Unit 02060003, on right bank 100 ft downstream from bridge on Western Run Road, 0.3 mi southeast of Western Run, 2.5 mi northwest of Cockeysville, 3.2 mi upstream from Beaverdam Run, and 5.0 mi upstream from mouth.

DRAINAGE AREA.--59.8 mi^2.

PERIOD OF RECORD.--September 1944 to current year.

REVISED RECORDS.--WSP 1502: 1945-46, 1948(M).

GAGE.--Water-stage recorder. Datum of gage is 262.78 ft above National Geodetic Vertical Datum of 1929 (Baltimore County bench mark).

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair. U.S. Geological Survey gage-height telemeter at station .Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec 11	0930	2,780	7.03	Jul 7	1815	2,830	7.09
Feb 6	1745	*3,310	*7.65	Sep 28	2100	1,540	5.27

Minimum discharge, 33 ft^3/s, Sept. 5, 6, 13, 14.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	78	98	102	108	103	82	197	98	75	56	386	37
2	67	92	93	113	95	87	228	99	69	57	102	38
3	67	87	88	110	219	83	200	133	69	53	71	37
4	79	83	86	108	207	81	159	108	64	54	61	36
5	74	86	98	119	117	80	132	101	175	63	62	35
6	63	96	99	112	1,290	217	116	98	171	55	54	34
7	60	90	92	101	546	140	110	96	97	605	52	36
8	58	79	88	98	190	136	105	94	81	151	50	38
9	56	75	87	100	133	111	107	94	73	80	49	55
10	56	74	97	91	217	102	98	88	68	67	48	41
11	55	74	1,090	104	165	97	97	86	89	62	53	36
12	55	122	200	95	128	92	125	84	95	120	59	36
13	54	94	153	95	126	87	219	83	73	75	80	35
14	68	81	179	92	117	85	167	81	94	71	55	34
15	208	77	207	91	106	85	131	80	114	60	53	36
16	78	75	157	85	95	99	116	89	76	55	50	37
17	68	74	288	100	90	104	110	120	72	54	48	39
18	66	72	186	104	91	93	106	100	74	57	48	272
19	61	206	152	97	106	107	102	101	64	57	47	60
20	58	202	139	88	114	92	99	87	61	52	45	48
21	59	116	130	87	114	90	98	117	59	50	45	44
22	58	101	126	82	103	84	96	89	59	59	46	41
23	57	93	125	80	96	81	116	76	59	94	43	38
24	56	91	190	91	97	80	150	72	58	91	41	37
25	56	99	150	e80	94	80	106	89	57	58	41	37
26	58	88	131	e80	87	78	148	123	59	55	41	36
27	353	83	125	e79	85	84	154	79	55	66	40	37
28	164	150	120	e84	83	79	116	74	54	72	40	448
29	284	195	118	e80	82	76	108	68	57	55	39	187
30	140	113	116	e79	---	75	101	66	54	52	39	80
31	111	---	110	88	---	78	---	70	---	50	39	---
TOTAL	2,825	3,066	5,122	2,921	5,096	2,945	3,917	2,843	2,325	2,606	1,927	2,005
MEAN	91.1	102	165	94.2	176	95.0	131	91.7	77.5	84.1	62.2	66.8
MAX	353	206	1,090	119	1,290	217	228	133	175	605	386	448
MIN	54	72	86	79	82	75	96	66	54	50	39	34
CFSM	1.52	1.71	2.76	1.58	2.94	1.59	2.18	1.53	1.30	1.41	1.04	1.12
IN.	1.76	1.91	3.19	1.82	3.17	1.83	2.44	1.77	1.45	1.62	1.20	1.25

e Estimated

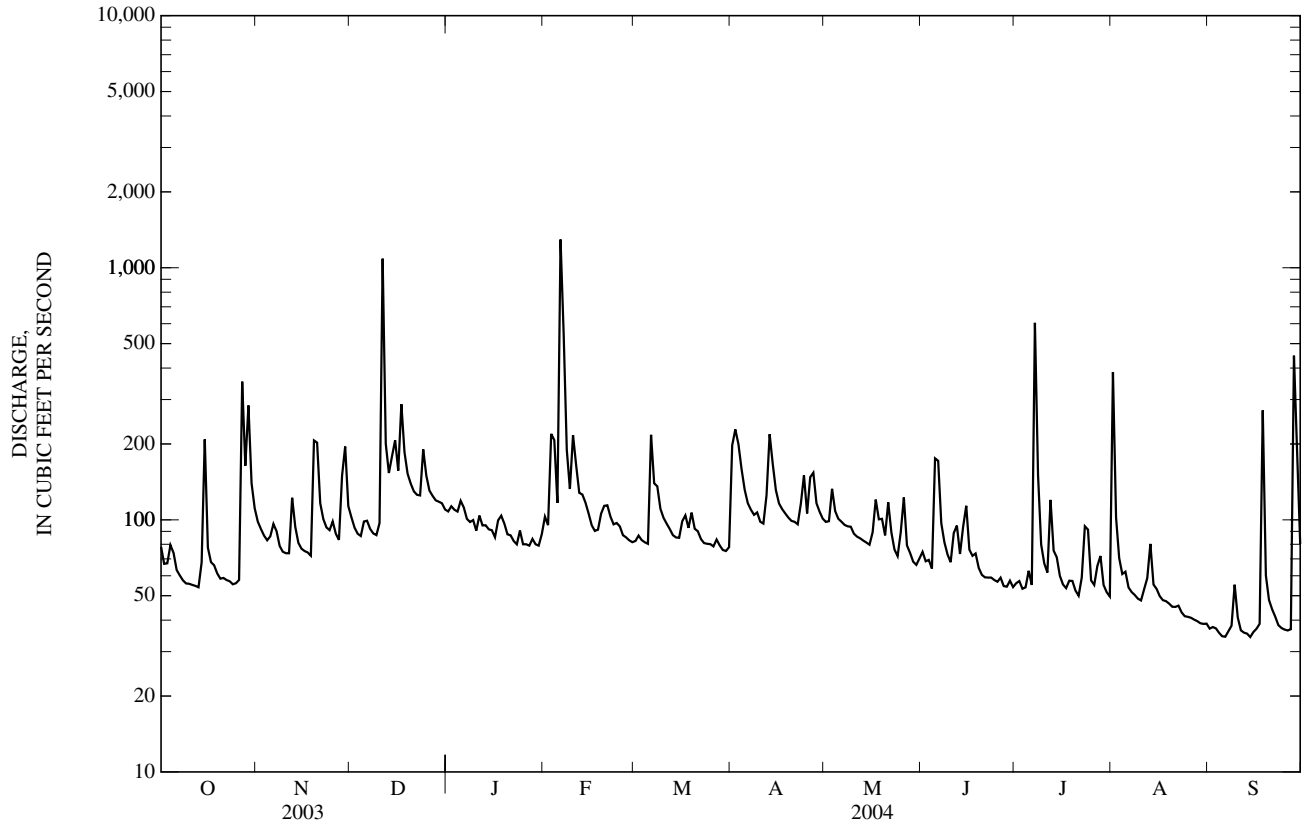
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 2004, BY WATER YEAR (WY)

MEAN	45.9	56.6	69.0	80.9	92.1	96.5	90.1	81.5	70.3	55.3	48.3	47.8
MAX	209	143	217	222	240	237	209	227	395	164	183	261
(WY)	(1980)	(1997)	(1997)	(1979)	(1979)	(1994)	(1952)	(1952)	(1972)	(1972)	(1971)	(1975)
MIN	16.4	19.2	19.0	20.5	21.2	32.8	27.5	28.1	18.4	10.1	7.78	12.0
(WY)	(1964)	(2002)	(1966)	(1966)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(1966)	(2002)

01583500 WESTERN RUN AT WESTERN RUN, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1944 - 2004	
ANNUAL TOTAL	40,063		37,598			
ANNUAL MEAN	110		103		69.4	
HIGHEST ANNUAL MEAN					138	1972
LOWEST ANNUAL MEAN					20.3	2002
HIGHEST DAILY MEAN	1,090	Dec 11	1,290	Feb 6	7,000	Jun 22, 1972
LOWEST DAILY MEAN	30	Feb 16	34	(a)	2.5	Sep 12, 1966
ANNUAL SEVEN-DAY MINIMUM	45	Feb 10	36	Sep 1	3.7	Aug 16, 2002
MAXIMUM PEAK FLOW			3,310	Feb 6	(b)38,000	Jun 22, 1972
MAXIMUM PEAK STAGE			7.65	Feb 6	(c)26.00	Jun 22, 1972
INSTANTANEOUS LOW FLOW			33	(d)	2.4	Sep 12, 1966
ANNUAL RUNOFF (CFSM)	1.84		1.72		1.16	
ANNUAL RUNOFF (INCHES)	24.92		23.39		15.77	
10 PERCENT EXCEEDS	183		155		118	
50 PERCENT EXCEEDS	87		86		52	
90 PERCENT EXCEEDS	54		48		23	

a Sept. 6, 14.
b From rating curve extended above 3,200 ft^3/s, on basis of slope-area measurement and contracted-opening measurement of peak flow.
c From floodmarks.
d Sept. 5, 6, 13, 14.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01583570 POND BRANCH AT OREGON RIDGE, MD

LOCATION.--Lat 39°28'49.1", long 76°41'15.0", Baltimore County, Hydrologic Unit 02060003, on left bank 500 ft upstream from pond, 600 ft above mouth, 1.0 mi southwest of Beaver Dam Road and Ivy Hill Road interchange, and 2.3 mi west of Cockeysville.

DRAINAGE AREA.--0.12 mi^2.

PERIOD OF RECORD.--January 1983 to September 1986, April 1998 to current year.

REVISED RECORDS.--WDR MD-DE-01-1: Drainage area.

GAGE.--Water-stage recorder, crest-stage gage, and triple V-notch sharp-crested weir plate. Datum of gage is 450 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 11 ft^3/s, July 7, gage height, 2.05 ft; minimum discharge, 0.081 ft^3/s, Sept. 13.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.14	0.18	0.19	0.23	0.21	0.23	0.49	0.27	0.23	0.18	0.21	0.099
2	0.15	0.18	0.18	0.25	0.22	0.23	0.45	0.30	0.25	0.17	0.14	0.098
3	0.14	0.17	0.18	0.23	0.37	0.23	0.38	0.33	0.22	0.15	0.12	0.099
4	0.17	0.16	0.17	0.23	0.25	0.23	0.37	0.29	0.21	0.17	0.15	0.097
5	0.14	0.21	0.20	0.28	0.23	0.23	0.31	0.28	0.49	0.22	0.14	0.096
6	0.13	0.25	0.21	0.24	0.61	0.45	0.29	0.27	0.29	0.17	0.12	0.10
7	0.13	0.22	0.19	0.22	0.40	0.29	0.28	0.28	0.24	0.76	0.11	0.099
8	0.13	0.21	0.18	0.22	0.31	0.28	0.28	0.27	0.22	0.32	0.11	0.11
9	0.13	0.21	0.18	0.22	0.28	0.25	0.28	0.27	0.21	0.24	0.11	0.17
10	0.13	0.20	0.23	0.19	0.29	0.25	0.28	0.26	0.22	0.23	0.11	0.12
11	0.13	0.18	0.93	0.19	0.28	0.25	0.28	0.26	0.29	0.23	0.22	0.11
12	0.13	0.25	0.38	0.22	0.25	0.25	0.42	0.25	0.24	0.26	0.20	0.096
13	0.13	0.19	0.30	0.23	0.25	0.25	0.43	0.25	0.21	0.25	0.17	0.095
14	0.31	0.21	0.40	0.22	0.25	0.24	0.36	0.24	0.32	0.25	0.14	0.092
15	0.23	0.21	0.32	0.21	0.25	0.23	0.33	0.25	0.25	0.22	0.13	0.100
16	0.18	0.21	0.28	0.21	0.24	0.29	0.30	0.25	0.23	0.19	0.12	0.099
17	0.18	0.21	0.44	0.21	0.23	0.26	0.29	0.29	0.22	0.16	0.12	0.21
18	0.18	0.19	0.33	0.27	0.23	0.26	0.28	0.29	0.21	0.19	0.12	0.47
19	0.18	0.45	0.30	0.23	0.24	0.27	0.28	0.29	0.20	0.18	0.11	0.14
20	0.18	0.25	0.28	0.23	0.24	0.23	0.28	0.25	0.19	0.16	0.11	0.12
21	0.16	0.20	0.26	0.23	0.25	0.24	0.33	0.30	0.19	0.16	0.12	0.11
22	0.15	0.19	0.25	0.24	0.23	0.23	0.30	0.24	0.19	0.18	0.11	0.11
23	0.16	0.18	0.25	0.25	0.23	0.23	0.35	0.22	0.19	0.18	0.11	0.11
24	0.16	0.19	0.36	0.25	0.24	0.23	0.30	0.22	0.18	0.17	0.11	0.12
25	0.16	0.18	0.26	0.25	0.23	0.23	0.28	0.27	0.18	0.16	0.12	0.11
26	0.22	0.18	0.25	0.25	0.23	0.23	0.43	0.25	0.17	0.16	0.11	0.11
27	0.55	0.16	0.25	0.25	0.23	0.26	0.34	0.23	0.17	0.21	0.11	0.11
28	0.21	0.30	0.24	0.25	0.23	0.23	0.31	0.22	0.17	0.18	0.10	0.78
29	0.37	0.21	0.23	0.23	0.23	0.23	0.29	0.21	0.19	0.14	0.10	0.23
30	0.22	0.19	0.24	0.21	---	0.23	0.28	0.21	0.17	0.14	0.10	0.16
31	0.19	---	0.23	0.21	---	0.24	---	0.22	---	0.13	0.10	---
TOTAL	5.77	6.32	8.69	7.15	7.73	7.78	9.87	8.03	6.74	6.51	3.95	4.570
MEAN	0.19	0.21	0.28	0.23	0.27	0.25	0.33	0.26	0.22	0.21	0.13	0.15
MAX	0.55	0.45	0.93	0.28	0.61	0.45	0.49	0.33	0.49	0.76	0.22	0.78
MIN	0.13	0.16	0.17	0.19	0.21	0.23	0.28	0.21	0.17	0.13	0.10	0.092
CFSM	1.55	1.76	2.34	1.92	2.22	2.09	2.74	2.16	1.87	1.75	1.06	1.27
IN.	1.79	1.96	2.69	2.22	2.40	2.41	3.06	2.49	2.09	2.02	1.22	1.42

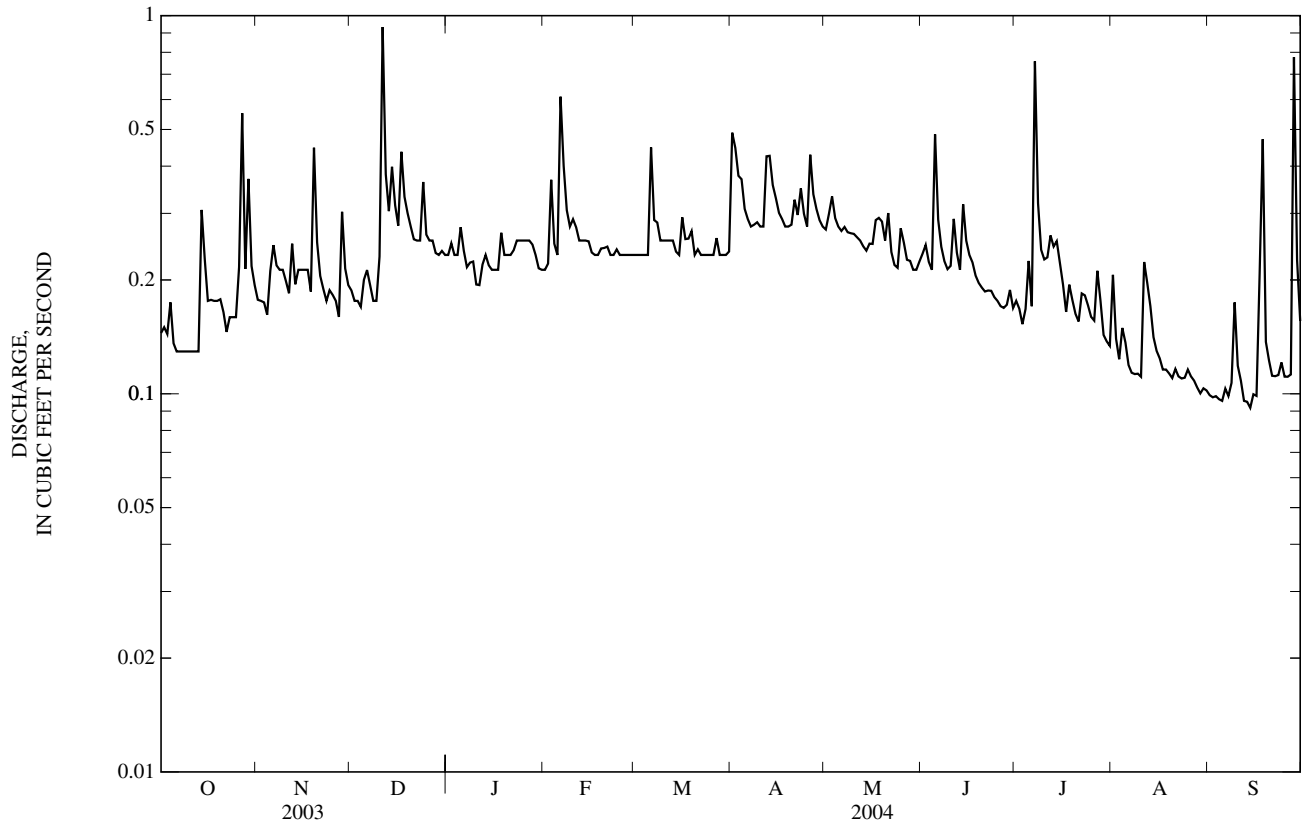
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1986, 1998 - 2004, BY WATER YEAR (WY)

MEAN	0.10	0.12	0.14	0.12	0.14	0.17	0.21	0.21	0.16	0.12	0.10	0.09
MAX	0.19	0.21	0.30	0.23	0.27	0.25	0.40	0.41	0.28	0.27	0.19	0.20
(WY)	(2004)	(2004)	(1984)	(2004)	(2004)	(2004)	(1983)	(1984)	(1983)	(1984)	(2003)	(2003)
MIN	0.04	0.05	0.05	0.06	0.05	0.07	0.06	0.06	0.02	0.01	0.01	0.01
(WY)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(1986)	(1986)

01583570 POND BRANCH AT OREGON RIDGE, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1983 - 1986, 1998 - 2004	
ANNUAL TOTAL	74.310		83.130			
ANNUAL MEAN	0.20		0.23		0.13	
HIGHEST ANNUAL MEAN					0.23	1984
LOWEST ANNUAL MEAN					0.04	2002
HIGHEST DAILY MEAN	0.93	Dec 11	0.93	Dec 11	1.8	Jul 1, 1984
LOWEST DAILY MEAN	0.070	Jan 25	0.090	Sep 14	0.000	(a)
ANNUAL SEVEN-DAY MINIMUM	0.07	Jan 25	0.10	Aug 28	0.00	Jul 11, 1986
MAXIMUM PEAK FLOW			11	Jul 7	18	Jul 1, 1984
MAXIMUM PEAK STAGE			2.05	Jul 7	2.19	Jul 1, 1984
INSTANTANEOUS LOW FLOW			0.08	Sep 13	0.00	(a)
ANNUAL RUNOFF (CFSM)	1.70		1.89		1.10	
ANNUAL RUNOFF (INCHES)	23.04		25.77		14.89	
10 PERCENT EXCEEDS	0.29		0.31		0.25	
50 PERCENT EXCEEDS	0.19		0.23		0.10	
90 PERCENT EXCEEDS	0.10		0.12		0.04	

a No flow at times in 1986 and 2002.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01583580 BAISMAN RUN AT BROADMOOR, MD

LOCATION.--Lat 39°28'46.1", long 76°40'40.9", Baltimore County, Hydrologic Unit 02060003, on right bank at upstream side of bridge on Ivy Hill Road, 0.3 mi upstream from mouth, 0.6 mi southwest of Broadmoor, and 1.8 mi west of Cockeysville.

DRAINAGE AREA.--1.47 mi^2.

PERIOD OF RECORD.--August 1964 to September 1969, November 1999 to current year.

GAGE.--Water-stage recorder, crest-stage gage, weir plate. Datum of gage is 330 ft above National Geodetic Vertical Datum of 1929. from topographic map.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are poor. Several measurements of water temperature were made during the year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 25 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec 11	0316	49	2.40	Jul 7	1445	*128	*3.00
Dec 11	0646	54	2.45	Sep 28	1430	42	2.32
Feb 3	1415	88	2.74	Sep 28	1630	73	2.62
Feb 6	1230	48	2.39				

Minimum discharge, 0.50 ft^3/s, Sept. 2, 5, 13.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	1.9	2.1	3.2	2.4	2.4	6.1	3.0	2.3	1.5	1.7	0.68
2	1.2	1.8	2.0	3.4	2.2	2.5	5.9	3.1	2.3	1.4	1.2	0.66
3	1.2	1.8	1.9	3.2	17	2.4	4.4	3.4	2.1	1.3	1.1	0.67
4	1.4	1.7	1.9	3.2	3.1	2.4	4.1	3.0	2.0	1.5	1.2	0.67
5	1.2	1.9	2.3	3.6	2.6	2.4	3.4	2.9	5.4	1.7	1.1	0.64
6	1.2	2.0	2.3	3.2	16	5.4	3.2	2.8	3.1	1.4	0.98	0.68
7	1.2	1.8	2.1	2.9	7.5	3.2	3.1	2.8	2.4	8.3	0.94	0.71
8	1.2	1.6	2.0	2.9	4.1	3.2	3.0	2.7	2.2	2.5	0.91	0.81
9	1.2	1.6	2.0	2.9	3.6	2.8	3.0	2.7	2.1	1.6	0.88	1.2
10	1.2	1.5	2.4	e2.9	4.0	2.8	2.8	2.6	2.0	1.4	0.89	0.71
11	1.1	1.6	18	e2.9	3.4	2.7	2.8	2.5	2.7	1.4	2.1	0.68
12	1.1	2.5	4.3	e3.0	3.2	2.6	4.6	2.5	2.3	1.4	1.6	0.68
13	1.1	1.7	3.9	2.9	3.2	2.5	4.9	2.4	2.1	1.4	1.7	0.66
14	2.7	1.6	4.4	2.7	3.1	2.5	4.0	2.4	3.2	1.4	1.2	0.67
15	2.2	1.6	4.1	2.7	3.0	2.4	3.6	2.5	2.5	1.3	1.1	0.75
16	1.2	1.6	3.8	e2.7	e2.9	3.0	3.4	2.6	2.1	1.2	1.0	0.75
17	1.2	1.5	4.8	e2.7	e2.8	2.7	3.3	2.7	2.0	1.1	0.97	1.2
18	1.2	1.5	4.1	3.2	2.7	2.6	3.2	2.7	1.9	1.4	0.97	5.1
19	1.1	5.2	3.9	2.7	2.8	2.8	3.2	2.9	1.8	1.2	0.94	0.96
20	1.1	3.4	3.7	e2.6	2.9	2.5	3.1	2.5	1.7	1.1	0.89	0.82
21	1.1	2.4	3.6	e2.6	3.0	2.5	3.1	3.3	1.6	1.1	0.94	0.76
22	1.1	2.2	3.6	e2.6	2.8	2.3	3.0	2.5	1.6	1.2	0.89	0.73
23	1.1	2.0	3.6	e2.5	2.7	2.3	3.8	2.2	1.6	1.2	0.86	0.68
24	1.0	2.1	5.2	e2.5	2.8	2.3	3.3	2.2	1.6	1.2	0.84	0.70
25	1.1	2.0	3.8	e2.5	2.6	2.3	3.0	2.8	1.6	1.2	0.86	0.68
26	1.1	1.9	3.6	e2.4	2.5	2.3	4.9	2.5	1.5	1.1	0.83	0.69
27	7.3	1.8	3.4	e2.4	2.5	2.5	3.7	2.2	1.4	1.5	0.81	0.70
28	2.5	3.9	3.4	2.4	2.4	2.3	3.2	2.2	1.5	1.5	0.80	10
29	4.9	2.9	3.4	2.4	2.4	2.2	3.1	2.0	1.6	1.1	0.74	2.7
30	2.5	2.2	3.4	2.3	---	2.2	3.0	2.0	1.4	1.0	0.76	1.4
31	2.1	---	3.3	2.4	---	2.3	---	2.2	---	1.0	0.75	---
TOTAL	52.1	63.2	116.3	86.5	116.2	81.3	109.2	80.8	63.6	48.6	32.45	38.74
MEAN	1.68	2.11	3.75	2.79	4.01	2.62	3.64	2.61	2.12	1.57	1.05	1.29
MAX	7.3	5.2	18	3.6	17	5.4	6.1	3.4	5.4	8.3	2.1	10
MIN	1.0	1.5	1.9	2.3	2.2	2.2	2.8	2.0	1.4	1.0	0.74	0.64
CFSM	1.14	1.43	2.55	1.90	2.73	1.78	2.48	1.77	1.44	1.07	0.71	0.88
IN.	1.32	1.60	2.94	2.19	2.94	2.06	2.76	2.04	1.61	1.23	0.82	0.98

e Estimated

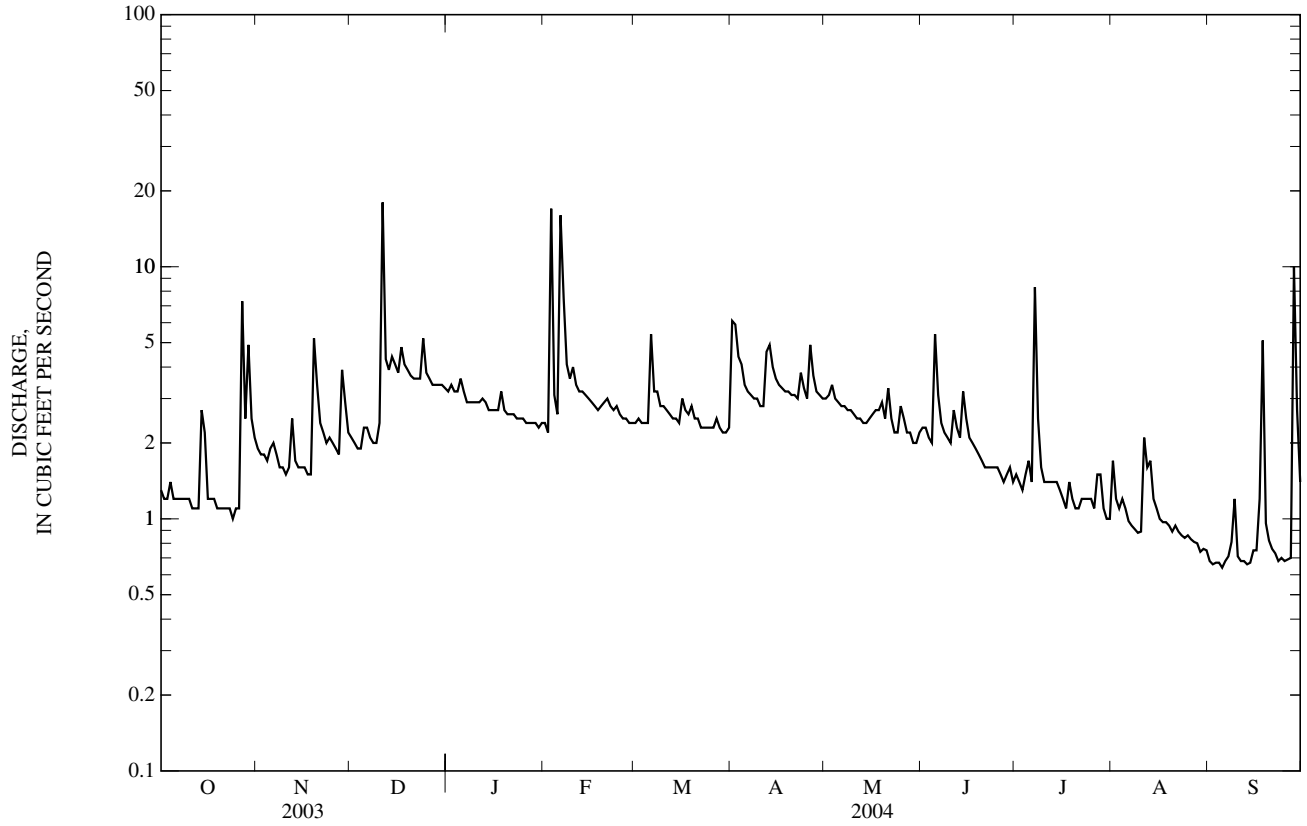
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1969, 2000 - 2004, BY WATER YEAR (WY)

MEAN	0.83	0.98	1.34	1.24	1.55	1.87	1.87	1.66	1.41	0.96	0.96	0.95
MAX	1.68	2.11	3.75	2.79	4.01	3.38	3.64	2.90	4.16	2.67	3.08	2.19
(WY)	(2004)	(2004)	(2004)	(2004)	(2004)	(2003)	(2004)	(2003)	(2003)	(2003)	(1967)	(1968)
MIN	0.39	0.44	0.41	0.46	0.50	0.78	0.64	0.71	0.32	0.10	0.11	0.21
(WY)	(2002)	(1966)	(1966)	(1966)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)

01583580 BAISMAN RUN AT BROADMOOR, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1964 - 1969, 2000 - 2004	
ANNUAL TOTAL	938.85		888.99			
ANNUAL MEAN	2.57		2.43		1.31	
HIGHEST ANNUAL MEAN					2.43	2004
LOWEST ANNUAL MEAN					0.45	2002
HIGHEST DAILY MEAN	(e)20	Feb 22	18	Dec 11	41	Sep 10, 1968
LOWEST DAILY MEAN	0.54	Feb 16	0.64	Sep 5	0.00	(a)
ANNUAL SEVEN-DAY MINIMUM	0.93	Feb 10	0.67	Sep 1	0.00	Aug 28, 1966
MAXIMUM PEAK FLOW			128	Jul 7	(b)490	Sep 10, 1968
MAXIMUM PEAK STAGE			3.00	Jul 7	5.43	Sep 10, 1968
INSTANTANEOUS LOW FLOW			0.50	(c)	0.00	(d)
ANNUAL RUNOFF (CFSM)	1.75		1.65		0.888	
ANNUAL RUNOFF (INCHES)	23.76		22.50		12.06	
10 PERCENT EXCEEDS	4.1		3.6		2.6	
50 PERCENT EXCEEDS	2.2		2.3		0.99	
90 PERCENT EXCEEDS	1.1		0.90		0.40	

e Estimated
a No flow Aug. 28-31, Sept. 1-4, 7-12, 1966, July 31, Aug. 1, 2, 8-23, 2002.
b From rating curve extended above 30 ft^3/s on basis of culvert and flow-over-road measurement at gage height of 5.43 ft and on basis of slope-area measurement at gage height of 2.87 ft.
c Sept. 2, 5, 13.
d No flow Aug. 27 to Sept. 13, 1966, July 23, 30, 31, Aug. 1-3, 7-24, 2002.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01583600 BEAVERDAM RUN AT COCKEYSVILLE, MD

LOCATION.--Lat 39°29'08.1", long 76°38'44.6", Baltimore County, Hydrologic Unit 02060003, on left bank of bridge on Maryland Route 45 at Cockeysville, and 0.45 mi upstream from mouth.

DRAINAGE AREA.--20.9 mi^2.

PERIOD OF RECORD.--October 1982 to current year.

REVISED RECORDS.--WDR MD-DE-88: 1983-87.

GAGE.--Water-stage recorder. Datum of gage is 240.42 ft above National Geodetic Vertical Datum of 1929. Previously operated as a low-flow site during water years 1955-59 and 1962-64 at same site. Dec. 15, 1982 to June 15, 1993, water-stage recorder 600 ft downstream and 50 ft upstream from bridge on Beaverdam Run Lane at datum 1.38 ft lower.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair. U.S. Geological Survey gage-height telemeter at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 650 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec 11	0845	1,180	7.54	Jul 7	1530	1,100	7.20
Feb 6	1945	1,050	6.97	Sep 28	1700	*1,640	*9.52

Minimum discharge, 8.4 ft^3/s, Sept. 5, 7.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	35	28	34	28	26	146	29	25	13	43	12
2	21	33	26	41	26	28	148	37	27	13	17	9.9
3	21	30	24	36	121	28	80	49	21	13	14	9.8
4	31	30	24	35	70	28	69	31	19	15	29	9.6
5	24	43	36	51	37	27	44	29	137	31	23	9.7
6	21	45	38	37	552	138	40	28	51	14	16	9.4
7	20	36	31	37	409	52	37	28	29	318	15	9.6
8	21	29	29	35	177	48	35	27	24	67	14	12
9	21	27	27	35	e70	36	36	26	22	27	12	36
10	22	25	57	30	70	33	33	23	22	22	11	15
11	21	26	643	32	51	31	33	23	42	21	50	12
12	21	67	168	34	42	29	88	22	30	32	67	9.4
13	20	33	81	31	40	28	111	21	22	24	56	9.8
14	81	28	127	30	38	29	65	21	56	26	23	12
15	75	28	100	28	37	26	46	26	32	21	19	12
16	27	27	57	28	33	50	39	30	27	21	16	12
17	24	25	197	32	31	34	37	84	23	22	13	27
18	24	25	81	48	30	31	36	35	20	34	14	191
19	24	195	59	32	33	41	33	45	19	22	16	24
20	20	86	48	28	35	29	32	26	18	20	15	16
21	21	35	44	26	37	29	32	52	16	19	15	16
22	21	30	41	26	34	26	31	29	16	31	14	15
23	19	28	40	23	30	27	56	25	16	26	9.9	14
24	19	29	109	26	33	25	41	21	15	27	9.8	15
25	20	29	53	20	32	26	29	53	19	22	12	15
26	28	24	43	20	30	26	81	35	17	19	13	13
27	280	24	41	25	29	33	48	23	15	55	13	11
28	63	113	38	26	28	27	35	22	13	41	14	482
29	193	67	36	25	28	25	32	21	18	23	12	142
30	51	34	37	25	---	24	30	21	13	22	10	31
31	39	---	34	24	---	26	---	22	---	20	11	---
TOTAL	1,314	1,286	2,397	960	2,211	1,066	1,603	964	824	1,081	616.7	1,212.2
MEAN	42.4	42.9	77.3	31.0	76.2	34.4	53.4	31.1	27.5	34.9	19.9	40.4
MAX	280	195	643	51	552	138	148	84	137	318	67	482
MIN	19	24	24	20	26	24	29	21	13	13	9.8	9.4
CFSM	2.03	2.05	3.70	1.48	3.65	1.65	2.56	1.49	1.31	1.67	0.95	1.93
IN.	2.34	2.29	4.27	1.71	3.94	1.90	2.85	1.72	1.47	1.92	1.10	2.16

e Estimated

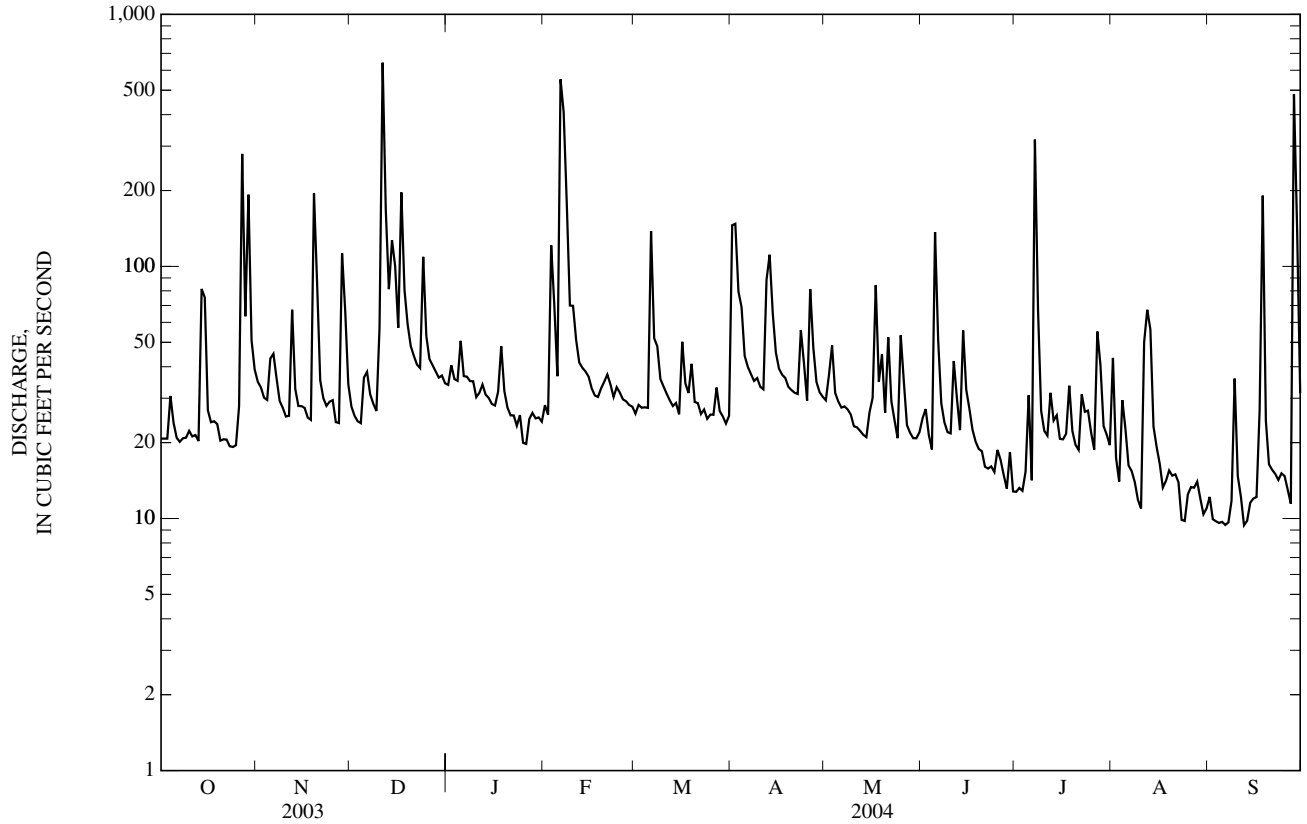
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 2004, BY WATER YEAR (WY)

MEAN	21.5	28.9	32.5	31.9	35.0	42.6	37.8	35.5	27.1	25.5	21.3	24.5
MAX	45.3	55.4	91.0	69.5	76.2	90.2	81.6	80.5	74.1	72.7	46.0	60.9
(WY)	(1997)	(1997)	(1997)	(1996)	(2004)	(1994)	(1983)	(1989)	(2003)	(1996)	(1996)	(1999)
MIN	8.38	11.8	11.6	13.6	9.48	20.1	18.5	14.5	9.04	6.47	9.75	7.29
(WY)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(1985)	(1986)	(2002)	(2002)	(2002)	(1986)

01583600 BEAVERDAM RUN AT COCKEYSVILLE, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1983 - 2004	
ANNUAL TOTAL	17,626		15,534.9			
ANNUAL MEAN	48.3		42.4		30.3	
HIGHEST ANNUAL MEAN					45.8	1996
LOWEST ANNUAL MEAN					12.5	2002
HIGHEST DAILY MEAN	643	Dec 11	643	Dec 11	903	Jan 19, 1996
LOWEST DAILY MEAN	13	Jan 27	9.4	(a)	3.0	(b)
ANNUAL SEVEN-DAY MINIMUM	14	Jan 24	10	Sep 1	3.8	Aug 16, 2002
MAXIMUM PEAK FLOW			1,640	Sep 28	(c)3,360	Jul 1, 1984
MAXIMUM PEAK STAGE			9.52	Sep 28	(d)12.10	Jul 1, 1984
INSTANTANEOUS LOW FLOW			8.4	(f)	2.5	(g)
ANNUAL RUNOFF (CFSM)	2.31		2.03		1.45	
ANNUAL RUNOFF (INCHES)	31.37		27.65		19.72	
10 PERCENT EXCEEDS	87		68		52	
50 PERCENT EXCEEDS	32		28		21	
90 PERCENT EXCEEDS	19		14		10	

a Sept. 6, 12.
b Aug. 19, 21, 2002.
c From rating curve extended above 1,000 ft^3/s.
d From floodmarks.
f Sept. 5, 7.
g Aug. 19, 20, 2002.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

0158397967 MINEBANK RUN NEAR GLEN ARM, MD

LOCATION.--Lat 39°24'36", long 76°33'23", Baltimore County, Hydrologic Unit 02060003, on left bank 0.25 mi upstream from Sherwood Bridge in Cromwell Valley Park, 0.9 mi upstream from mouth, 1.6 mi northwest of Carney, and 4.5 mi southwest of Glen Arm.

DRAINAGE AREA.--2.06 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 2001 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 216.88 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good except those above 100 ft^3/s and those for estimated daily discharges (missing record), which are fair. U.S. Geological Survey gage-height telemeter at station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 450 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov 19	1440	700	7.50	Jul 7	1640	*945	*7.97
May 17	1525	720	7.55	Jul 27	2020	919	7.93

Minimum discharge, 0.42 ft^3/s, Sept. 27.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	2.0	2.3	2.9	e1.5	1.5	30	1.7	2.3	1.4	1.8	0.72
2	1.7	1.6	1.8	6.0	1.5	1.7	23	6.6	4.0	1.3	1.1	0.69
3	1.4	1.6	1.8	2.4	21	1.5	7.1	11	1.5	1.2	1.0	0.74
4	3.3	1.8	1.8	2.3	6.1	1.5	6.0	2.7	1.4	7.1	5.4	0.69
5	1.9	10	6.4	7.6	2.2	1.5	3.4	3.1	41	8.2	1.6	0.70
6	1.3	8.8	5.5	2.6	54	21	3.1	2.1	5.6	1.9	1.0	0.72
7	1.3	1.8	3.0	2.3	18	4.8	2.8	2.2	2.6	27	0.90	0.70
8	1.3	1.2	2.6	2.4	4.7	3.7	2.7	1.8	2.3	2.8	0.90	1.2
9	1.3	1.2	3.2	2.3	3.5	2.3	2.4	1.6	2.1	1.7	0.87	1.6
10	1.5	1.0	19	2.0	6.4	2.3	2.2	1.8	2.0	1.3	0.85	0.76
11	1.5	1.1	51	2.0	3.4	2.2	2.2	1.8	6.3	1.3	3.0	0.66
12	1.4	11	9.0	2.0	2.7	2.0	23	1.5	2.3	12	7.1	0.69
13	1.3	1.5	6.1	2.0	2.4	1.8	15	1.5	1.8	2.1	1.9	0.68
14	23	1.3	24	1.8	2.2	1.8	6.9	1.5	1.8	3.6	1.8	0.78
15	8.9	1.3	13	1.8	2.0	1.7	3.9	5.6	1.7	1.5	1.0	0.90
16	2.1	1.3	7.2	1.7	2.0	8.7	3.3	2.9	1.3	1.3	0.92	0.74
17	1.8	1.3	32	1.8	2.0	2.4	3.0	14	3.6	1.3	3.5	2.2
18	1.6	1.2	9.2	8.4	2.0	2.7	2.7	3.1	1.7	3.6	1.9	21
19	1.4	35	7.3	2.0	2.0	4.0	2.4	5.5	1.3	1.4	0.96	0.89
20	1.3	8.1	6.2	1.8	2.0	1.9	2.3	1.8	1.3	1.1	0.90	0.78
21	1.4	1.9	4.9	1.6	2.0	1.6	2.2	4.7	1.2	0.96	0.97	0.70
22	1.6	1.4	4.7	1.6	1.8	1.5	2.2	2.1	1.1	0.98	0.88	0.65
23	1.2	1.3	4.3	1.5	1.8	1.5	6.1	1.8	1.2	4.4	0.80	0.65
24	1.2	4.0	25	1.7	2.2	1.5	2.6	1.7	1.2	1.2	0.79	0.59
25	1.2	2.3	5.7	1.5	1.7	1.8	2.0	10	14	1.0	0.76	0.50
26	5.2	1.4	4.5	e1.6	1.5	1.7	13	2.6	2.4	1.1	0.76	0.48
27	61	1.5	4.0	e1.6	1.5	3.8	3.0	2.2	1.8	31	0.77	0.49
28	7.9	27	3.8	e1.6	1.5	1.8	2.1	1.8	1.6	6.6	0.77	31
29	31	5.3	3.4	e1.6	1.5	1.7	1.9	1.5	1.6	1.6	0.72	2.2
30	3.7	2.8	4.3	e1.5	---	1.7	1.7	1.3	1.4	1.2	1.0	1.4
31	2.3	---	3.2	e1.5	---	1.7	---	1.8	---	1.1	0.70	---
TOTAL	179.2	143.0	280.2	75.4	157.1	91.3	184.2	105.3	115.4	134.24	47.32	76.50
MEAN	5.78	4.77	9.04	2.43	5.42	2.95	6.14	3.40	3.85	4.33	1.53	2.55
MAX	61	35	51	8.4	54	21	30	14	41	31	7.1	31
MIN	1.2	1.0	1.8	1.5	1.5	1.5	1.7	1.3	1.1	0.96	0.70	0.48
CFSM	2.81	2.31	4.39	1.18	2.63	1.43	2.98	1.65	1.87	2.10	0.74	1.24
IN.	3.24	2.58	5.06	1.36	2.84	1.65	3.33	1.90	2.08	2.42	0.85	1.38

e Estimated

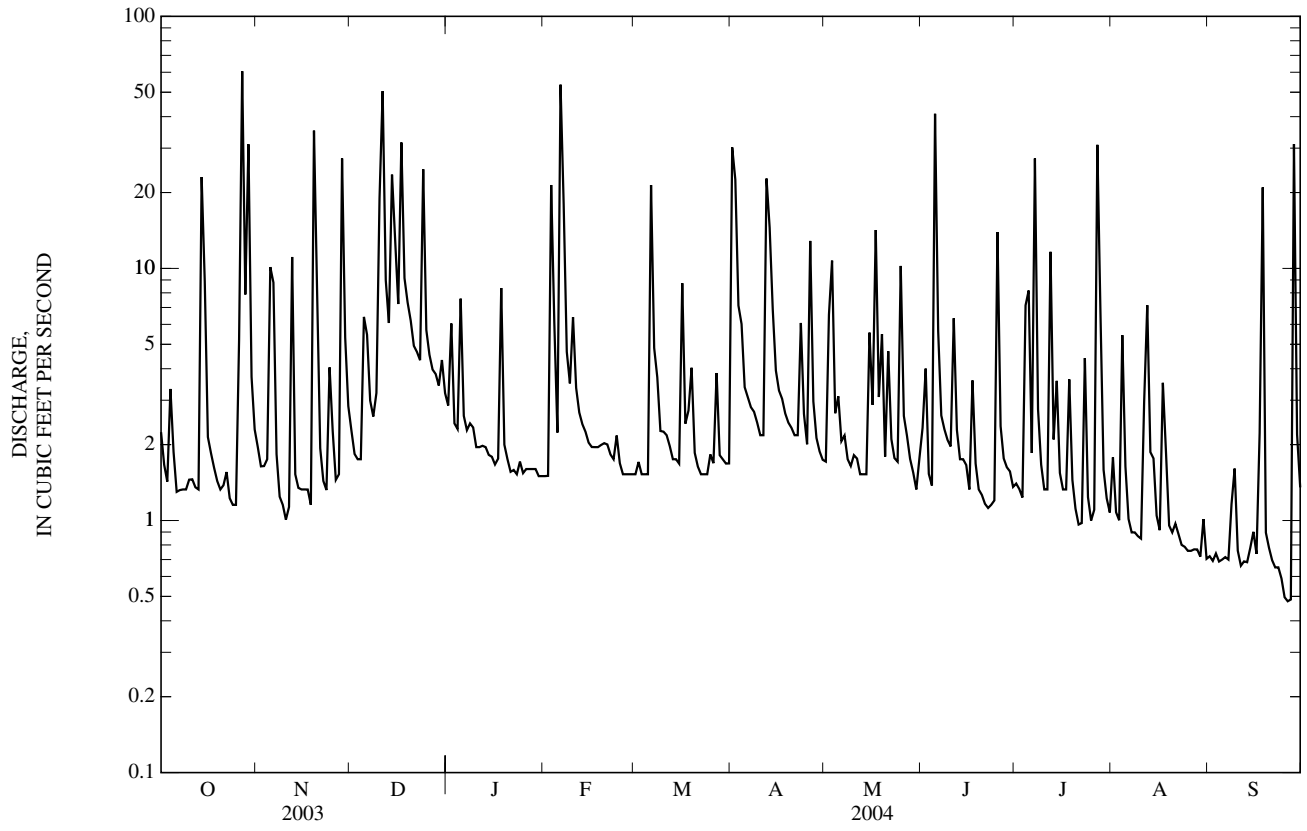
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2002 - 2004, BY WATER YEAR (WY)

MEAN	3.09	2.86	4.56	2.13	3.42	3.69	3.83	3.38	4.65	2.63	1.66	3.21
MAX	5.78	4.77	9.04	2.88	5.42	6.12	6.14	5.17	8.67	4.33	2.40	5.76
(WY)	(2004)	(2004)	(2004)	(2003)	(2004)	(2003)	(2004)	(2003)	(2003)	(2004)	(2003)	(2003)
MIN	0.43	0.95	0.93	1.07	0.43	1.99	2.05	1.56	1.43	0.57	1.06	1.31
(WY)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)

0158397967 MINEBANK RUN NEAR GLEN ARM, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 2002 - 2004	
ANNUAL TOTAL	1,863.43		1,589.16			
ANNUAL MEAN	5.11		4.34		3.25	
HIGHEST ANNUAL MEAN					4.34	2004
LOWEST ANNUAL MEAN					1.15	2002
HIGHEST DAILY MEAN	61	Oct 27	61	Oct 27	61	Oct 27, 2003
LOWEST DAILY MEAN	0.97	Feb 14	0.48	Sep 26	(e)0.04	(a)
ANNUAL SEVEN-DAY MINIMUM	1.1	Feb 8	0.58	Sep 21	0.04	Aug 17, 2002
MAXIMUM PEAK FLOW			945	Jul 7	(b)1,390	Jun 12, 2003
MAXIMUM PEAK STAGE			7.97	Jul 7	(c)8.61	Jun 12, 2003
INSTANTANEOUS LOW FLOW			0.42	Sep 27	UNKNOWN	
ANNUAL RUNOFF (CFSM)	2.48		2.11		1.58	
ANNUAL RUNOFF (INCHES)	33.65		28.70		21.46	
10 PERCENT EXCEEDS	10		8.7		7.1	
50 PERCENT EXCEEDS	2.5		1.8		1.5	
90 PERCENT EXCEEDS	1.2		0.90		0.26	

e Estimated
a Aug. 17-23, Sept. 22, 24, 2002.
b From rating curve extended above 100 ft^3/s on basis of slope-area measurement of peak flow.
c From floodmarks.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

0158397967 MINEBANK RUN NEAR GLEN ARM, MD—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 2002 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sample type	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Sampling method, code (82398)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Ammonia + org-N, water, fltrd, mg/L as N (00623)
OCT												
02...	1000	Environmental	1028	80020	1.4	10	11.3	7.7	918	13.1	12.9	.13
08...	0940	Environmental	1028	80020	1.3	10	11.5	7.7	904	--	13.8	.23
08...	*0942*	*Blank*	*1028*	*80020*	--	--	--	--	--	--	--	*.12*
16...	1030	Environmental	1028	80020	1.9	10	10.0	7.5	774	--	12.8	.18
23...	1020	Environmental	1028	80020	1.1	10	10.7	7.5	830	--	10.3	.11
NOV												
03...	1110	Environmental	1028	80020	1.8	10	9.6	7.6	896	--	14.7	.17
13...	1110	Environmental	1028	80020	1.3	10	9.9	7.4	759	--	10.8	.21
20...	1130	Environmental	1028	80020	4.2	10	9.1	7.1	612	--	11.4	.28
DEC												
01...	1100	Environmental	1028	80020	2.3	10	11.5	7.2	840	10.8	8.5	.24
09...	1100	Environmental	1028	80020	2.4	10	13.6	7.7	2,140	2.1	4.9	.27
18...	1000	Environmental	1028	80020	8.8	10	12.8	7.5	878	3.5	5.0	.18
29...	1130	Environmental	1028	80020	3.3	10	13.2	7.5	874	8.4	5.6	.14
29...	*1131*	*Replicate*	*1028*	*80020*	--	*10*	--	--	--	--	--	*E.09*
JAN												
06...	1055	Environmental	1028	80020	2.4	10	13.2	7.7	796	4.8	6.2	.12
12...	1110	Environmental	1028	80020	1.6	10	14.6	7.6	1,410	5.5	3.7	.16
22...	1120	Environmental	1028	80020	1.5	10	15.3	7.4	1,220	1.5	2.1	E.09
FEB												
02...	1100	Environmental	1028	80020	1.5	10	16.3	7.3	1,590	3.8	1.1	.16
11...	1120	Environmental	1028	80020	2.7	10	14.1	7.3	1,140	2.9	4.8	.15
11...	*1122*	*Blank*	*1028*	*80020*	--	--	--	--	--	--	--	*<.10*
19...	1110	Environmental	1028	80020	1.7	10	16.0	7.7	962	7.2	5.2	.12
26...	1045	Environmental	1028	80020	1.5	10	16.6	7.7	993	5.2	4.5	E.10
MAR												
04...	1130	Environmental	1028	80020	1.3	10	13.8	7.7	937	10.4	9.9	.15
10...	1130	Environmental	1028	80020	3.0	10	13.8	7.8	932	6.2	6.8	.17
18...	1405	Environmental	1028	80020	1.9	10	--	--	--	9.0	9.0	.18
25...	1115	Environmental	1028	80020	1.8	10	13.9	7.9	875	16.1	11.2	.15
APR												
08...	1015	Environmental	1028	80020	2.7	10	9.7	7.9	877	11.3	10.4	.17
15...	1030	Environmental	1028	80020	4.0	10	11.7	7.8	800	14.6	11.4	.14
22...	1010	Environmental	1028	80020	2.3	10	11.6	8.1	893	18.9	16.4	.23
29...	1010	Environmental	1028	80020	1.9	10	10.8	7.7	876	17.0	14.0	.23
29...	*1011*	*Replicate*	*1028*	*80020*	--	*10*	--	--	--	--	--	*.13*
MAY												
05...	1000	Environmental	1028	80020	2.2	10	11.3	7.7	841	13.5	12.8	.16
13...	1110	Environmental	1028	80020	1.6	10	11.8	8.0	889	24.9	20.3	.23
20...	1010	Environmental	1028	80020	1.8	10	8.7	7.3	804	18.0	17.6	.14
26...	1320	Environmental	1028	80020	2.3	10	7.5	7.7	676	22.4	21.7	.16
JUN												
03...	1110	Environmental	1028	80020	1.6	10	9.1	7.5	695	22.9	20.0	.15
10...	1010	Environmental	1028	80020	1.9	10	10.0	7.7	860	25.8	21.2	.20
21...	1110	Environmental	1028	80020	1.3	10	9.5	7.6	891	20.6	19.7	.30
28...	1020	Environmental	1028	80020	1.9	10	9.3	7.4	869	20.6	19.4	.42
JUL												
06...	1050	Environmental	1028	80020	1.9	10	7.5	7.7	645	26.5	23.7	.21
12...	1000	Environmental	1028	80020	1.3	10	8.8	7.7	889	21.8	21.3	.28
29...	1050	Environmental	1028	80020	1.7	10	7.6	7.6	742	24.5	22.0	.19
AUG												
05...	1115	Environmental	1028	80020	1.3	10	7.5	7.6	609	21.8	22.2	.18
17...	1110	Environmental	1028	80020	.92	10	8.6	7.9	770	24.6	21.7	.17
17...	*1112*	*Blank*	*1028*	*80020*	--	--	--	--	--	--	--	*<.10*
25...	1045	Environmental	1028	80020	.74	10	10.3	7.9	838	22.5	21.0	.14
SEP												
01...	1010	Environmental	1028	80020	.67	10	9.8	7.9	830	23.6	22.0	.23
09...	1030	Environmental	1028	80020	.96	10	7.2	7.5	653	22.5	21.4	.37
16...	1055	Environmental	1028	80020	.71	10	9.3	7.5	831	20.9	19.9	.26
23...	1115	Environmental	1028	80020	.69	10	10.1	7.7	914	21.1	20.1	.13
30...	1230	Environmental	1028	80020	1.3	10	8.7	7.6	763	22.1	20.0	.24

Agency collecting sample: 1028 - U.S. Geological Survey
Agency analyzing sample: 80020 - USGS-National Water Quality Lab, Denver, CO
Sampling method: 10 - Equal-width increment

0158397967 MINEBANK RUN NEAR GLEN ARM, MD—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Ammonia water, fltrd, mg/L as N (00608)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Organic nitrogen, water, fltrd, mg/L (00607)	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, fltrd, mg/L (00602)	Sampler type, code (84164)
OCT									
02...	<.04	--	1.70	<.008	--	<.02	<.04	1.8	3070
08...	<.04	--	1.61	E.004	--	<.02	<.04	1.8	3070
08...	*<.04*	--	*<.06*	*<.008*	--	*<.02*	*<.04*	--	--
16...	<.04	--	1.61	E.004	--	<.02	<.04	1.8	3070
23...	<.04	--	1.47	<.008	--	<.02	<.04	1.6	3070
NOV									
03...	<.04	--	1.80	E.004	--	E.01	<.04	2.0	3070
13...	<.04	--	1.51	E.004	--	<.02	<.04	1.7	3070
20...	E.03	--	1.91	E.004	--	E.02	E.03	2.2	3070
DEC									
01...	<.04	--	2.08	<.008	--	<.02	<.04	2.3	3070
09...	.05	--	1.89	E.005	.22	<.02	<.04	2.2	3070
18...	<.04	--	2.26	<.008	--	<.02	E.02	2.4	3070
29...	<.04	--	2.17	<.008	--	<.02	<.04	2.3	3070
29...	*<.04*	--	*2.07*	*<.008*	--	*<.02*	*<.04*	--	*3070*
JAN									
06...	<.04	--	1.99	<.008	--	<.02	<.04	2.1	3070
12...	<.04	--	2.32	<.008	--	<.02	<.04	2.5	3070
22...	<.04	--	2.30	<.008	--	<.02	<.04	--	3070
FEB									
02...	<.04	--	2.20	<.008	--	<.02	<.04	2.4	3070
11...	<.04	--	2.10	E.006	--	<.02	<.04	2.3	3070
11...	*<.04*	--	*<.06*	*<.008*	--	*<.02*	*<.04*	--	--
19...	<.04	--	2.04	E.005	--	<.02	<.04	2.2	3070
26...	<.04	--	1.79	<.008	--	<.02	<.04	--	3070
MAR									
04...	<.04	--	1.81	E.005	--	<.02	<.04	2.0	3070
10...	<.04	--	1.89	E.004	--	<.02	<.04	2.1	3070
18...	<.04	--	1.85	E.005	--	<.02	<.04	2.0	3070
25...	<.04	1.79	1.80	.009	--	<.02	<.04	2.0	3070
APR									
08...	<.04	--	1.86	<.008	--	<.02	<.04	2.0	3070
15...	<.04	--	1.85	E.005	--	<.02	<.04	2.0	3070
22...	<.04	1.56	1.57	.008	--	<.02	<.04	1.8	3070
29...	<.04	--	1.68	<.008	--	<.02	<.04	1.9	3070
29...	*<.04*	--	*1.66*	*E.004*	--	*<.02*	*<.04*	*1.8*	*3070*
MAY									
05...	<.04	--	1.62	E.005	--	<.02	<.04	1.8	3070
13...	<.04	1.51	1.52	.010	--	<.02	<.04	1.7	3070
20...	<.04	--	1.47	E.005	--	<.02	<.04	1.6	3070
26...	<.04	--	4.43	<.008	--	<.04	E.02	4.6	3070
JUN									
03...	<.04	1.45	1.46	.009	--	E.01	<.04	1.6	3070
10...	<.04	--	1.62	E.005	--	<.02	<.04	1.8	3070
21...	<.04	--	1.70	E.006	--	<.02	<.04	2.0	3070
28...	<.04	--	1.68	<.008	--	<.02	E.03	2.1	3070
JUL									
06...	<.04	--	1.25	E.006	--	<.02	<.04	1.5	3070
12...	<.04	--	1.62	<.008	--	<.02	<.04	1.9	3070
29...	<.04	--	1.57	<.008	--	<.02	<.04	1.8	3070
AUG									
05...	<.04	--	1.34	E.004	--	<.02	E.02	1.5	3070
17...	<.04	--	1.52	<.008	--	<.02	E.02	1.7	3070
17...	*<.04*	--	*<.06*	*<.008*	--	*<.02*	*<.04*	--	--
25...	<.04	--	1.29	E.004	--	<.02	<.04	1.4	3070
SEP									
01...	<.04	--	1.26	E.004	--	<.02	<.04	1.5	3070
09...	<.04	--	1.23	E.006	--	<.02	<.04	1.6	3070
16...	<.04	--	1.46	<.008	--	<.02	<.04	1.7	3070
23...	<.04	--	1.42	<.008	--	<.02	<.04	1.6	3070
30...	<.04	--	1.70	<.008	--	<.02	<.04	1.9	3070

Remark codes used in this table:
< -- Less than.
E -- Estimated.
Sampler type: 3070 - Grab sample

01583980 MINEBANK RUN AT LOCH RAVEN, MD

LOCATION.--Lat 39°25'00.0", long 76°32'46.7", Baltimore County, Hydrologic Unit 02060003, on left bank 15 ft downstream from bridge on lane leading to Cromwell Valley Park-Willow Grove Farm, 0.3 mi off Cromwell Bridge Road, 0.4 mi west of Loch Raven, and 0.6 mi upstream from mouth.

DRAINAGE AREA.--2.90 mi^2.

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

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 181.39 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those above 150 ft^3/s and estimated daily discharges (ice effect), which are fair. U.S. Geological Survey gage-height telemeter at station. Several measurements of water temperature were made during the year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 14	2135	699	5.23	Jul 7	1655	1,170	6.39
Nov 19	1450	790	5.48	Jul 27	2040	*1,200	*6.46
May 17	1535	809	5.53	Sep 28	1540	507	4.65
Jun 25	1640	557	4.81				

Minimum discharge, 0.91 ft^3/s, Sept. 6-8.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	3.8	3.8	4.5	e2.8	2.6	20	2.6	3.0	1.2	2.5	1.2
2	1.9	3.1	3.3	6.2	2.8	2.8	16	5.5	3.9	1.2	1.8	1.2
3	1.9	2.8	3.1	4.5	16	2.6	8.1	8.8	2.3	1.0	1.7	1.0
4	2.6	2.6	3.0	4.3	6.4	2.4	6.5	3.9	1.7	3.4	5.4	1.0
5	2.3	7.8	5.5	6.7	3.8	2.4	4.8	3.9	32	4.7	2.3	1.1
6	1.9	7.7	6.3	4.2	42	17	4.1	3.1	7.1	1.9	1.5	1.1
7	1.5	4.1	4.4	4.1	13	4.9	3.8	3.0	4.1	34	1.5	0.91
8	1.5	3.3	3.9	3.8	6.1	4.2	3.8	2.8	3.5	3.2	1.3	1.0
9	1.4	3.2	3.9	3.8	4.6	3.1	3.6	2.6	2.9	1.8	1.2	2.0
10	1.4	3.0	11	3.6	6.0	2.9	3.1	2.6	2.4	1.5	1.2	1.4
11	1.5	2.9	48	3.5	4.5	2.9	2.4	2.4	5.0	1.4	2.9	1.3
12	1.5	7.2	9.7	3.5	4.1	2.8	15	2.3	3.3	10	5.9	1.0
13	1.5	3.3	7.2	3.5	3.9	2.6	12	2.3	2.6	2.7	3.0	1.0
14	24	2.4	15	3.5	3.8	2.6	6.8	2.2	2.4	3.6	2.4	1.0
15	6.9	2.3	10	3.4	3.6	2.6	4.4	4.3	1.9	1.7	1.8	1.0
16	2.9	2.2	7.1	3.1	3.2	6.9	3.9	3.4	1.9	1.4	1.4	1.0
17	2.5	2.2	21	3.2	3.2	3.8	3.5	21	3.2	1.3	2.6	1.3
18	2.4	2.2	9.0	6.5	3.2	3.4	3.0	4.2	2.4	4.0	3.0	19
19	2.2	35	7.2	3.9	3.2	4.8	2.9	5.5	1.7	1.7	1.3	1.5
20	1.9	10	6.9	3.5	3.1	2.7	2.9	2.8	1.7	1.4	1.2	1.3
21	1.9	6.1	5.9	3.2	3.0	2.5	2.8	4.3	1.7	1.2	1.2	1.0
22	2.1	4.8	5.6	3.2	2.8	2.6	2.4	2.7	1.6	1.1	1.2	1.0
23	2.2	4.1	5.4	3.0	2.6	2.6	4.7	2.2	1.6	3.9	1.2	1.1
24	2.0	4.3	18	2.9	2.8	2.5	3.0	1.9	1.5	1.7	1.0	1.2
25	1.9	4.2	6.9	2.9	2.7	2.4	2.6	11	12	1.4	1.0	1.2
26	3.5	3.5	5.9	e2.9	2.6	2.2	8.4	3.6	2.6	1.3	1.0	1.2
27	44	3.3	5.6	e2.9	2.6	3.7	3.8	2.5	1.7	45	1.0	1.2
28	8.7	18	5.4	e2.9	2.6	2.7	3.0	2.3	1.5	9.3	1.1	39
29	22	6.6	5.1	e2.8	2.6	2.6	2.8	1.9	1.5	3.0	1.1	4.6
30	6.3	4.3	5.3	e2.8	---	2.6	2.6	1.7	1.3	2.2	1.1	1.8
31	4.8	---	4.6	e2.8	---	2.6	---	1.9	---	1.7	1.2	---
TOTAL	165.1	170.3	263.0	115.6	163.6	109.0	166.7	125.2	116.0	154.9	58.0	94.61
MEAN	5.33	5.68	8.48	3.73	5.64	3.52	5.56	4.04	3.87	5.00	1.87	3.15
MAX	44	35	48	6.7	42	17	20	21	32	45	5.9	39
MIN	1.4	2.2	3.0	2.8	2.6	2.2	2.4	1.7	1.3	1.0	1.0	0.91
CFSM	1.84	1.96	2.93	1.29	1.95	1.21	1.92	1.39	1.33	1.72	0.65	1.09
IN.	2.12	2.18	3.37	1.48	2.10	1.40	2.14	1.61	1.49	1.99	0.74	1.21

e Estimated

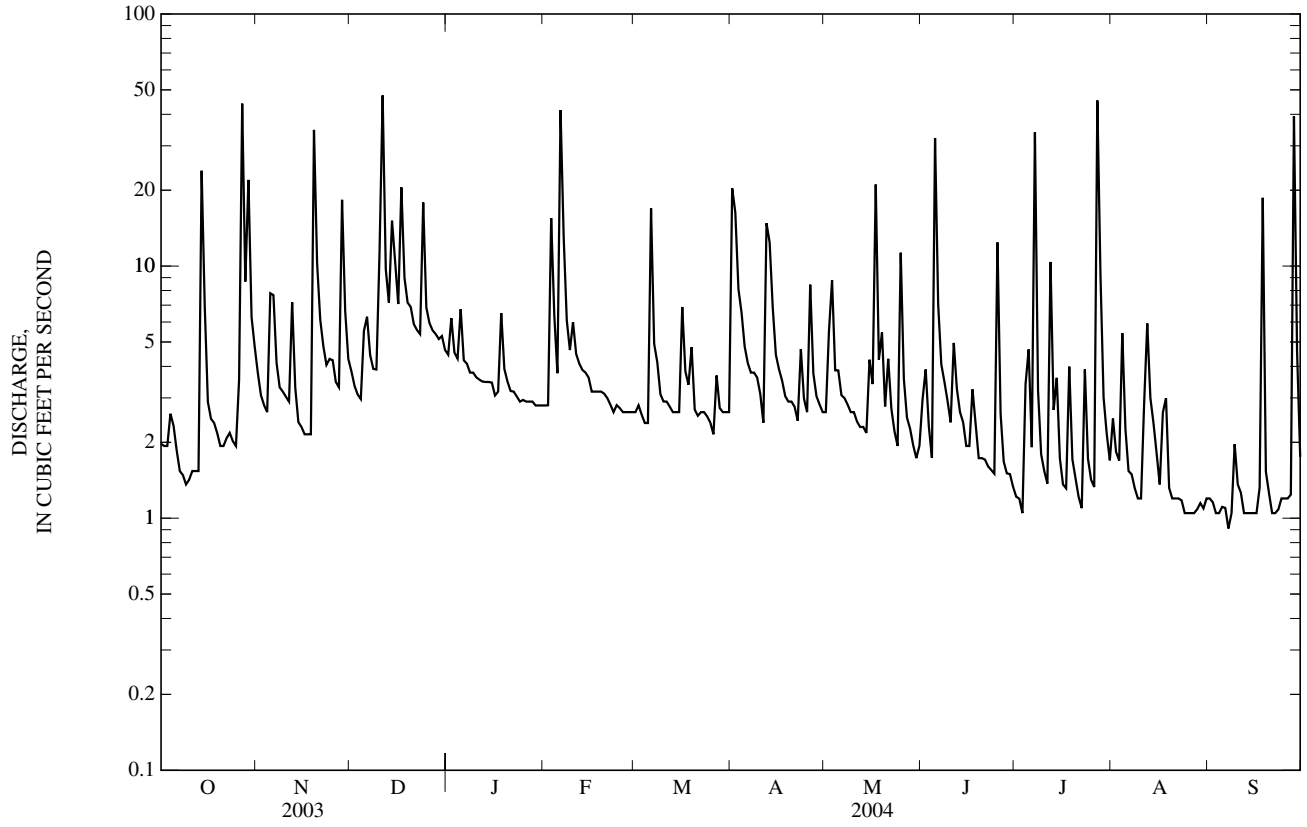
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2004, BY WATER YEAR (WY)

MEAN	2.37	2.90	4.01	3.43	4.17	5.39	3.76	3.44	4.03	2.53	2.14	4.08
MAX	5.33	5.68	9.99	5.83	8.31	9.18	5.56	6.55	12.3	5.00	4.55	11.6
(WY)	(2004)	(2004)	(1997)	(1998)	(1998)	(2003)	(2004)	(2003)	(2003)	(2004)	(1999)	(1999)
MIN	0.65	0.78	0.70	1.24	0.51	1.91	2.19	1.48	1.29	0.60	1.01	1.04
(WY)	(2001)	(1999)	(1999)	(2002)	(2002)	(2002)	(2002)	(1999)	(1999)	(2002)	(2001)	(2001)

01583980 MINEBANK RUN AT LOCH RAVEN, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1997 - 2004	
ANNUAL TOTAL	2,282.9		1,702.01			
ANNUAL MEAN	6.25		4.65		3.51	
HIGHEST ANNUAL MEAN					5.51	2003
LOWEST ANNUAL MEAN					1.30	2002
HIGHEST DAILY MEAN	79	Sep 23	48	Dec 11	150	Sep 16, 1999
LOWEST DAILY MEAN	1.3	(a)	0.91	Sep 7	0.13	Aug 23, 2002
ANNUAL SEVEN-DAY MINIMUM	1.5	Feb 12	1.0	Aug 24	0.16	Aug 17, 2002
MAXIMUM PEAK FLOW			1,200	Jul 27	(b)1,960	Sep 2, 1997
MAXIMUM PEAK STAGE			6.46	Jul 27	7.94	Sep 2, 1997
INSTANTANEOUS LOW FLOW			0.91	(c)	0.08	Jul 20, 1999
ANNUAL RUNOFF (CFSM)	2.16		1.60		1.21	
ANNUAL RUNOFF (INCHES)	29.28		21.83		16.46	
10 PERCENT EXCEEDS	11		7.9		6.9	
50 PERCENT EXCEEDS	3.8		2.9		1.7	
90 PERCENT EXCEEDS	1.7		1.2		0.58	

a Feb. 12, 13.
b From rating curve extended above 150 ft^3/s on basis of contracted-opening and flow-over-road measurement of peak flow.
c Sept. 6-8.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01584050 LONG GREEN CREEK AT GLEN ARM, MD

LOCATION.--Lat 39°27'16.9", long 76°28'44.0", Baltimore County, Hydrologic Unit 02060003, on right bank 0.5 mi downstream from bridge on Glen Arm Road, 0.6 mi upstream from State Highway 147 (Harford Road), 0.8 mi east of Glen Arm, and 1.6 mi upstream from mouth.

DRAINAGE AREA.--9.40 mi^2.

PERIOD OF RECORD.--October 1975 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 230 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges (ice effect, missing or erroneous record), which are poor. U.S. Geological Survey satellite collection platform at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 14	2300	309	3.53	Dec 11	0800	*480	*4.00
Nov 19	1630	341	3.63	Jul 27	2230	439	3.90

Minimum discharge, 3.7 ft^3/s, Sept. 1-6.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	16	16	18	e12	12	18	11	8.4	24	9.8	4.2
2	10	15	15	20	e12	12	34	12	7.9	9.1	9.4	4.1
3	9.7	14	14	19	52	12	22	17	7.6	7.6	8.6	4.1
4	10	13	14	18	47	12	19	13	6.8	7.9	8.5	4.2
5	9.8	14	17	22	17	12	15	12	35	40	8.4	4.1
6	9.5	17	18	19	e180	40	14	11	15	11	7.6	4.2
7	9.3	16	17	17	103	17	13	11	10	e27	7.2	4.4
8	9.3	13	16	16	23	18	13	10	8.9	12	6.8	4.9
9	9.2	12	15	17	20	14	13	10	8.3	8.6	6.6	5.3
10	9.2	12	29	15	33	14	12	10	8.3	7.7	6.6	4.6
11	9.0	12	195	15	20	13	12	9.9	11	7.4	8.3	4.3
12	8.8	22	28	16	17	13	20	9.5	10	25	8.3	4.3
13	8.5	14	22	16	17	12	33	9.3	8.4	12	8.9	4.2
14	36	13	41	15	17	12	22	9.1	14	17	8.3	4.3
15	40	12	41	15	16	12	17	9.2	12	9.7	8.1	4.6
16	12	12	25	e13	14	15	15	9.7	8.6	8.7	7.5	4.6
17	11	12	82	14	14	14	14	12	7.9	8.6	7.3	4.7
18	11	12	29	17	14	13	13	10	8.0	9.4	7.3	21
19	10	78	24	15	15	14	13	10	6.9	8.6	7.2	6.1
20	9.7	36	22	14	15	13	12	9.4	6.4	7.9	6.9	5.3
21	9.8	18	20	13	15	12	12	13	6.2	7.4	7.0	5.0
22	10	16	20	13	14	11	12	9.7	6.9	7.3	6.3	4.7
23	9.4	15	20	e13	13	11	17	8.8	7.2	7.8	5.4	4.5
24	9.0	15	61	13	14	11	14	8.2	6.9	7.8	5.0	4.5
25	8.8	16	26	e13	13	11	12	10	7.5	7.6	4.9	4.5
26	9.3	15	22	e13	13	11	18	10	7.4	7.5	4.9	4.5
27	139	14	21	14	13	12	15	8.5	6.7	72	4.8	4.5
28	27	55	20	13	12	11	12	8.2	6.6	47	4.5	61
29	74	30	20	e13	12	11	12	7.8	7.0	12	4.4	17
30	21	18	20	13	---	11	11	7.6	6.3	10	4.6	8.7
31	17	---	19	e13	---	11	---	8.1	---	9.1	4.5	---
TOTAL	587.3	577	949	475	777	417	479	315.0	278.1	464.7	213.9	226.4
MEAN	18.9	19.2	30.6	15.3	26.8	13.5	16.0	10.2	9.27	15.0	6.90	7.55
MAX	139	78	195	22	180	40	34	17	35	72	9.8	61
MIN	8.5	12	14	13	12	11	11	7.6	6.2	7.3	4.4	4.1
CFSM	2.02	2.05	3.26	1.63	2.85	1.43	1.70	1.08	0.99	1.59	0.73	0.80
IN.	2.32	2.28	3.76	1.88	3.07	1.65	1.90	1.25	1.10	1.84	0.85	0.90

e Estimated

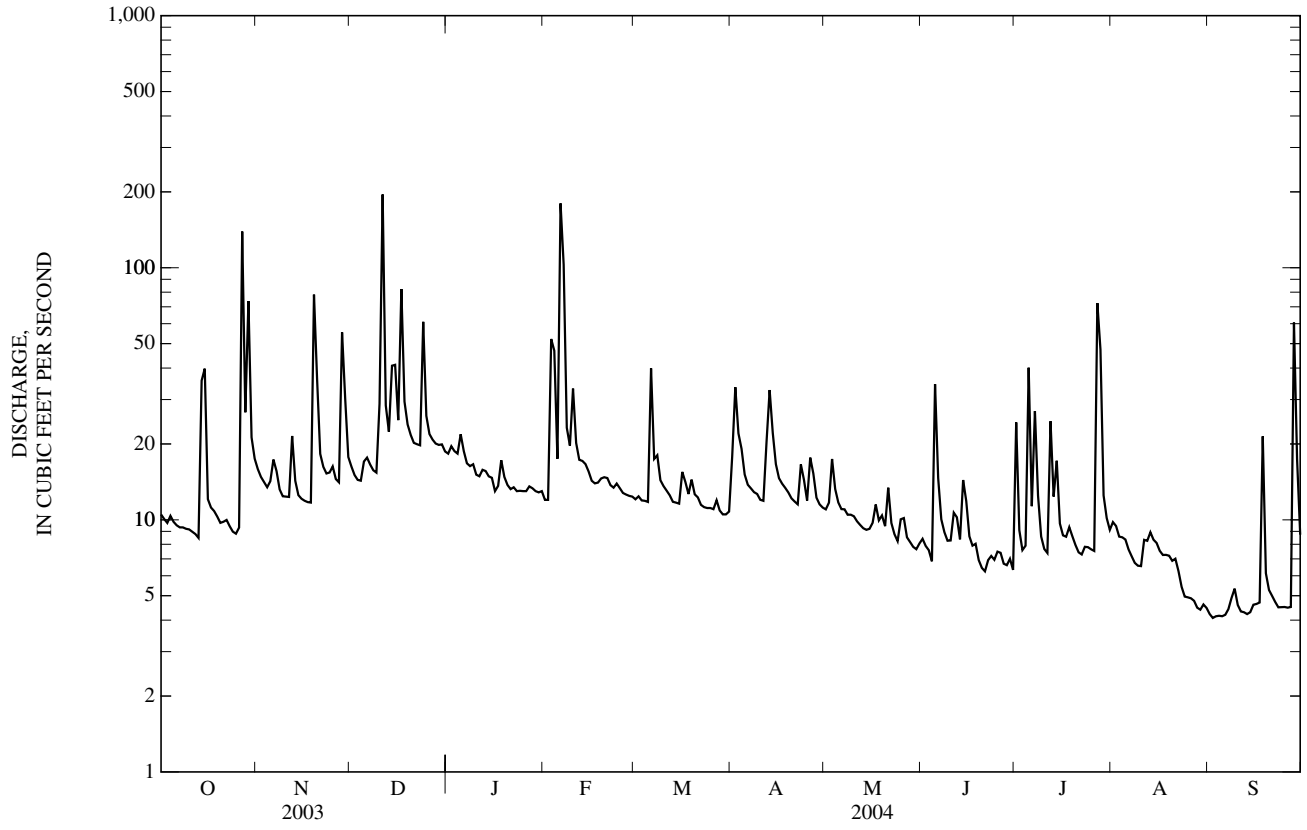
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 2004, BY WATER YEAR (WY)

MEAN	7.88	8.97	11.9	14.1	14.5	16.9	13.9	12.4	10.4	8.89	7.33	8.08
MAX	25.1	19.2	33.0	38.4	39.3	39.2	35.3	28.1	30.5	28.0	26.9	32.2
(WY)	(1980)	(2004)	(1997)	(1979)	(1979)	(1994)	(1983)	(1989)	(2003)	(1989)	(1978)	(1979)
MIN	2.28	2.70	2.82	3.63	2.83	5.05	4.76	4.69	2.74	1.64	1.24	1.80
(WY)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)

01584050 LONG GREEN CREEK AT GLEN ARM, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1976 - 2004	
ANNUAL TOTAL	6,869.2		5,759.4			
ANNUAL MEAN	18.8		15.7		11.3	
HIGHEST ANNUAL MEAN					18.1	1979
LOWEST ANNUAL MEAN					3.02	2002
HIGHEST DAILY MEAN	195	Dec 11	195	Dec 11	408	Jan 26, 1978
LOWEST DAILY MEAN	6.6	Feb 14	4.1	(a)	(e)0.76	Aug 22, 2002
ANNUAL SEVEN-DAY MINIMUM	7.0	Feb 9	4.2	Sep 1	0.83	Aug 16, 2002
MAXIMUM PEAK FLOW			480	Dec 11	(b)3,250	Jul 1, 1984
MAXIMUM PEAK STAGE			4.00	Dec 11	6.70	Jul 1, 1984
INSTANTANEOUS LOW FLOW			3.7	(c)	(d)0.26	Feb 5, 2002
ANNUAL RUNOFF (CFSM)	2.00		1.67		1.20	
ANNUAL RUNOFF (INCHES)	27.18		22.79		16.27	
10 PERCENT EXCEEDS	34		23		18	
50 PERCENT EXCEEDS	13		12		8.2	
90 PERCENT EXCEEDS	8.0		6.3		3.2	

a Sept. 2, 3, 5.
e Estimated
b From rating curve extended above 1,300 ft^3/s.
c Sept. 1-6.
d Result of freezeup.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01584500 LITTLE GUNPOWDER FALLS AT LAUREL BROOK, MD

LOCATION.--Lat 39°30'19.3", long 76°25'54.4", Baltimore County, Hydrologic Unit 02060003, on right bank 700 ft upstream from Laurel Brook, 750 ft upstream from bridge on Bottom Road, 5 mi southwest of Bel Air, and 10.5 mi upstream from mouth.

DRAINAGE AREA.--36.1 mi^2.

PERIOD OF RECORD.--October 1926 to September 1970, October 1998 to current year. Monthly discharge only for some periods, published in WSP 1302. Annual maximums, water years 1971-86.

REVISED RECORDS.--WSP 726: 1927-31, drainage area. WSP 1502: 1936 (M), 1944-46, 1947-48 (P), 1949 (M), 1950-51.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 261.43 ft above National Geodetic Vertical Datum of 1929 (city of Baltimore benchmark).

REMARKS.--Records good except those for estimated daily discharges (ice effect and equipment malfunction), which are fair. Several measurements of water temperature were made during the year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec 11	0800	2,130	5.74	Jul 7	2115	1,190	4.81
Feb 6	1730	*2,450	*5.97	Aug 1	2345	1,250	4.90
Jun 15	0145	1,090	4.67	Sep 28	2030	1,230	4.88

Minimum discharge, 21 ft^3/s, Sept. 2-8, 13-15.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47	68	77	81	67	62	94	56	43	38	199	23
2	46	63	72	87	66	65	166	57	41	34	137	22
3	44	61	69	84	227	62	129	76	43	29	46	22
4	51	59	69	83	191	65	101	64	39	30	38	22
5	48	63	79	96	97	63	78	58	122	42	35	22
6	45	72	81	88	990	208	67	55	76	45	32	21
7	44	72	75	77	439	100	64	53	54	251	30	22
8	44	60	72	74	149	93	61	52	47	100	29	24
9	43	56	71	76	100	73	66	50	43	45	28	30
10	43	55	89	68	160	68	60	49	40	37	27	25
11	42	56	812	75	e122	65	58	48	52	34	99	23
12	41	115	144	76	e98	62	82	46	59	54	71	22
13	39	72	101	75	89	60	143	44	43	42	73	22
14	70	62	136	72	86	59	121	43	65	40	41	21
15	163	59	169	70	80	58	82	43	219	39	36	22
16	55	57	111	65	72	69	69	48	54	33	33	23
17	49	57	271	73	69	73	64	47	53	31	31	23
18	49	56	143	81	69	64	62	49	60	35	30	120
19	47	291	107	76	72	76	60	54	43	35	29	35
20	44	215	97	69	76	63	58	48	38	31	37	28
21	46	95	91	70	78	61	55	64	37	29	30	26
22	46	81	90	69	73	57	55	52	36	28	29	24
23	45	76	90	63	69	55	106	45	39	35	27	23
24	42	75	192	e63	71	55	134	43	36	37	26	23
25	42	81	120	e63	70	55	65	53	35	31	26	23
26	43	71	98	e63	65	54	106	68	37	30	26	23
27	344	69	92	e65	64	58	102	47	32	97	25	23
28	137	138	88	e63	62	56	68	44	31	113	24	299
29	248	163	87	e63	62	53	61	40	33	45	24	168
30	99	84	88	e63	---	52	59	39	30	36	24	49
31	76	---	83	65	---	53	---	41	---	33	24	---
TOTAL	2,222	2,602	3,964	2,256	3,933	2,117	2,496	1,576	1,580	1,539	1,366	1,253
MEAN	71.7	86.7	128	72.8	136	68.3	83.2	50.8	52.7	49.6	44.1	41.8
MAX	344	291	812	96	990	208	166	76	219	251	199	299
MIN	39	55	69	63	62	52	55	39	30	28	24	21
CFSM	1.99	2.40	3.54	2.02	3.76	1.89	2.30	1.41	1.46	1.38	1.22	1.16
IN.	2.29	2.68	4.08	2.32	4.05	2.18	2.57	1.62	1.63	1.59	1.41	1.29

e Estimated

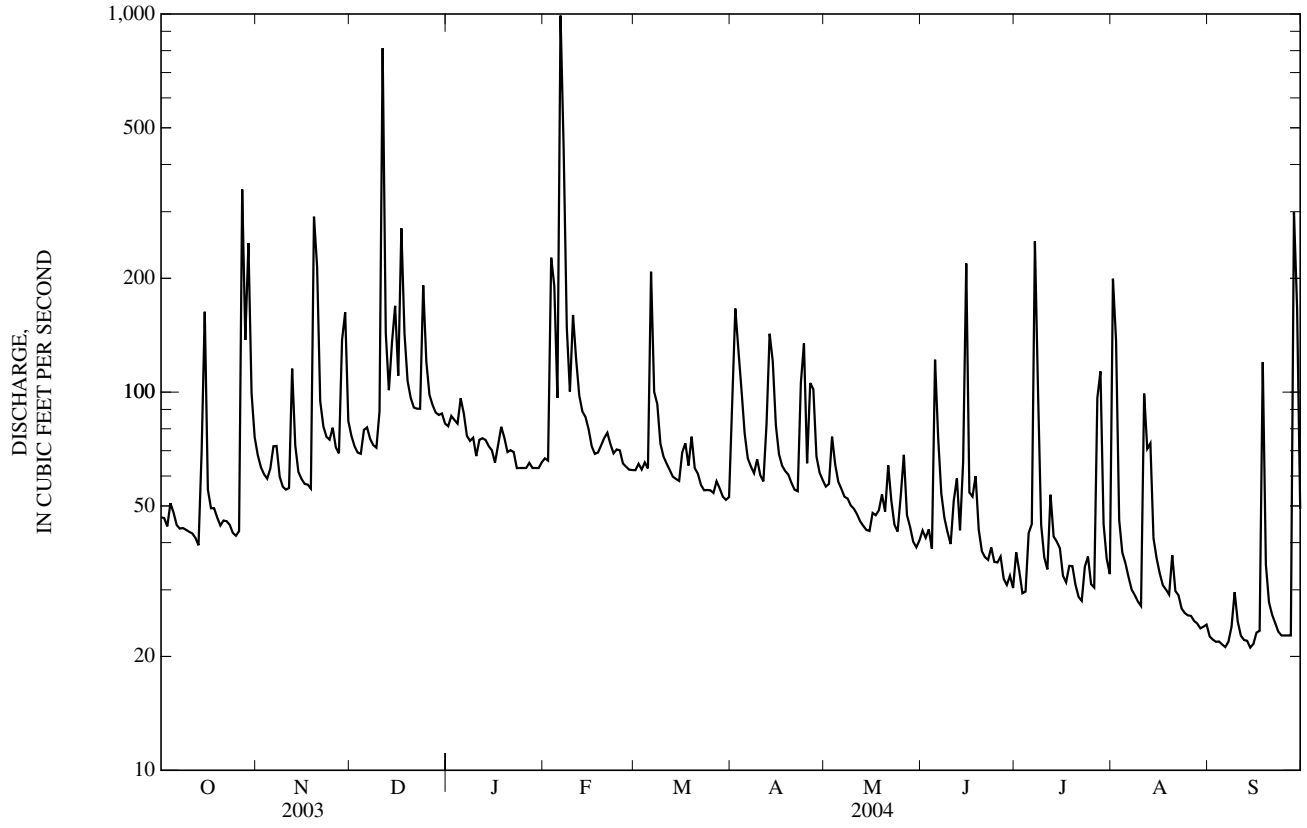
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1927 - 1970, 1999 - 2004, BY WATER YEAR (WY)

MEAN	30.5	39.2	41.7	49.4	58.2	60.1	58.8	48.9	42.6	35.3	37.6	32.7
MAX	81.8	118	128	110	136	129	120	133	161	88.5	215	117
(WY)	(1930)	(1927)	(2004)	(1936)	(2004)	(1936)	(1952)	(1952)	(1928)	(1952)	(1928)	(1934)
MIN	7.83	9.29	12.1	16.2	15.6	23.7	18.7	17.2	10.9	5.85	3.67	6.90
(WY)	(1932)	(1932)	(1932)	(1966)	(2002)	(2002)	(2002)	(1963)	(2002)	(2002)	(2002)	(2002)

01584500 LITTLE GUNPOWDER FALLS AT LAUREL BROOK, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1927 - 1970, 1999 - 2004	
ANNUAL TOTAL	29,797		26,904			
ANNUAL MEAN	81.6		73.5		44.3	
HIGHEST ANNUAL MEAN					81.5	1952
LOWEST ANNUAL MEAN					13.8	2002
HIGHEST DAILY MEAN	812	Dec 11	990	Feb 6	2,800	Aug 23, 1933
LOWEST DAILY MEAN	22	Feb 16	21	(a)	(e)0.90	Aug 22, 2002
ANNUAL SEVEN-DAY MINIMUM	30	Feb 10	22	Sep 1	1.2	Aug 17, 2002
MAXIMUM PEAK FLOW			2,450	Feb 6	(b)9,200	Aug 23, 1933
MAXIMUM PEAK STAGE			5.97	Feb 6	10.30	Aug 23, 1933
INSTANTANEOUS LOW FLOW			21	(c)	(d)3.1	Feb 15, 1931
ANNUAL RUNOFF (CFSM)	2.26		2.04		1.23	
ANNUAL RUNOFF (INCHES)	30.70		27.72		16.67	
10 PERCENT EXCEEDS	142		120		73	
50 PERCENT EXCEEDS	60		60		32	
90 PERCENT EXCEEDS	38		29		15	

a Sept. 6, 14.
e Estimated.
b From rating curve extended above 2,300 ft^3/s on basis of slope-area measurement of peak flow.
c Sept. 2-8, 13-15.
c Measured discharge of 1.1 ft^3/s, Aug. 21, 2002, may have been lower during period of questionable record.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01585090 WHITEMARSH RUN NEAR FULLERTON, MD

LOCATION.--Lat 39°22'46.5", long 76°29'44.9", Baltimore County, Hydrologic Unit 02060003, on right bank 200 ft downstream of Route 43 bridge, 1.0 mi west of White Marsh. and 5.0 mi upstream from mouth.

DRAINAGE AREA.--2.73 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 125 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those above 250 ft^3/s which are fair, and those for estimated daily discharges (ice effect), which are poor. Several measurements of water temperature were made during the year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 750 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 14	2155	1,190	4.47	May 17	1600	2,000	5.13
Nov 19	1515	1,390	4.65	Jul 27	2100	*3,390	*5.96

Minimum discharge, 0.13 ft^3/s, Sept. 30.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	1.9	2.5	2.9	e2.5	1.6	32	1.6	2.2	0.44	0.73	0.53
2	1.1	1.7	2.0	6.0	2.7	1.9	28	4.4	2.0	0.43	0.53	0.79
3	1.2	1.8	2.7	3.2	27	1.6	8.2	13	1.2	0.39	0.48	0.59
4	1.6	1.9	2.1	3.1	8.3	1.7	6.8	2.9	0.89	3.4	5.8	0.63
5	1.2	11	11	7.9	3.0	1.7	3.0	3.5	50	5.6	1.2	0.60
6	1.1	11	9.3	3.4	79	31	2.5	2.0	6.3	1.3	0.49	0.61
7	1.1	3.7	4.6	2.8	20	4.7	2.4	2.0	2.3	9.7	0.48	0.75
8	1.1	2.0	3.6	2.7	4.8	4.3	2.3	1.5	1.7	1.4	0.48	1.1
9	1.1	1.7	4.6	2.7	3.7	2.7	2.3	1.3	1.4	0.56	0.50	1.4
10	1.1	1.6	21	2.4	4.7	2.2	2.0	1.3	1.3	0.45	0.52	0.65
11	1.1	1.6	80	2.6	3.3	1.9	1.9	1.2	4.9	0.43	2.2	0.55
12	1.1	11	7.1	2.9	2.8	1.8	27	1.2	2.2	13	2.4	0.49
13	1.0	2.6	3.9	2.9	2.7	1.6	18	1.1	1.2	2.9	1.2	0.72
14	56	2.4	27	2.7	2.6	1.6	7.8	1.1	1.1	2.3	0.91	0.79
15	12	2.3	13	e2.6	2.4	1.6	3.5	2.7	1.3	0.61	0.61	1.3
16	1.6	2.3	5.2	e2.6	2.0	9.0	2.6	2.6	0.97	0.42	0.42	0.90
17	1.3	2.1	38	e2.8	2.0	2.8	2.5	51	2.1	0.36	7.9	0.74
18	1.1	1.9	7.2	e3.2	2.0	2.3	2.3	3.8	1.4	1.8	3.6	17
19	1.0	81	4.3	e2.7	2.0	5.0	2.2	5.4	0.88	0.60	0.55	0.81
20	1.0	15	3.5	e2.3	2.0	2.1	2.1	1.5	0.79	0.41	0.41	0.44
21	0.98	4.1	3.2	e2.1	2.0	1.9	2.1	3.7	0.70	0.33	0.55	0.43
22	1.7	2.8	3.0	e2.0	1.8	1.7	2.0	1.5	0.68	0.40	0.48	0.43
23	1.0	2.2	2.9	1.9	1.7	1.7	4.6	1.1	0.69	1.9	0.45	0.42
24	0.87	2.9	33	e1.8	2.2	1.6	2.3	0.98	0.64	0.86	0.44	0.44
25	0.87	3.6	5.3	e1.8	1.8	2.0	1.8	18	5.7	0.46	0.48	0.45
26	5.9	1.9	3.6	e1.8	1.6	1.7	11	3.6	1.1	0.38	0.49	0.48
27	123	1.7	3.2	e1.8	1.6	3.5	3.0	4.2	0.57	149	0.48	0.50
28	9.7	29	2.9	e1.8	1.6	1.8	1.9	1.7	0.52	11	0.46	50
29	40	8.5	2.7	e1.9	1.6	1.6	1.7	1.1	0.79	1.7	0.43	3.0
30	4.2	3.1	3.4	e2.0	---	1.6	1.6	1.0	0.46	0.60	0.52	0.32
31	2.4	---	2.8	e2.2	---	1.6	---	1.7	---	0.46	0.56	---
TOTAL	279.52	220.3	318.6	85.5	195.4	103.8	191.4	143.68	97.98	213.59	36.75	87.86
MEAN	9.02	7.34	10.3	2.76	6.74	3.35	6.38	4.63	3.27	6.89	1.19	2.93
MAX	123	81	80	7.9	79	31	32	51	50	149	7.9	50
MIN	0.87	1.6	2.0	1.8	1.6	1.6	1.6	0.98	0.46	0.33	0.41	0.32
CFSM	3.30	2.69	3.76	1.01	2.47	1.23	2.34	1.70	1.20	2.52	0.43	1.07
IN.	3.81	3.00	4.34	1.17	2.66	1.41	2.61	1.96	1.34	2.91	0.50	1.20

e Estimated

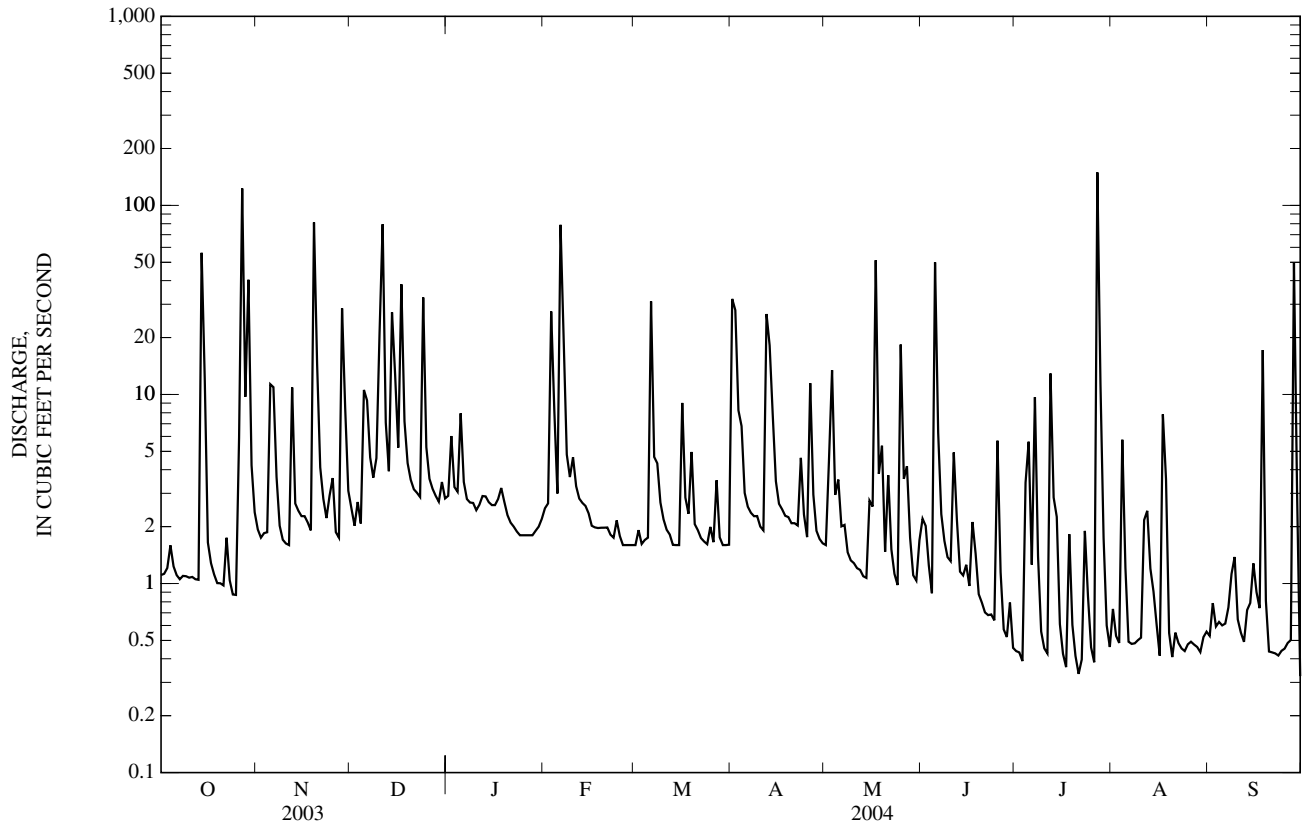
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 2004, BY WATER YEAR (WY)

MEAN	4.56	4.52	5.45	5.95	5.63	7.09	4.62	4.83	6.29	4.10	3.10	5.66
MAX	10.8	7.49	12.6	13.2	12.0	13.1	6.58	11.0	24.6	10.3	9.81	20.2
(WY)	(1996)	(1998)	(1997)	(1996)	(1998)	(1998)	(1996)	(2003)	(2003)	(2000)	(1999)	(1999)
MIN	0.61	1.02	0.95	2.44	0.84	3.35	1.99	1.64	1.44	0.41	0.96	2.05
(WY)	(2001)	(1999)	(1999)	(2000)	(2002)	(2004)	(1995)	(1997)	(1995)	(1997)	(1995)	(2002)

01585090 WHITEMARSH RUN NEAR FULLERTON, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1995 - 2004	
ANNUAL TOTAL	3,517.80		1,974.38			
ANNUAL MEAN	9.64		5.39		5.33	
HIGHEST ANNUAL MEAN					9.11	2003
LOWEST ANNUAL MEAN					2.75	2002
HIGHEST DAILY MEAN	183	Jun 13	149	Jul 27	418	(a)
LOWEST DAILY MEAN	0.40	Aug 25	0.32	Sep 30	0.00	Aug 11, 2002
ANNUAL SEVEN-DAY MINIMUM	0.84	Jan 23	0.44	Sep 20	0.00	Aug 11, 2002
MAXIMUM PEAK FLOW			3,390	Jul 27	(b)4,660	Jun 13, 2003
MAXIMUM PEAK STAGE			5.96	Jul 27	6.60	Jun 13, 2003
INSTANTANEOUS LOW FLOW			0.13	Sep 30	0.00	(c)
ANNUAL RUNOFF (CFSM)	3.53		1.98		1.95	
ANNUAL RUNOFF (INCHES)	47.93		26.90		26.54	
10 PERCENT EXCEEDS	20		9.7		11	
50 PERCENT EXCEEDS	2.8		1.9		1.6	
90 PERCENT EXCEEDS	1.00		0.49		0.41	

a Aug. 11-23, 2002.
b From rating curve extended above 120 ft^3/s.
c Aug. 26, 1995, Aug. 14, 1999, June 17, July 23, Aug. 10-24, 2002.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01585095 NORTH FORK WHITEMARSH RUN NEAR WHITE MARSH, MD

LOCATION.--Lat 39°23'09.2", long 76°28'07.9", Baltimore County, Hydrologic Unit 02060003, on left bank 100 ft upstream of culverts under Beaconsfield Drive, 0.6 mi upstream from confluence with Whitemarsh Run, 0.9 mi southeast of Perry Hall, and 2.1 mi east of White Marsh.

DRAINAGE AREA.--1.34 mi^2.

PERIOD OF RECORD.--April 1992 to current year.

GAGE.--Water-stage recorder. Datum of gage is 75 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good above 0.5 ft^3/s and fair below except those for estimated daily discharges, equipment malfunction (poor) and ice effect which are fair. Several measurements of water temperature were made during the year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 250 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 14	2145	297	3.56	Sep 18	0200	315	3.69
Nov 19	1515	331	3.80	Sep 28	1645	311	3.66
Jul 27	2100	*363	*4.04				

Minimum discharge, 0.10 ft^3/s, June 4, July 27.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.18	0.94	e0.90	0.86	e0.72	0.44	9.4	e0.57	1.0	2.9	0.36	0.18
2	0.18	0.74	e0.73	2.2	0.67	0.62	13	e1.7	1.4	0.52	0.35	0.15
3	0.18	0.67	e0.97	0.86	0.67	0.44	3.9	e7.7	0.60	0.31	0.20	0.17
4	0.25	0.67	e0.75	0.76	2.1	0.44	3.5	e1.3	e0.35	2.8	2.8	0.19
5	0.18	4.0	e3.8	3.1	1.8	0.44	1.4	e1.6	23	6.4	0.51	0.18
6	0.17	4.5	e3.3	1.1	4.6	16	1.1	e0.74	2.3	0.95	0.21	0.18
7	0.13	1.9	e1.7	0.63	5.2	2.3	1.1	e0.72	0.48	4.7	0.22	0.22
8	0.13	0.75	e1.3	0.59	2.2	2.2	1.1	e0.53	0.57	0.74	0.21	0.58
9	0.13	0.50	e1.7	0.52	1.7	1.3	1.1	e0.48	0.49	0.32	0.20	1.4
10	0.15	0.54	e7.5	0.44	2.0	0.87	0.96	e0.47	0.51	0.29	0.19	0.30
11	0.15	0.44	e28	0.44	1.5	0.76	0.96	e0.43	5.0	0.29	2.0	0.22
12	0.15	5.1	e2.5	0.44	1.2	0.70	15	e0.42	1.3	5.6	2.6	0.23
13	0.15	1.3	e1.4	0.45	1.1	0.67	7.1	e0.40	0.47	0.88	1.2	0.23
14	20	1.2	e9.6	0.44	e0.88	0.67	4.8	e0.39	0.52	2.0	1.2	1.9
15	4.6	1.3	e4.5	0.41	e0.72	0.67	2.9	e1.1	0.63	0.38	0.33	0.91
16	0.71	2.2	e1.9	0.30	e0.60	1.6	e1.0	e1.2	0.43	0.30	0.24	0.28
17	0.51	2.1	e14	0.32	e0.60	1.3	e0.92	e13	2.1	0.31	5.9	0.58
18	0.51	1.2	e2.6	0.36	e0.60	0.92	e0.85	e3.0	0.77	1.2	4.1	23
19	0.51	33	e1.6	0.43	e0.60	1.7	e0.81	2.5	0.53	0.33	0.75	0.52
20	0.51	5.2	e1.3	0.37	e0.60	0.82	e0.76	0.61	0.44	0.29	0.30	0.30
21	0.42	1.4	e1.1	0.37	e0.58	0.73	e0.72	3.0	0.35	0.27	0.30	0.28
22	0.37	1.0	e1.1	0.37	e0.54	0.67	e0.71	0.74	0.36	2.9	0.30	0.29
23	0.41	0.96	e1.0	0.37	e0.50	0.67	e2.0	0.44	0.35	0.99	0.29	0.26
24	0.44	1.2	e12	e0.37	e0.64	0.67	e0.94	0.42	0.34	0.33	0.28	0.27
25	0.43	1.2	e1.9	0.37	0.98	0.78	e0.64	4.0	3.7	0.28	0.25	0.27
26	1.2	e0.68	e1.3	e0.38	0.96	0.64	e6.1	1.4	0.57	0.29	0.21	0.26
27	48	e0.63	e1.1	e0.40	0.64	1.3	e1.4	1.9	0.34	32	0.21	0.28
28	3.3	e10	1.1	e0.42	0.48	0.76	e0.71	0.89	0.33	6.5	0.22	43
29	19	e2.8	0.83	0.44	0.44	0.74	e0.63	0.41	0.60	0.35	0.19	3.5
30	1.7	e1.1	1.0	e0.47	---	0.51	e0.58	0.38	0.29	0.26	0.68	0.52
31	1.1	---	0.86	e0.56	---	0.52	---	0.75	---	0.23	0.21	---
TOTAL	105.85	89.22	113.34	19.54	35.82	42.85	86.09	53.19	50.12	75.91	27.01	80.65
MEAN	3.41	2.97	3.66	0.63	1.24	1.38	2.87	1.72	1.67	2.45	0.87	2.69
MAX	48	33	28	3.1	5.2	16	15	13	23	32	5.9	43
MIN	0.13	0.44	0.73	0.30	0.44	0.44	0.58	0.38	0.29	0.23	0.19	0.15
CFSM	2.55	2.22	2.73	0.47	0.92	1.03	2.14	1.28	1.25	1.83	0.65	2.01
IN.	2.94	2.48	3.15	0.54	0.99	1.19	2.39	1.48	1.39	2.11	0.75	2.24

e Estimated

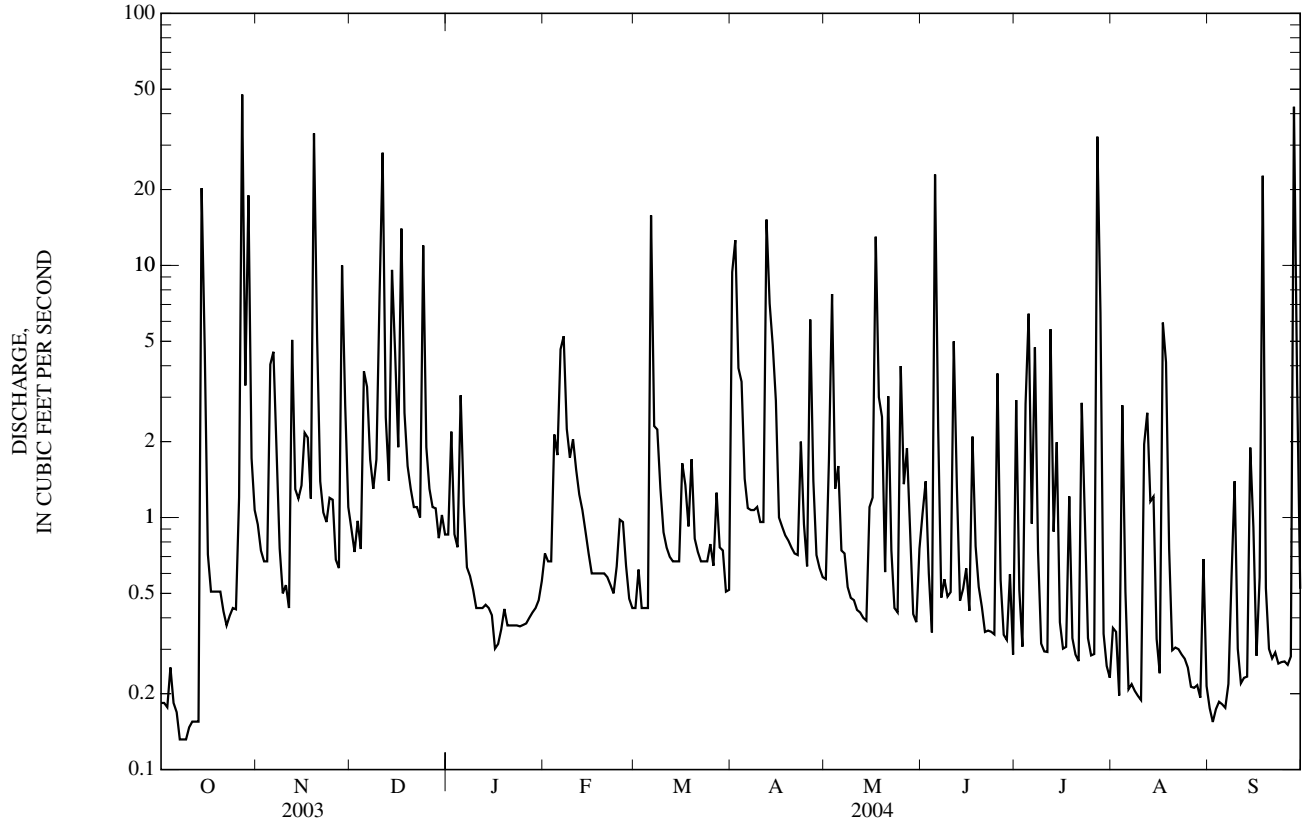
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 2004, BY WATER YEAR (WY)

MEAN	1.73	2.19	2.55	2.70	2.56	3.78	2.05	1.92	2.18	1.68	1.35	2.19
MAX	4.75	3.46	6.03	5.39	5.13	6.79	3.61	4.33	9.54	3.82	3.67	7.80
(WY)	(1996)	(1998)	(1997)	(1996)	(2003)	(1993)	(1996)	(2003)	(2003)	(1996)	(1994)	(1999)
MIN	0.21	0.50	0.39	0.63	0.27	1.38	0.92	0.74	0.59	0.14	0.34	0.82
(WY)	(2001)	(2002)	(2002)	(2004)	(2002)	(2004)	(1995)	(1997)	(1994)	(1997)	(2001)	(1997)

01585095 NORTH FORK WHITEMARSH RUN NEAR WHITE MARSH, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1992 - 2004	
ANNUAL TOTAL	1,377.58		779.59			
ANNUAL MEAN	3.77		2.13		2.26	
HIGHEST ANNUAL MEAN					3.74	2003
LOWEST ANNUAL MEAN					0.81	2002
HIGHEST DAILY MEAN	75	Jun 13	48	Oct 27	140	Sep 16, 1999
LOWEST DAILY MEAN	0.13	Oct 7	0.13	Oct 7	0.00	(a)
ANNUAL SEVEN-DAY MINIMUM	0.14	Oct 7	0.14	Oct 7	0.00	Aug 6, 2002
MAXIMUM PEAK FLOW			363	Jul 27	(b)540	Jun 13, 2003
MAXIMUM PEAK STAGE			4.04	Jul 27	5.36	Jun 13, 2003
INSTANTANEOUS LOW FLOW			0.10	(c)	0.00	(d)
ANNUAL RUNOFF (CFSM)	2.82		1.59		1.69	
ANNUAL RUNOFF (INCHES)	38.24		21.64		22.92	
10 PERCENT EXCEEDS	8.0		4.2		5.2	
50 PERCENT EXCEEDS	1.1		0.69		0.64	
90 PERCENT EXCEEDS	0.35		0.25		0.14	

a Aug. 7, 10-13, 1999, Aug. 2, 6-23, 2002.
b From rating curve extended above 200 ft^3/s.
c June 4, July 27.
d Aug. 6-8, 10-14, 1999, July 17, 18, 23, Aug. 1-3, 6-24, 2002.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01585100 WHITEMARSH RUN AT WHITE MARSH, MD

LOCATION.--Lat 39°22'15.1", long 76°26'46.5", Baltimore County, Hydrologic Unit 02060003, on right wing wall on downstream side of bridge on State Highway 7, 1.0 mi southwest of White Marsh, and 3.0 mi upstream from mouth.

DRAINAGE AREA.--7.61 mi^2.

PERIOD OF RECORD.--February 1959 to September 1989, March 1992 to current year.

REVISED RECORDS.--WDR MD-DE-73-1: 1960(M), 1967-68, 1969(M). WDR MD-DE-79-1: 1965-66(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 38.96 ft above National Geodetic Vertical Datum of 1929. Prior to June 12, 2002, water-stage recorder at site 2,500 ft downstream at same datum.

REMARKS.--Records good except those for estimated daily discharges (ice effect, recorder malfunction), which are fair. Low flow affected by operations of sand and gravel plant in vicinity of gage. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 750 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 14	2230	1,140	11.07
Oct 27	0315	1,000	10.54
Oct 27	0915	969	10.43
Oct 27	1500	843	10.00
Nov 19	1615	1,110	10.98
Dec 11	0345	797	9.84
Dec 11	0715	1,030	10.65
Feb 6	1300	768	9.74
Jul 27	2200	*1,410	*12.15
Sep 18	0230	823	9.93
Sep 28	1730	978	10.46

Minimum discharge, 0.36 ft^3/s, Sept. 13.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.4	4.2	4.0	5.6	3.1	3.6	135	4.5	9.6	4.2	8.4	0.47
2	7.4	3.8	3.6	18	3.8	4.9	146	12	11	2.3	5.2	0.46
3	7.4	3.6	3.4	7.6	115	3.9	40	68	8.5	1.8	3.6	0.53
4	10	3.4	3.4	6.5	26	3.8	30	12	5.6	12	52	0.45
5	8.0	39	38	29	5.1	3.6	11	13	224	23	12	0.45
6	8.1	37	28	9.2	324	143	8.1	5.8	25	4.3	2.3	0.45
7	7.5	9.4	9.6	6.0	109	21	7.2	5.4	6.1	40	1.8	0.51
8	7.8	4.2	6.3	5.2	24	22	7.0	4.3	4.1	4.4	1.6	0.85
9	7.8	3.5	8.1	5.2	14	8.8	7.0	3.9	3.5	2.0	1.6	1.7
10	8.0	3.3	99	4.7	20	7.2	6.0	3.9	2.9	1.7	1.6	0.69
11	8.0	3.2	358	5.2	12	6.6	6.0	3.6	18	1.6	21	0.45
12	7.4	44	51	5.2	8.2	6.3	123	3.4	7.6	39	24	0.45
13	7.0	5.5	35	5.5	7.5	5.7	95	3.4	3.1	8.5	19	0.54
14	145	3.8	178	4.9	7.0	5.2	39	3.3	2.9	4.9	9.3	15
15	77	3.6	78	e4.5	6.3	5.2	14	8.8	2.9	2.4	3.4	2.3
16	4.7	3.6	37	e4.4	5.0	43	8.0	12	2.7	1.8	1.6	0.95
17	3.2	3.6	219	e4.5	4.6	12	7.0	e83	4.9	1.6	41	1.0
18	2.9	3.2	36	e4.6	4.7	7.7	6.5	e9.1	4.4	4.3	62	190
19	2.7	242	20	e4.2	4.7	22	6.0	34	2.5	2.2	2.0	8.7
20	2.7	77	16	e3.6	4.6	7.0	5.8	7.7	2.4	1.8	1.0	3.8
21	2.7	12	14	e3.2	4.9	6.5	5.2	23	2.4	1.6	1.4	3.1
22	3.1	8.0	13	e2.8	4.4	5.8	5.2	7.5	2.4	7.1	0.86	2.8
23	2.8	6.3	12	e2.4	4.1	5.2	16	5.2	2.3	4.1	0.70	2.5
24	2.7	6.7	176	2.2	5.6	5.2	7.8	4.4	2.3	2.5	0.63	2.5
25	2.8	10	20	e2.1	4.7	6.1	5.1	56	17	1.9	0.55	2.3
26	33	5.5	10	e2.1	3.8	5.4	52	22	4.0	1.7	0.57	2.4
27	501	4.9	8.0	e2.1	3.7	14	12	19	2.3	236	0.54	2.5
28	37	124	6.8	e2.1	3.8	6.0	5.7	11	2.0	163	0.54	266
29	190	31	6.1	2.2	3.6	5.3	5.0	7.0	2.4	21	0.54	41
30	10	5.0	8.7	2.3	---	5.2	4.5	6.3	1.9	8.5	1.2	4.0
31	5.2	---	5.7	2.6	---	5.3	---	9.3	---	5.0	0.65	---
TOTAL	1,130.3	714.3	1,511.7	169.7	747.2	412.5	826.1	471.8	390.7	616.2	282.58	558.85
MEAN	36.5	23.8	48.8	5.47	25.8	13.3	27.5	15.2	13.0	19.9	9.12	18.6
MAX	501	242	358	29	324	143	146	83	224	236	62	266
MIN	2.7	3.2	3.4	2.1	3.1	3.6	4.5	3.3	1.9	1.6	0.54	0.45
CFSM	4.79	3.13	6.41	0.72	3.39	1.75	3.62	2.00	1.71	2.61	1.20	2.45
IN.	5.53	3.49	7.39	0.83	3.65	2.02	4.04	2.31	1.91	3.01	1.38	2.73

e Estimated

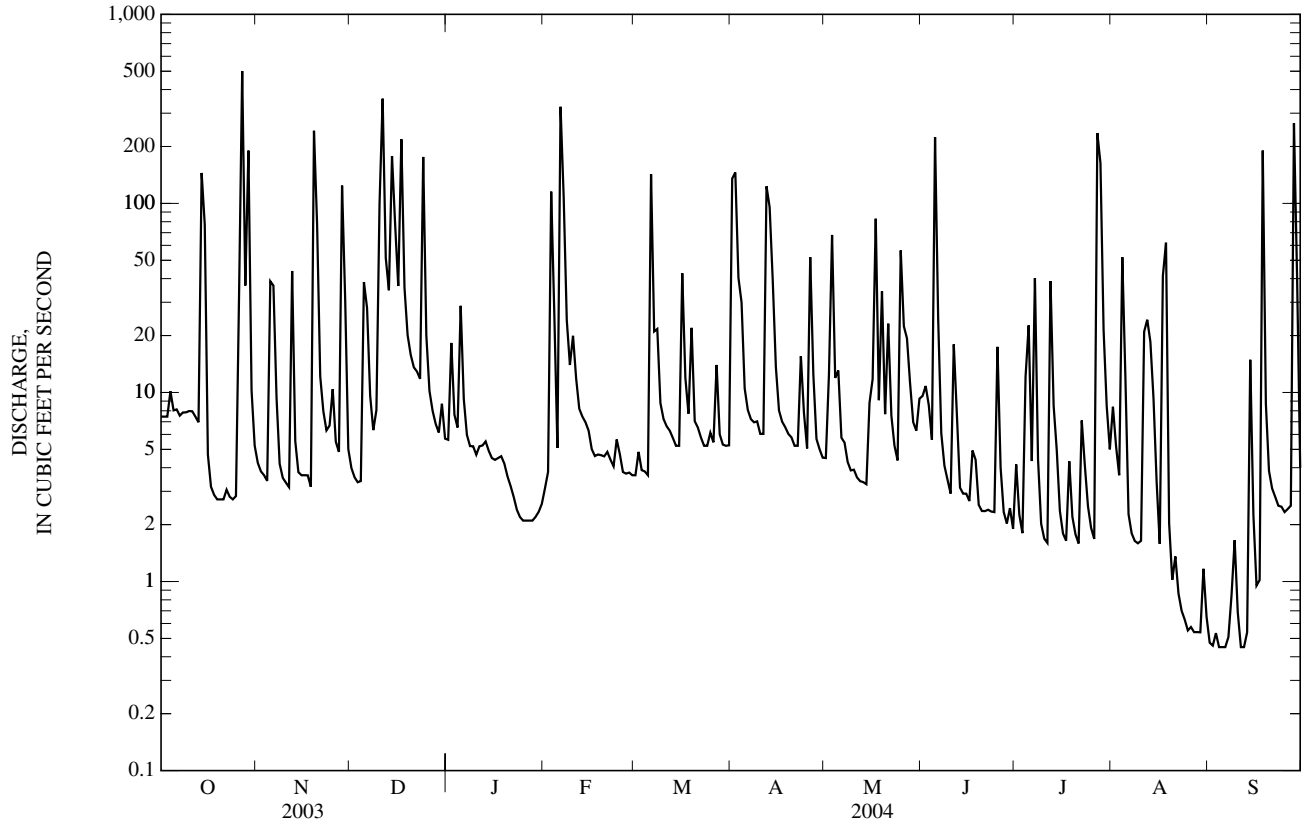
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 1989, 1992 - 2004, BY WATER YEAR (WY)

MEAN	8.32	10.7	14.2	14.4	16.2	17.7	13.3	11.9	10.4	9.69	10.1	11.4
MAX	36.5	31.8	48.8	45.2	42.7	43.2	43.5	43.7	59.2	45.4	90.1	48.6
(WY)	(2004)	(1973)	(2004)	(1978)	(1979)	(1993)	(1983)	(1989)	(2003)	(1989)	(1971)	(1999)
MIN	1.91	1.82	1.69	1.82	2.40	4.66	4.35	2.24	2.01	1.34	1.18	1.41
(WY)	(2001)	(1966)	(1966)	(1981)	(2002)	(1969)	(1985)	(1969)	(1986)	(1966)	(1962)	(1980)

01585100 WHITEMARSH RUN AT WHITE MARSH, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1959 - 1989, 1992 - 2004	
ANNUAL TOTAL	12,160.9		7,831.93			
ANNUAL MEAN	33.3		21.4		12.6	
HIGHEST ANNUAL MEAN					29.3	2003
LOWEST ANNUAL MEAN					4.27	1969
HIGHEST DAILY MEAN	501	Oct 27	501	Oct 27	980	Sep 16, 1999
LOWEST DAILY MEAN	1.3	Aug 24	0.45	(a)	0.10	Sep 11, 1966
ANNUAL SEVEN-DAY MINIMUM	2.8	Oct 19	0.47	Sep 1	0.31	Aug 6, 2002
MAXIMUM PEAK FLOW			1,410	Jul 27	(b)8,000	Aug 1, 1971
MAXIMUM PEAK STAGE			12.15	Jul 27	(c)14.05	Aug 1, 1971
INSTANTANEOUS LOW FLOW			0.36	Sep 13	(d)0.00	Mar 20, 1965
ANNUAL RUNOFF (CFSM)	4.38		2.81		1.65	
ANNUAL RUNOFF (INCHES)	59.45		38.28		22.47	
10 PERCENT EXCEEDS	75		41		24	
50 PERCENT EXCEEDS	9.5		5.3		4.2	
90 PERCENT EXCEEDS	3.1		1.8		1.4	

a Sept. 4-6, 11-12.
b From rating curve extended above 1,300 ft^3/s on the basis of a culvert measurement at gage height of 10.04 ft and on the basis of culvert and flow-over-road measurement of peak flow.
c At site 2,500 ft downstream at same datum.
d Result of construction work upstream from station.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01585104 HONEYGO RUN NEAR WHITE MARSH, MD

LOCATION.--Lat 39 22'58.8", long 76 25'58.7", Baltimore County, Hydrologic Unit 02060003, on left bank at upstream side of bridge on State Highway 7, and 0.55 mi upstream from mouth.

DRAINAGE AREA.--2.50 mi^2.

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

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 25 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges (ice effect and missing record), which are fair. Several measurements of water temperature were made during the year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 14	2215	165	2.44	Apr 12	2300	101	1.59
Nov 19	1615	186	2.75	Jul 27	2200	*196	*2.91
Nov 28	1915	109	1.69	Sep 18	0245	132	1.99
Dec 11	0700	186	2.75	Sep 28	2000	167	2.47
Feb 6	1330	140	2.10				

Minimum discharge, 0.40 ft^3/s, on many days.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.82	e1.2	3.2	e1.7	1.1	e1.1	12	1.6	1.1	8.6	0.96	0.88
2	0.78	e1.0	2.7	e3.6	0.98	e1.4	29	1.3	1.4	2.9	0.93	0.88
3	1.4	1.7	2.2	2.4	17	e1.2	12	9.6	1.8	0.82	0.60	0.89
4	1.6	1.8	2.2	2.2	10	e1.2	7.0	3.6	1.1	1.6	1.8	1.1
5	1.6	5.4	2.2	4.7	3.5	e1.2	4.1	1.9	30	7.6	2.1	1.1
6	1.6	8.7	2.2	3.6	62	e21	3.0	1.4	9.8	3.6	e0.61	1.5
7	1.6	4.2	2.2	2.6	28	e4.0	2.2	1.3	3.3	6.1	e0.52	1.9
8	1.6	1.7	2.2	1.9	6.8	e4.0	2.2	1.2	1.6	3.5	e0.49	2.0
9	1.3	1.1	2.5	1.6	4.7	e2.1	2.2	1.1	1.1	0.72	e0.49	3.1
10	1.1	1.1	18	1.6	5.8	e1.8	2.2	1.1	1.0	0.40	e0.51	1.6
11	1.1	1.1	61	1.6	4.4	e1.6	2.2	1.1	5.7	0.40	e3.1	1.1
12	1.1	8.8	7.5	1.3	3.5	e1.6	22	1.1	4.3	4.7	e3.5	1.1
13	1.6	3.2	4.2	1.2	3.0	e1.4	25	0.99	1.2	3.3	e2.4	1.3
14	17	3.0	22	1.1	2.8	e1.3	11	0.65	1.1	4.8	e1.5	2.2
15	14	2.9	13	1.1	2.2	1.7	5.1	0.79	1.3	1.7	e0.80	3.6
16	2.4	2.8	5.3	1.1	1.7	5.5	3.0	2.0	1.2	0.59	e0.46	3.3
17	1.6	2.8	38	1.1	1.7	3.3	2.8	1.1	1.4	0.42	e6.7	3.4
18	1.2	2.8	9.4	2.8	1.6	2.3	2.6	1.1	1.7	1.1	e6.3	28
19	1.1	41	4.8	2.3	1.6	3.8	2.2	2.2	1.0	0.69	e0.59	4.0
20	1.1	17	4.1	1.4	1.6	2.2	2.2	1.1	0.71	0.48	e0.37	1.9
21	e2.6	4.4	3.6	1.1	1.6	2.2	2.2	3.5	0.67	0.44	e0.47	1.1
22	e2.7	3.2	3.1	1.1	1.6	2.2	2.2	1.5	0.65	1.1	e0.36	0.84
23	e2.6	2.7	2.8	1.1	1.2	2.4	2.7	1.0	0.65	2.0	0.50	0.65
24	e2.6	2.2	31	1.1	1.2	2.4	2.7	0.65	0.65	0.59	0.51	0.91
25	e2.6	2.5	6.1	1.1	1.4	2.4	2.0	2.5	1.5	0.40	0.60	1.1
26	e3.6	2.0	3.7	1.1	1.6	2.2	7.9	2.2	1.5	0.40	0.87	1.5
27	e40	1.6	3.3	1.1	e1.4	2.9	3.9	1.9	0.53	31	0.91	1.6
28	e4.7	21	2.8	1.1	e1.1	2.2	2.1	2.1	0.40	e28	1.0	40
29	e20	12	e1.7	1.1	e1.1	2.2	1.7	1.1	0.40	e4.8	1.0	15
30	e2.2	3.9	e2.1	1.1	---	2.2	1.6	1.2	0.40	1.9	1.2	3.0
31	e1.4	---	e1.7	1.1	---	2.2	---	1.2	---	0.95	1.3	---
TOTAL	140.60	168.8	270.8	53.0	176.18	89.2	183.0	55.08	79.16	125.60	43.45	130.55
MEAN	4.54	5.63	8.74	1.71	6.08	2.88	6.10	1.78	2.64	4.05	1.40	4.35
MAX	40	41	61	4.7	62	21	29	9.6	30	31	6.7	40
MIN	0.78	1.0	1.7	1.1	0.98	1.1	1.6	0.65	0.40	0.40	0.36	0.65
CFSM	1.81	2.25	3.49	0.68	2.43	1.15	2.44	0.71	1.06	1.62	0.56	1.74
IN.	2.09	2.51	4.03	0.79	2.62	1.33	2.72	0.82	1.18	1.87	0.65	1.94

e Estimated

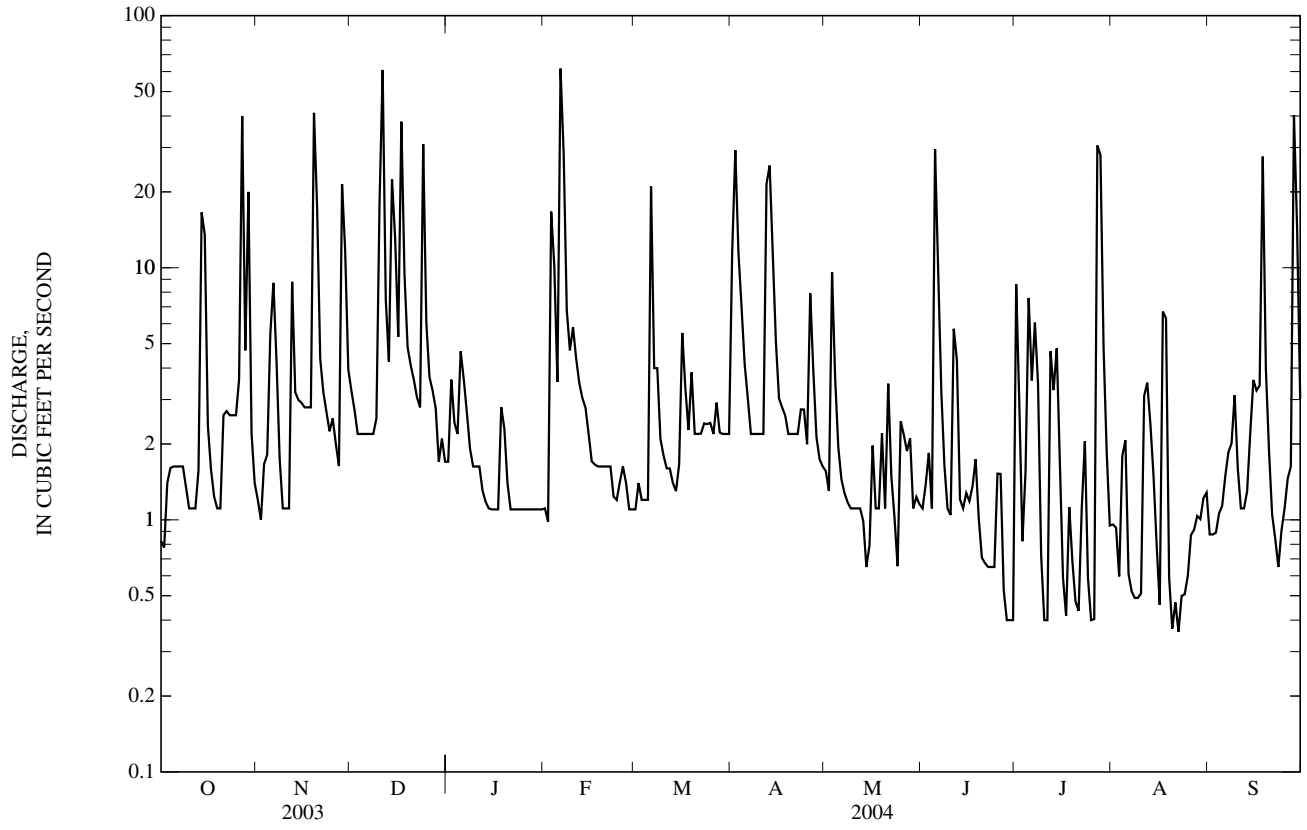
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2004, BY WATER YEAR (WY)

MEAN	2.67	2.70	4.94	2.73	5.47	6.18	4.39	3.07	3.35	2.26	1.08	2.38
MAX	4.57	5.63	8.74	4.36	8.40	11.8	6.47	7.01	8.15	4.36	2.11	4.55
(WY)	(2000)	(2004)	(2004)	(2003)	(2003)	(2003)	(2000)	(2003)	(2003)	(2000)	(2003)	(2003)
MIN	0.32	0.74	1.14	1.14	0.85	2.71	2.32	1.75	1.21	0.30	0.23	0.65
(WY)	(2002)	(2001)	(2002)	(2002)	(2002)	(2002)	(2001)	(2002)	(2002)	(2002)	(2002)	(2002)

01585104 HONEYGO RUN NEAR WHITE MARSH, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 2000 - 2004	
ANNUAL TOTAL	2,176.16		1,515.42			
ANNUAL MEAN	5.96		4.14		3.42	
HIGHEST ANNUAL MEAN					5.57	2003
LOWEST ANNUAL MEAN					1.14	2002
HIGHEST DAILY MEAN	74	Feb 22	62	Feb 6	74	Feb 22, 2003
LOWEST DAILY MEAN	0.28	Jul 17	(e)0.36	Aug 22	0.02	(a)
ANNUAL SEVEN-DAY MINIMUM	0.37	Jul 15	0.49	Aug 19	0.02	Aug 11, 2002
MAXIMUM PEAK FLOW			196	Jul 27	(b)226	Sep 23, 2003
MAXIMUM PEAK STAGE			2.91	Jul 27	3.38	Dec 17, 2000
INSTANTANEOUS LOW FLOW			0.40	(c)	0.02	(d)
ANNUAL RUNOFF (CFSM)	2.38		1.66		1.37	
ANNUAL RUNOFF (INCHES)	32.38		22.55		18.60	
10 PERCENT EXCEEDS	14		8.6		7.6	
50 PERCENT EXCEEDS	2.5		1.8		1.4	
90 PERCENT EXCEEDS	1.0		0.72		0.30	

e Estimated.
a Aug. 14-17, 2002.
b From rating curve extended above 90 ft^3/s.
c Many days.
d Aug. 13-18, 2002.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01585200 WEST BRANCH HERRING RUN AT IDLEWYLDE, MD

LOCATION.--Lat 39°22'25.1", long 76°35'03.6", Baltimore County, Hydrologic Unit 02060003, on left bank 40 ft downstream from bridge on Regester Avenue, at Idlewylde, 0.1 mi north of Baltimore city limits, 1.0 mi upstream from mouth, and 1.3 mi east of State Highway 45.

DRAINAGE AREA.--2.13 mi^2.

PERIOD OF RECORD.--July 1957 to May 1965, January 1966 to September 1987, October 1996 to current year.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 285 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to May 31, 1965, at site 40 ft upstream at datum 3.24 ft higher.

REMARKS.--No estimated daily discharges. Records fair. Diurnal fluctuation (occasionally extensive) caused by ready-mixed concrete plant upstream from station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 290 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 14	2125	527	4.29	Jul 7	1650	*1,910	*7.05
Nov 19	1445	674	4.71	Jul 27	2030	1,560	6.51
May 25	1900	560	4.39	Sep 28	1550	409	3.90
Jun 25	1640	470	4.11	Sep 28	1655	292	3.45

Minimum discharge, 0.35 ft^3/s, Sept. 2.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.93	1.8	2.1	2.6	2.8	1.5	24	1.3	1.9	0.68	2.8	0.48
2	1.00	1.6	1.9	5.4	2.8	1.6	15	5.4	1.6	0.64	0.96	0.44
3	0.95	1.5	1.8	2.6	22	1.4	4.3	7.6	0.93	0.63	0.90	0.44
4	2.5	1.4	1.8	2.5	7.1	1.4	4.4	2.3	0.86	3.5	4.5	0.44
5	1.2	9.6	5.0	6.3	3.7	1.3	2.3	2.5	30	3.5	1.6	0.44
6	0.99	7.6	4.9	2.6	52	18	2.0	2.0	3.2	1.0	0.83	0.47
7	0.79	2.7	3.0	2.4	12	3.6	2.0	1.5	1.5	57	0.77	0.59
8	0.81	2.3	2.6	2.4	3.8	3.7	1.9	1.5	1.3	2.0	0.71	1.4
9	0.83	2.2	2.9	2.3	3.7	2.2	1.8	1.3	1.1	0.90	0.69	2.6
10	0.82	2.2	14	2.2	5.9	1.9	1.7	1.2	1.2	0.74	0.71	0.57
11	0.77	2.5	42	2.3	3.9	1.7	1.6	1.2	4.0	0.90	3.1	0.50
12	0.77	8.9	4.4	2.4	3.3	1.6	18	1.1	1.5	12	7.1	0.50
13	0.73	2.3	3.4	2.2	2.9	1.5	10	1.0	1.0	2.5	2.1	0.53
14	25	2.0	16	2.1	2.9	1.5	5.0	0.98	1.0	4.0	1.7	0.62
15	3.7	2.0	7.6	2.1	2.7	1.4	2.8	3.8	0.99	0.89	0.95	0.79
16	0.98	2.1	3.8	1.9	2.4	6.7	2.3	1.7	0.96	0.73	0.76	0.56
17	0.84	2.1	21	2.0	2.3	3.0	2.1	7.4	2.3	0.68	4.7	3.2
18	0.97	2.0	4.4	7.3	2.4	2.6	1.9	1.4	1.1	5.7	2.4	20
19	0.79	39	3.6	2.5	2.4	4.5	1.8	4.2	0.88	0.82	1.2	0.89
20	0.92	5.9	3.3	2.0	2.3	2.4	1.6	1.1	0.82	0.73	0.96	0.77
21	1.1	3.2	3.1	2.0	2.3	1.9	1.7	3.2	0.79	0.64	0.84	0.80
22	1.2	2.8	3.0	2.4	2.1	1.4	1.4	1.5	0.82	0.64	0.73	0.65
23	1.1	2.6	2.9	2.4	2.0	1.3	4.3	0.97	0.92	5.9	0.64	0.47
24	1.1	4.3	17	2.7	2.0	1.3	1.8	0.92	0.88	1.1	0.60	0.46
25	1.1	3.5	3.6	2.6	1.7	1.4	1.4	13	14	0.71	0.58	0.51
26	6.9	2.7	3.1	2.7	1.5	1.2	9.3	1.5	1.3	0.78	0.55	0.57
27	48	2.9	3.0	3.1	1.5	3.0	2.2	1.2	0.73	60	0.57	0.52
28	4.3	24	2.8	3.2	1.5	1.5	1.5	0.88	0.67	9.5	0.54	38
29	21	4.9	2.8	3.0	1.5	1.4	1.4	0.75	0.74	2.8	0.50	2.1
30	2.7	3.1	3.7	3.0	---	1.6	1.3	0.76	0.67	1.1	0.52	0.84
31	2.1	---	2.6	2.8	---	1.6	---	1.6	---	0.92	0.49	---
TOTAL	136.89	155.7	197.1	88.0	159.4	81.1	132.8	76.76	79.66	183.63	46.00	81.15
MEAN	4.42	5.19	6.36	2.84	5.50	2.62	4.43	2.48	2.66	5.92	1.48	2.71
MAX	48	39	42	7.3	52	18	24	13	30	60	7.1	38
MIN	0.73	1.4	1.8	1.9	1.5	1.2	1.3	0.75	0.67	0.63	0.49	0.44
CFSM	2.07	2.44	2.99	1.33	2.58	1.23	2.08	1.16	1.25	2.78	0.70	1.27
IN.	2.39	2.72	3.44	1.54	2.78	1.42	2.32	1.34	1.39	3.21	0.80	1.42

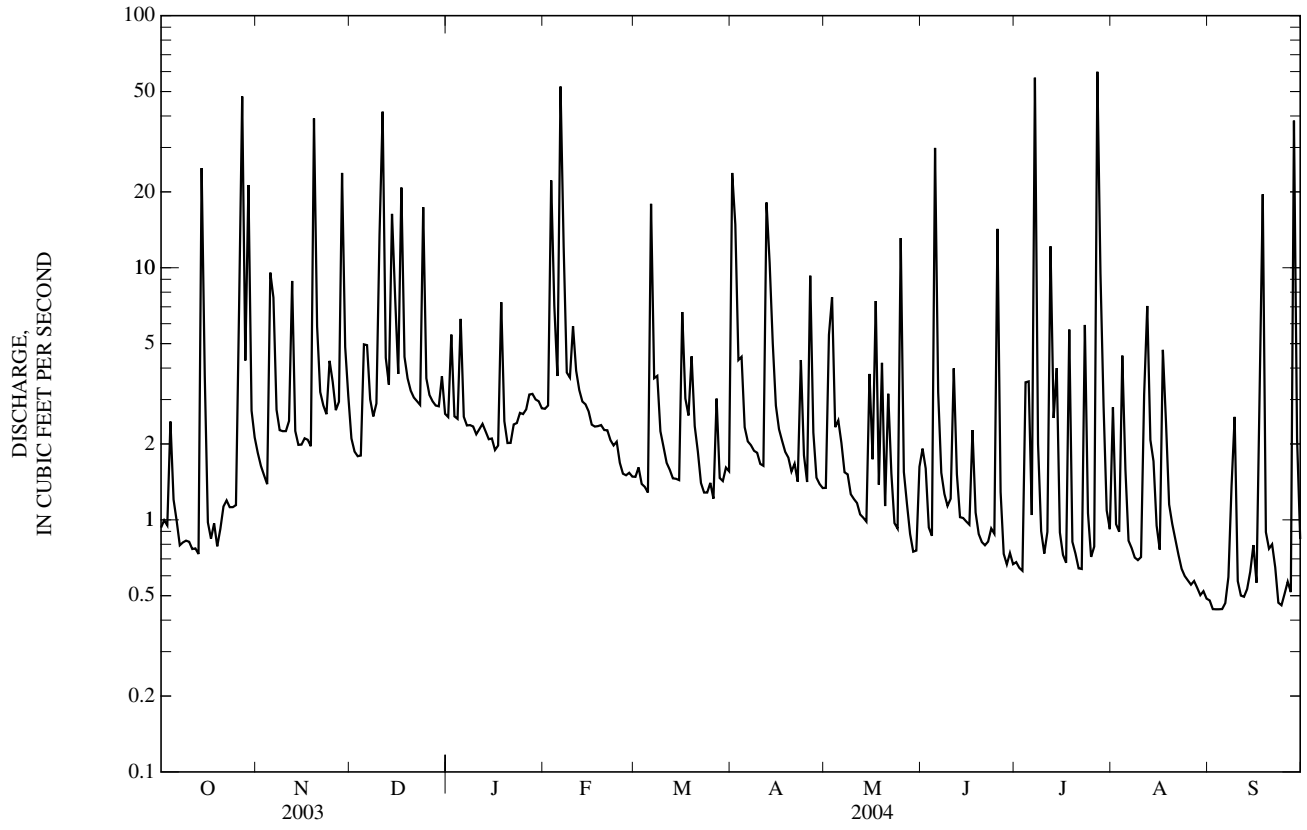
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 1987, 1997 - 2004, BY WATER YEAR (WY)

MEAN	1.89	2.33	2.82	2.64	3.19	3.43	3.04	2.69	2.54	2.20	2.25	2.66
MAX	5.74	6.59	6.71	9.14	7.41	6.82	7.80	5.24	9.61	5.92	12.2	10.6
(WY)	(1972)	(1973)	(1997)	(1979)	(1979)	(1998)	(1983)	(2003)	(1972)	(2004)	(1971)	(1999)
MIN	0.49	0.43	0.51	0.26	0.43	1.06	1.12	0.88	0.79	0.38	0.40	0.41
(WY)	(2001)	(1982)	(1981)	(1981)	(2002)	(1981)	(1985)	(1963)	(1966)	(1966)	(1966)	(1970)

01585200 WEST BRANCH HERRING RUN AT IDLEWYLDE, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1957 - 1987, 1997 - 2004	
ANNUAL TOTAL	1,702.87		1,418.19			
ANNUAL MEAN	4.67		3.87		2.68	
HIGHEST ANNUAL MEAN					4.26	1972
LOWEST ANNUAL MEAN					1.33	2002
HIGHEST DAILY MEAN	58	Feb 22	60	Jul 27	137	Jun 22, 1972
LOWEST DAILY MEAN	0.59	Aug 31	0.44	(a)	0.00	(b)
ANNUAL SEVEN-DAY MINIMUM	0.79	Oct 7	0.46	Aug 31	0.00	Aug 14, 1957
MAXIMUM PEAK FLOW			1,910	Jul 7	(c)1,910	Jul 7, 2004
MAXIMUM PEAK STAGE			7.05	Jul 7	7.05	Jul 7, 2004
INSTANTANEOUS LOW FLOW			0.35	Sep 2	0.00	(d)
ANNUAL RUNOFF (CFSM)	2.19		1.82		1.26	
ANNUAL RUNOFF (INCHES)	29.74		24.77		17.10	
10 PERCENT EXCEEDS	9.3		7.1		5.5	
50 PERCENT EXCEEDS	2.1		1.9		1.1	
90 PERCENT EXCEEDS	0.93		0.69		0.39	

a Sept. 2-5.
b Aug. 14-24, 1957, Aug. 15-19, 21-23, 2002.
c From rating curve extended above 90 ft^3/s on basis of slope-area measurement at gage height of 6.37 ft.
d Aug. 14-24, 1957, Aug. 14-24, 2002.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01585225 MOORES RUN TRIBUTARY NEAR TODD AVE AT BALTIMORE, MD

LOCATION.--Lat 39°20'12.1", long 76°32'26.2", Baltimore City, Hydrologic Unit 02060003, on left bank at upstream side of culvert inlet off of Todd Ave, at Baltimore, and 20 ft upstream from mouth.

DRAINAGE AREA.--0.21 mi^2.

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

GAGE.--Water-stage recorder. Elevation of gage is 45 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges (missing record), which are fair and those below .20 ft^3/s and above 20 ft^3/s, which are poor. Baltimore City gage-height telemeter at station. Several measurements of water temperature were made during the year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 50 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 14	2112	71	1.99	Jul 5	1753	75	2.06
Nov 19	1434	74	2.05	Jul 7	1624	59	1.77
May 17	1520	71	2.00	Jul 12	2013	51	1.63
May 19	0039	50	1.61	Jul 27	2036	*106	*2.64
May 25	1853	80	2.16				

Minimum discharge, 0.00 ft^3/s, Aug. 7, 9.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.02	0.10	0.10	0.07	0.05	0.05	1.7	0.05	0.15	0.05	0.34	e0.04
2	0.02	0.10	0.10	0.23	0.05	0.08	1.3	0.45	0.08	0.05	0.06	e0.04
3	0.02	0.10	0.06	0.05	1.2	0.05	0.28	0.68	0.05	0.05	0.05	e0.04
4	0.03	0.10	0.05	0.05	0.21	0.03	0.32	0.12	0.06	0.32	0.30	e0.04
5	0.02	0.88	0.56	0.37	0.10	0.02	0.14	0.10	3.3	0.52	0.05	e0.04
6	0.02	0.49	0.21	0.10	3.6	1.5	0.10	0.10	0.21	0.05	0.03	e0.04
7	0.02	0.10	0.08	0.09	0.60	0.15	0.10	0.12	0.10	1.2	0.02	e0.05
8	0.02	0.10	0.06	0.05	0.13	0.08	0.11	0.05	0.10	0.06	0.02	e0.10
9	0.04	0.10	0.09	0.05	0.10	0.03	0.06	0.05	0.10	0.05	0.02	e0.09
10	0.05	0.10	0.62	0.07	0.10	0.04	0.05	0.12	0.10	0.05	e0.02	e0.05
11	0.05	0.10	2.6	0.05	0.10	0.05	0.05	0.06	0.35	0.05	e0.36	e0.05
12	0.05	0.50	0.10	0.05	0.10	0.03	1.7	0.05	0.10	0.83	e0.10	e0.05
13	0.05	0.10	0.05	0.06	0.10	0.02	0.72	0.05	0.10	0.06	e0.06	e0.05
14	2.3	0.10	1.2	0.05	0.10	0.02	0.30	0.05	0.08	0.10	e0.11	e0.06
15	0.22	0.10	0.22	0.05	0.10	0.02	0.17	0.10	0.08	0.05	e0.05	e0.11
16	0.05	0.10	0.09	0.05	0.10	0.38	0.10	0.06	0.10	0.05	e0.05	e0.05
17	0.05	0.08	1.4	0.05	0.10	0.04	0.10	0.98	0.10	0.05	e0.80	e0.08
18	0.05	0.05	0.12	0.47	0.10	0.11	0.10	0.12	0.10	0.18	e0.12	e1.3
19	0.05	2.8	0.05	0.06	0.10	0.11	0.10	0.59	0.07	0.05	e0.06	e0.09
20	0.05	0.34	0.05	0.05	0.10	0.05	0.08	0.10	0.05	0.05	e0.05	e0.06
21	0.05	0.18	0.05	0.05	0.10	0.05	0.05	0.10	0.05	0.05	e0.11	e0.06
22	0.05	0.10	0.05	0.05	0.10	0.05	0.05	0.11	0.05	0.06	e0.05	e0.06
23	0.05	0.10	0.08	0.05	0.10	0.05	0.20	0.10	0.05	0.07	e0.05	e0.06
24	0.05	0.18	1.3	0.05	0.13	0.05	0.09	0.07	0.05	0.05	e0.05	e0.06
25	0.05	0.11	0.14	0.05	0.10	0.05	0.05	1.2	0.19	0.05	e0.04	e0.06
26	0.92	0.10	0.10	0.06	0.05	0.05	0.78	0.10	0.05	0.08	e0.04	e0.06
27	5.4	0.10	0.10	0.05	0.05	0.16	0.08	0.11	0.05	5.5	e0.04	e0.06
28	0.40	1.3	0.10	0.08	0.05	0.05	0.05	0.10	0.05	0.55	e0.04	e2.8
29	1.9	0.17	0.10	0.11	0.05	0.05	0.05	0.10	0.07	0.15	e0.04	e0.12
30	0.19	0.10	0.15	0.05	---	0.05	0.05	0.10	0.05	0.09	e0.04	e0.06
31	0.14	---	0.10	0.05	---	0.11	---	0.37	---	0.05	e0.04	---
TOTAL	12.38	8.88	10.08	2.72	7.87	3.58	9.03	6.46	6.04	10.57	3.21	5.83
MEAN	0.40	0.30	0.33	0.09	0.27	0.12	0.30	0.21	0.20	0.34	0.10	0.19
MAX	5.4	2.8	2.6	0.47	3.6	1.5	1.7	1.2	3.3	5.5	0.80	2.8
MIN	0.02	0.05	0.05	0.05	0.05	0.02	0.05	0.05	0.05	0.05	0.02	0.04
CFSM	1.90	1.41	1.55	0.42	1.29	0.55	1.43	0.99	0.96	1.62	0.49	0.93
IN.	2.19	1.57	1.79	0.48	1.39	0.63	1.60	1.14	1.07	1.87	0.57	1.03

e Estimated

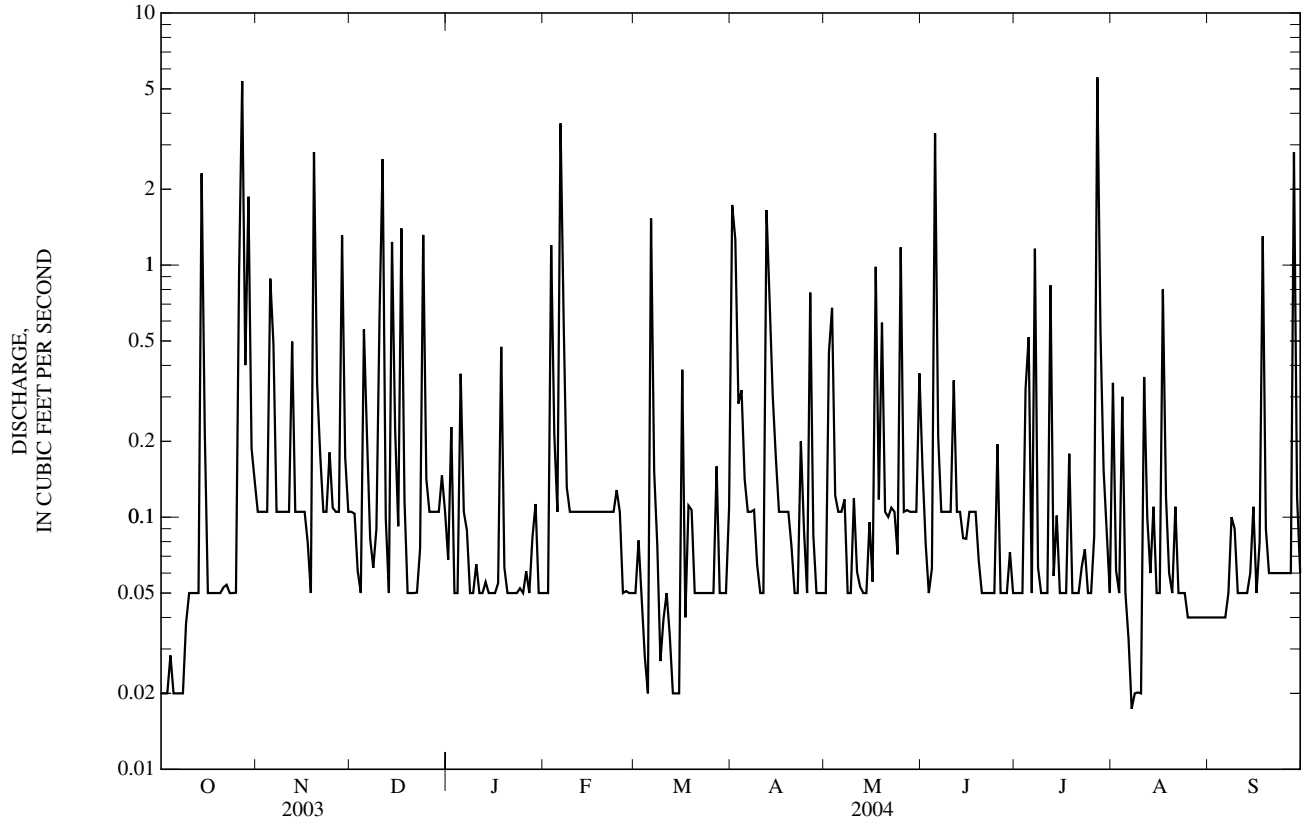
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 2004, BY WATER YEAR (WY)

MEAN	0.18	0.19	0.21	0.23	0.31	0.28	0.19	0.20	0.21	0.20	0.16	0.25
MAX	0.40	0.41	0.44	0.53	0.57	0.40	0.32	0.37	0.63	0.47	0.29	0.73
(WY)	(2004)	(1998)	(1997)	(1999)	(1998)	(1997)	(2000)	(2003)	(2003)	(2000)	(1999)	(1999)
MIN	0.04	0.08	0.04	0.09	0.03	0.12	0.10	0.07	0.09	0.02	0.06	0.09
(WY)	(2001)	(2000)	(1999)	(2004)	(2002)	(2004)	(2001)	(1999)	(1999)	(1997)	(1998)	(2001)

01585225 MOORES RUN TRIBUTARY NEAR TODD AVE AT BALTIMORE, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1996 - 2004	
ANNUAL TOTAL	125.21		86.65			
ANNUAL MEAN	0.34		0.24		0.22	
HIGHEST ANNUAL MEAN					0.33	2003
LOWEST ANNUAL MEAN					0.12	2001
HIGHEST DAILY MEAN	6.6	Feb 22	5.5	Jul 27	13	Sep 16, 1999
LOWEST DAILY MEAN	0.02	(a)	0.02	(b)	0.00	(c)
ANNUAL SEVEN-DAY MINIMUM	0.02	Sep 29	0.02	Oct 1	0.00	Dec 15, 1998
MAXIMUM PEAK FLOW			106	Jul 27	(d)261	Jun 13, 2003
MAXIMUM PEAK STAGE			2.64	Jul 27	5.68	Jun 13, 2003
INSTANTANEOUS LOW FLOW			0.00	(f)	0.00	(g)
ANNUAL RUNOFF (CFSM)	1.63		1.13		1.03	
ANNUAL RUNOFF (INCHES)	22.18		15.35		14.01	
10 PERCENT EXCEEDS	0.80		0.49		0.47	
50 PERCENT EXCEEDS	0.08		0.08		0.05	
90 PERCENT EXCEEDS	0.05		0.05		0.02	

a Many days.
b Oct. 1-3, 5-8, Mar. 4, 13-15, Aug. 7-10.
c Many days in 1997-1999, 2001-2003.
d From rating curve extended above 20 ft^3/s on basis of runoff comparison with nearby station.
f Aug. 7, 9.
g No flow at times during 1997-2004.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01585230 MOORES RUN AT RADECKE AVE AT BALTIMORE, MD

LOCATION.--Lat 39°19'48.3", long 76°32'05.6", Baltimore City, Hydrologic Unit 02060003, on right downstream side of bridge on Radecke Avenue, at Baltimore, and 2.0 mi upstream from mouth.

DRAINAGE AREA.--3.52 mi^2.

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

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 45 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.-No estimated daily discharges. Records good below 300 ft^3/s and fair above. Baltimore City gage-height telemeter at station. Several measurements of water temperature were made during the year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 600 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 14	2124	1,650	6.65	May 17	1531	*2,930	*7.76
Oct 27	0216	703	5.32	May 25	1900	2,070	7.06
Oct 27	0817	687	5.29	Jul 7	1637	937	5.73
Nov 19	1443	1,530	6.51	Jul 27	2044	2,710	7.58
Dec 11	0553	692	5.30	Aug 17	2226	647	5.21

Minimum discharge, 0.65 ft^3/s, on several days.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.66	2.2	1.3	1.1	1.6	1.7	20	1.1	1.6	0.92	2.7	1.1
2	0.69	2.1	1.2	2.5	2.8	2.0	14	4.0	1.1	0.82	1.3	1.1
3	0.74	2.1	1.1	1.2	16	1.7	3.7	6.6	0.90	0.78	1.2	1.1
4	0.87	2.1	1.1	1.2	4.1	1.8	3.8	1.7	0.96	3.0	2.9	1.1
5	0.71	11	5.2	3.8	2.8	1.7	2.0	1.6	43	4.0	1.4	1.1
6	0.71	5.5	4.0	1.4	68	26	1.7	1.1	2.9	0.98	1.3	1.1
7	0.70	2.5	2.7	1.1	7.8	3.3	1.7	1.3	1.6	16	1.2	1.2
8	0.68	1.6	2.3	1.1	3.2	2.9	1.7	1.1	1.4	1.0	1.2	1.6
9	0.66	1.4	2.6	1.1	3.0	2.0	1.8	1.1	1.2	0.87	1.2	1.6
10	0.69	1.5	10	1.6	3.2	1.9	1.7	1.3	1.2	0.87	1.1	1.2
11	0.80	1.6	53	1.9	2.7	1.8	1.6	1.7	3.2	0.96	6.3	1.2
12	0.84	5.5	2.6	2.1	2.4	1.7	20	1.0	1.4	14	3.9	1.2
13	0.80	1.7	1.8	1.5	2.3	1.7	8.2	1.0	1.1	1.3	1.5	1.2
14	47	1.3	16	1.1	2.3	1.7	3.7	1.00	1.1	1.8	1.9	1.3
15	5.0	1.2	4.2	1.1	2.3	1.6	2.3	1.5	1.1	0.97	1.3	1.8
16	2.9	1.1	2.6	1.1	2.0	4.9	1.9	1.4	1.1	0.92	1.2	1.2
17	2.7	1.2	23	1.2	2.0	2.2	1.7	39	1.3	1.1	14	2.2
18	2.6	1.1	3.1	4.6	2.1	2.3	1.7	1.7	0.97	2.1	3.9	22
19	2.8	58	2.3	2.0	2.1	2.8	1.6	6.1	0.92	0.98	1.3	1.5
20	2.8	4.0	1.9	1.5	2.0	1.8	1.5	1.2	0.87	0.92	1.2	1.3
21	2.2	1.8	1.6	1.4	2.1	1.7	1.4	1.5	0.89	1.4	1.9	1.2
22	1.5	1.3	1.4	1.4	2.0	1.7	1.4	1.3	0.88	1.4	1.1	1.3
23	1.4	1.1	1.4	1.3	2.0	1.6	2.8	1.1	0.85	2.3	1.1	1.3
24	1.6	1.7	17	1.7	2.3	1.6	1.4	1.1	0.85	1.1	1.1	1.3
25	1.3	1.3	2.4	1.6	1.8	1.8	1.2	29	3.3	0.96	1.1	1.2
26	8.8	1.0	1.7	1.6	1.7	1.6	6.6	1.7	0.99	0.97	1.1	1.2
27	92	0.95	1.5	1.9	1.7	2.3	1.6	1.4	0.92	105	1.1	1.2
28	4.0	18	1.3	2.0	1.7	1.5	1.2	1.1	0.92	6.5	1.1	51
29	25	2.7	1.2	2.0	1.7	1.4	1.2	1.0	1.1	1.6	1.1	2.3
30	2.4	1.4	1.7	1.7	---	1.4	1.1	1.0	0.92	1.3	1.1	1.5
31	1.8	---	1.2	1.6	---	1.7	---	2.2	---	1.2	1.1	---
TOTAL	217.35	139.95	174.4	52.4	151.7	85.8	116.2	118.90	80.54	178.02	64.9	110.6
MEAN	7.01	4.67	5.63	1.69	5.23	2.77	3.87	3.84	2.68	5.74	2.09	3.69
MAX	92	58	53	4.6	68	26	20	39	43	105	14	51
MIN	0.66	0.95	1.1	1.1	1.6	1.4	1.1	1.0	0.85	0.78	1.1	1.1
CFSM	1.99	1.33	1.60	0.48	1.49	0.79	1.10	1.09	0.76	1.63	0.59	1.05
IN.	2.30	1.48	1.84	0.55	1.60	0.91	1.23	1.26	0.85	1.88	0.69	1.17

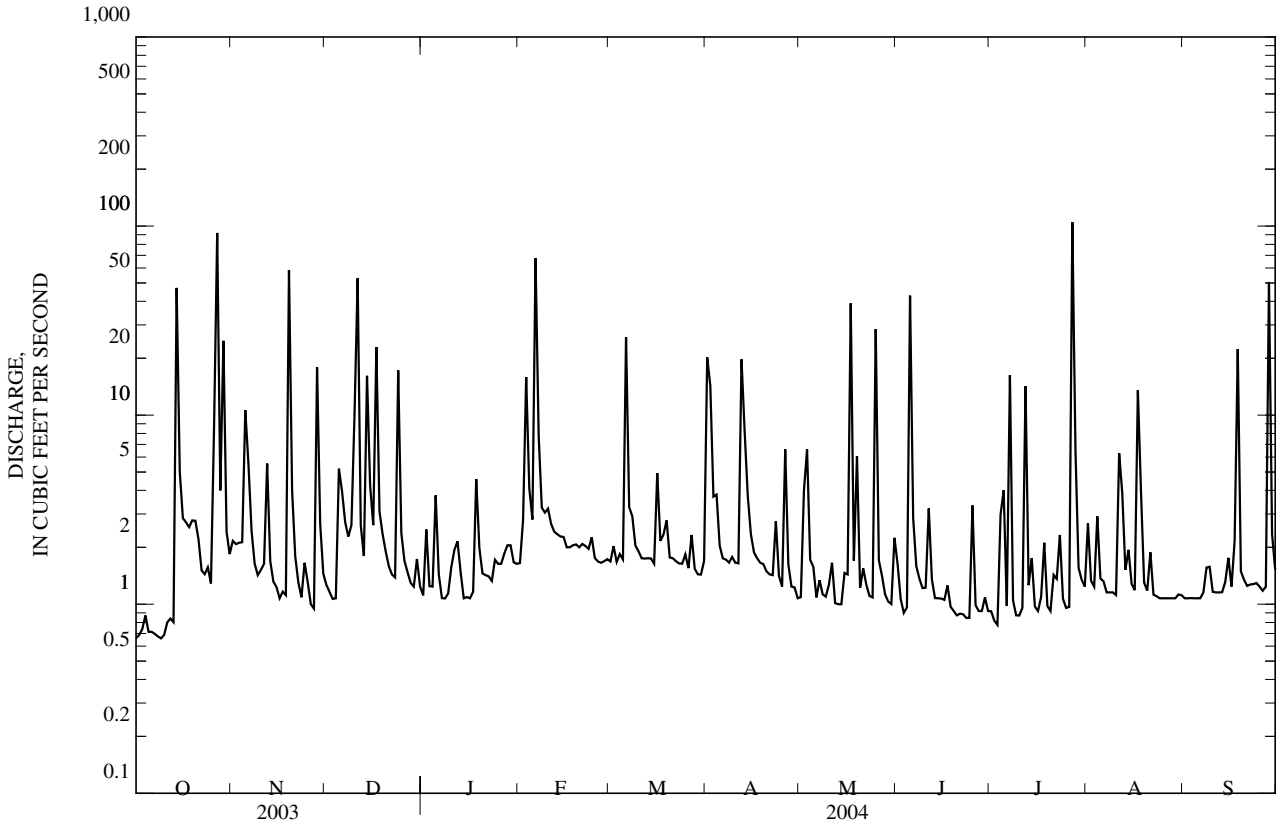
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 2004, BY WATER YEAR (WY)

MEAN	3.10	3.49	4.37	4.22	5.40	6.58	3.17	3.73	4.43	3.56	3.42	4.82
MAX	7.01	7.36	10.5	9.43	11.5	11.3	5.46	8.25	16.7	8.47	8.16	15.5
(WY)	(2004)	(1998)	(1997)	(1998)	(1998)	(1998)	(2000)	(2003)	(2003)	(2000)	(1999)	(1999)
MIN	0.55	1.25	0.96	1.69	0.67	2.77	2.16	1.06	1.57	0.36	1.43	1.42
(WY)	(2001)	(1999)	(1999)	(2004)	(2002)	(2004)	(2001)	(1997)	(1999)	(1997)	(2001)	(2001)

01585230 MOORES RUN AT RADECKE AVE AT BALTIMORE, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1996 - 2004	
ANNUAL TOTAL	2,525.49		1,490.76			
ANNUAL MEAN	6.92		4.07		4.18	
HIGHEST ANNUAL MEAN					6.87	2003
LOWEST ANNUAL MEAN					2.35	2002
HIGHEST DAILY MEAN	157	Feb 22	105	Jul 27	310	Sep 16, 1999
LOWEST DAILY MEAN	0.61	May 15	0.66	(a)	0.17	(b)
ANNUAL SEVEN-DAY MINIMUM	0.71	Oct 5	0.71	Oct 5	0.18	Oct 1, 1997
MAXIMUM PEAK FLOW			2,930	May 17	(c)8,090	Jun 13, 2003
MAXIMUM PEAK STAGE			7.76	May 17	10.48	Jun 13, 2003
INSTANTANEOUS LOW FLOW			0.65	(d)	0.15	(f)
ANNUAL RUNOFF (CFSM)	1.97		1.16		1.19	
ANNUAL RUNOFF (INCHES)	26.69		15.75		16.12	
10 PERCENT EXCEEDS	13		5.3		8.5	
50 PERCENT EXCEEDS	1.6		1.6		1.0	
90 PERCENT EXCEEDS	0.77		0.97		0.42	

a Oct. 1, 9.
b Oct. 1, 2, 1997, Oct. 25, 26, 2001.
c From rating curve extended above 320 ft^3/s.
d Oct. 1, 2, 7-10.
f Oct. 20, 1997, Aug. 12, 1999.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01585500 CRANBERRY BRANCH NEAR WESTMINSTER, MD

LOCATION.--Lat 39°35'36.0", long 76°58'03.1", Carroll County, Hydrologic Unit 02060003, on left bank 80 ft upstream from culvert, 0.7 mi upstream from mouth, and 1.8 mi northeast of Westminster.

DRAINAGE AREA.--3.29 mi^2.

PERIOD OF RECORD.--October 1949 to current year.

REVISED RECORDS.--WSP 1432: Drainage area, 1954-55. WDR MD-DE-75-1: 1972(M). WDR MD-DE-79-1: 1973-78(P).

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 670 ft above National Geodetic Vertical Datum of 1929. from topographic map.

REMARKS.--Records fair except those for estimated daily discharges (ice effect), which are poor. Occasional small diversions to and releases from Cranberry Reservoir located 1 mi upstream from station since August 1957, capacity, 113,700,000 gal. Beginning October l972 occasional large diversions past the gaging station from the reservoir through a 30-inch pipe. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 80 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec 11	0645	*601	*4.53	Aug 1	1915	503	4.29
Feb 6	1230	192	3.32	Aug 2	1900	194	3.33
Jul 7	1530	113	2.96	Sep 28	1830	134	3.07
Aug 1	0900	88	2.81				

Minimum discharge, 0.45 ft^3/s, Sept. 12, 24-27.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	3.2	3.4	4.0	e2.4	2.1	13	3.0	1.9	1.1	48	1.8
2	2.3	2.8	3.2	5.1	2.8	2.0	11	5.1	1.3	0.98	26	1.7
3	2.2	2.8	3.0	5.4	11	1.4	5.7	5.9	1.4	1.1	6.7	1.6
4	3.0	3.9	2.9	5.5	8.9	1.9	3.3	3.3	1.5	0.99	4.2	1.6
5	2.4	3.5	3.7	6.0	5.0	2.1	2.1	3.1	14	1.6	3.2	1.5
6	2.4	3.4	3.8	2.8	80	10	1.7	2.6	5.6	2.1	2.7	1.5
7	2.4	3.0	3.4	3.4	27	4.2	1.6	2.4	3.4	16	2.4	1.6
8	2.0	2.4	3.3	4.7	9.0	5.3	1.6	1.4	1.2	3.7	2.1	0.56
9	2.0	3.2	4.6	3.4	6.0	4.1	2.1	1.7	1.1	2.6	2.6	0.59
10	2.6	3.4	9.8	1.7	8.9	3.7	4.1	1.6	1.7	1.6	2.1	0.54
11	2.5	2.9	152	1.7	8.4	2.6	4.1	3.1	6.3	1.5	1.8	0.47
12	3.2	7.3	10	2.2	5.9	1.6	9.9	3.1	4.3	2.6	2.8	0.45
13	3.1	2.9	6.9	2.4	7.0	1.1	13	2.9	2.7	1.5	5.0	0.46
14	9.0	2.7	9.6	2.3	5.7	1.9	7.8	2.9	1.9	2.5	1.7	0.48
15	7.4	2.6	9.2	2.3	5.1	1.7	5.0	3.8	1.7	1.9	2.5	0.57
16	2.3	2.5	8.9	1.9	3.4	3.6	2.8	3.9	2.0	1.4	1.9	0.70
17	3.1	2.5	20	2.0	2.4	3.9	4.7	3.6	2.1	1.1	1.7	2.4
18	3.7	2.5	9.7	3.5	2.3	3.3	4.6	3.8	1.2	2.2	1.8	12
19	3.6	19	6.4	e2.1	8.0	6.0	4.4	4.4	1.4	1.8	1.9	2.5
20	3.5	8.3	5.7	e1.8	7.8	3.1	4.2	2.4	0.96	1.0	1.8	0.91
21	3.5	3.5	5.2	e1.6	6.3	2.4	4.3	4.2	2.3	1.0	2.0	0.52
22	3.5	2.9	5.5	e1.4	5.2	1.1	4.0	3.6	1.7	0.91	2.0	0.49
23	3.4	2.7	7.2	e1.5	3.8	1.6	4.3	3.1	1.2	11	1.9	0.47
24	3.1	3.5	8.4	e1.6	4.3	2.1	4.5	1.2	1.9	3.6	2.0	0.45
25	3.1	5.7	7.4	e1.9	3.3	2.8	4.1	2.8	2.2	2.7	2.0	0.45
26	3.2	2.6	5.3	e2.0	2.1	1.9	8.8	2.8	1.5	2.0	1.7	0.45
27	20	2.4	5.5	e2.2	1.6	2.8	5.5	2.5	0.94	1.9	2.0	0.45
28	6.3	13	3.8	e1.9	1.8	2.4	4.4	2.9	0.93	2.5	1.9	30
29	19	8.1	3.9	e1.8	3.1	2.0	3.1	1.7	1.3	1.7	1.8	4.8
30	5.2	3.8	4.4	e1.7	---	1.8	2.9	1.4	1.1	1.6	1.8	1.5
31	3.5	---	5.1	e2.0	---	0.95	---	1.3	---	1.9	1.8	---
TOTAL	138.7	133.0	341.2	83.8	248.5	87.45	152.6	91.5	72.73	80.08	143.8	73.51
MEAN	4.47	4.43	11.0	2.70	8.57	2.82	5.09	2.95	2.42	2.58	4.64	2.45
MAX	20	19	152	6.0	80	10	13	5.9	14	16	48	30
MIN	2.0	2.4	2.9	1.4	1.6	0.95	1.6	1.2	0.93	0.91	1.7	0.45
CFSM	1.36	1.35	3.35	0.82	2.60	0.86	1.55	0.90	0.74	0.79	1.41	0.74
IN.	1.57	1.50	3.86	0.95	2.81	0.99	1.73	1.03	0.82	0.91	1.63	0.83

e Estimated

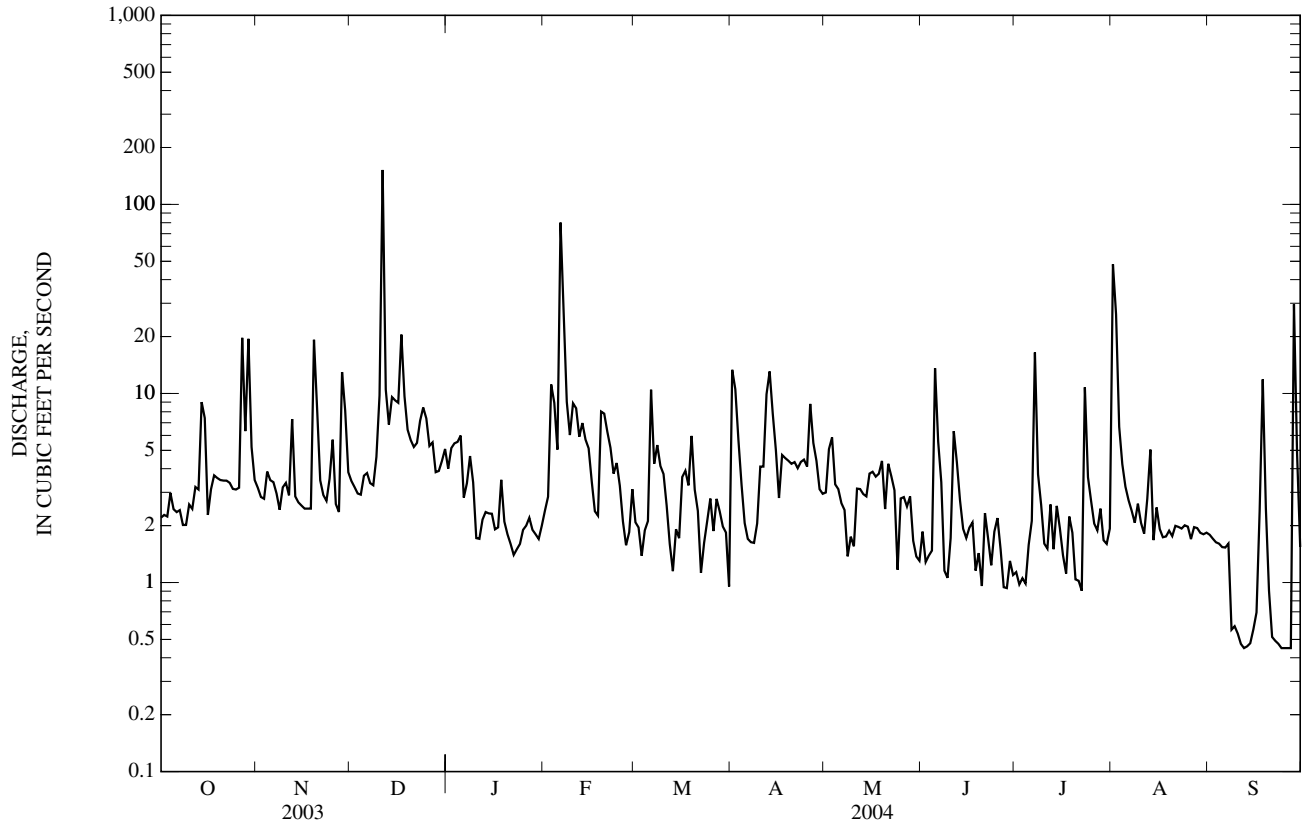
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 2004, BY WATER YEAR (WY)

MEAN	2.08	2.39	3.15	3.49	4.38	4.65	4.56	3.94	3.52	2.63	2.10	2.38
MAX	9.96	6.66	11.4	13.2	10.7	12.9	12.3	11.3	29.5	11.1	6.91	21.7
(WY)	(1980)	(1953)	(1997)	(1996)	(1974)	(1994)	(1993)	(1952)	(1972)	(1972)	(1955)	(1975)
MIN	0.31	0.31	0.34	0.34	0.23	0.49	0.30	0.52	0.62	0.19	0.12	0.25
(WY)	(1998)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)

01585500 CRANBERRY BRANCH NEAR WESTMINSTER, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1950 - 2004	
ANNUAL TOTAL	2,128.58		1,646.87			
ANNUAL MEAN	(a)5.83		(a)4.50		3.27	
HIGHEST ANNUAL MEAN					7.82	1972
LOWEST ANNUAL MEAN					0.34	2002
HIGHEST DAILY MEAN	152	Dec 11	152	Dec 11	440	Jun 22, 1972
LOWEST DAILY MEAN	(e)0.52	Feb 17	0.45	(b)	0.01	(c)
ANNUAL SEVEN-DAY MINIMUM	1.0	Feb 14	0.47	Sep 21	0.01	Sep 6, 1995
MAXIMUM PEAK FLOW			601	Dec 11	(d)2,220	Sep 26, 1975
MAXIMUM PEAK STAGE			4.53	Dec 11	7.47	Sep 26, 1975
INSTANTANEOUS LOW FLOW			0.45	(f)	(g)0.00	(h)
ANNUAL RUNOFF (CFSM)	1.77		1.37		0.993	
ANNUAL RUNOFF (INCHES)	24.07		18.62		13.49	
10 PERCENT EXCEEDS	9.8		8.0		5.9	
50 PERCENT EXCEEDS	3.9		2.7		2.2	
90 PERCENT EXCEEDS	1.9		1.2		0.53	

a Unadjusted for storage and diversions.
e Estimated.
b Sept. 12, 24-27.
c Sept. 6-16, 1995.
d From rating curve extended above 200 ft^3/s on basis of culvert measurement at gage heights 5.54 and 7.47 ft.
f July 22, Sept. 11-14, 23-28.
g Result of regulation.
h Sept. 5, 1995, July 4, 30, 31, Aug. 1-7, 10-15, 2002.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01586000 NORTH BRANCH PATAPSCO RIVER AT CEDARHURST, MD

LOCATION.--Lat 39°30'13.2", long 76°53'05.5", Carroll County, Hydrologic Unit 02060003, on left bank at downstream side of private footbridge at Cedarhurst, 0.8 mi downstream from Roaring Run, 8 mi southeast of Westminster, and 16.5 mi upstream from confluence with South Branch.

DRAINAGE AREA.--56.6 mi^2.

PERIOD OF RECORD.--September 1945 to current year.

REVISED RECORDS.--WSP 1903: 1959-60.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 420.70 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are poor. Slight diurnal fluctuation at low and medium flow caused by mill upstream from station. Low flow affected slightly by Cranberry Reservoir since August 1957, capacity, 113,700,000 gal. Records do not include a mean discharge of 2.93 ft^3/s diverted upstream from station for municipal supply of Westminster; sewage effluent discharged into Little Pipe Creek in Monocacy River basin. U.S. Geological Survey gage-height telemeter at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 15	0030	1,150	4.55	Aug 1	0115	2,620	7.01
Dec 11	0900	*3,980	*8.56	Aug 1	1045	1,160	4.56
Feb 6	1645	2,510	6.88	Aug 1	2300	1,630	5.56
May 17	1645	1,040	4.30	Sep 28	2100	1,500	5.30

Minimum discharge, 28 ft^3/s, Sept. 2, 6, 13, 14.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	71	99	104	121	72	78	208	86	62	41	979	31
2	66	91	93	124	72	83	217	88	54	41	286	30
3	62	85	87	123	175	80	221	142	58	38	174	30
4	73	81	85	122	213	77	184	94	51	38	91	30
5	65	90	96	130	118	76	152	87	226	46	90	30
6	58	95	99	122	1,050	205	125	84	146	48	69	29
7	55	90	90	109	527	152	115	78	88	182	58	30
8	53	76	85	107	198	164	110	77	70	100	53	33
9	50	72	88	108	132	126	112	75	62	57	49	44
10	49	72	109	96	177	113	102	71	62	46	47	34
11	49	71	1,550	93	163	104	99	69	123	43	45	30
12	47	132	311	96	125	95	124	67	111	85	61	30
13	45	89	234	97	124	86	258	65	73	61	135	29
14	101	75	234	94	119	82	198	63	86	61	66	28
15	290	72	251	92	104	81	132	65	90	60	55	31
16	75	69	204	e86	90	90	115	96	67	43	48	32
17	64	68	369	82	86	105	109	181	65	39	45	35
18	65	64	242	104	86	91	102	93	68	58	45	271
19	58	272	206	101	115	112	98	122	56	46	42	65
20	53	218	183	e85	129	90	95	78	51	39	40	42
21	52	116	154	83	123	87	95	128	49	36	41	36
22	53	101	146	80	106	79	91	92	51	35	41	34
23	53	91	147	80	94	75	105	73	49	92	38	32
24	49	90	193	75	94	74	112	64	46	93	36	31
25	47	116	169	e73	92	74	92	85	43	49	35	31
26	48	89	150	72	84	74	151	101	44	43	35	31
27	389	84	141	80	82	76	132	70	41	51	35	31
28	155	182	132	e76	79	74	101	65	40	64	34	380
29	354	234	130	e75	79	68	96	58	43	42	35	196
30	143	114	129	e74	---	66	90	54	39	38	33	72
31	111	---	123	73	---	66	---	58	---	82	33	---
TOTAL	2,903	3,198	6,334	2,933	4,708	2,903	3,941	2,629	2,114	1,797	2,874	1,788
MEAN	93.6	107	204	94.6	162	93.6	131	84.8	70.5	58.0	92.7	59.6
MAX	389	272	1,550	130	1,050	205	258	181	226	182	979	380
MIN	45	64	85	72	72	66	90	54	39	35	33	28
CFSM	1.65	1.88	3.61	1.67	2.87	1.65	2.32	1.50	1.24	1.02	1.64	1.05
IN.	1.91	2.10	4.16	1.93	3.09	1.91	2.59	1.73	1.39	1.18	1.89	1.18

e Estimated

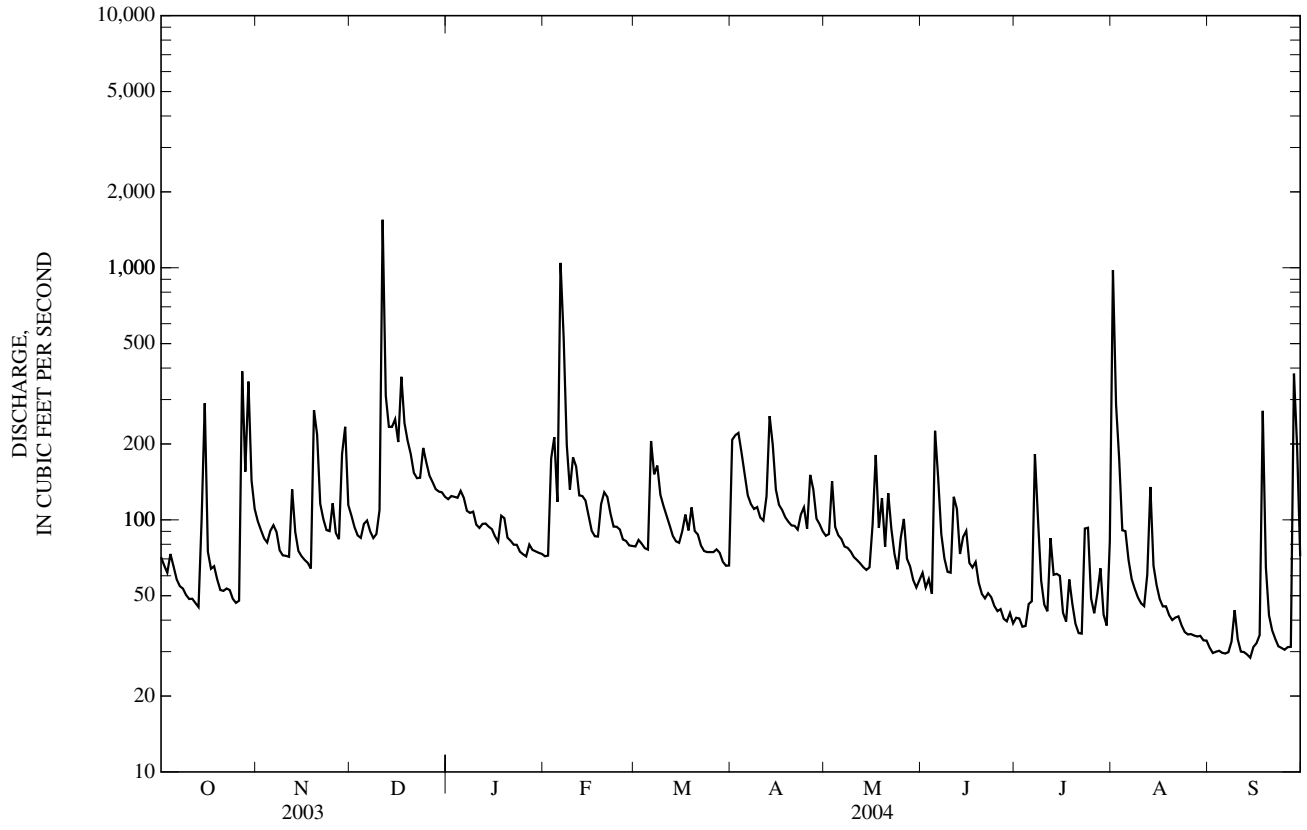
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 2004, BY WATER YEAR (WY)

MEAN	42.4	51.2	64.5	75.0	87.0	96.7	87.1	75.8	65.2	49.1	42.1	44.2
MAX	214	114	240	225	212	243	213	201	390	149	165	356
(WY)	(1980)	(1953)	(1997)	(1996)	(1979)	(1994)	(1993)	(1952)	(1972)	(1972)	(1955)	(1975)
MIN	11.8	15.8	15.5	17.6	17.0	30.5	23.2	26.3	19.5	9.72	6.91	12.4
(WY)	(1964)	(1966)	(1966)	(1966)	(2002)	(2002)	(2002)	(1969)	(1969)	(1966)	(1966)	(1964)

01586000 NORTH BRANCH PATAPSCO RIVER AT CEDARHURST, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1945 - 2004	
ANNUAL TOTAL	44,010		38,122			
ANNUAL MEAN	121		104		64.6	
HIGHEST ANNUAL MEAN					121	1972
LOWEST ANNUAL MEAN					20.2	2002
HIGHEST DAILY MEAN	1,550	Dec 11	1,550	Dec 11	6,000	Jun 22, 1972
LOWEST DAILY MEAN	16	Feb 16	28	Sep 14	(e)0.83	Aug 22, 2002
ANNUAL SEVEN-DAY MINIMUM	32	Feb 11	30	Sep 1	1.9	Aug 17, 2002
MAXIMUM PEAK FLOW			3,960	Dec 11	(a)27,800	Jun 22, 1972
MAXIMUM PEAK STAGE			8.54	Dec 11	(b)20.75	Jun 22, 1972
INSTANTANEOUS LOW FLOW			28	(c)	0.83	(d)
ANNUAL RUNOFF (CFSM)	2.13		1.84		1.14	
ANNUAL RUNOFF (INCHES)	28.93		25.06		15.50	
10 PERCENT EXCEEDS	234		181		115	
50 PERCENT EXCEEDS	85		82		44	
90 PERCENT EXCEEDS	45		38		19	

e Estimated.
a From rating curve extended above 4,100 ft^3/s on basis of contracted-opening measurement of peak flow.
b From high-water mark in well.
c Sept. 2, 6, 13, 14.
d Aug. 22, 23, 2002.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01586210 BEAVER RUN NEAR FINKSBURG, MD

LOCATION.--Lat 39°29'22.0", long 76°54'10.6", Carroll County, Hydrologic Unit 02060003, on downstream center line of bridge pier on Hughes Road, 0.25 mi northwest of intersection of Hughes Road and Maryland Route 91, and 0.75 mi southwest of Finksburg.

DRAINAGE AREA.--14.0 mi^2.

PERIOD OF RECORD.--October 1982 to current year.

GAGE.--Water-stage recorder. Datum of gage is 428.70 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair. U.S. Geological Survey gage-height telemeter at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec 11	0600	1,480	5.14	Aug 1	0100	*1,790	*5.50
Feb 6	1345	625	3.75	Sep 28	1700	598	3.18

Minimum discharge, 6.0 ft^3/s, Sept. 14.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	25	27	31	e24	21	47	22	16	12	270	7.5
2	19	23	25	33	31	22	46	23	15	12	27	7.3
3	18	22	23	31	49	21	39	29	15	11	18	7.3
4	20	21	23	31	43	21	35	22	14	11	15	7.2
5	18	24	26	33	24	20	29	21	35	13	15	7.0
6	17	23	25	30	214	52	26	20	25	13	12	6.9
7	16	22	23	27	84	32	26	19	19	21	11	7.1
8	16	19	22	26	41	33	25	19	17	16	11	7.7
9	15	18	22	26	32	27	25	19	16	12	10	8.6
10	15	18	29	e24	46	25	23	18	15	12	9.2	7.5
11	15	18	363	e24	37	24	22	18	20	11	9.1	6.3
12	15	33	66	e25	30	23	35	17	19	15	14	6.3
13	14	22	52	26	30	22	55	16	16	13	26	6.3
14	34	20	61	25	28	22	41	16	32	12	11	6.2
15	43	19	58	24	25	22	33	16	26	12	9.9	6.5
16	18	18	48	e22	24	25	30	20	19	11	9.3	6.4
17	17	18	80	e21	23	24	29	28	17	11	9.1	8.6
18	17	17	55	29	22	22	27	22	16	14	8.9	56
19	15	57	48	25	28	26	26	27	15	12	8.6	8.9
20	15	45	45	23	30	22	25	20	14	11	8.4	7.5
21	14	30	41	e22	30	22	24	24	14	10	8.5	7.1
22	14	27	40	e21	26	21	24	20	14	10	8.5	6.9
23	14	24	40	e21	24	20	27	18	13	14	8.0	6.7
24	13	25	53	e20	24	20	26	17	13	13	7.9	6.4
25	13	28	41	e19	23	20	23	17	13	11	8.0	6.5
26	14	23	38	e19	22	20	37	19	13	11	7.9	6.7
27	78	21	36	e21	22	21	29	17	12	13	7.8	6.8
28	34	46	35	e20	21	20	25	16	12	14	7.8	154
29	67	46	34	e20	21	19	23	15	13	11	7.7	36
30	34	30	34	e19	---	18	22	15	12	11	7.6	17
31	28	---	32	e19	---	19	---	15	---	33	7.6	---
TOTAL	699	782	1,545	757	1,078	726	904	605	510	406	599.8	447.2
MEAN	22.5	26.1	49.8	24.4	37.2	23.4	30.1	19.5	17.0	13.1	19.3	14.9
MAX	78	57	363	33	214	52	55	29	35	33	270	154
MIN	13	17	22	19	21	18	22	15	12	10	7.6	6.2
CFSM	1.61	1.86	3.56	1.74	2.66	1.67	2.15	1.39	1.21	0.94	1.38	1.06
IN.	1.86	2.08	4.11	2.01	2.86	1.93	2.40	1.61	1.36	1.08	1.59	1.19

e Estimated

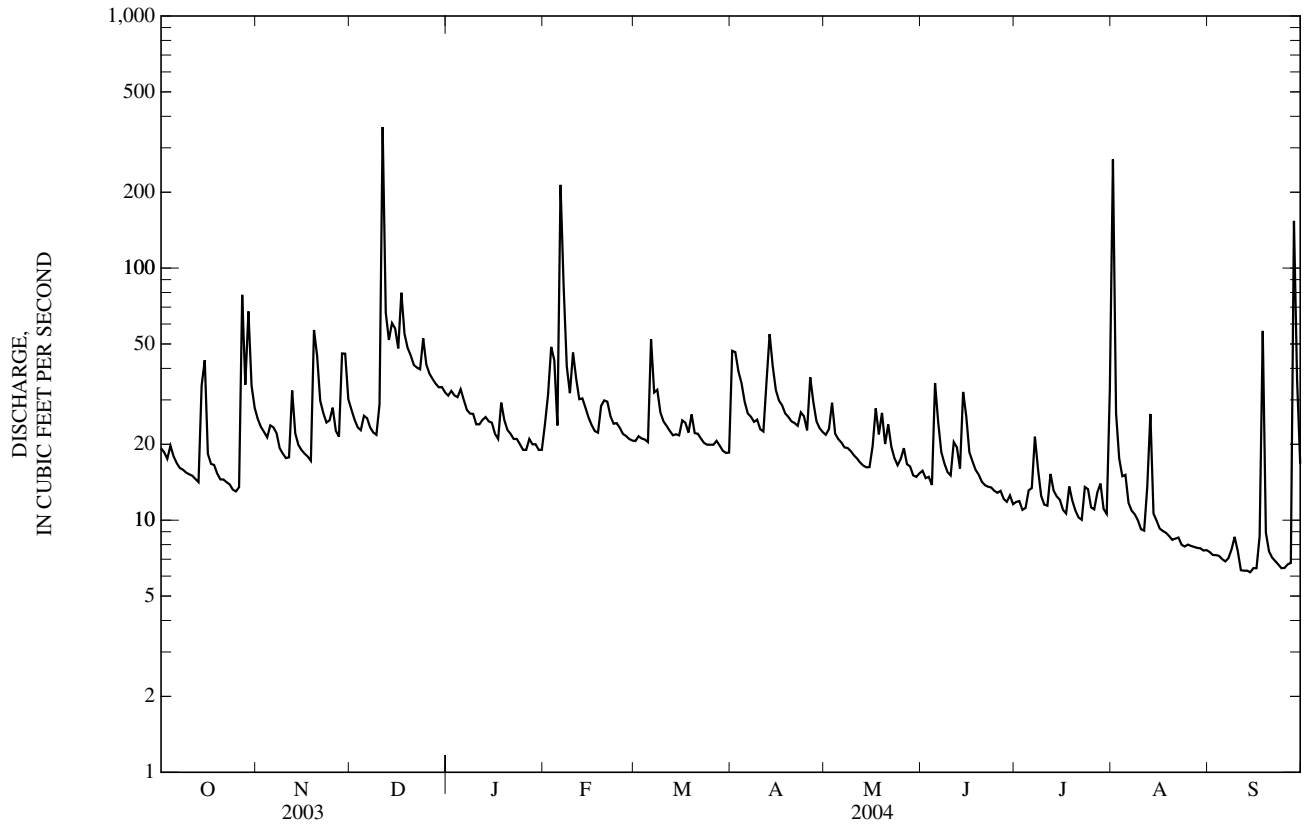
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 2004, BY WATER YEAR (WY)

MEAN	10.2	13.8	18.8	19.4	22.0	26.1	24.4	20.8	13.9	10.5	9.64	9.63
MAX	30.0	27.5	56.0	49.6	41.4	62.0	54.7	51.9	38.0	32.4	29.9	26.9
(WY)	(1997)	(1997)	(1997)	(1996)	(1994)	(1993)	(1993)	(1989)	(2003)	(1996)	(1984)	(2003)
MIN	3.73	5.39	4.94	6.80	5.25	9.19	6.73	7.43	4.76	3.01	2.40	2.78
(WY)	(1987)	(2002)	(1999)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(1986)

01586210 BEAVER RUN NEAR FINKSBURG, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1983 - 2004	
ANNUAL TOTAL	10,315.2		9,059.0			
ANNUAL MEAN	28.3		24.8		16.6	
HIGHEST ANNUAL MEAN					25.2	1996
LOWEST ANNUAL MEAN					5.40	2002
HIGHEST DAILY MEAN	363	Dec 11	363	Dec 11	528	Jan 19, 1996
LOWEST DAILY MEAN	7.2	Aug 25	6.2	Sep 14	0.27	Aug 22, 2002
ANNUAL SEVEN-DAY MINIMUM	8.6	Aug 20	6.5	Sep 10	0.37	Aug 17, 2002
MAXIMUM PEAK FLOW			1,790	Aug 1	(a)2,150	May 6, 1989
MAXIMUM PEAK STAGE			5.50	Aug 1	(b)5.70	May 6, 1989
INSTANTANEOUS LOW FLOW			6.0	Sep 14	0.23	(c)
ANNUAL RUNOFF (CFSM)	2.02		1.77		1.18	
ANNUAL RUNOFF (INCHES)	27.41		24.07		16.09	
10 PERCENT EXCEEDS	47		39		31	
50 PERCENT EXCEEDS	22		21		12	
90 PERCENT EXCEEDS	12		8.6		4.8	

a From rating curve extended above 600 ft^3/s.
b From floodmarks.
c Aug. 21-23, 2002.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01586610 MORGAN RUN NEAR LOUISVILLE, MD

LOCATION.--Lat 39°27'06.8", long 76°57'19.1", Carroll County, Hydrologic Unit 02060003, on right downstream wingwall of bridge on London Bridge Road, 1.4 mi southwest of Gamber, and 1.65 mi south of the intersection of Maryland Route 32, and 1.7 mi west of Louisville.

DRAINAGE AREA.--28.0 mi^2.

PERIOD OF RECORD.--October 1982 to current year.

REVISED RECORDS.--WRD MD-DE-84: 1983(P).

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 430 ft above National Geodetic Vertical Datum of 1929. from topographic map.

REMARKS.--Records fair except those for estimated daily discharges (ice effect), which are poor. U.S. Geological Survey gage-height telemeter at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 750 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec 11	0515	*3,860	*8.74	Jul 31	2345	3,500	8.39
Feb 6	1515	1,660	5.98	Sep 28	1900	889	4.53

Minimum discharge, 9.7 ft^3/s, Sept. 5, 6.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	49	64	69	60	e30	39	106	43	25	18	555	11
2	46	59	62	62	32	42	109	47	20	18	54	11
3	44	56	59	60	119	39	90	61	19	17	38	11
4	50	53	57	59	94	38	74	44	18	18	34	11
5	44	57	64	62	48	37	61	41	64	20	32	10
6	41	57	63	57	744	146	54	39	42	20	25	10
7	39	54	59	49	299	79	51	37	28	38	22	11
8	38	48	56	48	104	74	48	36	23	30	20	13
9	37	46	55	48	68	59	48	34	20	19	19	16
10	36	45	72	41	122	54	42	33	19	17	18	12
11	35	45	1,300	e40	88	50	41	31	30	17	18	11
12	35	72	205	e40	66	47	76	30	29	21	26	11
13	34	53	135	45	70	42	178	29	20	19	46	11
14	82	47	157	42	61	39	116	27	61	20	23	11
15	114	46	151	e38	54	38	79	28	49	18	21	13
16	47	44	116	35	47	46	66	31	30	16	19	12
17	43	43	247	42	43	45	61	30	29	15	18	21
18	43	42	144	49	44	40	57	31	30	23	17	86
19	40	184	120	42	62	50	53	41	25	18	17	20
20	38	122	105	36	65	39	50	31	22	15	16	16
21	38	76	94	34	64	38	50	32	21	14	18	14
22	37	67	90	e33	55	35	46	28	22	15	17	13
23	35	62	87	33	50	34	51	24	22	26	15	12
24	34	63	117	e31	51	33	50	23	21	24	14	12
25	33	70	91	e30	47	33	42	28	23	17	14	12
26	35	58	77	e31	42	32	81	33	22	17	13	12
27	193	56	71	e32	41	35	65	26	19	20	13	12
28	84	122	67	e31	39	32	52	27	19	23	13	252
29	195	124	65	e30	39	30	47	21	21	17	12	76
30	86	74	64	e29	---	29	44	20	18	15	12	33
31	71	---	61	e28	---	30	---	23	---	184	12	---
TOTAL	1,776	2,009	4,180	1,297	2,688	1,404	1,988	1,009	811	769	1,191	776
MEAN	57.3	67.0	135	41.8	92.7	45.3	66.3	32.5	27.0	24.8	38.4	25.9
MAX	195	184	1,300	62	744	146	178	61	64	184	555	252
MIN	33	42	55	28	30	29	41	20	18	14	12	10
CFSM	2.05	2.39	4.82	1.49	3.31	1.62	2.37	1.16	0.97	0.89	1.37	0.92
IN.	2.36	2.67	5.55	1.72	3.57	1.87	2.64	1.34	1.08	1.02	1.58	1.03

e Estimated

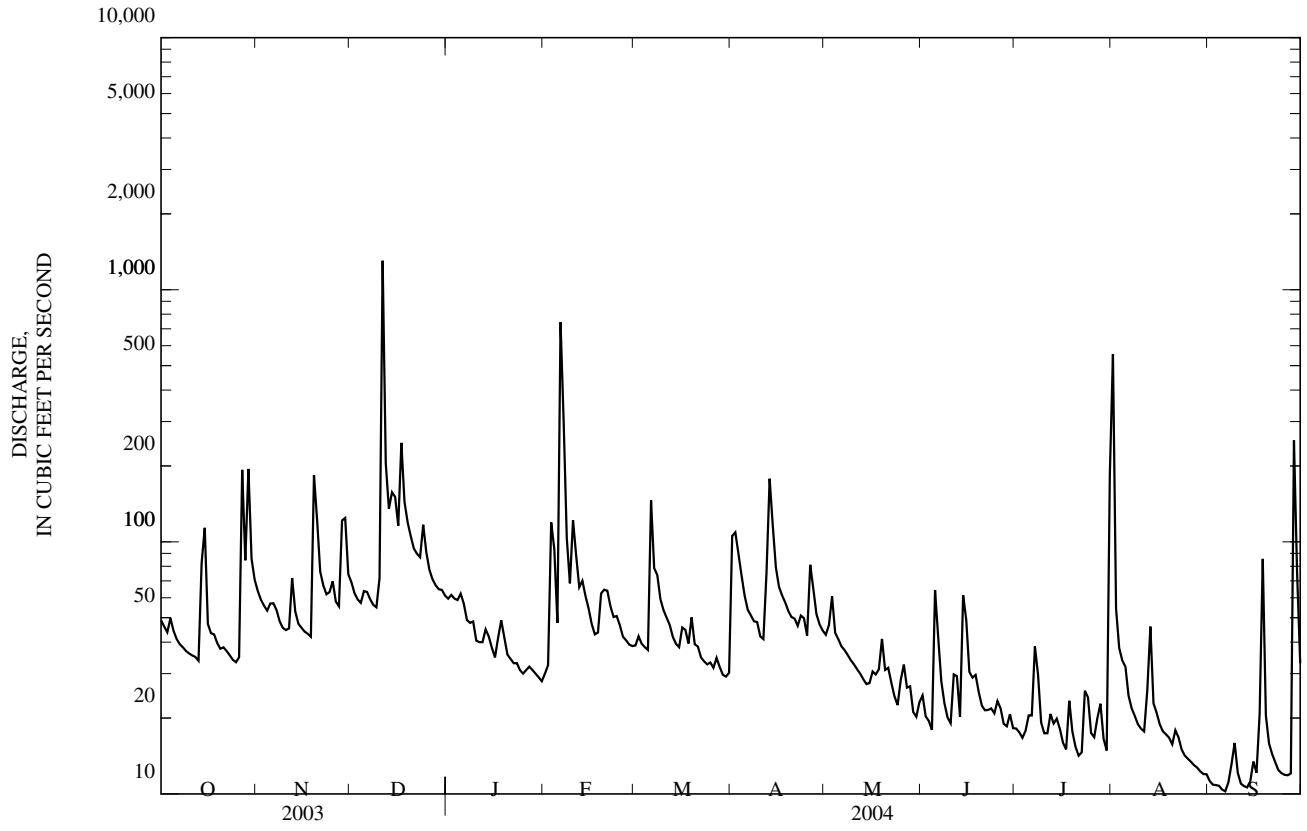
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 2004, BY WATER YEAR (WY)

MEAN	20.5	27.2	40.3	40.2	45.8	57.9	53.6	42.5	29.7	20.5	18.2	20.9
MAX	65.7	67.0	135	117	92.7	154	141	111	80.8	71.8	59.0	94.0
(WY)	(1997)	(2004)	(2004)	(1996)	(2004)	(1993)	(1993)	(1989)	(2003)	(1996)	(1996)	(2003)
MIN	5.69	9.98	9.70	12.7	10.5	17.5	12.9	13.9	7.84	3.85	2.62	3.89
(WY)	(1987)	(2002)	(1999)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)

01586610 MORGAN RUN NEAR LOUISVILLE, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1983 - 2004	
ANNUAL TOTAL	24,148		19,898			
ANNUAL MEAN	66.2		54.4		34.7	
HIGHEST ANNUAL MEAN					58.3	1996
LOWEST ANNUAL MEAN					9.60	2002
HIGHEST DAILY MEAN	1,300	Dec 11	1,300	Dec 11	1,370	Jan 19, 1996
LOWEST DAILY MEAN	18	Feb 16	10	(a)	0.73	Aug 22, 2002
ANNUAL SEVEN-DAY MINIMUM	20	Aug 19	11	Sep 1	0.86	Aug 17, 2002
MAXIMUM PEAK FLOW			3,860	Dec 11	(b)3,860	Dec 11, 2003
MAXIMUM PEAK STAGE			8.74	Dec 11	8.74	Dec 11, 2003
INSTANTANEOUS LOW FLOW			9.7	(a)	0.73	(c)
ANNUAL RUNOFF (CFSM)	2.36		1.94		1.24	
ANNUAL RUNOFF (INCHES)	32.08		26.44		16.84	
10 PERCENT EXCEEDS	112		89		67	
50 PERCENT EXCEEDS	48		39		23	
90 PERCENT EXCEEDS	24		16		9.0	

a Sept. 5, 6.
b From rating curve extended above 1,900 ft^3/s.
c Aug. 12, 13, 19, 20, 1999.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01589000 PATAPSCO RIVER AT HOLLOFIELD, MD

LOCATION.--Lat 39°18'37.1", long 76°47'32.7", Baltimore County, Hydrologic Unit 02070003, on left bank at downstream side of highway bridge at Hollofield,0.3 mi downstream from Dogwood Run, 3.0 mi north of Ellicott City, and 28 mi upstream from mouth.

DRAINAGE AREA.--285 mi^2.

PERIOD OF RECORD.--May 1944 to January 1992, March 1994 to September 1995, January 2000 to September 2004 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 187.7 ft above National Geodetic Vertical Datum of 1929. June 26 to December 8, 1972, nonrecording gage at same site and datum. Prior to June 22, 1972, water-stage recorder at site on opposite bank at same datum.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair. Flow regulated by Liberty Reservoir, 11 mi upstream, beginning July 22, 1954, usable capacity 42,070,000,000 gallons; dead storage 1,260,000,000 gallons. Diversions upstream from station for municipal supply of Westminster (sewage effluent discharged into Little Pipe Creek), and from Liberty Reservoir beginning February 26, 1953, for municipal supply of Baltimore, and beginning February 1970 for small municipal supply for part of Carroll County. U.S. Geological Survey gage-height telemeter at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 14,800 ft^3/s, Dec. 11, gage height, 11.62 ft; minimum discharge, 43 ft^3/s, Sept. 5, 6.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	235	519	503	416	e270	270	777	248	135	73	527	49
2	223	430	404	434	298	279	1,050	240	125	72	375	46
3	195	375	336	435	535	280	1,040	389	118	67	293	46
4	210	330	311	424	795	271	835	319	112	72	233	46
5	215	361	384	450	533	263	644	263	209	77	204	45
6	194	399	475	449	3,060	771	434	241	315	69	150	44
7	178	367	392	374	3,860	724	371	219	251	319	106	47
8	174	302	331	334	1,560	649	337	213	201	142	81	51
9	169	255	308	342	852	496	334	189	166	83	68	83
10	167	237	356	315	739	427	305	183	144	72	60	59
11	167	226	7,510	303	832	374	298	168	179	71	78	51
12	161	323	2,400	301	632	344	398	155	253	79	145	49
13	153	376	1,190	310	533	299	1,030	139	180	82	238	48
14	189	313	1,020	302	505	267	1,020	135	155	165	125	53
15	967	246	1,100	298	442	264	717	131	165	96	106	63
16	451	236	858	275	371	292	515	157	157	77	86	57
17	320	232	1,290	282	324	342	433	136	152	72	93	65
18	272	224	1,140	315	310	301	397	245	151	81	125	328
19	236	782	870	345	310	355	354	279	161	79	73	103
20	208	1,410	748	292	392	308	330	229	122	70	68	68
21	192	757	633	e279	441	317	306	206	99	62	64	59
22	195	531	578	e270	424	270	294	211	92	71	65	56
23	183	419	555	254	364	224	290	179	93	79	60	55
24	165	370	803	249	351	219	398	149	89	124	58	54
25	158	437	769	e250	354	232	301	138	84	78	58	54
26	159	349	619	e252	313	221	418	241	86	72	56	54
27	1,420	313	556	e260	296	230	561	174	80	127	53	56
28	1,200	473	503	e280	284	235	399	164	78	147	52	389
29	1,520	1,080	472	e260	276	224	311	140	79	84	52	368
30	1,010	624	472	e250	---	232	271	121	75	71	51	119
31	682	---	430	e250	---	240	---	122	---	65	51	---
TOTAL	11,968	13,296	28,316	9,850	20,256	10,220	15,168	6,123	4,306	2,898	3,854	2,665
MEAN	386	443	913	318	698	330	506	198	144	93.5	124	88.8
MAX	1,520	1,410	7,510	450	3,860	771	1,050	389	315	319	527	389
MIN	153	224	308	249	270	219	271	121	75	62	51	44
(†)	43603	43594	43511	43410	43444	43410	43419	43343	42931	42293	42445	42724
(‡)	135	160	165	163	159	144	159	205	193	181	190	151

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 1992, 1994 - 1995, 2000 - 2004, BY WATER YEAR (WY)

MEAN	121	144	196	211	264	277	278	247	223	146	114	140
MAX	857	590	913	770	724	804	1,071	1,102	2,024	601	516	1,493
(WY)	(1980)	(1953)	(2004)	(1949)	(1951)	(1953)	(1952)	(1952)	(1972)	(1956)	(1971)	(1975)
MIN	14.7	35.2	32.7	33.3	50.2	74.3	70.1	58.3	33.5	20.3	20.1	19.4
(WY)	(1987)	(1966)	(1966)	(1966)	(2002)	(1981)	(2002)	(1963)	(1986)	(2002)	(1966)	(1986)

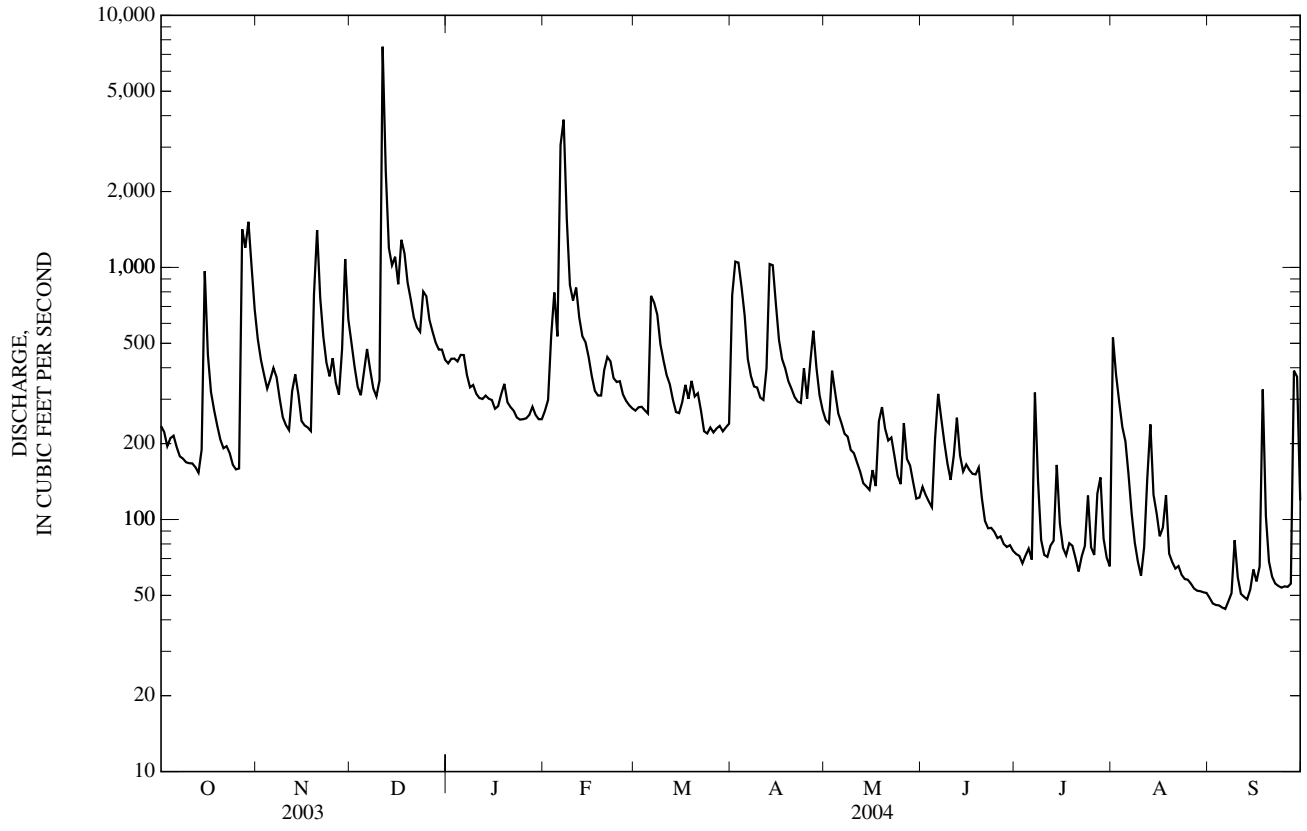
† Month-end contents, in millions of gallons in Liberty Reservoir. Records furnished by Baltimore City Department of Public Works.

‡ Diversions, in cubic feet per second, upstream from station for municipal supply for city of Westminster; and from Liberty Reservoir for municipal supply of city of Baltimore, and for part of Carroll County. Records provided by cities of Westminster and Baltimore, respectively.

01589000 PATAPSCO RIVER AT HOLLOFIELD, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1944 - 1992, 1994 - 1995, 2000 - 2004	
ANNUAL TOTAL	147,769		128,920			
ANNUAL MEAN	*405		*352		*198	
ANNUAL MEAN DIVERSIONS ‡	142		167		165	
HIGHEST ANNUAL MEAN					*524	1972
LOWEST ANNUAL MEAN					*49.8	2002
HIGHEST DAILY MEAN	7,510	Dec 11	7,510	Dec 11	30,000	Jun 22, 1972
LOWEST DAILY MEAN	67	Feb 16	44	Sep 6	5.9	Aug 22, 2002
ANNUAL SEVEN-DAY MINIMUM	90	Feb 10	46	Sep 1	6.4	Aug 17, 2002
MAXIMUM PEAK FLOW			14,800	Dec 11	(a)80,600	Jun 22, 1972
MAXIMUM PEAK STAGE			11.62	Dec 11	(b)31.30	Jun 22, 1972
INSTANTANEOUS LOW FLOW			43	(c)	5.7	(d)
ANNUAL RUNOFF (CFSM)	1.42		1.24		0.694	
ANNUAL RUNOFF (INCHES)	19.29		16.83		9.43	
10 PERCENT EXCEEDS	857		719		412	
50 PERCENT EXCEEDS	249		254		112	
90 PERCENT EXCEEDS	114		65		38	

* Unadjusted for diversions.
† Month-end contents, in millions of gallons in Liberty Reservoir. Records furnished by Baltimore City Department of Public Works.
‡ Diversions, in cubic feet per second, upstream from station for municipal supply for city of Westminster; and from Liberty Reservoir for municipal supply of city of Baltimore, and for part of Carroll County. Records provided by cities of Westminster and Baltimore, respectively.
a From rating curve extended above 27,000 ft^3/s on basis of slope-area measurement of peak flow.
b From floodmarks.
c Sept. 5, 6.
d Aug. 22, 23, 2002.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01589100 EAST BRANCH HERBERT RUN AT ARBUTUS, MD

LOCATION.--Lat 39°14'24.0", long 76°41'31.9", Baltimore County, Hydrologic Unit 02060003, on left bank 50 ft upstream from bridge on Tom Day Boulevard at U.S. Route 1 in Arbutus, 0.5 mi upstream from mouth, and 2 mi south of Baltimore city limits.

DRAINAGE AREA.--2.47 mi^2.

PERIOD OF RECORD.--August 1957 to September 1989, October 1998 to current year.

REVISED RECORDS.--WDR MD-DE-81: 1979.

GAGE.--Water-stage recorder and V-notch sharp crested weir. Elevation of gage is 45 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to August 1981 at site 100 ft downstream at same datum.

REMARKS.--Records good except those for estimated daily discharges (missing record and backwater), which are fair. Slight regulation at low flow from unknown source upstream from station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 400 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 14	2130	423	4.01	Jul 27	2056	*808	*6.06
Jul 7	1625	677	5.36				

Minimum discharge, 0.22 ft^3/s, Feb. 29.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	2.0	2.4	1.9	1.3	1.4	36	1.4	1.8	1.8	15	1.0
2	1.4	1.9	2.1	3.5	1.2	2.1	27	7.6	1.1	1.1	2.4	0.99
3	1.4	1.9	2.1	3.1	16	1.6	6.6	9.9	1.0	0.99	1.6	0.98
4	1.3	2.0	2.1	1.9	5.5	2.4	6.9	1.9	1.1	3.7	7.1	1.00
5	1.2	11	10	6.7	2.4	1.6	2.8	1.5	37	1.1	1.9	0.97
6	1.1	9.2	7.1	2.2	49	34	2.4	e1.3	3.7	1.0	1.3	1.1
7	1.2	3.4	3.8	1.8	14	5.9	2.2	e2.1	1.5	36	1.2	1.1
8	1.2	1.9	3.1	1.7	4.6	3.5	2.0	1.7	1.3	4.2	1.2	1.3
9	1.2	1.9	3.6	1.7	3.6	2.1	1.8	1.5	1.2	1.4	1.2	7.1
10	1.2	1.9	13	1.8	3.7	1.9	1.8	2.3	4.6	1.2	1.2	1.1
11	1.2	1.9	48	1.8	2.7	1.8	1.7	1.3	6.5	1.1	7.0	1.1
12	1.2	8.6	5.5	1.9	2.5	1.6	27	1.3	2.1	1.4	17	1.0
13	1.2	2.3	3.5	1.6	2.3	1.5	18	1.3	1.3	1.2	4.3	1.1
14	26	1.9	21	1.7	2.2	1.5	6.2	1.2	1.3	1.7	2.3	1.8
15	6.8	e1.7	9.7	1.8	1.8	1.6	3.3	2.2	1.2	1.0	1.5	1.7
16	2.5	e1.5	4.4	1.6	1.8	7.2	2.6	1.8	6.5	0.94	1.4	1.1
17	2.1	3.4	23	1.4	1.8	2.1	2.2	2.0	2.7	0.92	2.4	3.7
18	1.7	1.4	5.0	6.0	1.8	2.2	2.3	1.7	2.6	8.9	7.8	19
19	1.6	41	3.7	1.6	1.4	3.4	2.1	2.0	1.4	1.2	2.0	1.3
20	1.5	8.7	3.1	1.3	1.8	1.6	1.9	1.3	1.4	1.3	1.3	1.1
21	1.5	3.4	2.8	1.6	1.5	1.5	1.8	2.2	1.3	1.0	2.1	1.1
22	1.9	2.5	2.7	1.6	1.5	1.3	1.6	1.4	e1.1	0.97	1.3	1.0
23	1.8	2.2	2.7	1.6	1.5	1.3	9.1	1.2	e1.1	7.4	1.3	1.0
24	1.7	3.2	15	1.8	1.9	1.6	2.4	1.1	1.1	1.3	1.2	1.0
25	1.7	2.6	3.8	1.6	1.5	1.7	1.5	12	5.4	1.1	1.2	1.1
26	6.9	2.0	3.0	1.7	1.5	1.4	11	4.3	1.2	1.0	1.1	1.1
27	60	1.9	2.6	1.8	1.4	2.7	2.5	1.7	1.0	68	1.1	1.1
28	7.1	20	2.4	1.9	1.7	1.4	1.5	1.2	1.1	e20	1.1	36
29	27	4.9	2.2	1.6	1.0	1.3	1.5	1.0	1.1	e2.4	1.1	4.5
30	3.5	2.7	2.6	1.3	---	1.3	1.5	1.1	1.0	1.5	1.3	1.6
31	2.4	---	1.9	1.2	---	2.2	---	4.3	---	1.3	1.1	---
TOTAL	174.1	154.9	217.9	64.7	134.9	98.7	191.2	78.8	96.7	178.12	95.0	99.04
MEAN	5.62	5.16	7.03	2.09	4.65	3.18	6.37	2.54	3.22	5.75	3.06	3.30
MAX	60	41	48	6.7	49	34	36	12	37	68	17	36
MIN	1.1	1.4	1.9	1.2	1.0	1.3	1.5	1.0	1.0	0.92	1.1	0.97
CFSM	2.27	2.09	2.85	0.84	1.88	1.29	2.58	1.03	1.30	2.33	1.24	1.34
IN.	2.62	2.33	3.28	0.97	2.03	1.49	2.88	1.19	1.46	2.68	1.43	1.49

e Estimated

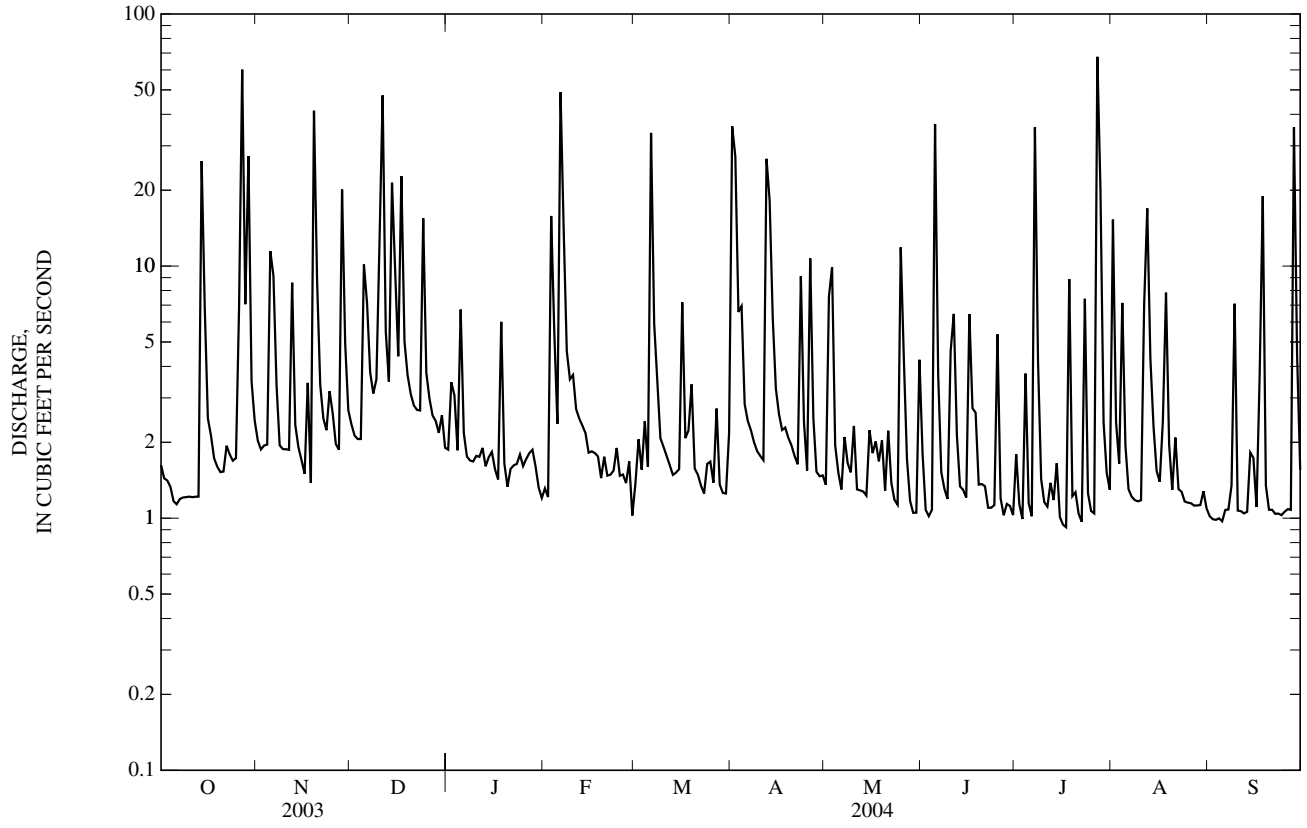
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 1989, 1998 - 2004, BY WATER YEAR (WY)

MEAN	2.35	2.85	3.37	3.27	4.08	4.24	3.69	3.54	3.11	2.90	3.07	3.65
MAX	7.62	8.39	7.54	13.4	11.0	10.7	11.8	10.6	13.5	10.2	13.5	15.7
(WY)	(1972)	(1973)	(1984)	(1979)	(1979)	(1958)	(1983)	(1989)	(1972)	(1975)	(1979)	(1979)
MIN	0.58	0.63	0.70	0.56	0.73	1.41	1.20	0.89	0.95	0.78	0.80	0.63
(WY)	(2001)	(1982)	(1981)	(1981)	(2002)	(1981)	(1985)	(1986)	(1986)	(1966)	(1982)	(1986)

01589100 EAST BRANCH HERBERT RUN AT ARBUTUS, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1957 - 1989, 1998 - 2004	
ANNUAL TOTAL	2,279.3		1,584.06			
ANNUAL MEAN	6.24		4.33		3.34	
HIGHEST ANNUAL MEAN					6.85	1979
LOWEST ANNUAL MEAN					1.87	2002
HIGHEST DAILY MEAN	101	Feb 22	68	Jul 27	200	Jun 22, 1972
LOWEST DAILY MEAN	1.1	Oct 6	0.92	Jul 17	0.21	Aug 10, 1999
ANNUAL SEVEN-DAY MINIMUM	1.2	Oct 5	1.0	Aug 31	0.24	Aug 6, 1999
MAXIMUM PEAK FLOW			808	Jul 27	(a)2,460	Sep 6, 1979
MAXIMUM PEAK STAGE			6.06	Jul 27	(b)13.70	Sep 6, 1979
INSTANTANEOUS LOW FLOW			0.22	Feb 29	0.16	(c)
ANNUAL RUNOFF (CFSM)	2.53		1.75		1.35	
ANNUAL RUNOFF (INCHES)	34.33		23.86		18.36	
10 PERCENT EXCEEDS	12		8.6		6.0	
50 PERCENT EXCEEDS	2.7		1.8		1.5	
90 PERCENT EXCEEDS	1.5		1.1		0.62	

a From rating curve extended above 280 ft^3/s on basis of culvert measurement at gage height 5.0 ft, present site, and culvert and flow-over-road measurement of peak flow at gage height 13.7 ft, present site.
b From floodmarks.
c Aug. 7, 10, 1999.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01589197 GWYNNS FALLS NEAR DELIGHT, MD

LOCATION.--Lat 39°26'34.6", long 76°47'00.3", Baltimore County, Hydrologic Unit 02060003, on downstream side of bridge on Gwynbrook Avenue, 1.2 mi east of Delight, and 1.6 mi north of Owings Mills.

DRAINAGE AREA.--4.23 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 534.20 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are poor. U.S. Geological Survey gage-height telemeter at station. Several measurements of water temperature were made during the year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 350 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 14	2215	362	4.16	Jul 7	1600	*631	*5.64
Dec 11	0400	518	5.06	Sep 28	1815	589	5.43
Feb 6	1200	372	4.22				

Minimum discharge, 1.5 ft^3/s, on several days.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.9	6.7	5.5	4.8	3.3	4.2	37	4.3	5.0	2.9	9.1	1.5
2	3.9	6.4	5.1	6.0	3.3	4.5	29	6.6	3.4	3.0	2.5	1.5
3	3.7	6.2	4.9	5.0	25	4.3	11	8.0	3.3	2.6	2.2	1.5
4	5.8	5.9	4.8	4.8	11	4.2	9.1	4.9	3.3	2.9	5.6	1.5
5	4.0	7.3	6.1	7.8	5.8	4.2	6.1	4.4	28	2.9	3.0	1.5
6	4.0	7.1	7.0	5.1	133	32	5.3	4.2	8.0	2.7	2.1	1.5
7	3.9	6.1	6.2	4.5	23	8.8	5.2	4.0	4.5	67	2.0	1.6
8	4.0	5.8	5.7	4.4	8.0	8.1	5.0	4.0	3.9	6.2	1.9	2.0
9	4.5	5.8	5.9	4.4	6.1	5.6	5.3	3.8	3.6	3.3	1.8	5.5
10	4.7	5.8	19	4.3	11	5.4	4.8	3.9	4.8	2.8	1.9	1.7
11	5.5	5.8	161	4.2	7.3	5.0	4.7	3.8	7.8	2.6	11	1.6
12	5.6	13	9.1	4.3	5.6	4.9	21	3.6	4.6	2.9	8.2	1.6
13	5.5	5.9	6.5	e4.3	5.7	4.6	17	3.5	3.4	2.7	5.2	1.6
14	39	5.8	16	e4.2	5.3	4.5	8.4	3.4	4.2	2.7	2.5	1.6
15	16	5.8	13	e4.1	4.9	4.5	6.1	4.9	3.5	2.4	2.3	1.7
16	6.7	5.8	7.9	e4.0	4.4	7.8	5.4	4.9	4.1	2.2	2.1	1.7
17	6.0	5.7	31	4.0	4.3	5.4	5.2	6.6	3.6	2.1	2.0	11
18	5.1	5.2	8.6	8.3	4.4	5.0	5.0	5.2	3.2	2.9	1.9	37
19	4.9	59	6.4	4.7	5.4	7.0	4.9	7.1	3.2	2.2	1.9	3.0
20	4.8	12	5.8	4.2	5.9	4.6	4.8	3.9	3.0	2.1	1.8	2.2
21	4.8	6.7	5.4	4.0	6.0	4.8	4.9	8.7	3.4	2.0	2.4	2.0
22	4.7	5.9	5.4	e3.9	5.0	4.5	4.7	4.0	3.0	5.8	1.9	2.0
23	4.6	5.6	5.4	e3.8	4.6	4.4	11	3.6	3.0	4.5	1.7	2.0
24	4.6	6.4	18	3.8	5.3	4.4	6.1	3.5	3.0	3.7	1.7	1.7
25	4.6	6.7	7.0	3.8	4.7	4.6	4.7	9.3	3.0	2.4	1.7	1.7
26	6.3	5.1	5.7	3.8	4.4	4.4	18	5.0	2.9	2.3	1.7	1.7
27	77	5.0	5.4	4.0	4.4	5.2	7.1	3.7	2.9	6.4	1.6	1.8
28	8.9	43	5.2	4.2	4.2	4.5	5.1	3.5	2.9	3.0	1.6	129
29	41	11	5.2	4.1	4.2	4.4	4.7	3.5	3.3	2.2	1.6	10
30	7.3	6.3	5.3	4.0	---	4.4	4.5	3.5	2.6	2.1	1.6	3.8
31	6.7	---	4.8	4.3	---	4.3	---	3.5	---	2.0	1.6	---
TOTAL	312.0	288.8	408.3	141.1	325.5	184.5	271.1	146.8	138.4	157.5	90.1	238.5
MEAN	10.1	9.63	13.2	4.55	11.2	5.95	9.04	4.74	4.61	5.08	2.91	7.95
MAX	77	59	161	8.3	133	32	37	9.3	28	67	11	129
MIN	3.7	5.0	4.8	3.8	3.3	4.2	4.5	3.4	2.6	2.0	1.6	1.5
CFSM	2.38	2.28	3.11	1.08	2.65	1.41	2.14	1.12	1.09	1.20	0.69	1.88
IN.	2.74	2.54	3.59	1.24	2.86	1.62	2.38	1.29	1.22	1.39	0.79	2.10

e Estimated

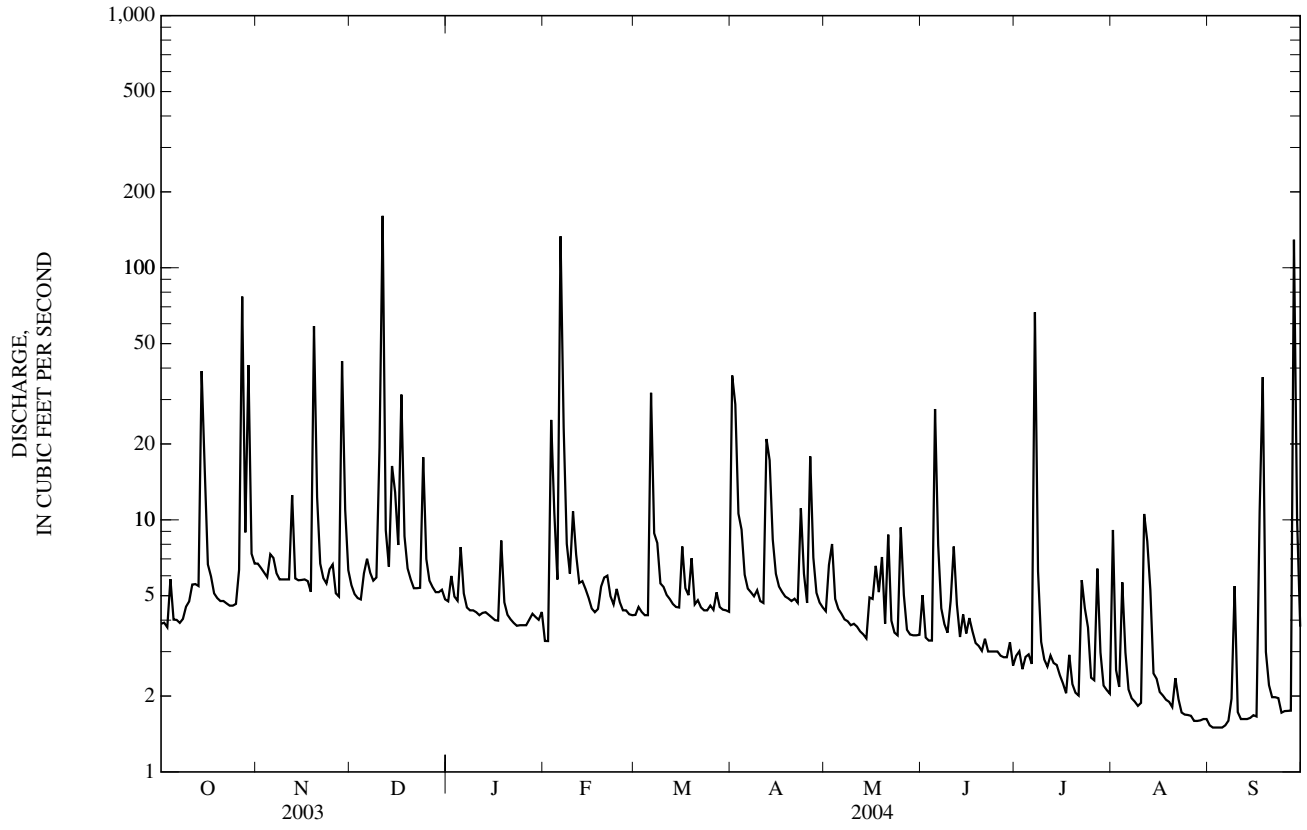
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2004, BY WATER YEAR (WY)

MEAN	4.18	4.40	5.95	4.65	5.68	6.52	5.29	4.67	5.08	3.60	4.06	6.57
MAX	10.1	9.63	13.2	7.92	11.2	9.95	9.04	9.49	12.4	5.48	6.79	11.8
(WY)	(2004)	(2004)	(2004)	(1999)	(2004)	(2003)	(2004)	(2003)	(2003)	(1999)	(1999)	(2003)
MIN	1.35	2.08	2.01	2.43	1.51	3.90	3.04	2.57	1.82	1.02	1.43	2.01
(WY)	(2002)	(1999)	(2002)	(2000)	(2002)	(2002)	(2002)	(1999)	(2002)	(2002)	(2002)	(2002)

01589197 GWYNNS FALLS NEAR DELIGHT, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1999 - 2004	
ANNUAL TOTAL	3,304.0		2,702.6			
ANNUAL MEAN	9.05		7.38		5.05	
HIGHEST ANNUAL MEAN					7.58	2003
LOWEST ANNUAL MEAN					2.20	2002
HIGHEST DAILY MEAN	161	Dec 11	161	Dec 11	161	Dec 11, 2003
LOWEST DAILY MEAN	(e)2.4	Jan 30	1.5	(a)	(e)0.25	(b)
ANNUAL SEVEN-DAY MINIMUM	2.6	Feb 9	1.5	Aug 31	0.27	Aug 16, 2002
MAXIMUM PEAK FLOW			631	Jul 7	(c)856	Jul 22, 1999
MAXIMUM PEAK STAGE			5.64	Jul 7	6.65	Jul 22, 1999
INSTANTANEOUS LOW FLOW			1.5	(d)	0.76	Jul 9, 1999
ANNUAL RUNOFF (CFSM)	2.14		1.75		1.19	
ANNUAL RUNOFF (INCHES)	29.06		23.77		16.21	
10 PERCENT EXCEEDS	15		9.2		7.8	
50 PERCENT EXCEEDS	5.1		4.6		2.9	
90 PERCENT EXCEEDS	2.9		2.0		1.3	

e Estimated.
a Sept. 1-6.
b Aug. 20-22, 2002.
c From rating curve extended above 380 ft^3/s.
d Aug. 26-29, Sept. 1-8.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01589238 GWYNNS FALLS TRIBUTARY AT MCDONOGH, MD

LOCATION.--Location -Lat 39°24'01.6", long 76°46'13.6", Baltimore County, Hydrologic Unit 02060003, on left bank 650 ft upstream of confluence with Gwynns Falls, on grounds of McDonogh School,650 ft upstream from mouth 0.7 mile northwest of McDonogh, 0.8 mile southwest of Garrison, and 1.4 miles southeast of Owings Mills.

DRAINAGE AREA.--0.03 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 472 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair below 2.1 ft^3/s and poor above. U.S. Geological Survey gage-height telemeter at station. Water-quality records for some prior periods have been collected at this location.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1.2 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 14	2100	1.4	0.63	Feb 6	1045	2.5	0.73
Nov 19	1415	1.2	0.61	Jul 7	1445	5.4	0.88
Dec 11	0215	2.5	0.73	Jul 7	1545	6.3	0.91
Dec 11	0530	4.0	0.82	Sep 28	1330	*25	*1.20

Minimum discharge, 0.001 ft^3/s, Sept. 17.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.035	0.041	0.055	0.048	0.041	0.041	0.11	0.021	0.035	0.021	0.022	0.010
2	0.035	0.041	0.045	0.051	0.041	0.041	0.099	0.026	0.034	0.017	0.016	0.009
3	0.035	0.041	0.041	0.048	0.27	0.041	0.066	0.031	0.031	0.017	0.012	0.010
4	0.031	0.041	0.041	0.048	0.062	0.036	0.054	0.026	0.028	0.017	0.012	0.009
5	0.028	0.046	0.044	0.054	0.048	0.035	0.041	0.026	0.062	0.017	0.016	0.008
6	0.027	0.042	0.056	0.048	0.90	0.097	0.041	0.028	0.045	0.026	0.014	0.010
7	0.023	0.041	0.050	0.048	0.25	0.052	0.040	0.026	0.038	0.36	0.008	0.010
8	0.023	0.048	0.048	0.048	0.057	0.047	0.035	0.028	0.031	0.053	0.010	0.008
9	0.023	0.048	0.048	0.048	0.057	0.038	0.035	0.028	0.028	0.043	0.012	0.013
10	0.023	0.048	0.12	0.048	0.23	0.035	0.035	0.033	0.028	0.056	0.012	0.008
11	0.028	0.048	0.63	0.048	0.088	0.035	0.035	0.032	0.032	0.057	0.022	0.005
12	0.028	0.056	0.078	0.048	0.065	0.031	0.063	0.028	0.031	0.067	0.031	0.005
13	0.028	0.048	0.075	0.048	0.063	0.028	0.064	0.028	0.028	0.033	0.028	0.005
14	0.095	0.048	0.12	0.048	0.052	0.028	0.050	0.029	0.028	0.036	0.023	0.006
15	0.048	0.056	0.11	0.048	0.056	0.028	0.050	0.038	0.024	0.026	0.021	0.008
16	0.035	0.056	0.096	0.048	0.051	0.039	0.048	0.044	0.028	0.023	0.020	0.008
17	0.035	0.056	0.24	0.048	0.048	0.041	0.048	0.047	0.035	0.023	0.019	0.022
18	0.035	0.056	0.093	0.050	0.048	0.036	0.048	0.049	0.036	0.021	0.016	0.047
19	0.035	0.20	0.072	0.048	0.053	0.039	0.045	0.060	0.032	0.017	0.012	0.023
20	0.031	0.079	0.065	0.048	0.048	0.035	0.041	0.042	0.034	0.017	0.012	0.019
21	0.028	0.060	0.052	0.048	0.048	0.035	0.041	0.041	0.035	0.013	0.012	0.013
22	0.028	0.056	0.048	0.048	0.048	0.035	0.032	0.034	0.034	0.031	0.012	0.012
23	0.029	0.056	0.048	0.041	0.036	0.035	0.033	0.028	0.035	0.029	0.012	0.012
24	0.028	0.057	0.083	0.041	0.036	0.035	0.033	0.023	0.035	0.024	0.012	0.012
25	0.020	0.051	0.058	0.045	0.035	0.035	0.027	0.037	0.035	0.028	0.012	0.012
26	0.022	0.048	0.048	0.048	0.035	0.035	0.042	0.032	0.035	0.026	0.012	0.012
27	0.15	0.048	0.048	0.048	0.035	0.041	0.035	0.028	0.035	0.031	0.012	0.012
28	0.045	0.13	0.048	0.048	0.041	0.041	0.029	0.029	0.035	0.033	0.012	0.57
29	0.12	0.072	0.048	0.048	0.041	0.041	0.025	0.035	0.031	0.023	0.011	0.038
30	0.047	0.062	0.048	0.046	---	0.041	0.023	0.035	0.028	0.020	0.012	0.025
31	0.041	---	0.048	0.041	---	0.042	---	0.035	---	0.012	0.012	---
TOTAL	1.239	1.780	2.704	1.473	2.883	1.219	1.368	1.027	1.006	1.217	0.469	0.961
MEAN	0.040	0.059	0.087	0.048	0.099	0.039	0.046	0.033	0.034	0.039	0.015	0.032
MAX	0.15	0.20	0.63	0.054	0.90	0.097	0.11	0.060	0.062	0.36	0.031	0.57
MIN	0.020	0.041	0.041	0.041	0.035	0.028	0.023	0.021	0.024	0.012	0.008	0.005
CFSM	1.33	1.98	2.91	1.58	3.31	1.31	1.52	1.10	1.12	1.31	0.50	1.07
IN.	1.54	2.21	3.35	1.83	3.57	1.51	1.70	1.27	1.25	1.51	0.58	1.19

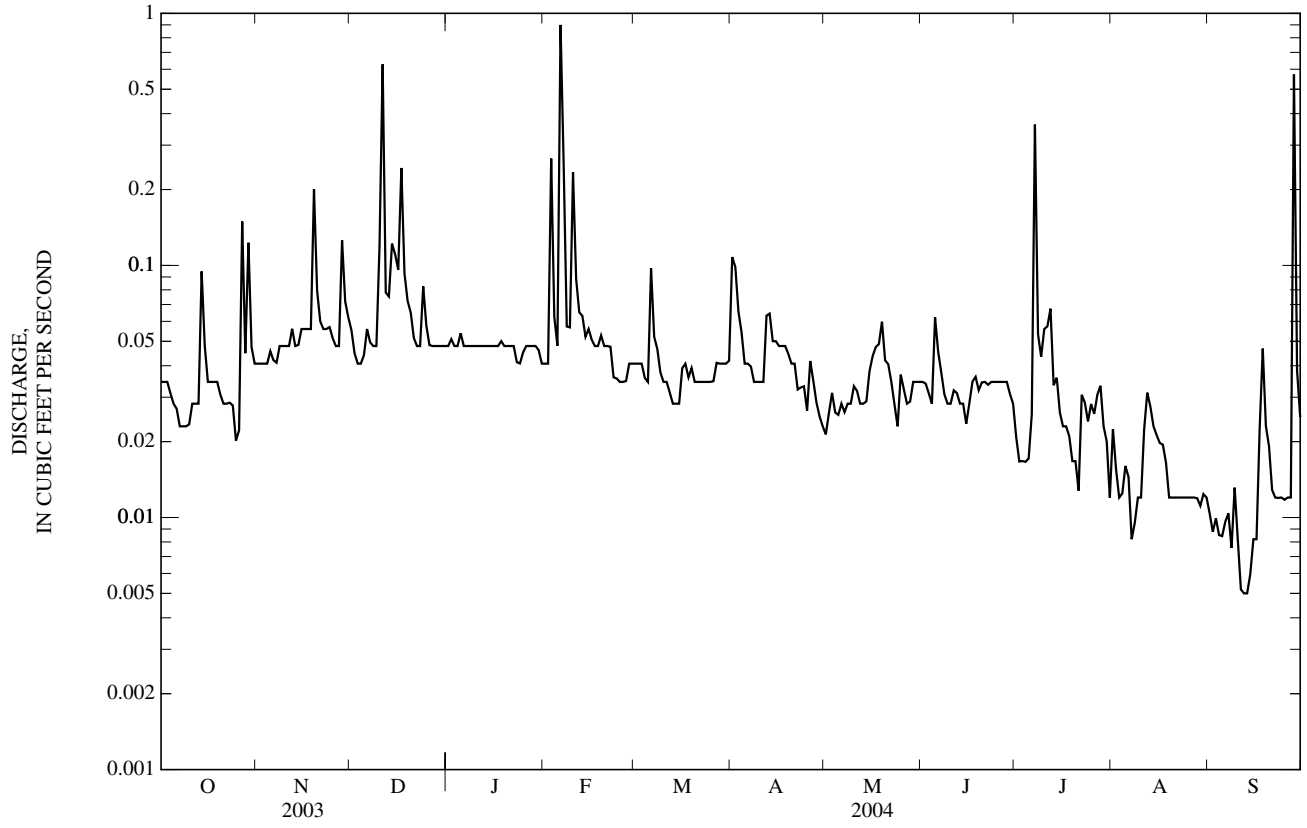
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2004, BY WATER YEAR (WY)

MEAN	0.017	0.023	0.036	0.033	0.048	0.045	0.036	0.032	0.034	0.023	0.015	0.026
MAX	0.040	0.059	0.087	0.049	0.099	0.095	0.049	0.055	0.077	0.039	0.033	0.072
(WY)	(2004)	(2004)	(2004)	(2003)	(2004)	(2003)	(2000)	(2003)	(2003)	(2004)	(2003)	(2003)
MIN	0.004	0.005	0.006	0.008	0.005	0.010	0.011	0.012	0.007	0.003	0.000	0.001
(WY)	(2003)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)

01589238 GWYNNS FALLS TRIBUTARY AT MCDONOGH, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 2000 - 2004	
ANNUAL TOTAL	21.760		17.310			
ANNUAL MEAN	0.060		0.047		0.030	
HIGHEST ANNUAL MEAN					0.047	2003
LOWEST ANNUAL MEAN					0.006	2002
HIGHEST DAILY MEAN	0.87	Sep 23	0.90	Feb 6	0.90	Feb 6, 2004
LOWEST DAILY MEAN	0.018	(a)	0.005	(b)	0.000	(c)
ANNUAL SEVEN-DAY MINIMUM	0.023	Jan 26	0.008	Sep 10	0.000	Aug 5, 2002
MAXIMUM PEAK FLOW			25	Sep 28	25	Sep 28, 2004
MAXIMUM PEAK STAGE			1.20	Sep 28	1.20	Sep 28, 2004
INSTANTANEOUS LOW FLOW			0.00	Sep 17	0.000	(d)
ANNUAL RUNOFF (CFSM)	1.99		1.58		1.02	
ANNUAL RUNOFF (INCHES)	26.98		21.46		13.87	
10 PERCENT EXCEEDS	0.09		0.06		0.05	
50 PERCENT EXCEEDS	0.04		0.03		0.02	
90 PERCENT EXCEEDS	0.02		0.01		0.00	

a Jan. 30 (estimated), Feb. 19, Sept. 10-11.
b Sept. 11-12.
c Aug. 2, 5-23, 25-27, 30, 31, Sept.21-25, 28-30, 2002, Oct. 1-10, 14, 15, 2002.
d July 31 to Sept. 30, 2002, Oct. 1-10, 13-15, 2002.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01589300 GWYNNS FALLS AT VILLA NOVA, MD

LOCATION.--Lat 39°20'45.2", long 76°43'59.5", Baltimore County, Hydrologic Unit 02060003, on right bank 300 ft downstream from bridge on Essex Road, 300 ft north of State Highway 26 (Liberty Road), in Villa Nova, 1.1 mi west of Baltimore city limits, and 11.5 mi upstream from mouth.

DRAINAGE AREA.--32.5 mi^2.

PERIOD OF RECORD.--February 1957 to September 1988, October 1996 to current year.

REVISED RECORDS.--WDR MD-DE-83: 1981-82(P). WDR MD-DE-84: 1981(P).

GAGE.--Water-stage recorder. Datum of gage is 361.32 ft above National Geodetic Vertical Datum of 1929 (Baltimore County bench mark). Prior to Aug. 27, 1963 and Oct. 25, 1972, to Sept. 20, 1973, water-stage recorder, and June 26, 1972 to Oct. 24, 1972, nonrecording gage, at site 300 ft upstream at same datum.

REMARKS.--Records good except those for estimated daily discharges (backwater, ice effect and missing record), which are fair. Slight diurnal fluctuation at times from unknown source upstream from station. Small diversion for irrigation upstream from station. U.S. Geological Survey gage-height telemeter at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 21, 1956, reached a stage of 12.6 ft, discharge, 5,270 ft^3/s on basis of contracted-opening measurement.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 900 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov 19	1945	1,060	5.37	Jul 7	1630	*2,760	*9.00
Dec 11	0715	2,380	8.26	Sep 28	1830	1,830	7.23
Feb 6	1615	1,570	6.51				

Minimum discharge, 11 ft^3/s, on several days.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	43	43	41	e31	e31	338	35	27	15	119	12
2	26	38	36	58	e32	33	275	43	25	16	49	11
3	25	35	33	e43	209	31	131	84	23	14	28	11
4	38	33	33	e40	104	31	83	43	20	20	28	11
5	27	63	50	72	49	30	51	38	191	20	44	11
6	25	66	62	e50	758	260	43	34	77	21	22	11
7	24	54	48	e39	283	68	40	32	32	716	20	12
8	24	36	43	e38	84	76	38	31	26	221	19	13
9	25	32	43	e37	54	41	e37	29	24	36	18	45
10	25	32	104	e36	80	36	35	29	22	20	18	15
11	25	31	1,140	e37	64	33	33	27	43	17	63	13
12	25	86	104	33	49	31	146	26	43	23	91	12
13	24	46	62	34	47	29	208	25	24	49	101	12
14	90	36	158	32	45	28	91	24	23	40	33	15
15	198	34	155	32	41	30	55	26	22	19	28	17
16	40	33	75	e32	36	61	44	43	26	16	24	15
17	32	32	329	e31	33	43	39	34	26	15	30	24
18	29	32	99	61	35	34	37	44	44	19	26	306
19	27	334	61	47	38	57	36	78	37	17	19	38
20	26	178	52	e34	41	32	35	31	22	14	18	21
21	25	56	46	e32	44	32	34	39	19	13	17	18
22	25	44	46	e29	40	29	34	30	19	26	18	16
23	24	38	45	e28	37	27	51	25	19	63	16	14
24	24	38	154	e27	39	28	59	23	18	33	15	15
25	24	51	68	e32	42	29	e36	63	17	18	14	14
26	27	35	49	e35	38	27	e142	67	17	16	14	14
27	539	33	45	e40	37	35	78	29	16	73	14	14
28	106	193	43	e33	37	28	44	25	16	76	13	623
29	334	152	44	e31	e35	27	39	22	18	27	12	293
30	72	52	46	e30	---	27	37	21	15	22	12	48
31	50	---	41	e30	---	29	---	23	---	20	12	---
TOTAL	2,032	1,966	3,357	1,174	2,462	1,333	2,349	1,123	951	1,715	955	1,694
MEAN	65.5	65.5	108	37.9	84.9	43.0	78.3	36.2	31.7	55.3	30.8	56.5
MAX	539	334	1,140	72	758	260	338	84	191	716	119	623
MIN	24	31	33	27	31	27	33	21	15	13	12	11
CFSM	2.02	2.02	3.33	1.17	2.61	1.32	2.41	1.11	0.98	1.70	0.95	1.74
IN.	2.33	2.25	3.84	1.34	2.82	1.53	2.69	1.29	1.09	1.96	1.09	1.94

e Estimated

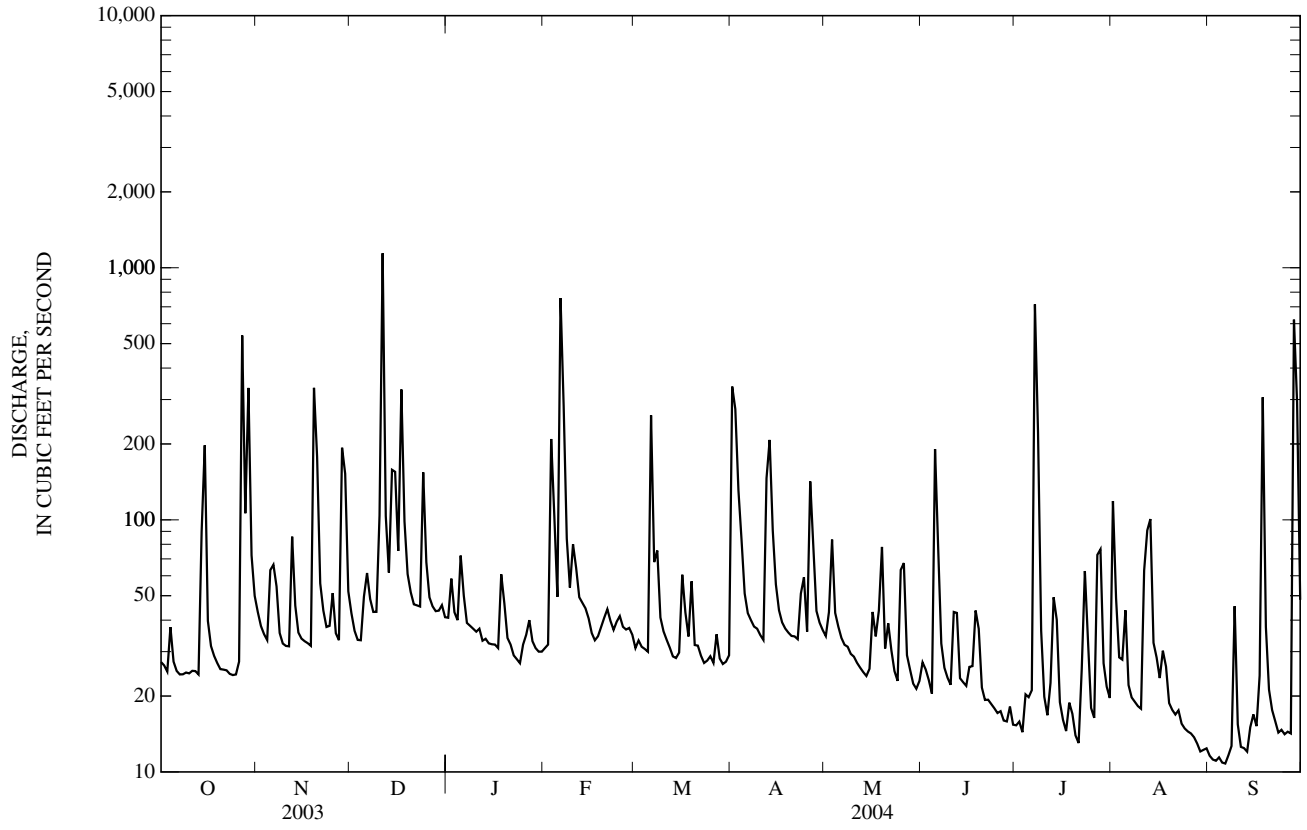
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 1988, 1997 - 2004, BY WATER YEAR (WY)

MEAN	27.4	34.5	43.7	44.0	53.4	56.7	50.4	43.0	37.5	26.6	29.0	35.2
MAX	111	82.1	135	146	130	107	129	84.9	244	79.5	186	173
(WY)	(1980)	(1997)	(1997)	(1979)	(1979)	(1998)	(1973)	(2003)	(1972)	(1975)	(1984)	(1979)
MIN	7.10	10.4	9.18	10.5	13.8	21.4	20.7	14.4	8.95	6.37	5.02	7.35
(WY)	(1964)	(1966)	(1966)	(1981)	(2002)	(1981)	(1963)	(1969)	(1986)	(1966)	(1966)	(1986)

01589300 GWYNNS FALLS AT VILLA NOVA, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1957 - 1988, 1997 - 2003	
ANNUAL TOTAL	27,743		21,111			
ANNUAL MEAN	76.0		57.7		40.3	
HIGHEST ANNUAL MEAN					76.8	1972
LOWEST ANNUAL MEAN					20.0	2002
HIGHEST DAILY MEAN	1,140	Dec 11	1,140	Dec 11	5,000	Jun 22, 1972
LOWEST DAILY MEAN	18	Feb 14	11	(a)	1.7	Sep 7, 1966
ANNUAL SEVEN-DAY MINIMUM	19	Feb 10	11	Aug 31	2.0	Aug 17, 2002
MAXIMUM PEAK FLOW			2,760	Jul 7	(b)16,200	Jun 22, 1972
MAXIMUM PEAK STAGE			9.00	Jul 7	(c)21.50	Jun 22, 1972
INSTANTANEOUS LOW FLOW			11	(a)	1.7	(d)
ANNUAL RUNOFF (CFSM)	2.34		1.77		1.24	
ANNUAL RUNOFF (INCHES)	31.76		24.16		16.83	
10 PERCENT EXCEEDS	152		91		69	
50 PERCENT EXCEEDS	41		33		23	
90 PERCENT EXCEEDS	23		16		10	

a Sept. 1-8.
b From rating curve extended above 4,200 ft^3/s on basis of contracted-opening measurement of peak flow.
c From floodmarks.
d Sept. 7, 8, 1966.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01589330 DEAD RUN AT FRANKLINTOWN, MD

LOCATION.--Lat 39°18'40.4", long 76°42'59.9", Baltimore County, Hydrologic Unit 02060003, on right bank at downstream side of bridge on Colonial Road at Security Boulevard at Franklintown, 0.3 mi west of Baltimore city limits, and 1.2 mi southwest of Woodlawn, and 2.5 mi upstream from mouth.

DRAINAGE AREA.--5.52 mi^2.

PERIOD OF RECORD.--October 1959 to September 1987, July 1998 to current year.

REVISED RECORDS.--WDR MD-DE-80-1: 1979(m).

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 310 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good above 0.4 ft^3/s and fair below, except those for estimated daily discharges (ice effect, recorder malfunction), which are poor. Occasional regulation at low flow from unknown source upstream from station. U.S. Geological Survey gage-height telemeter at station. Several measurements of water temperature were made during the year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 650 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 14	2145	847	4.87
Oct 27	0225	673	4.35
Nov 5	1705	795	4.74
Nov 19	1515	992	5.21
Dec 11	0230	755	4.61
Dec 11	0615	1,450	6.35
Jul 7	UNKNOWN	*8,700	(a)*12.76
Jul 23	1335	716	4.49
Jul 27	2110	1,850	7.29
Sep 28	1745	729	4.53

a From floodmarks.

Minimum discharge, 0.87 ft^3/s, on several days.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.5	2.9	3.3	3.3	e1.7	1.7	95	2.2	3.3	7.8	47	0.93
2	1.6	2.9	2.9	7.7	e1.7	2.7	62	10	2.9	3.6	8.2	0.89
3	1.8	2.7	2.7	3.3	e1.6	1.7	14	16	2.2	1.8	5.0	0.97
4	3.0	2.6	2.8	3.3	12	2.6	11	2.9	2.2	12	24	0.97
5	1.6	57	15	15	3.9	1.8	4.3	2.1	76	2.7	9.0	0.97
6	1.6	21	15	4.5	157	73	3.3	1.9	8.4	1.9	5.4	0.90
7	1.7	6.5	10	3.2	31	12	3.3	3.1	3.1	e450	4.6	1.1
8	1.6	3.3	5.8	2.9	6.8	7.3	2.9	2.4	2.7	14	4.0	2.2
9	1.7	2.9	6.2	2.8	4.7	3.3	2.8	1.6	2.4	3.6	3.5	14
10	1.6	2.7	49	2.4	9.4	3.0	2.2	2.7	6.9	2.7	2.8	1.4
11	1.6	2.6	229	3.2	5.1	2.6	2.2	3.2	15	2.3	25	1.0
12	1.5	17	10	5.7	3.7	2.3	63	2.7	4.5	4.2	66	0.89
13	1.7	4.4	6.0	2.8	3.6	2.0	36	1.6	1.7	2.9	14	0.89
14	74	4.6	52	2.5	3.3	2.0	11	1.5	4.2	13	4.6	22
15	15	3.9	27	2.3	2.9	2.0	4.9	12	1.8	1.4	3.3	4.2
16	2.4	3.6	9.8	2.6	2.2	15	3.3	6.1	3.4	1.1	2.7	1.7
17	1.8	3.5	81	2.9	2.2	3.6	3.3	3.1	5.2	1.1	37	20
18	1.6	3.3	10	15	2.2	3.3	2.9	7.2	8.9	6.4	20	71
19	1.4	128	6.4	3.7	2.5	9.0	2.8	8.9	3.7	1.3	3.6	3.3
20	1.4	17	5.0	2.5	2.6	2.6	2.5	2.6	2.8	1.2	2.3	2.0
21	1.5	5.4	4.2	2.3	2.9	2.3	2.4	3.0	2.6	1.9	4.7	1.6
22	2.6	3.7	4.0	2.2	2.3	2.1	2.3	3.1	2.6	14	1.5	1.6
23	1.9	3.0	3.8	e2.1	2.0	1.9	10	2.6	2.1	42	1.2	1.3
24	1.4	6.1	40	e2.0	3.2	1.8	3.4	2.5	1.2	4.0	1.2	1.2
25	1.4	5.6	6.8	e1.9	2.3	2.3	2.4	13	1.3	1.6	1.2	1.0
26	6.3	2.9	4.5	e1.8	1.9	1.9	33	4.2	1.3	1.4	1.1	0.94
27	140	2.5	3.9	e1.8	1.8	5.3	5.2	2.5	0.98	139	1.1	2.2
28	11	65	3.4	e2.6	1.7	1.8	2.4	2.4	1.1	34	1.0	133
29	83	11	3.4	e2.2	1.7	1.6	2.2	1.6	1.8	7.5	1.0	10
30	6.1	4.3	5.6	e1.9	---	1.6	2.3	1.6	1.5	5.0	1.1	2.8
31	3.4	---	3.3	e1.8	---	3.2	---	2.5	---	4.8	1.0	---
TOTAL	378.7	401.9	631.8	114.2	279.9	179.3	398.3	132.8	177.78	790.2	308.1	306.95
MEAN	12.2	13.4	20.4	3.68	9.65	5.78	13.3	4.28	5.93	25.5	9.94	10.2
MAX	140	128	229	15	157	73	95	16	76	450	66	133
MIN	1.4	2.5	2.7	1.8	1.6	1.6	2.2	1.5	0.98	1.1	1.0	0.89
CFSM	2.21	2.43	3.69	0.67	1.75	1.05	2.41	0.78	1.07	4.62	1.80	1.85
IN.	2.55	2.71	4.26	0.77	1.89	1.21	2.68	0.89	1.20	5.33	2.08	2.07

e Estimated

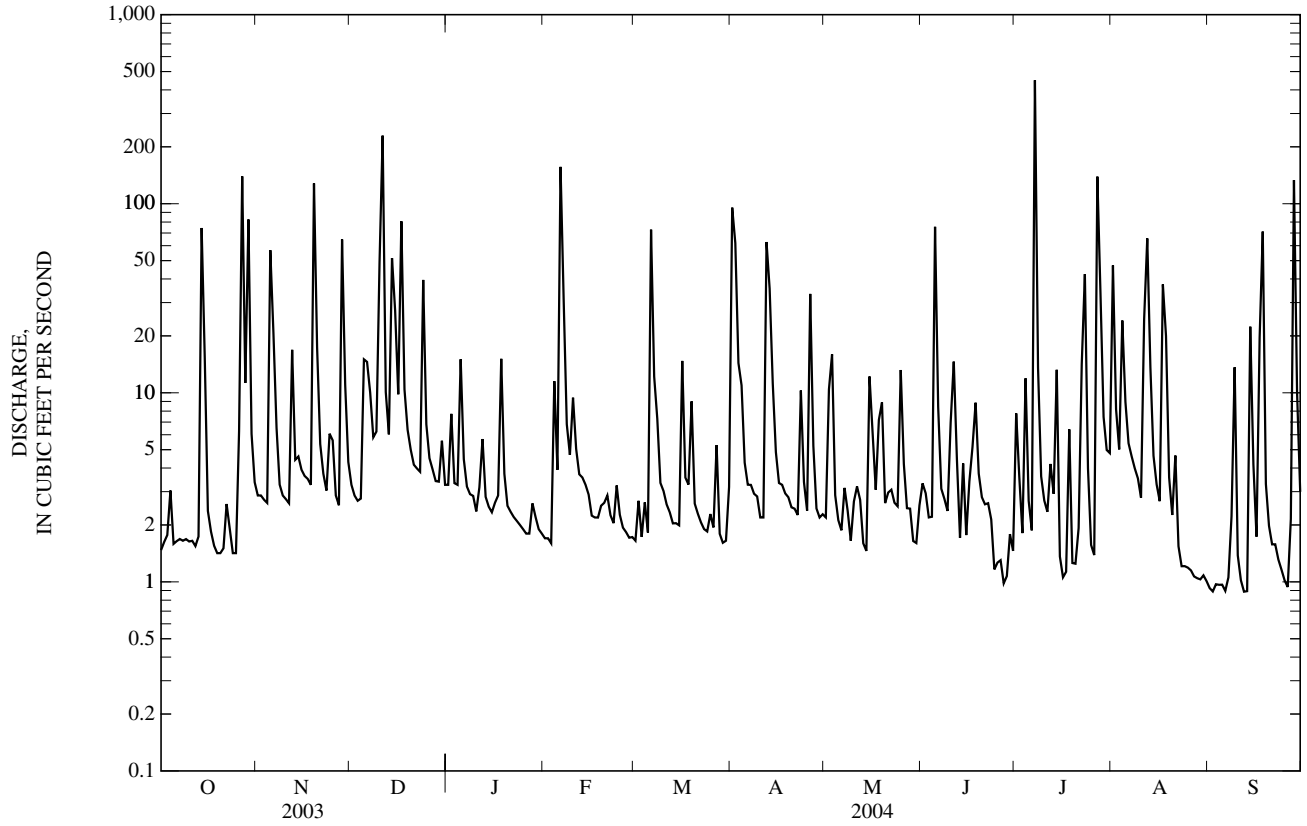
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 1987, 1998 - 2004, BY WATER YEAR (WY)

MEAN	5.65	6.64	8.70	8.80	11.0	10.9	9.07	7.70	6.96	5.59	6.78	8.94
MAX	21.8	20.6	24.0	38.1	31.3	25.9	29.6	22.4	28.4	27.7	33.9	39.5
(WY)	(1977)	(1973)	(1978)	(1979)	(1979)	(1983)	(1983)	(2003)	(1972)	(1975)	(1984)	(1979)
MIN	0.33	0.69	0.57	0.67	1.16	3.39	1.27	1.15	1.62	0.66	0.85	0.81
(WY)	(1964)	(1966)	(1966)	(1981)	(2002)	(1966)	(1963)	(1963)	(1966)	(1963)	(1966)	(1970)

01589330 DEAD RUN AT FRANKLINTOWN, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1960 - 1987, 1998 - 2004	
ANNUAL TOTAL	5,530.96		4,099.93			
ANNUAL MEAN	15.2		11.2		8.06	
HIGHEST ANNUAL MEAN					15.5	1979
LOWEST ANNUAL MEAN					3.78	1963
HIGHEST DAILY MEAN	266	Feb 22	(e)450	Jul 7	800	Aug 13, 1984
LOWEST DAILY MEAN	0.81	Aug 25	0.89	(a)	0.17	Aug 22, 2002
ANNUAL SEVEN-DAY MINIMUM	1.2	Sep 5	0.95	Aug 31	0.20	Aug 24, 1966
MAXIMUM PEAK FLOW			(b)8,700	Jul 7	(b)8,700	Jul 7, 2004
MAXIMUM PEAK STAGE			(c)12.76	Jul 7	(c)12.76	Jul 7, 2004
INSTANTANEOUS LOW FLOW			0.87	(d)	0.10	(f)
ANNUAL RUNOFF (CFSM)	2.75		2.03		1.46	
ANNUAL RUNOFF (INCHES)	37.27		27.63		19.85	
10 PERCENT EXCEEDS	36		18		15	
50 PERCENT EXCEEDS	3.9		2.9		2.0	
90 PERCENT EXCEEDS	1.4		1.4		0.70	

e Estimated.
a Sept. 2, 12, 13.
b From rating curve extended above 7,400 ft^3/s on basis of slope area measurement of peak flow.
c From floodmarks.
d June, 27, 28, July 20, Aug. 30, 31, Sept. 1-6, 8, 11-13, 25, 26.
f Sept. 11, 12, 1966.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01589340 ROGNEL HEIGHTS STORM SEWER OUTFALL AT BALTIMORE, MD

LOCATION.--Lat 39°17'59.5", long 76°41'24.5", Baltimore City, Hydrologic Unit 02060003, on left wingwall of culvert at downstream side of storm sewer outfall on Seminole Avenue, 0.3 mi upstream from confluence with Dead Run, 0.6 mi southeast of Leakin Park, and 1.5 mi southwest of Walbrook.

DRAINAGE AREA.--0.03 mi^2.

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

GAGE.--Water-stage recorder, CSG gage, and concrete control. Elevation of gage is 318 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair except those for estimated daily discharges (missing record), which are poor. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 11 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 25	1855	16	0.97	Jul 27	1950	18	1.05
Jul 7	1455	*37	*1.62				

Minimum discharge, 0.000 ft^3/s, on many days.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.000	0.000	0.003	0.003	0.007	0.002	0.34	0.001	0.004	0.015	0.009	0.001
2	0.000	0.000	0.002	0.036	0.008	0.007	0.20	0.048	0.000	0.000	0.000	0.001
3	0.000	0.000	0.004	0.003	0.20	0.003	0.007	0.058	0.000	0.000	0.000	0.001
4	0.002	0.000	0.005	0.003	0.014	0.011	0.031	0.000	0.012	0.039	0.004	0.001
5	0.000	0.15	0.062	0.082	0.000	0.005	0.002	0.000	0.44	0.000	0.000	0.001
6	0.000	0.079	0.029	0.002	0.60	0.27	0.001	0.000	0.004	0.000	0.000	0.000
7	0.000	0.001	0.032	0.002	0.037	0.054	0.001	0.008	0.000	0.60	0.000	0.000
8	0.002	0.000	0.025	0.001	0.000	0.003	0.001	0.001	0.000	0.000	0.000	0.001
9	0.002	0.000	0.037	0.001	0.009	0.002	0.002	0.000	0.000	e0.000	0.000	0.058
10	0.003	0.001	0.28	0.034	0.029	0.005	0.001	0.008	0.005	e0.000	e0.000	0.001
11	0.001	0.000	0.35	0.015	0.004	0.005	0.001	0.000	0.037	e0.000	e0.16	0.001
12	0.000	0.082	0.006	0.002	0.002	0.003	0.23	0.000	0.000	0.001	e0.16	0.001
13	0.000	0.001	0.006	0.001	0.002	0.002	0.087	0.001	0.000	0.000	e0.001	0.001
14	0.19	0.001	0.26	0.002	0.002	0.002	0.019	0.000	0.000	0.011	e0.001	0.025
15	0.002	0.000	0.070	0.001	0.001	0.002	0.002	0.026	0.000	0.000	e0.001	0.007
16	0.000	0.000	0.006	0.002	0.002	0.091	0.002	0.002	0.013	0.000	e0.001	0.001
17	0.004	0.002	0.25	0.001	0.002	0.005	0.002	0.012	0.009	0.000	e0.001	0.005
18	0.004	0.001	0.005	0.14	0.001	0.031	0.001	0.012	0.005	0.031	e0.02	0.000
19	0.003	0.36	0.005	0.004	0.002	0.030	0.001	e0.05	0.001	0.000	0.001	0.000
20	0.005	e0.003	0.004	0.002	0.002	0.007	0.001	0.000	0.001	0.000	0.001	0.000
21	0.004	e0.002	0.004	0.002	0.002	0.007	0.001	0.000	0.001	0.000	0.009	0.000
22	0.008	e0.002	0.004	0.002	0.002	0.007	0.004	0.001	0.000	0.003	0.001	0.000
23	0.001	e0.002	0.004	0.012	0.002	0.009	0.038	0.000	0.000	0.011	0.001	0.000
24	0.001	0.059	0.17	0.018	0.006	0.009	0.001	0.000	0.000	0.000	0.001	0.000
25	0.001	0.002	0.004	0.10	0.001	0.008	0.001	0.11	0.027	0.000	0.001	0.000
26	0.061	0.002	0.003	0.014	0.002	0.006	0.11	0.003	0.000	0.000	0.001	0.000
27	0.36	0.001	0.003	0.005	0.002	0.023	0.001	0.000	0.000	0.70	0.001	0.17
28	0.039	0.22	0.003	0.005	0.002	0.005	0.001	0.000	0.000	0.007	0.001	0.000
29	0.18	0.004	0.002	0.012	0.002	0.005	0.001	0.000	0.000	0.000	0.001	0.000
30	0.001	0.003	0.020	0.007	---	0.006	0.001	0.000	0.000	0.000	0.001	0.000
31	0.000	---	0.004	0.005	---	0.038	---	0.004	---	0.000	0.001	---
TOTAL	0.874	0.978	1.662	0.519	0.945	0.663	1.091	0.345	0.559	1.418	0.379	0.276
MEAN	0.03	0.03	0.05	0.02	0.03	0.02	0.04	0.01	0.02	0.05	0.01	0.01
MAX	0.36	0.36	0.35	0.14	0.60	0.27	0.34	0.11	0.44	0.70	0.16	0.17
MIN	0.000	0.000	0.002	0.001	0.000	0.002	0.001	0.000	0.000	0.000	0.000	0.000
CFSM	0.94	1.09	1.79	0.56	1.09	0.71	1.21	0.37	0.62	1.52	0.41	0.31
IN.	1.08	1.21	2.06	0.64	1.17	0.82	1.35	0.43	0.69	1.76	0.47	0.34

e Estimated

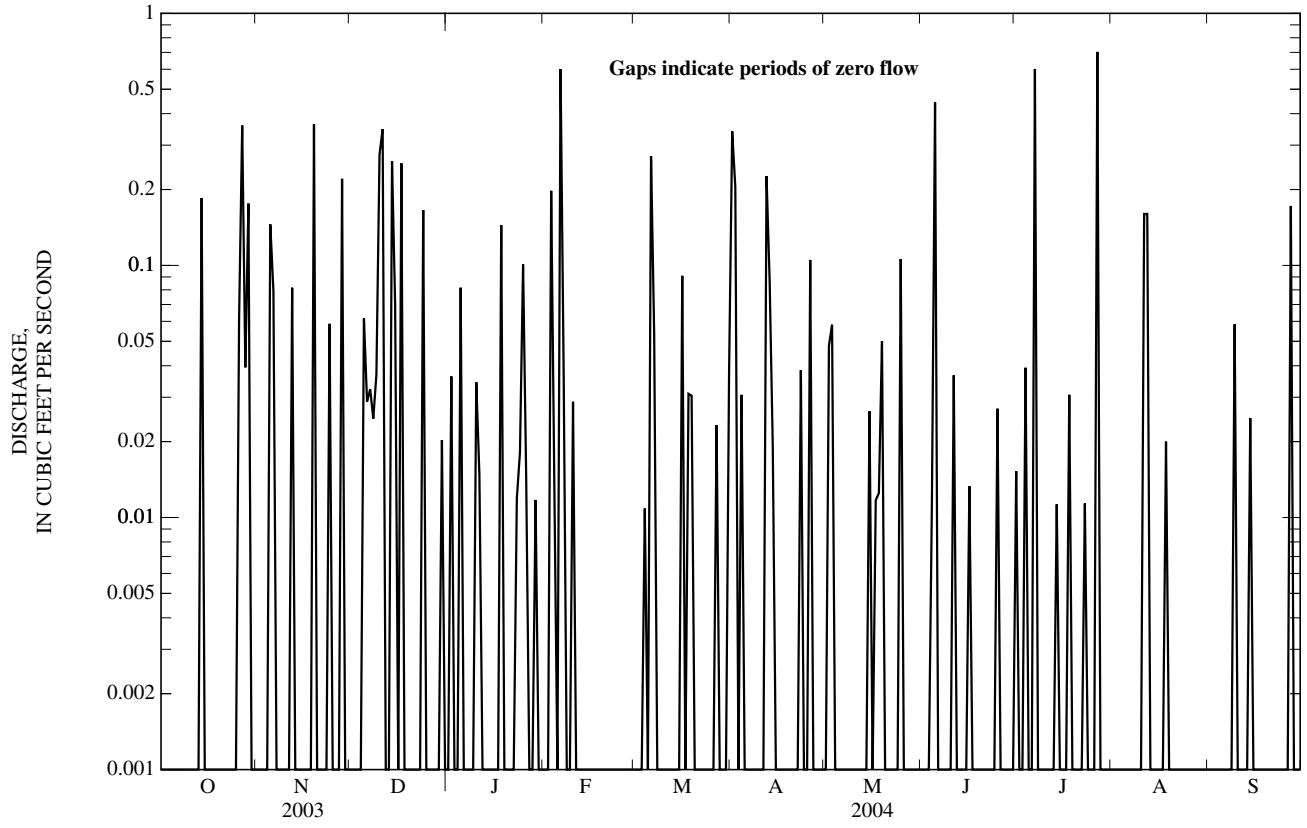
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2004, BY WATER YEAR (WY)

MEAN	0.02	0.02	0.02	0.02	0.07	0.03	0.02	0.02	0.02	0.02	0.02	0.03
MAX	0.05	0.03	0.05	0.03	0.26	0.07	0.04	0.05	0.03	0.05	0.06	0.07
(WY)	(2003)	(2004)	(2004)	(1999)	(2001)	(2001)	(2004)	(2003)	(2003)	(2004)	(1999)	(1999)
MIN	0.00	0.01	0.00	0.01	0.00	0.01	0.01	0.00	0.01	0.01	0.01	0.01
(WY)	(2001)	(2001)	(1999)	(2002)	(2002)	(1999)	(2001)	(1999)	(2002)	(2001)	(2003)	(2004)

01589340 ROGNEL HEIGHTS STORM SEWER OUTFALL AT BALTIMORE, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1999 - 2004	
ANNUAL TOTAL	12.170		9.460			
ANNUAL MEAN	0.03		0.03		0.02	
HIGHEST ANNUAL MEAN					0.04	2001
LOWEST ANNUAL MEAN					0.01	2002
HIGHEST DAILY MEAN	0.50	May 16	0.70	Jul 27	4.7	Feb 22, 2001
LOWEST DAILY MEAN	0.000	(a)	0.000	(a)	0.000	(a)
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 9	0.00	Oct 1	0.00	Oct 19, 1998
MAXIMUM PEAK FLOW			37	Jul 7	(b)37	Jul 7, 2004
MAXIMUM PEAK STAGE			1.62	Jul 7	1.62	Jul 7, 2004
INSTANTANEOUS LOW FLOW			0.00	(a)	0.00	(c)
ANNUAL RUNOFF (CFSM)	1.11		0.862		0.826	
ANNUAL RUNOFF (INCHES)	15.09		11.73		11.22	
10 PERCENT EXCEEDS	0.11		0.06		0.06	
50 PERCENT EXCEEDS	0.00		0.00		0.00	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

a Many days.
b From rating curve extended above 0.8 ft^3/s on basis of slope-area measurements at gage heights of 0.80, 0.82, and 1.04 ft.
c No flow at times each year.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

0158935180 GWYNNS RUN AT BALTIMORE, MD

LOCATION.--Lat 39°16'41.3", long 76°39'07.2", Baltimore City, Hydrologic Unit 02060003, on left bank below CSX railroad tunnel, at northwest corner of Carroll Park Municipal Golf Course, and 1,100 ft upstream from mouth.

DRAINAGE AREA.--2.5 mi^2.

PERIOD OF RECORD.--October 2001 to September 2004 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 25.2 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except those for estimated daily discharges (missing record), which are poor. Several measurements of water temperature were made during the year. A major collapse of a Baltimore City sanitary sewer caused an overflow of sewage into the Run between April 22, and May 28. Water-quality data for some prior years have been collected at this location.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 14	2110	1,470	7.50	Jul 27	2015	1,820	7.97
May 25	1900	1,530	7.59	Aug 18	1815	1,100	6.93
Jul 7	1605	*4,250	*10.27				

Minimum discharge, 0.60 ft^3/s, Aug. 16, 17.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	4.4	3.8	4.8	6.3	e5.1	e48	18	4.2	11	16	1.0
2	3.1	6.2	3.3	8.4	6.5	5.5	e25	30	1.9	13	1.2	0.99
3	3.4	6.3	3.5	4.5	31	7.5	12	27	2.4	8.8	1.2	1.1
4	3.2	5.2	4.2	4.5	9.3	5.6	9.1	18	2.4	9.1	13	0.94
5	3.1	33	15	14	5.8	3.8	6.0	18	58	e2.2	1.1	0.94
6	3.9	19	e6.5	4.4	76	43	4.9	17	4.1	e2.3	0.96	0.85
7	3.3	5.9	e6.0	5.0	13	8.9	5.2	19	2.8	e230	0.93	0.90
8	4.1	4.8	e6.0	6.6	6.1	5.5	4.8	16	2.7	1.7	1.8	1.3
9	2.9	4.8	e6.0	4.3	5.5	4.8	5.9	15	3.0	e1.3	1.5	12
10	3.4	5.4	e15	e4.0	5.0	4.6	5.8	20	2.8	1.4	1.3	1.4
11	3.7	5.2	50	e6.0	5.0	4.9	5.3	18	6.6	e1.3	14	1.2
12	3.2	14	6.2	5.6	e4.3	4.9	27	19	2.4	1.6	14	1.2
13	3.1	4.6	4.8	5.1	e4.5	4.5	35	18	2.3	1.4	1.4	1.3
14	55	e5.3	26	5.4	4.9	4.8	11	17	2.4	3.3	1.3	10
15	5.2	e5.0	8.7	5.2	4.2	4.6	6.5	21	2.8	1.5	0.89	1.6
16	2.9	e5.0	6.2	e4.6	3.9	13	5.9	19	6.6	1.0	0.91	1.3
17	2.6	e5.0	29	4.5	4.9	4.6	5.7	17	3.4	0.93	3.9	24
18	2.7	e5.0	6.5	14	4.9	6.7	6.3	18	3.2	9.5	24	30
19	2.8	e40	6.4	4.8	4.8	6.9	6.6	25	2.7	1.0	1.6	1.9
20	2.9	e6.0	6.4	3.9	6.0	5.1	6.3	19	2.9	1.0	1.3	1.9
21	2.9	e5.0	5.4	4.3	5.5	4.2	5.8	18	3.1	1.1	1.8	1.5
22	3.3	e5.0	5.9	5.6	6.1	e4.6	15	19	3.8	1.7	1.1	1.4
23	2.9	e5.0	3.9	e4.8	5.3	e4.5	23	21	4.3	4.7	1.1	1.3
24	2.7	e7.0	17	5.1	5.6	e4.5	17	19	3.5	0.93	1.1	1.7
25	2.5	e4.9	6.0	4.6	5.6	e4.5	16	52	16	0.91	1.0	1.5
26	10	3.6	5.4	5.2	e5.8	e4.5	33	16	2.3	1.4	0.95	1.8
27	86	3.8	4.2	5.6	e5.5	e6.0	16	15	2.1	103	0.98	1.6
28	10	32	4.6	6.4	e5.5	e4.5	16	13	2.0	5.3	1.2	72
29	37	5.9	5.1	6.2	e5.5	e5.1	18	1.5	1.9	1.7	1.2	2.2
30	6.0	3.2	7.1	6.2	---	e4.7	18	1.6	2.3	1.1	1.00	1.5
31	5.1	---	5.6	6.0	---	4.9	---	2.8	---	1.1	0.96	---
TOTAL	285.9	265.5	289.7	179.6	262.3	206.3	420.1	567.9	160.9	426.27	114.68	182.32
MEAN	9.22	8.85	9.35	5.79	9.04	6.65	14.0	18.3	5.36	13.8	3.70	6.08
MAX	86	40	50	14	76	43	48	52	58	230	24	72
MIN	2.5	3.2	3.3	3.9	3.9	3.8	4.8	1.5	1.9	0.91	0.89	0.85
CFSM	3.69	3.54	3.74	2.32	3.62	2.66	5.60	7.33	2.15	5.50	1.48	2.43
IN.	4.25	3.95	4.31	2.67	3.90	3.07	6.25	8.45	2.39	6.34	1.71	2.71

e Estimated

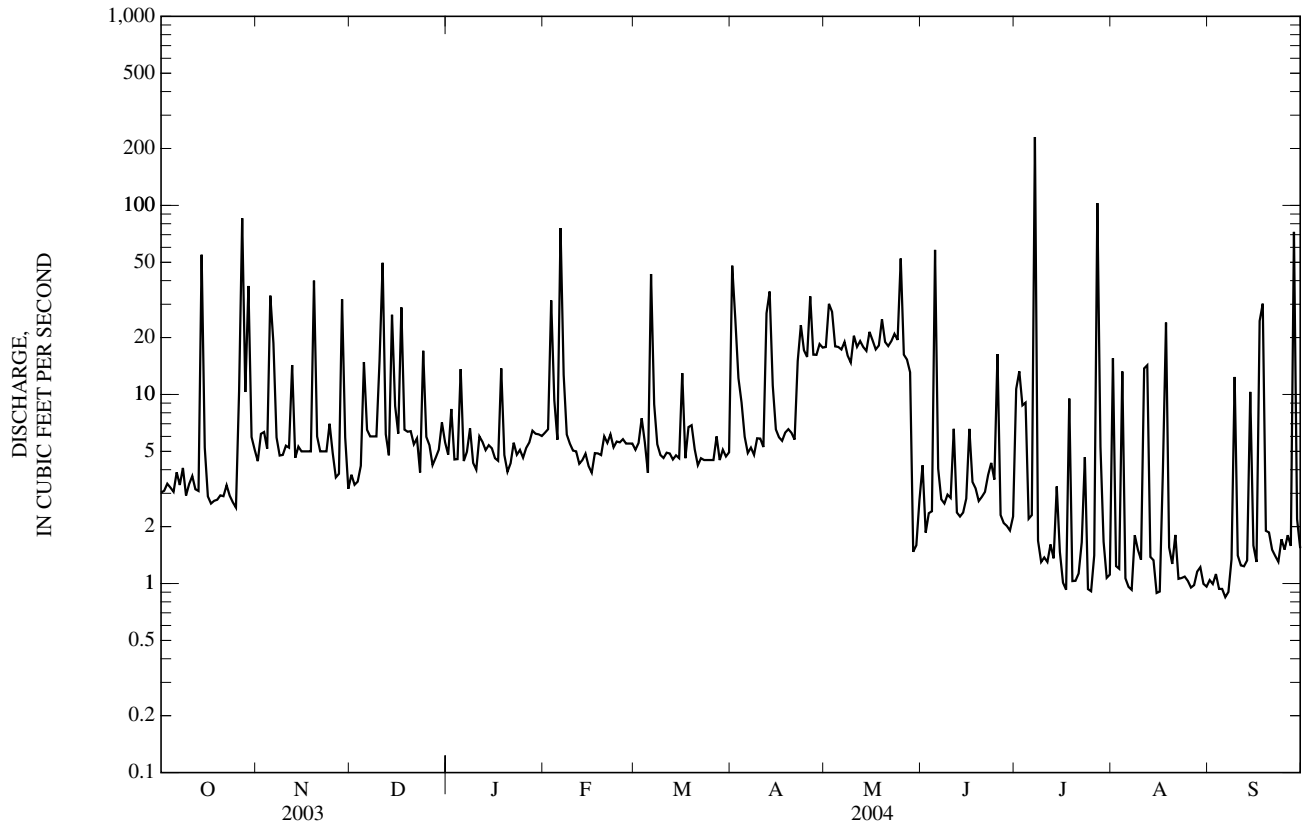
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2002 - 2004, BY WATER YEAR (WY)

MEAN	7.87	8.22	8.98	7.31	8.14	9.00	10.6	12.8	8.98	8.85	5.85	9.13
MAX	10.4	9.80	12.5	10.0	11.9	13.4	14.0	18.3	17.3	13.8	7.31	14.8
(WY)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2004)	(2004)	(2003)	(2004)	(2003)	(2003)
MIN	4.00	6.01	5.06	5.79	3.45	6.65	6.48	7.54	4.25	3.93	3.70	6.08
(WY)	(2002)	(2002)	(2002)	(2004)	(2002)	(2004)	(2002)	(2002)	(2002)	(2002)	(2004)	(2004)

0158935180 GWYNNS RUN AT BALTIMORE, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 2002 - 2004	
ANNUAL TOTAL	4,092.9		3,361.47			
ANNUAL MEAN	11.2		9.18		8.81	
HIGHEST ANNUAL MEAN					11.7	2003
LOWEST ANNUAL MEAN					5.58	2002
HIGHEST DAILY MEAN	124	Sep 23	(e)230	Jul 7	230	Jul 7, 2004
LOWEST DAILY MEAN	2.5	Oct 25	0.85	Sep 6	0.85	Sep 6, 2004
ANNUAL SEVEN-DAY MINIMUM	2.9	Oct 19	0.96	Sep 1	0.96	Sep 1, 2004
MAXIMUM PEAK FLOW			(a)5,290	Jul 7	(a)5,290	Jul 7, 2004
MAXIMUM PEAK STAGE			10.27	Jul 7	10.27	Jul 7, 2004
INSTANTANEOUS LOW FLOW			0.50	(b)	0.50	Aug 16, 2004
ANNUAL RUNOFF (CFSM)	4.49		3.67		3.52	
ANNUAL RUNOFF (INCHES)	60.90		50.02		47.87	
10 PERCENT EXCEEDS	20		19		18	
50 PERCENT EXCEEDS	6.5		4.9		5.0	
90 PERCENT EXCEEDS	3.8		1.3		2.5	

e Estimated.
a From rating curve extended above 90 ft^3/s on basis of slope-area measurements at gage heights of 7.8 and 8.9 ft.
b Aug. 16, 17.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01589352 GWYNNS FALLS AT WASHINGTON BOULEVARD AT BALTIMORE, MD

LOCATION.--Lat 39°16'17.4", long 76°38'54.8", Baltimore City, Hydrologic Unit 02060003, on left bank at Carroll Park Municipal Golf Course, 350 ft upstream from bridge on Washington Boulevard, 0.9 mi northwest of Morrell Park, and approximately 1.6 mi upstream from mouth.

DRAINAGE AREA.--65.9 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges (missing record), which are fair. Several measurements of water temperature were made during the year. Water-quality records for some prior years have been collected at this station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 14	2145	3,410	7.97
Oct 27	0235	2,060	6.11
Oct 27	0810	2,760	7.14
Nov 19	1620	2,670	7.01
Dec 11	0620	5,830	10.51
Feb 6	1830	2,720	7.08
Jul 7	1730	*18,500	*17.97
Jul 27	2055	9,170	13.05
Sep 28	1725	4,340	9.03

Minimum discharge, 14 ft^3/s, Aug. 17.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	69	69	61	49	51	744	70	44	48	294	23
2	46	65	61	87	50	51	578	110	43	56	120	23
3	44	60	55	65	366	55	280	202	37	36	57	21
4	52	56	53	60	201	55	169	89	32	69	121	22
5	51	268	112	118	96	50	106	72	535	43	99	21
6	43	177	125	76	1,330	588	84	70	155	39	44	19
7	41	104	90	58	558	135	78	68	59	2,400	e35	19
8	41	66	74	56	165	135	72	67	47	416	e34	22
9	39	58	74	55	103	75	71	60	43	91	e32	143
10	40	56	212	46	110	67	64	68	45	49	e32	32
11	40	55	2,020	49	119	63	62	62	83	38	e110	22
12	39	160	197	60	84	68	378	61	88	40	e170	20
13	38	e76	109	57	77	56	455	57	39	105	275	21
14	360	e65	341	54	75	54	196	56	38	125	71	81
15	410	52	311	53	69	54	111	65	39	39	63	53
16	67	49	141	42	61	121	86	110	63	29	37	31
17	53	49	642	51	60	86	78	62	59	27	47	85
18	48	47	194	118	59	62	73	89	58	107	255	771
19	45	773	110	76	60	103	70	157	77	38	49	81
20	42	383	92	51	66	60	67	69	40	28	39	40
21	42	100	79	48	68	57	63	71	35	25	46	31
22	44	74	77	52	65	52	69	73	40	41	41	26
23	41	65	74	45	57	50	108	61	41	265	37	23
24	38	68	297	50	60	49	120	57	32	80	34	23
25	38	87	125	43	63	52	72	167	75	35	32	24
26	60	58	80	48	54	50	258	155	33	29	29	22
27	1,230	54	72	60	52	66	153	66	29	852	27	22
28	218	369	69	62	51	54	81	59	28	331	27	1,030
29	718	308	67	55	51	48	74	38	30	73	24	515
30	132	83	75	54	---	51	71	35	29	50	25	90
31	82	---	63	47	---	55	---	43	---	46	25	---
TOTAL	4,227	3,954	6,160	1,857	4,279	2,573	4,891	2,489	1,996	5,650	2,331	3,356
MEAN	136	132	199	59.9	148	83.0	163	80.3	66.5	182	75.2	112
MAX	1,230	773	2,020	118	1,330	588	744	202	535	2,400	294	1,030
MIN	38	47	53	42	49	48	62	35	28	25	24	19
CFSM	2.07	2.00	3.02	0.91	2.24	1.26	2.47	1.22	1.01	2.77	1.14	1.70
IN.	2.39	2.23	3.48	1.05	2.42	1.45	2.76	1.41	1.13	3.19	1.32	1.89

e Estimated

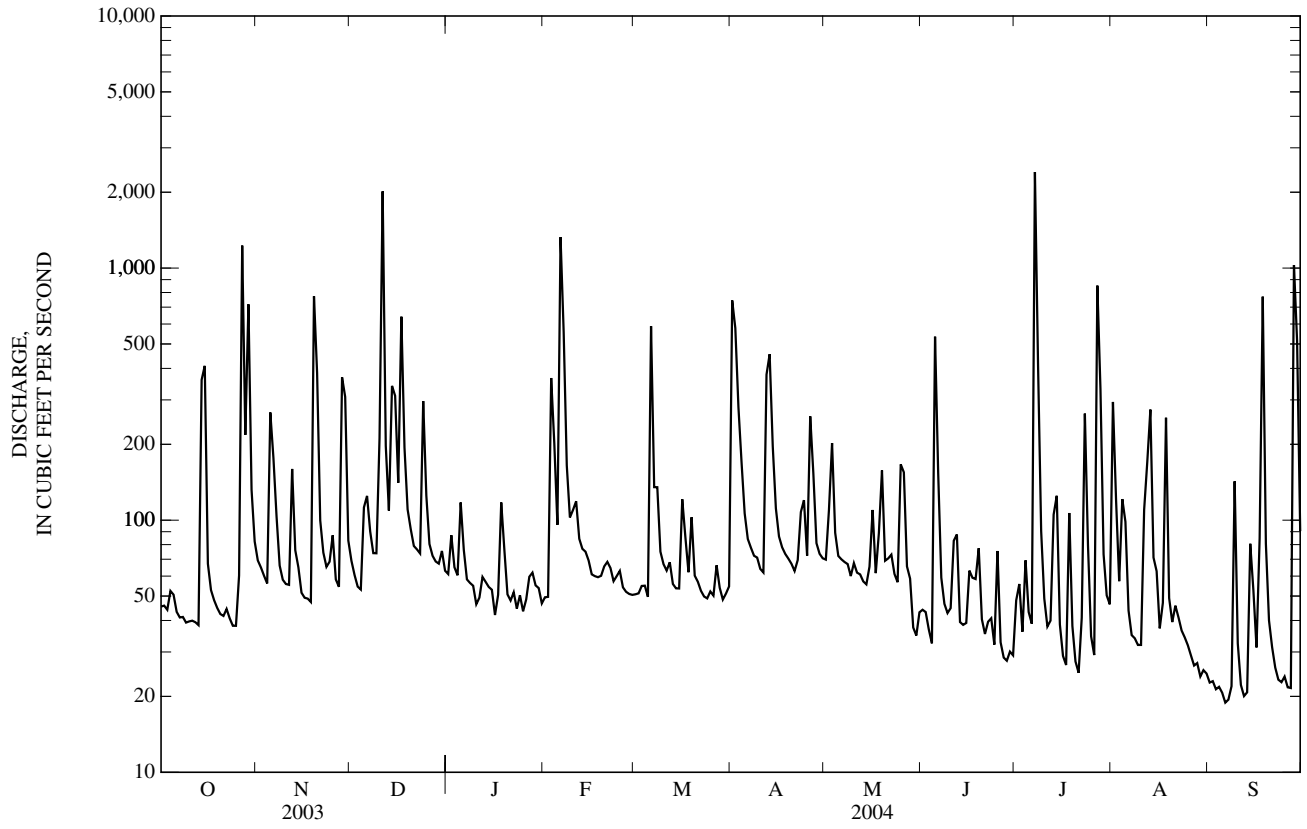
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2004, BY WATER YEAR (WY)

MEAN	68.1	70.3	95.6	78.7	98.7	125	103	90.8	89.3	79.8	73.0	125
MAX	136	132	199	127	164	211	163	183	212	182	144	278
(WY)	(2004)	(2004)	(2004)	(1999)	(2003)	(2003)	(2004)	(2003)	(2003)	(2004)	(1999)	(1999)
MIN	19.8	36.8	34.6	46.3	28.4	80.7	63.9	64.5	49.7	23.5	44.6	36.1
(WY)	(2002)	(1999)	(2002)	(2002)	(2002)	(2002)	(2001)	(1999)	(2002)	(2002)	(2000)	(2001)

01589352 GWYNNS FALLS AT WASHINGTON BOULEVARD AT BALTIMORE, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1999 - 2004	
ANNUAL TOTAL	55,059		43,763			
ANNUAL MEAN	151		120		91.4	
HIGHEST ANNUAL MEAN					139	2003
LOWEST ANNUAL MEAN					47.5	2002
HIGHEST DAILY MEAN	2,140	Sep 23	2,400	Jul 7	3,520	Sep 16, 1999
LOWEST DAILY MEAN	19	Feb 17	19	(a)	8.7	Aug 18, 2002
ANNUAL SEVEN-DAY MINIMUM	35	Feb 11	21	Sep 2	9.7	Aug 16, 2002
MAXIMUM PEAK FLOW			18,500	Jul 7	(b)23,900	Aug 26, 1999
MAXIMUM PEAK STAGE			19.97	Jul 7	20.03	Aug 26, 1999
INSTANTANEOUS LOW FLOW			14	Aug 17	6.5	Aug 18, 2002
ANNUAL RUNOFF (CFSM)	2.29		1.81		1.39	
ANNUAL RUNOFF (INCHES)	31.08		24.70		18.84	
10 PERCENT EXCEEDS	306		229		171	
50 PERCENT EXCEEDS	71		61		47	
90 PERCENT EXCEEDS	39		32		22	

a Sept. 6, 7.
b From rating curve extended above 6,200 ft^3/s on basis of slope-area measurement of peak flow.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01589440 JONES FALLS AT SORRENTO, MD

LOCATION.--Lat 39°23'30.2", long 76°39'39.4", Baltimore County, Hydrologic Unit 02060003, on right bank 0.3 mi downstream from bridge on State Highway 25 (Falls Road), 0.4 mi downstream from Slaughterhouse Branch and Sorrento, and 12.5 mi upstream from mouth.

DRAINAGE AREA.--25.2 mi^2.

PERIOD OF RECORD.--Annual maximum, water years 1958-66. April 1966 to September 1988, October 1996 to current year.

GAGE.--Water-stage recorder. Datum of gage is 240 ft above National Geodetic Vertical Datum of 1929, from topographic map. January 1958 to April 1966, non-recording gage at site 450 ft upstream at same gage datum.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair. U.S. Geological Survey gage-height telemeter at station. Several measurements of water temperature were made during the year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 600 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec 11	0645	1,790	9.11	Jul 7	1645	*2,390	*9.95
Feb 6	1530	1,130	7.93	Sep 28	1745	1,270	8.21

Minimum discharge, 9.1 ft^3/s, Sept. 6.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	33	34	37	e29	34	139	33	26	16	25	11
2	23	32	32	42	e28	36	126	35	25	16	20	10
3	22	31	30	39	87	34	81	47	23	16	17	10
4	26	30	30	37	58	34	61	35	22	19	e18	10
5	22	41	39	45	38	34	47	33	101	19	20	9.9
6	21	42	42	39	516	122	42	32	47	17	15	9.9
7	20	38	36	34	176	52	41	31	33	371	14	10
8	20	31	34	33	68	53	39	30	28	56	13	11
9	20	29	33	34	53	41	38	29	26	28	13	21
10	20	28	50	34	70	39	36	28	25	23	13	12
11	20	28	727	e34	57	37	37	27	33	21	42	11
12	19	50	77	e34	49	36	76	26	32	38	29	11
13	18	36	55	34	47	34	103	25	25	29	40	11
14	54	31	98	33	45	34	65	25	25	24	18	10
15	88	29	93	33	42	34	49	26	24	19	17	12
16	25	28	59	32	38	45	43	31	27	18	16	13
17	23	28	176	35	37	40	41	69	26	17	15	18
18	22	27	70	38	37	35	39	34	27	20	15	123
19	21	187	54	32	40	42	38	47	24	18	14	20
20	21	95	49	29	42	35	37	31	21	16	14	15
21	20	42	46	29	43	34	37	36	20	15	14	14
22	20	36	45	29	39	32	35	30	20	20	13	13
23	20	33	44	e29	37	31	40	27	20	23	12	13
24	19	33	85	e29	39	31	40	25	19	19	12	13
25	20	35	53	e29	38	32	34	54	21	17	12	12
26	20	31	44	e31	35	31	63	40	19	17	12	12
27	212	30	42	e34	35	35	48	28	18	43	12	13
28	57	86	40	e35	34	32	37	26	17	45	11	405
29	168	71	40	e33	34	31	35	24	18	20	11	110
30	47	37	40	e31	---	30	33	24	16	18	11	27
31	37	---	38	e29	---	31	---	26	---	18	11	---
TOTAL	1,168	1,308	2,335	1,046	1,891	1,201	1,580	1,014	808	1,056	519	990.8
MEAN	37.7	43.6	75.3	33.7	65.2	38.7	52.7	32.7	26.9	34.1	16.7	33.0
MAX	212	187	727	45	516	122	139	69	101	371	42	405
MIN	18	27	30	29	28	30	33	24	16	15	11	9.9
CFSM	1.50	1.73	2.99	1.34	2.59	1.54	2.09	1.30	1.07	1.35	0.66	1.31
IN.	1.72	1.93	3.45	1.54	2.79	1.77	2.33	1.50	1.19	1.56	0.77	1.46

e Estimated

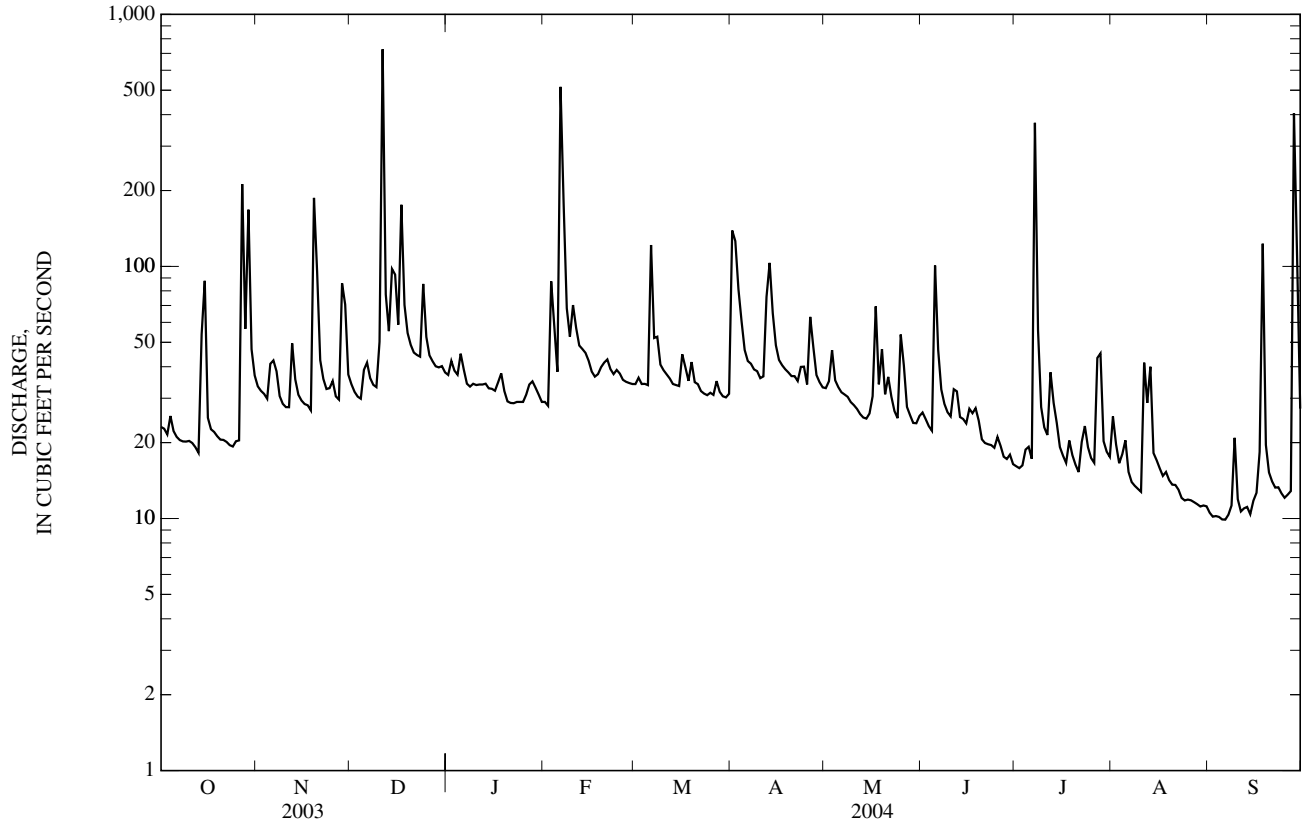
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1988, 1997 - 2004, BY WATER YEAR (WY)

MEAN	23.5	26.7	34.6	34.5	39.7	43.1	40.4	34.0	30.8	24.2	22.0	27.5
MAX	100	60.4	94.9	105	97.9	82.6	95.7	66.7	150	73.0	72.3	132
(WY)	(1980)	(1973)	(1997)	(1979)	(1979)	(1998)	(1973)	(1973)	(1972)	(1984)	(1971)	(1979)
MIN	6.47	10.2	10.1	9.92	9.60	17.1	17.5	13.0	7.95	3.77	3.66	6.26
(WY)	(1987)	(1982)	(2002)	(1981)	(2002)	(2002)	(2002)	(1969)	(2002)	(2002)	(2002)	(1986)

01589440 JONES FALLS AT SORRENTO, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1966 - 1988, 1997 - 2004	
ANNUAL TOTAL	18,064		14,916.8			
ANNUAL MEAN	49.5		40.8		32.0	
HIGHEST ANNUAL MEAN					62.5	1972
LOWEST ANNUAL MEAN					10.1	2002
HIGHEST DAILY MEAN	727	Dec 11	727	Dec 11	2,600	Jun 22, 1972
LOWEST DAILY MEAN	16	Feb 12	9.9	(a)	1.4	(b)
ANNUAL SEVEN-DAY MINIMUM	17	Feb 10	10	Sep 1	1.4	Aug 14, 2002
MAXIMUM PEAK FLOW			2,390	Jul 7	(c)13,800	Jun 22, 1972
MAXIMUM PEAK STAGE			9.95	Jul 7	(d)18.11	Jun 22, 1972
INSTANTANEOUS LOW FLOW			9.1	Sep 6	1.3	(f)
ANNUAL RUNOFF (CFSM)	1.96		1.62		1.27	
ANNUAL RUNOFF (INCHES)	26.67		22.02		17.25	
10 PERCENT EXCEEDS	79		57		53	
50 PERCENT EXCEEDS	34		32		22	
90 PERCENT EXCEEDS	19		14		9.5	

a Sept. 5, 6.
b Aug 14, 15, 18-22.
c From rating curve extended above 1,400 ft^3/s on basis of slope-area measurement of peak flow.
d From floodmarks.
f Aug. 14, 15, 2002.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01589478 JONES FALLS AT MARYLAND AVENUE AT BALTIMORE, MD

LOCATION.--Lat 39°18'33.5", long 76°37'09.9", Baltimore City, Hydrologic Unit 02060003, on left bank 300 ft downstream from Howard Street bridge.

DRAINAGE AREA.--54.9 mi^2.

PERIOD OF RECORD.--May 1981 to September 1982, December 1999 to September 2004 (discontinued).

REVISED RECORDS.--WDR MD-DE-DC-03-1; 1981, 1982, 2000-2002(P).

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 43.0 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good below 300 ft^3/s and fair above except those for estimated daily discharges (ice effect), which are poor. U.S. Geological Survey gage-height telemeter at station. Several measurements of water temperature were made during the year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,300 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 14	2120	3,440	5.05	Jul 7	1710	*12,300	*10.21
Oct 27	0800	2,430	4.41	Jul 27	2040	8,050	(a)7.77
Dec 11	0635	5,430	6.22	Sep 28	1935	4,630	(a)5.76
Feb 6	1620	3,210	4.91				

Minimum discharge, 17 ft^3/s, Aug. 11.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	67	73	76	58	61	516	65	60	36	85	27
2	44	61	66	101	65	67	346	93	53	35	55	26
3	42	58	61	80	284	62	207	150	52	35	43	25
4	51	55	60	76	160	62	140	80	44	63	55	25
5	47	173	109	115	92	60	99	68	457	60	76	25
6	41	139	115	85	1,390	408	86	67	134	49	40	24
7	41	93	85	71	463	119	82	63	69	1,860	34	26
8	40	65	76	68	152	117	78	62	59	209	57	28
9	39	59	75	69	105	82	76	58	55	62	39	84
10	37	57	148	63	121	76	71	58	52	47	31	32
11	37	57	1,860	64	119	72	70	56	79	42	72	26
12	38	130	167	68	94	69	265	53	80	111	113	25
13	37	73	112	68	87	64	302	51	51	106	142	26
14	318	56	263	67	85	62	169	51	51	79	47	32
15	312	55	242	e64	80	63	106	59	53	46	45	32
16	57	53	128	e58	73	122	88	82	58	42	40	33
17	48	52	462	64	69	110	83	155	58	39	53	50
18	46	50	173	114	70	71	79	95	58	78	94	458
19	46	658	119	76	71	94	77	134	55	45	37	75
20	42	305	103	63	76	67	74	64	43	39	35	39
21	42	96	93	60	78	66	72	78	41	37	37	37
22	41	76	90	61	73	60	71	67	41	39	35	22
23	40	69	89	57	69	59	95	56	41	78	31	19
24	39	71	271	60	72	59	95	53	41	47	31	20
25	38	82	123	55	71	60	68	169	135	39	31	19
26	55	64	94	e58	64	71	177	146	87	39	31	25
27	842	61	88	e65	64	77	114	63	38	715	31	26
28	165	255	83	68	62	63	75	55	24	274	30	1,120
29	472	211	82	65	61	59	69	49	32	56	30	382
30	109	83	89	60	---	59	67	47	36	47	30	62
31	77	---	78	54	---	65	---	56	---	45	29	---
TOTAL	3,325	3,384	5,677	2,173	4,328	2,606	3,917	2,403	2,137	4,499	1,539	2,850
MEAN	107	113	183	70.1	149	84.1	131	77.5	71.2	145	49.6	95.0
MAX	842	658	1,860	115	1,390	408	516	169	457	1,860	142	1,120
MIN	37	50	60	54	58	59	67	47	24	35	29	19
CFSM	1.84	1.93	3.14	1.20	2.56	1.44	2.24	1.33	1.22	2.49	0.85	1.63
IN.	2.12	2.16	3.62	1.39	2.76	1.66	2.50	1.53	1.36	2.87	0.98	1.82

e Estimated

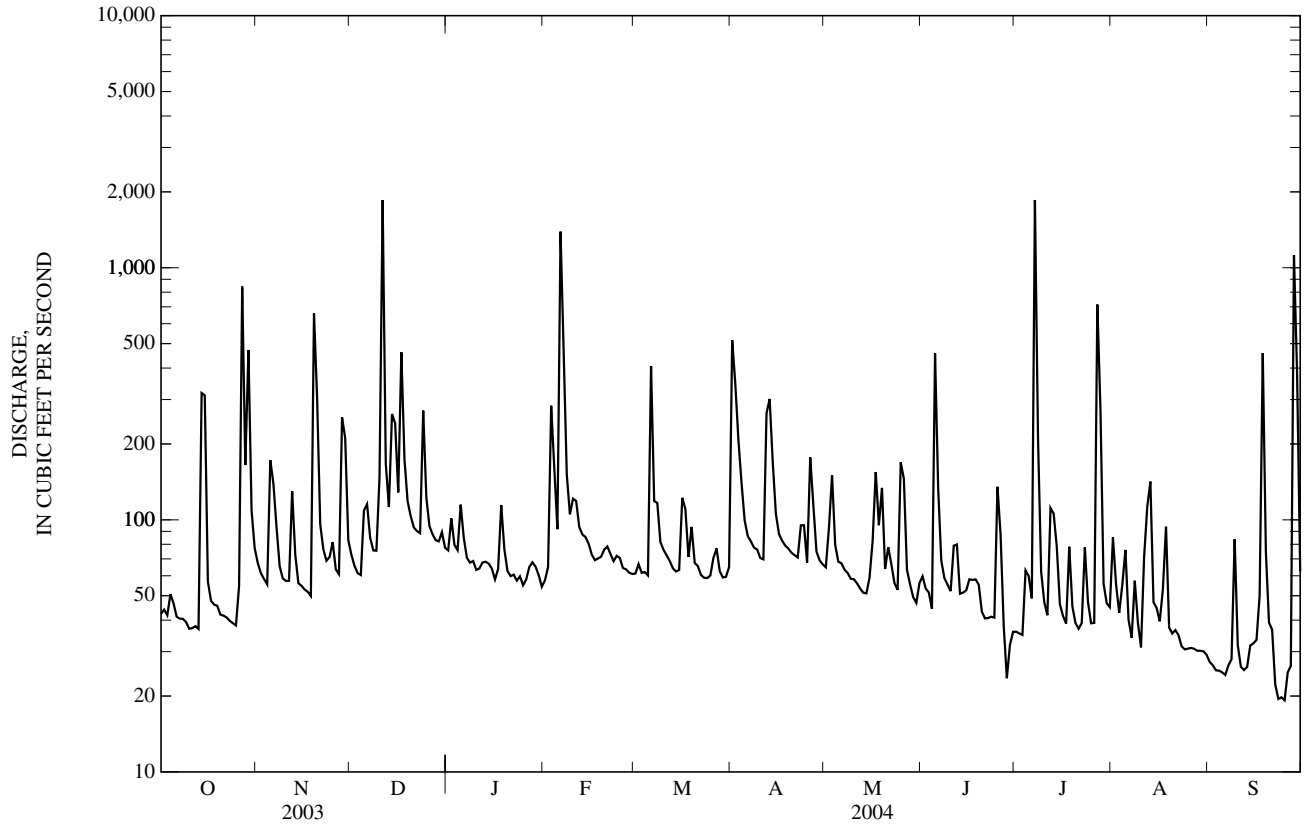
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 1982, 2000 - 2004, BY WATER YEAR (WY)

MEAN	50.6	57.0	85.9	59.6	95.8	108	88.9	76.4	99.2	74.9	46.7	69.1
MAX	107	113	183	89.0	149	169	131	153	212	145	68.5	160
(WY)	(2004)	(2004)	(2004)	(2003)	(2004)	(2003)	(2004)	(2003)	(2003)	(2004)	(2003)	(2003)
MIN	20.8	25.0	27.4	34.4	21.0	52.8	50.6	46.9	37.6	17.4	27.3	29.4
(WY)	(2002)	(1982)	(2002)	(2002)	(2002)	(1982)	(2002)	(2002)	(2002)	(2002)	(2002)	(2001)

01589478 JONES FALLS AT MARYLAND AVENUE AT BALTIMORE, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1981 - 1982, 2000 - 2004	
ANNUAL TOTAL	47,497		38,838			
ANNUAL MEAN	130		106		74.7	
HIGHEST ANNUAL MEAN					116	2003
LOWEST ANNUAL MEAN					34.2	2002
HIGHEST DAILY MEAN	1,970	Sep 23	1,860	(a)	1,970	Sep 23, 2003
LOWEST DAILY MEAN	27	Feb 16	19	(b)	7.8	Aug 22, 2002
ANNUAL SEVEN-DAY MINIMUM	36	Feb 11	24	Sep 21	8.3	Aug 17, 2002
MAXIMUM PEAK FLOW			(c)12,300	Jul 7	(c)12,300	Jul 7, 2004
MAXIMUM PEAK STAGE			10.21	Jul 7	10.21	Jul 7, 2004
INSTANTANEOUS LOW FLOW			17	Aug 11	7.6	(d)
ANNUAL RUNOFF (CFSM)	2.23		1.82		1.28	
ANNUAL RUNOFF (INCHES)	30.31		24.78		17.40	
10 PERCENT EXCEEDS	226		166		134	
50 PERCENT EXCEEDS	75		64		42	
90 PERCENT EXCEEDS	41		35		19	

a Dec. 11, Jul. 7.
b Sep. 23, 25.
c From rating curve extended above 1,000 ft^3/s on basis of slope-area measurements of peak flow.
d Aug. 21-23, 2002.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01589500 SAWMILL CREEK AT GLEN BURNIE, MD

LOCATION.--Lat 39°10'12.0", long 76°37'50.2", Anne Arundel County, Hydrologic Unit 02060003, on left bank 300 ft upstream from bridge on State Highway 648, 0.25 mi southeast of State Highway 3, and 0.5 mi northwest of Glen Burnie.

DRAINAGE AREA.--4.97 mi^2.

PERIOD OF RECORD.--May 1944 to September 1952. Annual maximum, water years 1965-70. September 1983 to current year.

REVISED RECORDS.--WDR MD-DE-89-1: 1984-88.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 26.07 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Low flow affected by ground-water diversions from Anne Arundel County municipal well fields upstream from station. Several measurements of water temperature were made during the year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of August 1933 reached a stage of about 14 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 30 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 15	0015	32	2.54	Apr 12	2315	33	2.56
Oct 27	1645	37	2.63	May 10	0215	38	2.65
Oct 29	0930	30	2.50	Jun 5	1530	64	3.12
Nov 20	0000	31	2.52	Jun 17	1800	52	2.90
Dec 11	1015	43	2.74	Jul 7	1900	30	2.50
Feb 6	1945	65	3.14	Jul 28	0445	*128	*4.04
Mar 6	0900	32	2.53	Sep 28	2100	38	2.65

Minimum discharge, 4.3 ft^3/s, Jan. 26.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.9	6.9	7.2	7.3	6.0	6.5	21	6.8	8.7	5.7	8.9	5.0
2	5.8	6.4	6.7	8.2	6.0	7.1	20	7.3	7.4	5.6	8.3	4.8
3	5.6	6.2	6.3	8.0	12	6.9	15	16	6.8	5.5	6.9	4.9
4	5.8	6.2	6.2	7.6	11	7.0	9.8	11	6.2	6.3	8.9	4.9
5	5.7	8.0	10	8.8	8.0	6.8	7.7	7.5	37	6.6	12	4.9
6	5.6	15	11	8.6	29	22	7.2	7.0	21	5.6	7.0	5.0
7	5.6	13	8.5	7.3	27	12	7.2	7.0	11	12	6.3	5.1
8	5.6	7.8	7.3	7.0	13	8.5	7.2	7.2	8.2	13	6.0	5.3
9	5.5	6.7	7.0	7.2	8.8	7.5	7.1	7.1	7.3	6.3	5.9	8.3
10	5.5	6.5	8.2	6.9	8.8	7.2	6.8	24	7.4	5.5	5.9	5.8
11	5.5	6.5	31	6.8	8.8	7.2	6.5	8.5	9.0	5.5	8.7	5.2
12	5.3	14	13	7.1	7.9	7.0	14	7.1	11	5.7	8.9	5.1
13	5.3	10	8.3	7.2	7.9	6.5	22	6.7	7.3	6.0	8.3	5.0
14	8.4	7.4	14	6.9	7.9	6.5	15	6.7	7.0	12	7.3	5.0
15	19	6.6	17	7.0	7.6	6.8	10	6.4	6.7	6.8	7.4	6.1
16	6.8	6.5	9.9	6.5	7.2	9.1	8.0	6.7	7.1	5.7	6.3	5.8
17	5.8	6.3	20	6.5	7.0	8.9	7.7	6.5	18	5.5	5.9	5.5
18	5.6	6.2	14	8.5	7.2	7.1	7.5	8.7	13	13	6.3	17
19	5.5	13	9.4	7.9	7.2	7.9	7.2	9.5	7.5	8.3	6.4	6.8
20	5.3	21	8.4	6.7	7.2	6.9	7.2	7.2	6.5	5.9	5.8	5.4
21	5.6	8.8	7.9	6.5	7.4	6.9	7.2	6.8	6.4	5.5	5.6	5.2
22	5.6	7.4	7.9	6.6	7.0	6.4	7.2	6.5	6.4	6.3	5.7	5.0
23	5.3	6.9	7.8	6.4	6.8	6.2	8.2	6.2	6.5	8.2	5.4	4.8
24	5.1	6.9	14	6.3	7.0	6.1	8.5	6.0	6.3	6.4	5.3	4.8
25	5.1	7.4	10	6.0	7.1	6.5	7.2	9.0	6.2	5.9	5.3	4.8
26	5.6	6.8	8.2	6.4	6.8	6.4	11	17	6.3	5.8	5.3	4.8
27	26	6.5	7.7	6.9	6.7	7.0	10	13	5.8	28	5.3	4.8
28	17	10	7.5	6.9	6.5	6.6	7.4	8.4	5.8	74	5.3	13
29	23	16	7.5	6.6	6.5	6.2	7.0	6.8	5.8	15	5.2	16
30	11	8.0	8.0	6.5	---	6.2	6.8	6.5	5.7	8.3	5.1	6.7
31	7.5	---	7.5	6.4	---	6.6	---	9.8	---	7.2	5.2	---
TOTAL	245.9	264.9	317.4	219.5	267.3	236.5	294.6	270.9	275.3	317.1	206.1	190.8
MEAN	7.93	8.83	10.2	7.08	9.22	7.63	9.82	8.74	9.18	10.2	6.65	6.36
MAX	26	21	31	8.8	29	22	22	24	37	74	12	17
MIN	5.1	6.2	6.2	6.0	6.0	6.1	6.5	6.0	5.7	5.5	5.1	4.8
CFSM	1.60	1.78	2.06	1.42	1.85	1.54	1.98	1.76	1.85	2.06	1.34	1.28
IN.	1.84	1.98	2.38	1.64	2.00	1.77	2.21	2.03	2.06	2.37	1.54	1.43

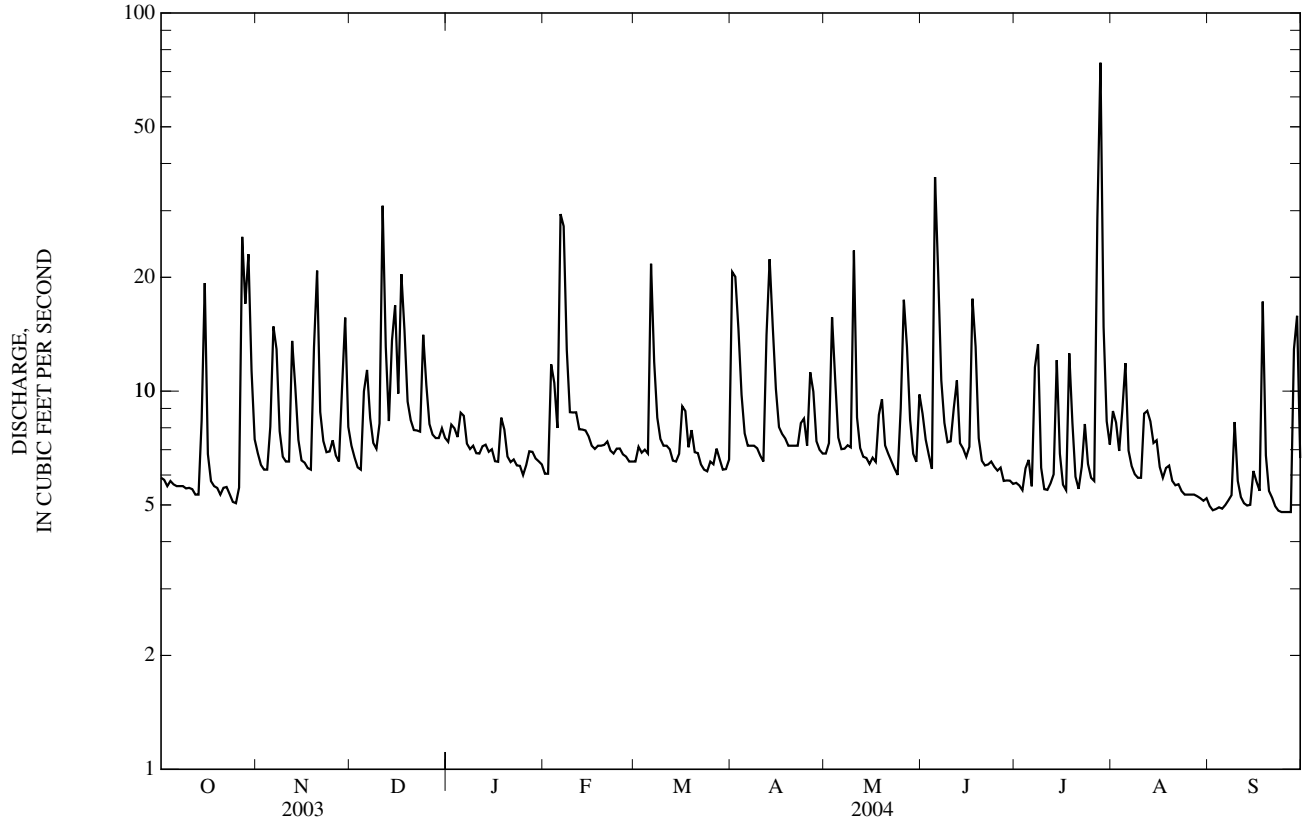
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 1952, 1983 - 2004, BY WATER YEAR (WY)

MEAN	3.80	4.37	4.86	5.05	5.32	6.23	5.88	5.85	5.30	4.77	4.53	4.85
MAX	9.03	10.3	13.0	14.4	14.4	13.5	13.8	13.3	12.1	10.2	12.4	13.1
(WY)	(1949)	(1952)	(1949)	(1949)	(1949)	(1949)	(1952)	(1952)	(2003)	(2004)	(1948)	(1952)
MIN	0.03	0.19	0.13	0.30	0.76	0.76	0.75	0.11	0.08	0.10	0.15	0.02
(WY)	(1987)	(1987)	(1989)	(1989)	(1989)	(1986)	(1985)	(1986)	(1986)	(1985)	(1986)	(1986)

01589500 SAWMILL CREEK AT GLEN BURNIE, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1944 - 1952, 1983 - 2004	
ANNUAL TOTAL	3,218.0		3,106.3			
ANNUAL MEAN	8.82		8.49		5.05	
HIGHEST ANNUAL MEAN					11.0	1949
LOWEST ANNUAL MEAN					0.43	1986
HIGHEST DAILY MEAN	78	Sep 23	74	Jul 28	155	Sep 16, 1999
LOWEST DAILY MEAN	3.4	(a)	4.8	(b)	0.01	(c)
ANNUAL SEVEN-DAY MINIMUM	3.8	Feb 11	4.9	Sep 21	0.01	Jul 25, 1986
MAXIMUM PEAK FLOW			128	Jul 28	(d)294	Sep 16, 1999
MAXIMUM PEAK STAGE			4.04	Jul 28	5.74	Sep 16, 1999
INSTANTANEOUS LOW FLOW			4.3	Jan 26	0.00	(f)
ANNUAL RUNOFF (CFSM)	1.77		1.71		1.02	
ANNUAL RUNOFF (INCHES)	24.09		23.25		13.81	
10 PERCENT EXCEEDS	14		13		9.4	
50 PERCENT EXCEEDS	6.9		7.0		4.1	
90 PERCENT EXCEEDS	4.4		5.5		0.64	

a Feb. 16, 17.
b Sept. 2, 23-27.
c Many days in 1985-1987.
d From rating curve extended above 40 ft^3/s on basis of Culvert Type IV measurement of peak flow.
f Sept. 6, 7, 1985, July 29, Aug. 2, 1986.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01589501 SAWMILL CREEK TRIBUTARY AT BWI AIRPORT NEAR FERNDALE, MD

LOCATION.--Lat 39°10'39.6", long 76°39'03.6", Anne Arundel County, Hydrologic Unit 02060003, on right bank 2,000 ft upstream from culvert on Hammond Ferry Road, and 1.2 mi southwest of Ferndale.

DRAINAGE AREA.--0.58 mi^2.

PERIOD OF RECORD.--November 1994 to September 1995. October 1996 to February 2004 (discontinued).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 100 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good below 30 ft^3/s and fair above except those for estimated daily values (ice effect), which are fair. Several measurements of water temperature were made during the year.

EXTREMES FOR OCTOBER 2003 TO FEBRUARY 2004.--Peak discharges greater than base discharge of 50 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct. 27	1315	*24	*1.29	No peak greater than base discharge			

Minimum discharge, 0.23 ft^3/s, on many days.

DISCHARGE, CUBIC FEET PER SECOND
PERIOD OF OCTOBER 2003 TO FEBRUARY 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.23	0.30	0.40	0.37	0.34	---	---	---	---	---	---	---
2	0.23	0.30	0.35	1.0	0.33	---	---	---	---	---	---	---
3	0.23	0.30	0.30	0.49	6.0	---	---	---	---	---	---	---
4	0.23	0.30	0.30	0.49	2.7	---	---	---	---	---	---	---
5	0.23	3.0	3.9	1.9	0.53	---	---	---	---	---	---	---
6	0.23	8.2	3.3	0.85	10	---	---	---	---	---	---	---
7	0.23	5.0	1.8	0.49	14	---	---	---	---	---	---	---
8	0.23	0.54	0.54	0.38	3.6	---	---	---	---	---	---	---
9	0.23	0.44	0.61	0.37	0.71	---	---	---	---	---	---	---
10	0.23	0.37	2.8	0.37	0.63	---	---	---	---	---	---	---
11	0.23	0.33	12	0.37	0.49	---	---	---	---	---	---	---
12	0.23	6.1	2.1	0.37	0.48	---	---	---	---	---	---	---
13	0.23	1.4	1.8	0.37	0.32	---	---	---	---	---	---	---
14	3.4	0.49	5.7	0.37	0.30	---	---	---	---	---	---	---
15	10	0.41	3.4	0.37	0.30	---	---	---	---	---	---	---
16	1.3	0.32	1.8	0.36	0.24	---	---	---	---	---	---	---
17	0.45	0.30	6.8	0.37	0.23	---	---	---	---	---	---	---
18	0.37	0.30	2.0	2.3	0.23	---	---	---	---	---	---	---
19	0.23	6.1	1.6	0.52	---	---	---	---	---	---	---	---
20	0.23	7.5	0.93	0.37	---	---	---	---	---	---	---	---
21	0.23	2.2	0.49	0.37	---	---	---	---	---	---	---	---
22	0.42	1.4	0.49	0.37	---	---	---	---	---	---	---	---
23	0.24	0.40	0.41	0.32	---	---	---	---	---	---	---	---
24	0.23	0.73	4.5	0.30	---	---	---	---	---	---	---	---
25	0.23	0.75	1.5	0.30	---	---	---	---	---	---	---	---
26	2.0	0.37	0.60	e0.30	---	---	---	---	---	---	---	---
27	21	0.30	0.49	e0.38	---	---	---	---	---	---	---	---
28	11	3.8	0.49	e0.38	---	---	---	---	---	---	---	---
29	11	4.0	0.40	0.52	---	---	---	---	---	---	---	---
30	5.3	1.4	0.70	0.38	---	---	---	---	---	---	---	---
31	2.4	---	0.38	0.33	---	---	---	---	---	---	---	---
TOTAL	73.02	57.35	62.88	16.43	---	---	---	---	---	---	---	---
MEAN	2.36	1.91	2.03	0.53	---	---	---	---	---	---	---	---
MAX	21	8.2	12	2.3	---	---	---	---	---	---	---	---
MIN	0.23	0.30	0.30	0.30	---	---	---	---	---	---	---	---
CFSM	4.06	3.30	3.50	0.91	---	---	---	---	---	---	---	---
IN.	4.68	3.68	4.03	1.05	---	---	---	---	---	---	---	---

e Estimated

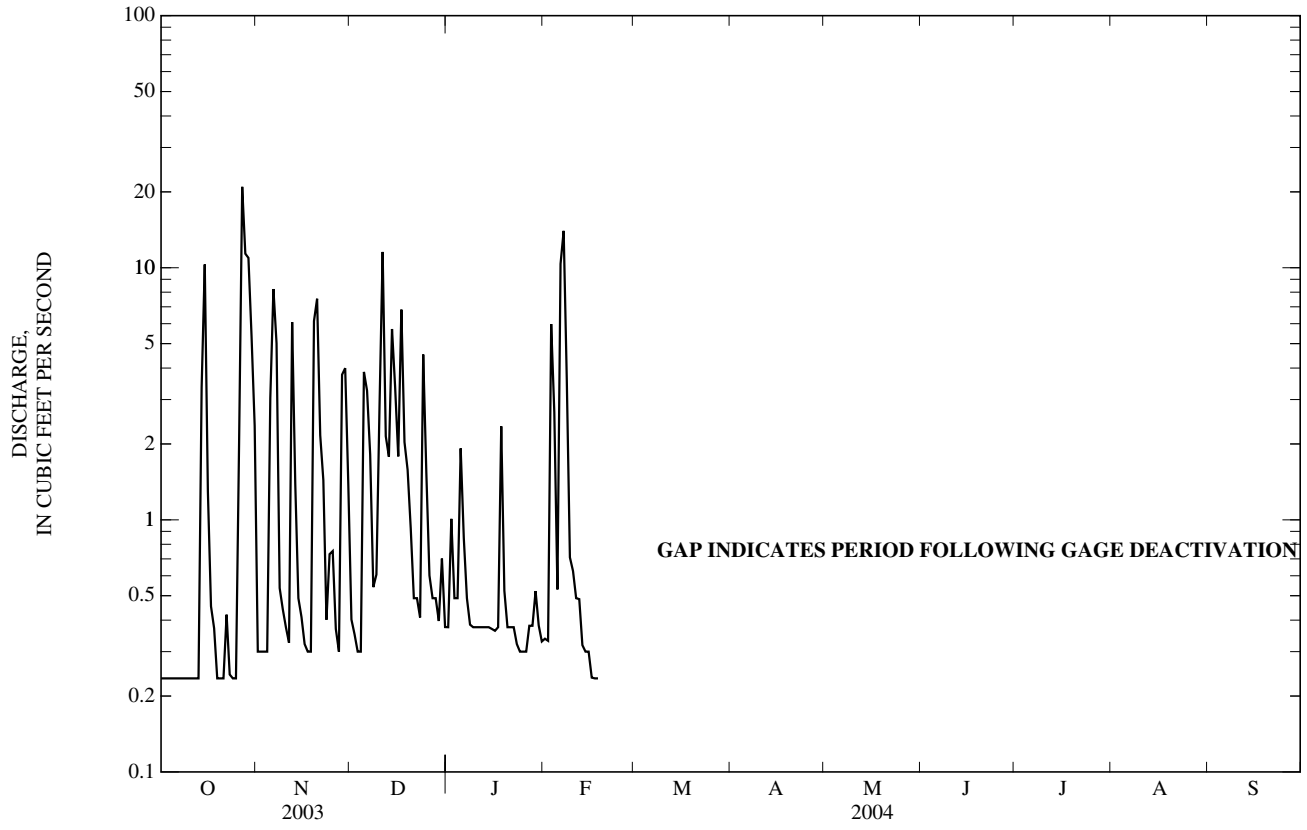
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995, 1997 - 2004, BY WATER YEAR (WY)

MEAN	1.08	1.18	1.33	1.21	1.36	1.87	1.18	1.24	1.17	0.92	1.25	2.00
MAX	2.36	2.45	3.23	2.51	3.41	2.54	2.45	2.52	3.16	1.79	2.24	6.09
(WY)	(2004)	(1998)	(1997)	(1998)	(1998)	(1998)	(2002)	(2003)	(2003)	(2003)	(1999)	(1999)
MIN	0.15	0.33	0.49	0.52	0.14	1.07	0.65	0.55	0.45	0.43	0.38	0.41
(WY)	(2001)	(2002)	(2002)	(2002)	(2002)	(2002)	(2001)	(1999)	(1999)	(1997)	(1998)	(1998)

01589501 SAWMILL CREEK TRIBUTARY AT BWI AIRPORT NEAR FERNDALE, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		WATER YEARS 1995, 1997 - 2004	
ANNUAL TOTAL	798.05			
ANNUAL MEAN	2.19		1.35	
HIGHEST ANNUAL MEAN			2.12	2003
LOWEST ANNUAL MEAN			0.74	2002
HIGHEST DAILY MEAN	36	Sep 23	82	Sep 16, 1999
LOWEST DAILY MEAN	0.06	Jan 31	0.02	(a)
ANNUAL SEVEN-DAY MINIMUM	0.10	Jan 19	0.02	Jul 2, 2002
MAXIMUM PEAK FLOW			(b)298	Sep 16, 1999
MAXIMUM PEAK STAGE			3.38	Sep 16, 1999
INSTANTANEOUS LOW FLOW			0.02	(c)
ANNUAL RUNOFF (CFSM)	3.77		2.32	
ANNUAL RUNOFF (INCHES)	51.19		31.51	
10 PERCENT EXCEEDS	5.9		3.5	
50 PERCENT EXCEEDS	0.54		0.30	
90 PERCENT EXCEEDS	0.23		0.13	

a July 5-8, Aug. 20-23, 2002.
b From rating curve extended above 20 ft^3/s.
c July 4-9, Aug. 10-14, 19-24, 2002.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01589795 SOUTH FORK JABEZ BRANCH AT MILLERSVILLE, MD

LOCATION.--Lat 39°04'05.7", long 76°39'05.5", Anne Arundel County, Hydrologic Unit 02060004, on left bank 300 ft upstream from the confluence with the West Branch Jabez Branch, 0.5 mi northwest of Millersville, 1.0 mi west of Gambrills, and 1.6 mi upstream from mouth.

DRAINAGE AREA.--1.0 mi^2.

PERIOD OF RECORD.--August 1989 to September 1990, July 1997 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 60 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges (backwater from beaverdam), which are fair. U.S. Geological Survey gage-height telemeter at station. Several measurements of water temperature were made during the year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 20 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec 11	0750	31	5.27	Jul 7	1640	29	5.24
Dec 17	0850	20	5.02	Sep 18	0620	38	5.41
Feb 6	1535	38	5.42	Sep 28	1815	*76	*5.70
Jun 5	1250	49	5.60				

Minimum discharge, 0.27 ft^3/s, Oct. 1, 12, 13.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.38	0.50	0.46	0.45	0.40	0.40	2.3	0.45	0.36	0.40	0.44	0.40
2	0.38	0.50	0.42	0.53	0.40	0.44	1.2	0.45	0.31	0.40	0.44	0.40
3	0.37	0.49	0.40	0.52	0.77	0.41	0.93	0.73	0.31	0.40	0.42	0.40
4	0.36	0.51	0.40	0.49	1.6	0.41	0.64	0.55	0.32	0.42	0.45	0.40
5	0.36	1.7	1.7	0.59	0.73	0.40	0.55	0.50	17	0.45	0.46	0.40
6	0.36	e1.5	1.6	0.59	14	1.8	0.50	0.47	1.2	0.45	0.45	0.40
7	0.36	e0.84	0.89	0.47	6.6	0.54	0.50	0.48	0.58	1.8	0.45	0.41
8	0.36	0.52	0.65	0.45	1.2	0.48	0.46	0.46	0.54	0.57	0.43	0.42
9	0.36	0.45	0.57	0.45	1.0	0.43	0.45	0.46	0.50	0.49	0.40	0.41
10	0.36	0.41	0.66	0.45	1.2	0.40	0.45	1.3	0.50	0.47	0.40	0.40
11	0.32	0.41	8.7	0.45	0.75	0.40	0.45	0.47	0.57	0.45	0.62	0.40
12	0.32	0.64	0.93	0.45	0.60	0.40	2.8	0.45	0.59	0.45	0.48	0.40
13	0.33	0.67	0.58	0.45	0.55	0.40	3.1	0.45	0.50	0.45	0.47	0.40
14	1.1	0.50	2.6	0.50	0.53	0.40	1.2	0.45	0.48	0.45	0.58	0.40
15	1.2	0.50	2.2	0.48	0.48	0.40	0.83	0.44	0.45	0.45	0.47	0.40
16	0.37	0.58	0.80	0.45	0.45	0.62	0.58	0.44	0.73	0.45	0.43	0.40
17	0.36	0.67	8.8	0.42	0.45	0.52	0.56	0.43	0.88	0.45	0.41	0.41
18	e0.36	0.62	1.5	0.49	0.45	0.45	0.52	0.49	0.59	0.65	0.40	4.7
19	e0.36	2.0	0.76	0.51	0.46	0.47	0.50	0.47	0.48	0.47	0.40	0.55
20	e0.36	2.0	0.64	0.45	0.52	0.42	0.50	0.45	0.45	0.45	0.40	0.50
21	e0.36	0.59	0.61	0.42	0.48	0.40	0.50	0.44	0.45	0.42	0.40	0.48
22	e0.36	0.50	0.60	0.40	0.45	0.40	0.47	0.40	0.73	0.40	0.40	0.47
23	e0.36	0.47	0.58	0.40	0.45	0.40	0.49	0.40	0.54	0.43	0.40	0.45
24	0.40	0.43	2.0	0.40	0.45	0.40	0.51	0.40	0.50	0.61	0.40	0.45
25	0.47	0.50	0.88	0.40	0.44	0.40	0.50	0.76	0.50	0.45	0.40	0.45
26	0.41	0.48	0.60	0.40	0.42	0.40	0.58	0.43	0.48	0.45	0.40	0.45
27	1.5	0.45	0.53	0.40	0.40	0.40	0.55	0.39	0.45	0.80	0.40	0.45
28	0.73	0.93	0.50	0.40	0.40	0.40	0.50	0.43	0.45	0.65	0.38	8.0
29	3.7	1.3	0.49	0.40	0.40	0.40	0.50	0.36	0.42	0.46	0.37	1.4
30	0.73	0.55	0.50	0.40	---	0.40	0.47	0.36	0.40	0.43	0.40	0.61
31	0.51	---	0.49	0.40	---	0.40	---	0.37	---	0.41	0.40	---
TOTAL	18.26	22.21	43.04	14.06	37.03	14.59	24.09	15.13	32.26	16.08	13.35	25.81
MEAN	0.59	0.74	1.39	0.45	1.28	0.47	0.80	0.49	1.08	0.52	0.43	0.86
MAX	3.7	2.0	8.8	0.59	14	1.8	3.1	1.3	17	1.8	0.62	8.0
MIN	0.32	0.41	0.40	0.40	0.40	0.40	0.45	0.36	0.31	0.40	0.37	0.40

e Estimated

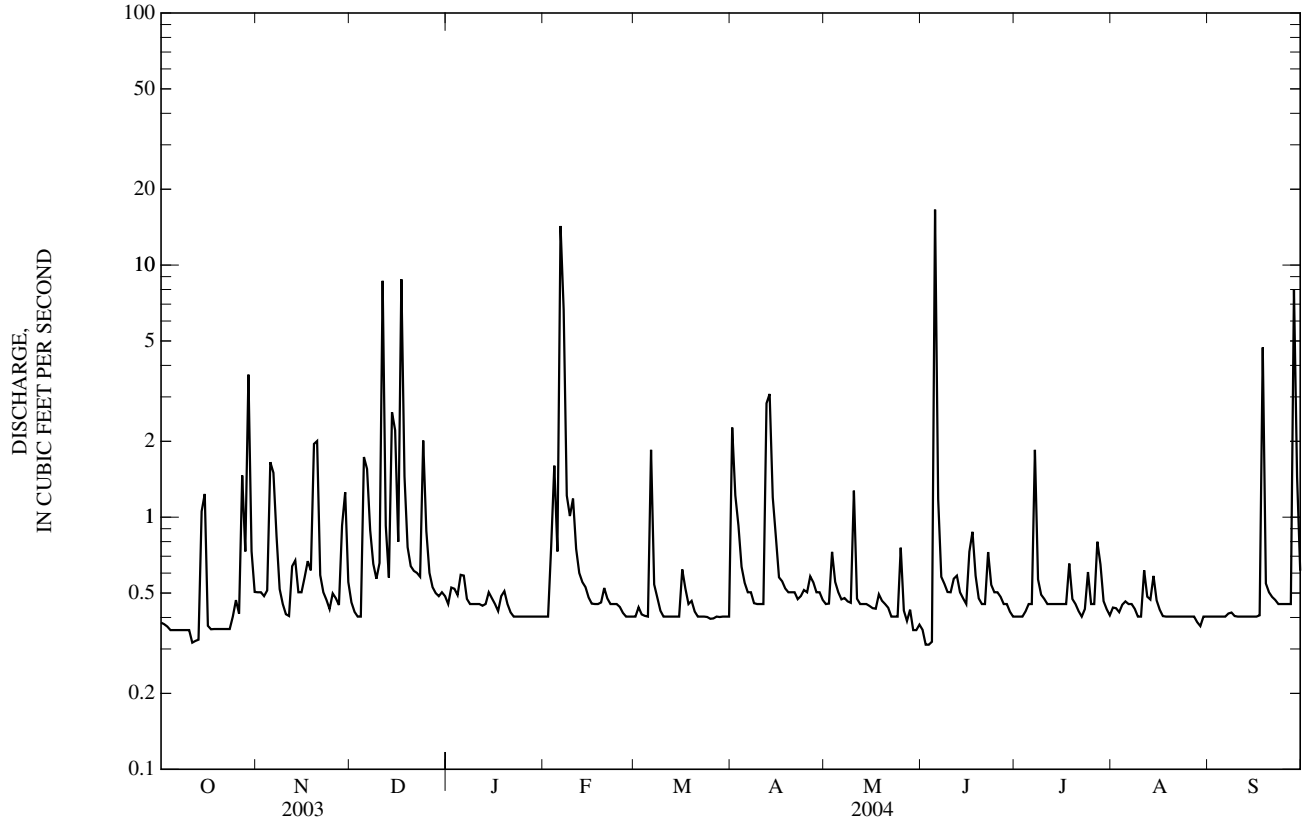
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1990, 1997 - 2004, BY WATER YEAR (WY)

MEAN	0.36	0.41	0.55	0.57	0.78	0.71	0.53	0.49	0.65	0.40	0.37	0.88
MAX	0.59	0.77	1.39	1.60	2.01	1.47	0.80	0.80	2.21	0.65	0.52	3.23
(WY)	(2004)	(1998)	(2004)	(1998)	(1998)	(1998)	(2004)	(1990)	(2003)	(2000)	(1997)	(1999)
MIN	0.13	0.16	0.22	0.18	0.14	0.18	0.32	0.27	0.16	0.16	0.14	0.16
(WY)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2003)	(1999)	(2002)	(2002)	(2002)	(2002)

01589795 SOUTH FORK JABEZ BRANCH AT MILLERSVILLE, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1989 - 1990, 1997 - 2004	
ANNUAL TOTAL	380.32		275.91			
ANNUAL MEAN	1.04		0.75		0.56	
HIGHEST ANNUAL MEAN					0.93	2003
LOWEST ANNUAL MEAN					0.21	2002
HIGHEST DAILY MEAN	40	Sep 18	17	Jun 5	82	Sep 16, 1999
LOWEST DAILY MEAN	(a)0.12	(b)	0.31	(c)	0.10	Aug 17, 2002
ANNUAL SEVEN-DAY MINIMUM	0.12	Jan 18	0.34	May 29	0.11	Aug 14, 2002
MAXIMUM PEAK FLOW			76	Sep 28	(d)496	Sep 18, 2003
MAXIMUM PEAK STAGE			5.70	Sep 28	7.46	Sep 18, 2003
INSTANTANEOUS LOW FLOW			0.27	(f)	0.05	Aug 17, 2002
ANNUAL RUNOFF (CFSM)	1.04		0.754		0.564	
ANNUAL RUNOFF (INCHES)	14.15		10.26		7.66	
10 PERCENT EXCEEDS	2.1		0.95		0.64	
50 PERCENT EXCEEDS	0.36		0.45		0.34	
90 PERCENT EXCEEDS	0.14		0.40		0.14	

a Estimated Feb. 16-18.
b Jan. 18-31, Feb. 1-3, 6-19.
c June 2, 3.
d From rating curve extended above 15 ft^3/s.
f Oct 1, 12, 13.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01591000 PATUXENT RIVER NEAR UNITY, MD

LOCATION.--Lat 39°14'17.7", long 77°03'20.6", Montgomery County, Hydrologic Unit 02060006, on right bank at downstream side of bridge on State Highway 97, 0.6 mi upstream from Cattail Creek, 0.8 mi upstream from Triadelphia Reservoir, 1.1 mi northeast of Unity, and 97 mi upstream from mouth.

DRAINAGE AREA.--34.8 mi^2.

PERIOD OF RECORD.--July 1944 to current year.

REVISED RECORDS.--WSP 1111: 1947. WSP 1432: 1948.

GAGE.--Water stage recorder and concrete control. Datum of gage is 364.76 ft above National Geodetic Vertical Datum of 1929 (Washington Suburban Sanitary Commission bench mark). Prior to Aug. 14, 1946, non-recording gage at same site and datum. U.S. Geological Survey gage- height telemeter at station.

REMARKS.-- Records good except those for estimated daily discharges (ice effect), which are fair. U.S. Geological Survey gage-height telemeter at station. Several measurements of water temperature were made during the year. Water-quality records for some prior years have been collected at this station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 770 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov 19	2145	840	5.45	Feb 6	1800	1,330	6.50
Dec 11	0730	*4,120	*10.02				

Minimum discharge, 8.7 ft^3/s, Sept. 5, 6.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	65	83	80	70	e34	50	142	55	41	20	34	9.7
2	62	77	72	73	e34	54	148	58	38	19	22	9.4
3	59	72	68	70	86	50	125	83	36	18	21	9.3
4	66	69	66	68	100	52	93	60	34	17	22	9.5
5	59	121	78	76	62	49	76	56	61	19	27	9.3
6	55	98	80	70	597	154	68	52	52	16	18	9.0
7	53	83	72	60	337	87	64	51	42	21	16	9.7
8	51	70	68	58	119	80	61	53	38	26	15	11
9	49	65	67	59	80	66	59	48	35	17	15	14
10	48	63	80	57	135	60	55	47	34	16	14	11
11	47	62	1,490	83	115	57	54	44	43	16	21	12
12	46	78	171	55	90	54	95	42	62	18	37	14
13	44	69	124	57	90	50	237	41	40	20	68	14
14	66	60	139	54	75	49	135	39	37	20	26	14
15	186	59	146	52	73	48	92	39	34	17	23	17
16	62	58	117	e46	65	54	80	49	36	15	20	17
17	55	56	240	e44	61	54	74	42	39	14	20	17
18	53	55	141	e52	62	49	69	112	37	15	20	40
19	49	274	116	e48	70	62	65	66	33	15	16	18
20	47	190	104	e46	71	51	63	54	29	14	15	14
21	47	101	95	e44	75	48	64	50	28	13	15	13
22	48	86	93	e42	68	45	60	49	27	14	15	13
23	45	79	91	e40	61	43	68	43	28	35	14	12
24	42	76	126	e38	62	42	73	40	26	41	13	12
25	41	88	101	e36	59	43	59	50	25	20	13	12
26	43	71	87	e38	54	42	92	69	25	19	12	11
27	430	68	83	e42	52	45	87	46	23	21	12	12
28	139	128	79	e42	51	43	66	42	23	25	12	61
29	249	159	77	e40	50	40	60	38	22	18	11	54
30	114	88	77	e38	---	39	57	37	20	16	10	22
31	93	---	71	e36	---	40	---	40	---	16	10	---
TOTAL	2,513	2,706	4,499	1,634	2,888	1,700	2,541	1,595	1,048	591	607	500.9
MEAN	81.1	90.2	145	52.7	99.6	54.8	84.7	51.5	34.9	19.1	19.6	16.7
MAX	430	274	1,490	83	597	154	237	112	62	41	68	61
MIN	41	55	66	36	34	39	54	37	20	13	10	9.0
CFSM	2.33	2.59	4.17	1.51	2.86	1.58	2.43	1.48	1.00	0.55	0.56	0.48
IN.	2.69	2.89	4.81	1.75	3.09	1.82	2.72	1.71	1.12	0.63	0.65	0.54

e Estimated

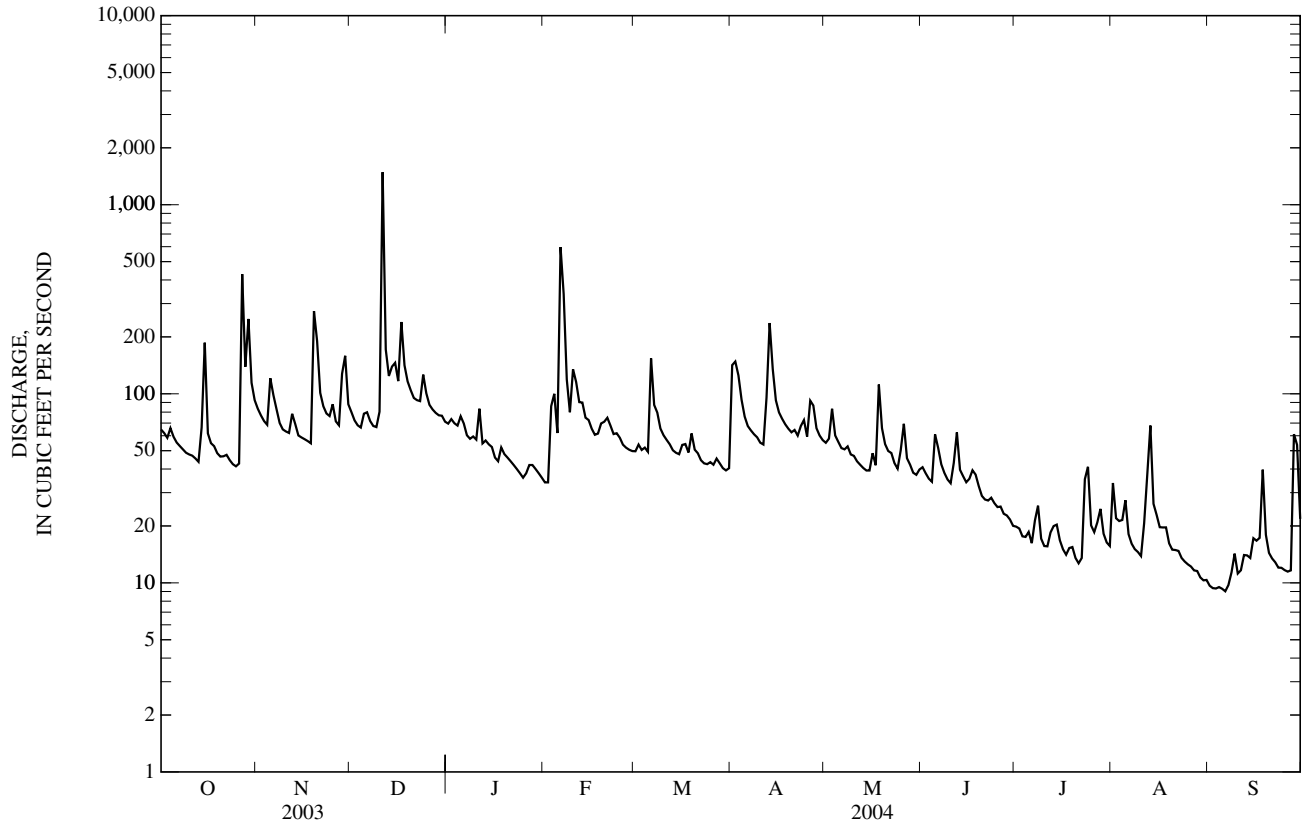
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 2004, BY WATER YEAR (WY)

MEAN	22.5	29.5	41.5	46.9	54.9	62.6	57.8	48.6	37.8	25.7	22.1	28.0
MAX	150	90.2	155	139	152	173	158	141	206	102	120	214
(WY)	(1980)	(2004)	(1997)	(1996)	(1979)	(1993)	(1993)	(1952)	(1972)	(1956)	(1971)	(1971)
MIN	4.19	9.09	8.51	10.0	12.8	21.4	17.5	15.2	7.53	2.78	2.78	3.55
(WY)	(1987)	(1966)	(1966)	(1966)	(2002)	(2002)	(2002)	(1963)	(1999)	(1999)	(2002)	(2002)

01591000 PATUXENT RIVER NEAR UNITY, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1944 - 2004	
ANNUAL TOTAL	33,657		22,822.9			
ANNUAL MEAN	92.2		62.4		39.8	
HIGHEST ANNUAL MEAN					82.3	1972
LOWEST ANNUAL MEAN					12.5	2002
HIGHEST DAILY MEAN	1,490	Dec 11	1,490	Dec 11	2,590	Sep 26, 1975
LOWEST DAILY MEAN	13	Feb 16	9.0	Sep 6	0.20	(a)
ANNUAL SEVEN-DAY MINIMUM	25	Feb 11	9.4	Sep 1	0.23	Aug 9, 1999
MAXIMUM PEAK FLOW			4,120	Dec 11	(b)21,800	Sep 11, 1971
MAXIMUM PEAK STAGE			10.02	Dec 11	18.60	Sep 11, 1971
INSTANTANEOUS LOW FLOW			8.7	(c)	0.20	(d)
ANNUAL RUNOFF (CFSM)	2.65		1.79		1.14	
ANNUAL RUNOFF (INCHES)	35.98		24.40		15.53	
10 PERCENT EXCEEDS	145		99		73	
50 PERCENT EXCEEDS	65		50		26	
90 PERCENT EXCEEDS	34		15		9.0	

a Sept. 10, 11, 1966.
b From rating curve extended above 1,800 ft^3/s on basis of slope-area measurement at gage height 13.00 ft.
c Sept. 5, 6.
d Sept. 10-12, 1966.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01591400 CATTAIL CREEK NEAR GLENWOOD, MD

LOCATION.--Lat 39°15'21.5", long 77°03'03.8", Howard County, Hydrologic Unit 02060006, on right bank at downstream side of bridge on State Highway 97, 1.2 mi upstream from mouth.

DRAINAGE AREA.--22.9 mi^2.

REVISED RECORDS.--WDR MD-DE-DC-03-1: 1983-2002 (P); daily discharges 1983-85, 1987-94, 1996-99, 2001.

PERIOD OF RECORD.--June 1978 to September 1983 (published as "at Roxbury Mills Road at Roxbury Mills, MD"), October 1983 to current year.

GAGE.--Water-stage recorder, and crest-stage gage. Elevation of gage is 400 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Dec. 28, 1983, at site 800 ft upstream at datum 1.76 ft lower.

REMARKS.--Records good except those for estimated daily discharges (ice effect and backwater), which are fair. Several measurements of water temperature were made during the year. Water-quality records for some prior years have been collected at this station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 15	0045	642	4.67	Nov 19	1930	1,040	5.78
Oct 27	0945	839	5.26	Dec 11	0600	*2,370	*8.35
Oct 27	1800	511	4.22	Feb 6	1730	1,330	6.45
Oct 29	0915	533	4.30				

Minimum discharge, 7.1 ft^3/s, Sept. 2-6.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	45	44	45	e33	33	97	31	23	13	31	7.7
2	36	43	41	48	e32	36	87	33	22	13	18	7.3
3	34	41	40	47	e60	34	65	49	20	12	14	7.3
4	38	41	39	46	73	35	49	35	19	13	14	7.3
5	36	68	46	51	46	34	40	32	32	14	16	7.3
6	34	56	49	46	610	105	37	31	33	13	13	7.2
7	33	49	46	40	252	51	35	30	25	16	11	7.8
8	33	42	43	39	74	49	34	31	23	20	11	8.7
9	32	40	43	40	50	39	33	28	21	14	11	11
10	32	39	52	38	107	38	32	27	20	13	10	9.4
11	32	40	e940	38	76	37	32	26	25	12	12	8.4
12	31	49	79	36	56	35	62	25	35	16	25	8.3
13	30	43	62	38	56	33	173	24	23	15	45	8.2
14	60	39	79	38	48	32	79	24	21	18	17	7.8
15	136	38	89	37	43	32	50	23	20	14	15	8.3
16	39	37	67	36	39	36	42	29	22	12	13	8.9
17	36	37	151	e35	38	37	40	25	23	12	12	9.6
18	35	37	73	41	37	33	38	33	23	13	15	30
19	33	298	61	39	42	43	36	34	23	13	12	12
20	32	98	57	35	44	35	34	29	19	12	11	9.7
21	32	52	53	e34	44	33	36	27	17	11	11	8.9
22	33	45	53	33	40	31	33	26	17	11	10	8.5
23	32	43	53	33	37	29	39	23	18	27	9.7	8.2
24	30	43	88	e33	39	29	43	22	17	27	9.2	8.0
25	30	51	61	e34	38	30	35	31	16	16	9.1	8.0
26	30	42	53	e36	35	29	58	37	16	15	9.0	7.9
27	488	41	51	e38	34	31	49	26	15	17	8.8	8.1
28	76	103	49	e37	34	30	37	24	14	15	8.6	45
29	178	85	48	e36	33	28	34	22	14	14	8.5	33
30	58	47	48	e35	---	27	33	20	13	12	8.2	15
31	48	---	45	e34	---	28	---	22	---	12	8.2	---
TOTAL	1,843	1,732	2,703	1,196	2,150	1,132	1,492	879	629	455	426.3	342.8
MEAN	59.5	57.7	87.2	38.6	74.1	36.5	49.7	28.4	21.0	14.7	13.8	11.4
MAX	488	298	940	51	610	105	173	49	35	27	45	45
MIN	30	37	39	33	32	27	32	20	13	11	8.2	7.2
CFSM	2.60	2.52	3.81	1.68	3.24	1.59	2.17	1.24	0.92	0.64	0.60	0.50
IN.	2.99	2.81	4.39	1.94	3.49	1.84	2.42	1.43	1.02	0.74	0.69	0.56

e Estimated

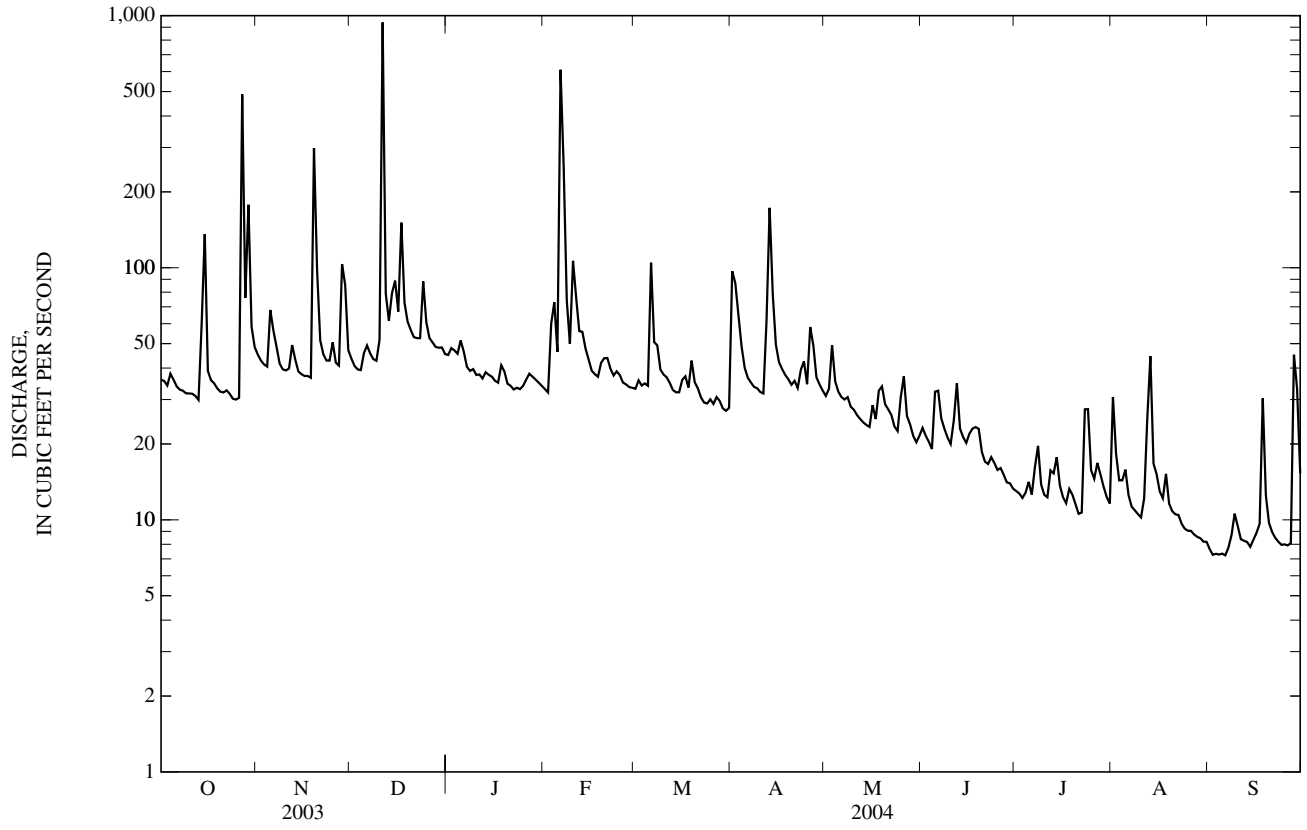
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 2004, BY WATER YEAR (WY)

MEAN	18.3	22.3	29.0	31.5	37.0	39.0	34.2	29.6	23.8	16.2	14.0	17.8
MAX	76.6	57.7	95.2	85.2	103	98.3	98.3	75.2	82.5	55.1	41.5	81.6
(WY)	(1980)	(2004)	(1997)	(1996)	(1979)	(1993)	(1993)	(1989)	(2003)	(1996)	(1996)	(1979)
MIN	3.73	5.96	7.49	8.38	9.61	14.2	11.3	10.1	5.60	2.77	1.49	2.80
(WY)	(1987)	(1982)	(1999)	(1981)	(2002)	(2002)	(2002)	(1999)	(1999)	(2002)	(2002)	(2002)

01591400 CATTAIL CREEK NEAR GLENWOOD, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1978 - 2004	
ANNUAL TOTAL	20,057		14,980.1			
ANNUAL MEAN	55.0		40.9		25.9	
HIGHEST ANNUAL MEAN					42.9	2003
LOWEST ANNUAL MEAN					8.82	2002
HIGHEST DAILY MEAN	940	Dec 11	(e)940	Dec 11	1,230	Jan 19, 1996
LOWEST DAILY MEAN	13	Feb 16	7.2	Sep 6	(e)0.09	Aug 23, 2002
ANNUAL SEVEN-DAY MINIMUM	17	Feb 11	7.4	Sep 1	0.21	Aug 17, 2002
MAXIMUM PEAK FLOW			2,440	Dec 11	(a)3,450	Sep 6, 1979
MAXIMUM PEAK STAGE			8.45	Dec 11	9.86	Sep 6, 1979
INSTANTANEOUS LOW FLOW			7.1	(b)	0.07	(c)
ANNUAL RUNOFF (CFSM)	2.40		1.79		1.13	
ANNUAL RUNOFF (INCHES)	32.58		24.33		15.37	
10 PERCENT EXCEEDS	84		58		43	
50 PERCENT EXCEEDS	38		33		17	
90 PERCENT EXCEEDS	22		11		6.4	

e Estimated.
a From rating curve extended above 175 ft^3/s on basis of contracted-opening and flow-over-road measurement at gage height of 8.41 ft.
b Sept. 2-6.
c Aug. 14, 19, 20, 1999.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01591610 PATUXENT RIVER BELOW BRIGHTON DAM NEAR BRIGHTON, MD

LOCATION.--Lat 39°11'31.9", long 77°00'15.8", Montgomery County, Hydrologic Unit 02060006, on right bank at Brighton Dam, 500 ft downstream from Triadelphia Reservoir, 1.3 mi east of Brighton, and 92 mi upstream from mouth.

DRAINAGE AREA.--78.6 mi^2.

PERIOD OF RECORD.--October 1980 to current year.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 310 ft above National Geodetic Vertical Datum of 1929, from topographic map. June 1978 to October 1980, nonrecording gage 300 ft upstream on left bank at different datum.

REMARKS.--Records good except those for estimated daily discharges (ice effect, missing record), which are fair. Flow completely regulated by Triadelphia Reservoir, 500 ft upstream, usable capacity, 6,200,000,000 gal; no dead storage. U.S. Geological Survey gage-height telemeter at station. Several measurements of water temperature were made during the year. Water-quality records for some prior years have been collected at this station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 22, 1972, reached a discharge of 17,800 ft^3/s. Data provided by Washington Suburban Sanitary Commission.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,800 ft^3/s, Dec. 11, gage height, 11.03 ft; minimum discharge, 14 ft^3/s, on several days.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	63	152	43	133	55	56	187	87	55	e54	49
2	18	64	56	43	133	55	56	185	54	55	e54	48
3	18	62	55	44	132	290	57	185	54	55	e54	49
4	18	63	56	43	134	62	57	140	54	55	e54	50
5	18	63	56	43	282	62	57	173	54	55	e54	50
6	18	180	56	222	488	62	55	172	54	55	e54	49
7	69	377	56	587	653	61	535	171	55	55	e54	49
8	170	174	195	368	637	60	156	168	55	55	e54	48
9	163	57	343	42	610	256	156	167	55	55	e54	48
10	162	57	542	42	583	316	156	82	55	55	e54	49
11	161	57	1,790	42	567	312	155	53	55	55	e54	50
12	160	58	722	42	342	215	155	53	55	261	53	49
13	160	65	687	42	127	60	161	53	55	153	53	48
14	109	106	664	42	127	60	213	53	55	54	53	47
15	18	209	646	42	127	105	318	53	55	54	53	47
16	18	206	213	42	127	197	315	53	55	54	53	47
17	19	204	58	42	126	194	311	53	55	53	53	48
18	22	323	114	42	127	191	308	54	55	53	e53	50
19	26	370	328	43	126	190	306	54	55	53	e53	49
20	28	465	325	43	96	189	110	26	55	53	e53	48
21	87	363	321	43	44	189	57	14	55	53	53	48
22	178	357	318	44	44	186	57	14	55	53	53	47
23	187	267	314	e44	43	121	58	14	55	53	52	47
24	180	196	314	43	44	55	58	14	55	53	53	48
25	176	195	297	43	49	55	56	15	75	53	52	50
26	175	194	276	43	45	56	56	69	98	53	53	50
27	445	192	272	73	28	56	55	140	95	54	51	49
28	875	193	267	137	55	55	104	166	94	54	51	49
29	617	197	191	136	55	55	190	179	70	54	50	50
30	471	196	44	135	---	55	188	175	55	54	50	50
31	219	---	43	135	---	55	---	174	---	e54	49	---
TOTAL	5,003	5,573	9,771	2,775	6,084	3,930	4,572	3,109	1,834	1,981	1,638	1,460
MEAN	161	186	315	89.5	210	127	152	100	61.1	63.9	52.8	48.7
MAX	875	465	1,790	587	653	316	535	187	98	261	54	50
MIN	18	57	43	42	28	55	55	14	54	53	49	47
(†)	5,540	5,720	5,650	5,600	5,440	5,260	5,660	5,570	5,590	5,260	5,100	4,800

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 2004, BY WATER YEAR (WY)

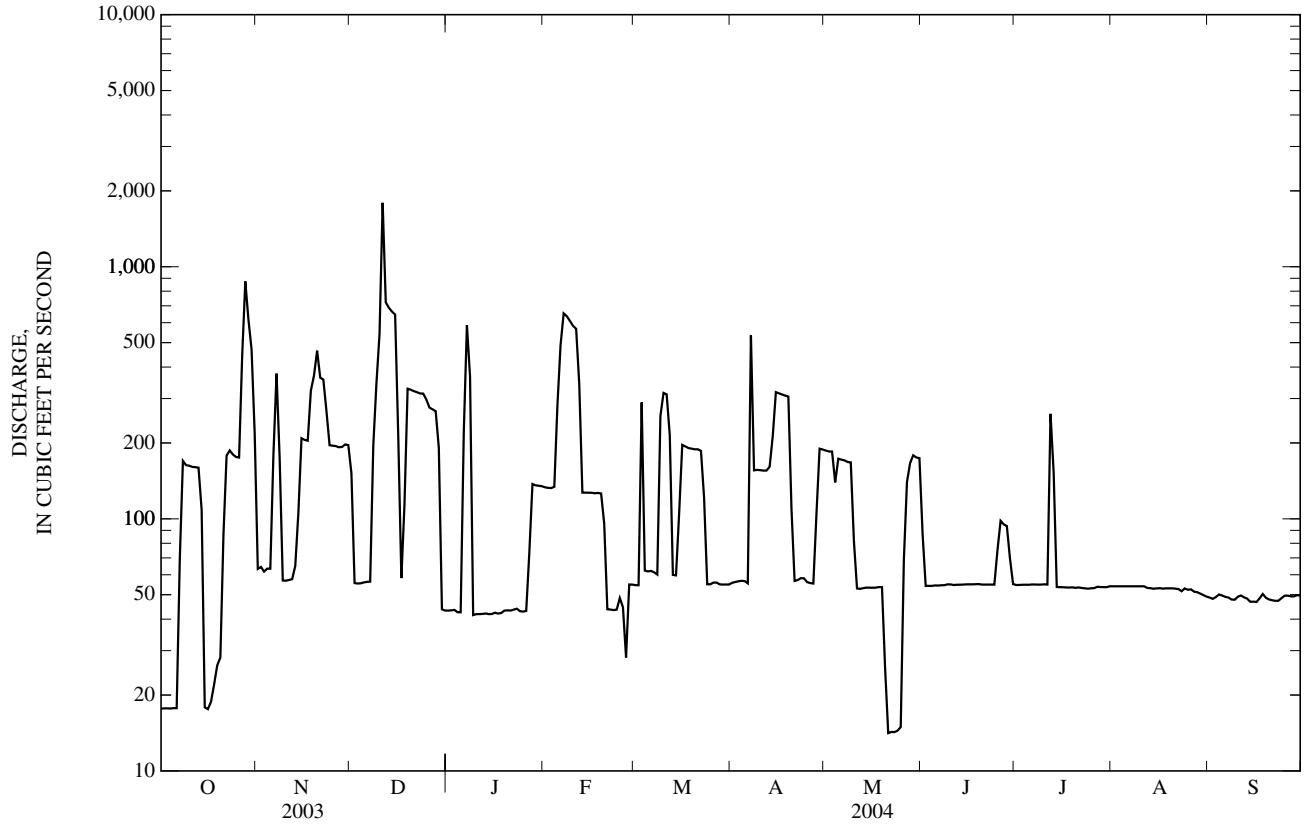
MEAN	65.9	62.0	92.7	73.4	86.9	119	124	93.6	84.5	63.4	65.8	80.0
MAX	161	186	373	183	256	320	304	229	313	135	143	261
(WY)	(2004)	(2004)	(1984)	(1991)	(1994)	(1993)	(1993)	(1989)	(2003)	(1996)	(1996)	(2003)
MIN	7.87	17.1	14.9	9.33	9.57	8.90	8.49	8.63	22.4	30.3	18.1	17.8
(WY)	(1987)	(1989)	(1992)	(1982)	(1999)	(1981)	(1981)	(1981)	(1981)	(1995)	(1987)	(2002)

† Monthend contents, in millions of gallons, in Triadelphia Reservoir (contents on Sept. 30, 2002, 2,120,000,000 gal). Records provided by Washington Suburban Sanitary Commission.

01591610 PATUXENT RIVER BELOW BRIGHTON DAM NEAR BRIGHTON, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1981 - 2004	
ANNUAL TOTAL	64,085		47,730			
ANNUAL MEAN	176		130		84.3	
ANNUAL MEAN‡	224		92.5		116	
HIGHEST ANNUAL MEAN					134	1984
LOWEST ANNUAL MEAN					38.2	2002
HIGHEST DAILY MEAN	1,790	Dec 11	1,790	Dec 11	1,790	Dec 11, 2003
LOWEST DAILY MEAN	18	(a)	14	(b)	2.1	(c)
ANNUAL SEVEN-DAY MINIMUM	18	Sep 29	22	May 19	4.0	Oct 16, 1980
MAXIMUM PEAK FLOW			(d)4,800	Dec 11	(d)4,800	Dec 11, 2003
MAXIMUM PEAK STAGE			11.03	Dec 11	11.03	Dec 11, 2003
INSTANTANEOUS LOW FLOW			14	(f)	1.2	Dec 3, 1985
ANNUAL RUNOFF (CFSM)	2.23		1.66		1.07	
ANNUAL RUNOFF (INCHES)	30.33		22.59		14.57	
10 PERCENT EXCEEDS	359		313		176	
50 PERCENT EXCEEDS	125		55		55	
90 PERCENT EXCEEDS	48		43		10	

‡ Adjusted for change in reservoir contents.
a Sept. 29, 30, Oct. 1-6, 15, 18.
b May 21-24.
c Jan. 27, 28, 1983.
d From rating curve extended above 2,900 ft^3/s.
f Feb. 27, May 20-26.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01591700 HAWLINGS RIVER NEAR SANDY SPRING, MD

LOCATION.--Lat 39°10'28.8", long 77°01'17.7", Montgomery County, Hydrologic Unit 02060006, on right bank at downstream side of bridge on State Highway 650, 1.0 mi upstream from mouth, and 1.7 mi north of Sandy Spring.

DRAINAGE AREA.--27.0 mi^2.

PERIOD OF RECORD.--June 1978 to current year.

REVISED RECORDS.--WDR MD-DE-DC-03-1: 1996-98, 2000-01 (P).

GAGE.--Water-level recorder. Elevation of gage is 320 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS--Records good except those for estimated daily discharges (ice effect), which are poor. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov 20	0000	948	4.65	Feb 6	2030	1,090	4.99
Dec 11	0700	*3,730	*8.32				

Minimum discharge, 6.1 ft^3/s, Sept. 1-6.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	39	41	46	e24	33	114	33	27	12	19	6.6
2	25	35	36	50	e24	37	130	36	24	13	16	6.1
3	23	33	34	50	e70	36	99	58	23	11	13	6.1
4	25	32	33	48	e80	35	60	41	21	14	14	6.1
5	23	70	42	55	e50	35	46	36	42	17	18	6.1
6	22	82	53	55	457	142	41	34	37	17	12	6.4
7	21	58	47	44	277	67	39	33	28	20	10	6.5
8	21	41	42	42	e96	55	37	37	24	23	9.7	7.4
9	20	36	39	41	e50	45	36	39	22	15	9.0	10
10	20	34	56	41	96	42	34	121	21	13	8.8	8.5
11	20	33	1,250	41	89	39	34	42	32	12	11	7.4
12	19	49	112	41	66	37	73	34	54	15	26	7.2
13	18	42	72	40	62	35	211	30	28	16	43	6.9
14	28	34	82	39	56	34	125	28	24	14	18	7.0
15	83	32	113	38	e47	34	67	25	24	13	18	9.7
16	29	30	81	37	e40	37	52	31	24	11	14	10
17	24	30	167	37	e36	40	48	30	26	11	12	11
18	23	28	94	42	e34	36	45	39	24	11	14	46
19	22	267	68	46	e40	41	42	38	20	11	12	15
20	20	229	60	e42	46	36	40	33	18	10	10	10
21	20	60	54	e38	47	34	40	30	17	9.4	9.4	8.8
22	21	47	53	e34	43	32	39	28	16	14	9.4	8.3
23	20	41	52	e30	40	31	43	25	17	22	8.8	7.5
24	19	39	108	e28	40	30	48	23	16	20	8.3	7.4
25	19	43	76	e26	41	31	38	55	15	14	8.3	7.4
26	19	36	58	e26	37	30	61	70	15	13	7.8	7.4
27	273	35	54	e30	35	32	63	35	14	41	7.8	7.4
28	89	75	51	e30	34	31	42	29	14	62	7.4	19
29	179	110	50	e28	33	29	38	25	14	21	7.3	33
30	64	49	50	e26	---	28	35	22	12	15	6.9	14
31	45	---	48	e25	---	28	---	24	---	12	6.9	---
TOTAL	1,279	1,769	3,176	1,196	2,090	1,232	1,820	1,164	693	522.4	395.8	320.2
MEAN	41.3	59.0	102	38.6	72.1	39.7	60.7	37.5	23.1	16.9	12.8	10.7
MAX	273	267	1,250	55	457	142	211	121	54	62	43	46
MIN	18	28	33	25	24	28	34	22	12	9.4	6.9	6.1
CFSM	1.53	2.18	3.79	1.43	2.67	1.47	2.25	1.39	0.86	0.62	0.47	0.40
IN.	1.76	2.44	4.38	1.65	2.88	1.70	2.51	1.60	0.95	0.72	0.55	0.44

e Estimated

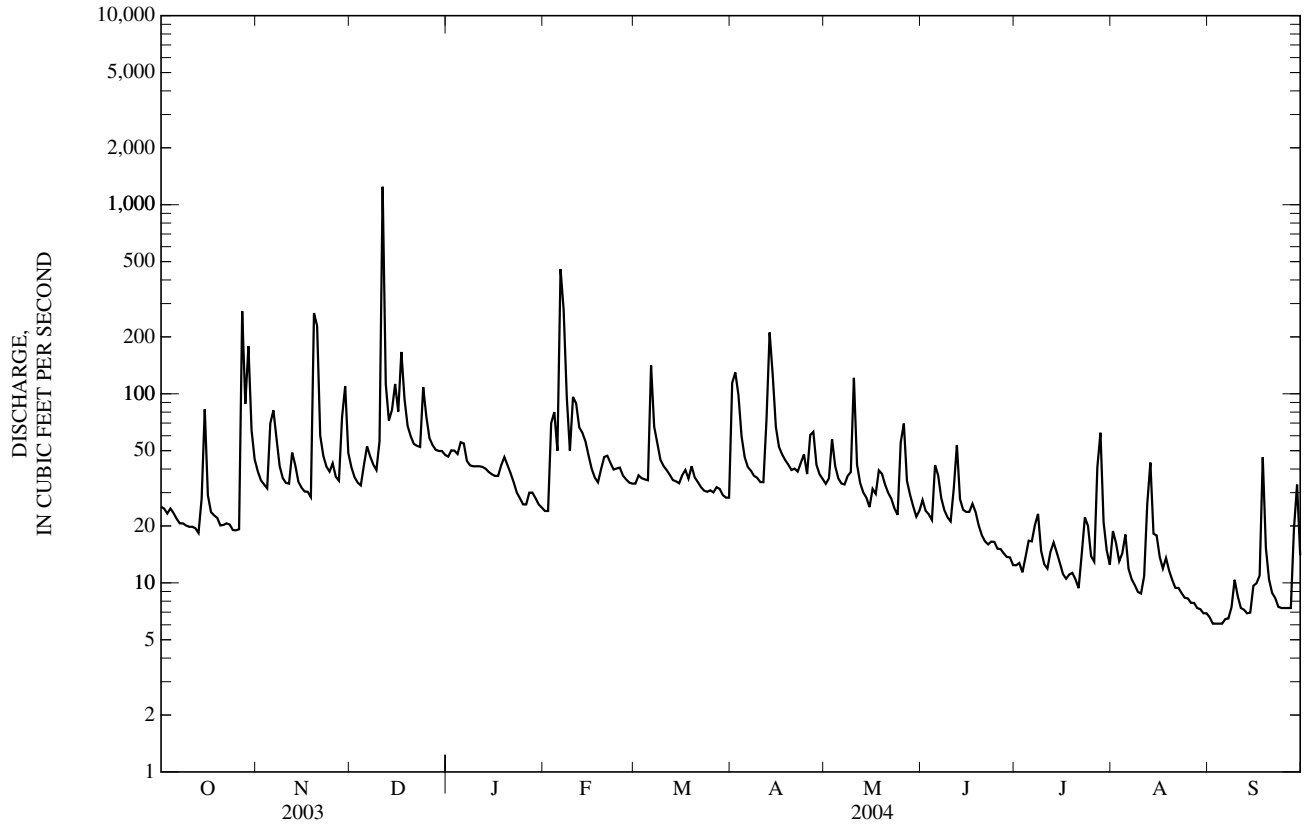
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 2004, BY WATER YEAR (WY)

MEAN	21.1	28.6	34.8	37.5	43.8	48.8	41.0	35.7	31.5	16.7	13.3	20.4
MAX	129	68.8	104	115	112	116	90.7	94.3	101	52.4	36.6	90.2
(WY)	(1980)	(1994)	(1997)	(1996)	(1979)	(1993)	(1993)	(1989)	(2003)	(1996)	(1996)	(1996)
MIN	2.68	7.27	8.86	9.31	10.7	18.8	16.8	12.1	4.71	2.16	2.56	3.11
(WY)	(1987)	(1982)	(1999)	(1981)	(2002)	(1981)	(2002)	(1999)	(1999)	(1999)	(2002)	(1986)

01591700 HAWLINGS RIVER NEAR SANDY SPRING, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1978 - 2004	
ANNUAL TOTAL	21,750		15,657.4			
ANNUAL MEAN	59.6		42.8		30.9	
HIGHEST ANNUAL MEAN					52.9	1996
LOWEST ANNUAL MEAN					11.0	2002
HIGHEST DAILY MEAN	1,250	Dec 11	1,250	Dec 11	1,840	Jan 19, 1996
LOWEST DAILY MEAN	12	Sep 11	6.1	(a)	0.14	Aug 23, 2002
ANNUAL SEVEN-DAY MINIMUM	15	Sep 6	6.3	Sep 1	0.30	Aug 20, 2002
MAXIMUM PEAK FLOW			3,730	Dec 11	(b)5,180	Jan 19, 1996
MAXIMUM PEAK STAGE			8.32	Dec 11	9.24	Jan 19, 1996
INSTANTANEOUS LOW FLOW			6.1	(c)	0.12	(d)
ANNUAL RUNOFF (CFSM)	2.21		1.58		1.15	
ANNUAL RUNOFF (INCHES)	29.97		21.57		15.57	
10 PERCENT EXCEEDS	101		69		53	
50 PERCENT EXCEEDS	37		33		19	
90 PERCENT EXCEEDS	19		9.9		5.6	

a Sept. 2-5.
b From rating curve extended above 1,300 ft^3/s on basis of contracted-opening and flow-over-road measurement of peak flow.
c Sept. 1-6.
d Aug. 23, 24, 2002.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01592500 PATUXENT RIVER NEAR LAUREL, MD

LOCATION.--Lat 39°06'56.6", long 76°52'25.5", Prince Georges County, Hydrologic Unit 02060006, on right bank at Rocky Gorge pumping station, 600 ft downstream from T. Howard Duckett Reservoir, 0.7 mi upstream from Walker Branch, 1.3 mi northwest of Laurel, and 81 mi upstream from mouth.

DRAINAGE AREA.--132 mi^2.

PERIOD OF RECORD.--October 1944 to current year.

REVISED RECORDS.--WDR MD-DE-78-1: 1976(M). WDR MD-DE-89-1: 1978(M), 1979(M).

GAGE.--Water-stage recorder. Datum of gage is 153.5 ft above National Geodetic Vertical Datum of 1929 (levels by Washington Suburban Sanitary Commission). Prior to Oct. 1, 1955, water-stage recorder and concrete control at site 0.3 mi downstream at different datum. Oct. 1, 1955 to Sept. 30, 1956, nonrecording gage at present site at datum 1.2 ft lower. Oct. 1, 1956 to Jan. 27, 1957, nonrecording gage at present site and datum. Jan. 28, 1957 to May 3, 1972, water-stage recorder and concrete control at present site and datum. May 4, 1972 to Sept. 4, 1973, nonrecording gage at present site and datum.

REMARKS.--No estimated daily discharges. Records good. Records do not include diversion at Patuxent (formerly Willis School) filtration plant for supply of Washington Suburban Sanitary District. Flow regulated by Triadelphia Reservoir, and since March 1954 by T. Howard Duckett Reservoir, combined usable capacity, 11,800,000,000 gal; dead storage, 80,000,000 gal. U.S. Geological Survey gage-height telemeter at station. Several measurements of water temperature were made during the year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,900 ft^3/s, Dec. 11, gage height, 11.71 ft; minimum discharge, 21 ft^3/s, on many days.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	196	378	215	289	439	88	88	90	90	23	93	23
2	345	372	127	281	420	89	88	91	77	22	93	23
3	290	235	90	276	196	89	89	449	84	22	120	24
4	74	109	258	271	52	89	89	574	84	23	141	23
5	22	90	385	266	235	89	88	569	82	23	94	24
6	22	198	381	263	554	89	75	220	82	22	79	24
7	22	159	91	270	627	305	408	88	82	22	28	24
8	22	24	185	166	662	447	576	90	82	22	28	49
9	22	24	238	89	663	446	420	91	82	22	75	24
10	22	24	422	89	708	445	88	91	83	22	78	24
11	22	24	2,440	90	736	294	89	91	84	22	28	24
12	23	191	1,490	171	725	88	89	91	83	67	114	24
13	23	440	1,230	286	684	88	429	91	82	42	153	24
14	23	407	946	176	350	88	545	91	82	56	153	24
15	134	246	935	88	89	88	499	91	82	23	95	24
16	252	240	408	88	89	89	89	91	84	22	27	24
17	251	90	152	89	90	89	89	91	84	22	28	70
18	251	225	155	89	90	89	89	90	84	22	28	44
19	250	519	881	88	90	89	89	89	84	22	65	26
20	250	610	931	89	90	89	89	90	84	22	63	26
21	249	665	858	89	90	89	89	91	84	22	23	26
22	249	658	499	89	90	135	205	91	84	22	24	26
23	249	503	212	89	89	292	296	89	83	22	23	26
24	95	25	159	89	89	271	294	89	69	22	23	26
25	22	25	90	89	210	212	288	90	48	22	23	26
26	22	204	224	89	281	89	143	91	23	22	23	26
27	252	485	299	89	271	89	88	90	23	70	23	27
28	476	393	220	89	88	89	89	89	23	70	23	26
29	670	327	90	89	88	85	89	90	23	93	23	26
30	826	328	98	99	---	88	90	90	23	93	23	26
31	609	---	299	460	---	88	---	90	---	93	23	---
TOTAL	6,235	8,218	15,008	4,874	8,885	4,794	5,776	4,249	2,144	1,094	1,837	833
MEAN	201	274	484	157	306	155	193	137	71.5	35.3	59.3	27.8
MAX	826	665	2,440	460	736	447	576	574	90	93	153	70
MIN	22	24	90	88	52	85	75	88	23	22	23	23
(†)	11190	10730	10190	10120	9870	9740	10510	10380	10160	10150	9440	9000
(‡)	25.1	53.9	52.2	59.7	58.4	60.7	58.0	50.7	62.3	60.8	57.9	57.9

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 2004, BY WATER YEAR (WY)

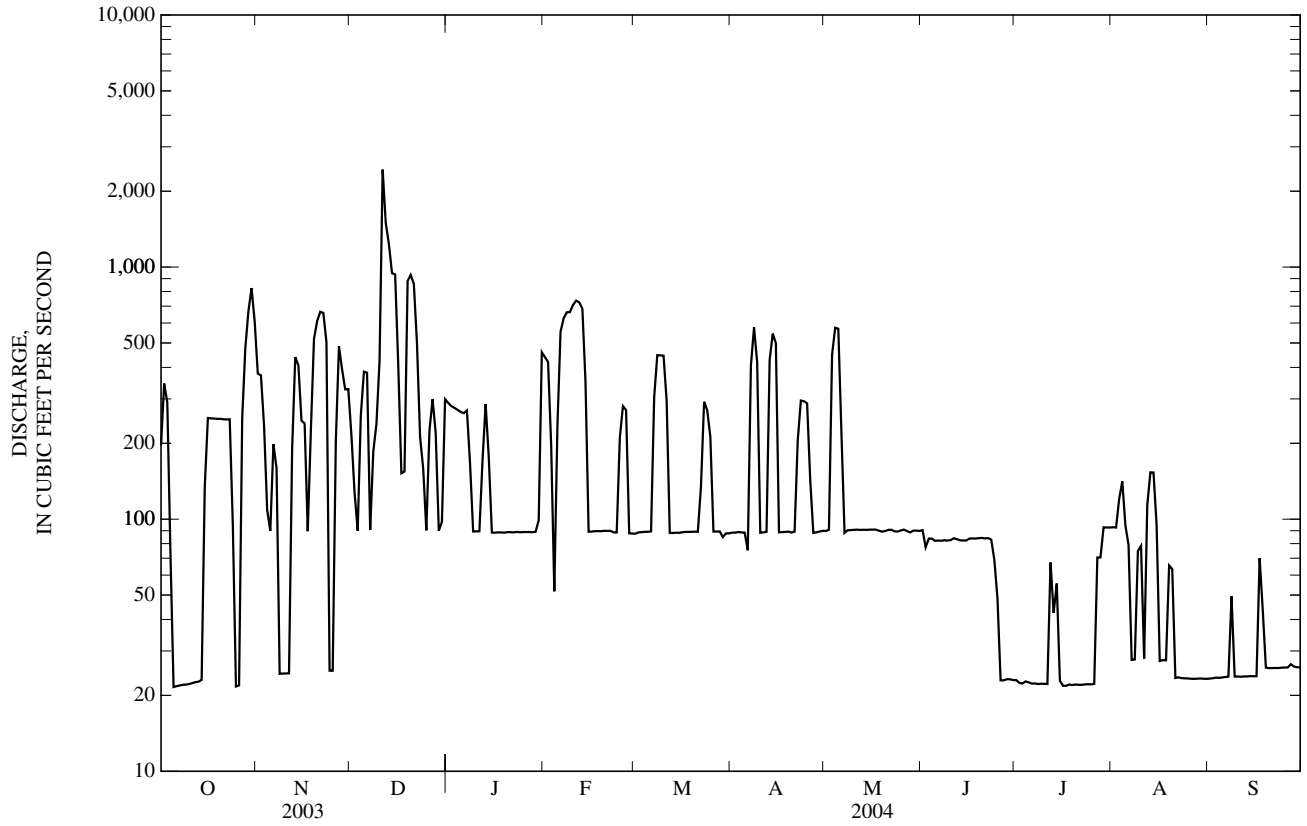
MEAN	45.9	51.4	81.1	101	117	137	139	110	91.8	59.4	49.3	66.8
MAX	379	274	484	480	462	557	444	397	822	280	226	587
(WY)	(1980)	(2004)	(2004)	(1978)	(1979)	(1993)	(1952)	(1989)	(1972)	(1945)	(1971)	(1979)
MIN	7.76	7.21	8.45	7.84	7.92	7.88	7.47	9.04	7.88	7.81	5.72	4.91
(WY)	(1968)	(1985)	(1966)	(1966)	(1966)	(1966)	(1966)	(1985)	(1967)	(1967)	(1966)	(1966)

† Combined month-end total contents, in millions of gallons, in Tridelphia and T. Howard Duckett Reservoirs (contents on Sept. 30, 2003,10,480,000,000 gals.)
Records provided by Washington Suburban Sanitary Commission.
‡ Diversions, in cubic feet per second, upstream from station at Patuxent (formerly Willis School) filtration plant for supply of Washington Suburban Sanitary District. Records provided by Washington Suburban Sanitary Commission.

01592500 PATUXENT RIVER NEAR LAUREL, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1945 - 2004	
ANNUAL TOTAL	87,292		63,947			
ANNUAL MEAN	239		175		87.2	
ANNUAL MEAN ‡	299		229			
HIGHEST ANNUAL MEAN					241	1972
LOWEST ANNUAL MEAN					9.09	1966
HIGHEST DAILY MEAN	2,440	Dec 11	2,440	Dec 11	13,000	Jun 22, 1972
LOWEST DAILY MEAN	(a)20	(b)	22	Oct 5	1.1	Jun 26, 1956
ANNUAL SEVEN-DAY MINIMUM	20	Jan 31	22	Oct 5	3.7	Aug 29, 1966
MAXIMUM PEAK FLOW			4,900	Dec 11	(c)26,000	Jun 22, 1972
MAXIMUM PEAK STAGE			11.71	Dec 11	(d)25.00	Jun 22, 1972
INSTANTANEOUS LOW FLOW			21	(f)	0.05	(g)
ANNUAL RUNOFF (CFSM)	1.81		1.32		0.660	
ANNUAL RUNOFF (INCHES)	24.60		18.02		8.97	
10 PERCENT EXCEEDS	597		445		193	
50 PERCENT EXCEEDS	147		89		22	
90 PERCENT EXCEEDS	21		23		12	

‡ Adjusted for diversions.
a Estimated Jan. 25-27, 31, Feb.1.
b Jan. 1-4, Feb. 2-17, (Jan. 25-27, 31, Feb. 1, (estimated)).
c From rating curve extended above 6,600 ft^3/s on basis of contracted-opening measurement of peak flow.
d From floodmarks.
f Oct. 4-8, 24-26, July 7, 10-23, 25, 28.
g Valve closed for repair.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01593500 LITTLE PATUXENT RIVER AT GUILFORD, MD

LOCATION.--Lat 39°10'03.9", long 76°51'04.5", Howard County, Hydrologic Unit 02060006, on left bank 25 ft downstream from bridge on Guilford Road (formerly State Highway 32), 1 mi west of Guilford, 3 mi upstream from Middle Patuxent River, 4 mi north of Laurel, and 20.1 mi upstream from mouth.

DRAINAGE AREA.--38.0 mi^2.

PERIOD OF RECORD.--April 1932 to current year. Monthly discharge only for April 1932, published in WSP 1302.

REVISED RECORDS.--WSP 1502: 1933, 1934(M), 1939(M), 1945(M), 1948(P).

GAGE.--Water-stage recorder. Concrete control since June 20, 1946. Datum of gage is 259.26 ft above National Geodetic Vertical Datum of 1929. Prior to June 25, 1946, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair. Low flow affected by regulation from unknown source. U.S. Geological Survey gage-height telemeter at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 800 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov 19	1915	932	6.69	Feb 6	2315	1,360	8.32
Dec 11	1230	*1,660	*9.12				

Minimum discharge, 10 ft^3/s, Sept. 4-7.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	43	48	48	34	37	250	37	28	14	116	13
2	25	38	41	60	34	43	266	39	25	13	123	12
3	24	35	37	54	181	41	169	87	23	12	31	11
4	26	33	36	50	147	43	98	57	19	16	29	11
5	25	91	70	70	72	42	68	41	68	24	42	11
6	23	172	91	66	489	300	56	37	89	16	22	10
7	23	95	64	47	569	107	51	36	37	140	17	11
8	22	51	50	44	132	94	48	43	28	129	16	12
9	23	41	48	44	70	60	47	33	24	31	15	29
10	22	37	85	e37	92	55	44	97	23	21	14	18
11	22	36	1,060	e39	96	50	44	40	33	18	26	14
12	21	75	145	42	71	48	108	33	62	17	169	13
13	20	55	77	43	64	42	253	31	29	18	242	12
14	61	37	132	41	60	39	129	29	24	20	47	11
15	210	33	190	41	55	40	82	27	22	17	38	13
16	42	32	101	e34	46	57	60	41	22	15	26	13
17	29	32	335	e34	43	60	52	30	27	14	21	13
18	26	31	144	63	43	45	49	41	34	22	68	152
19	24	296	80	56	44	62	46	47	34	19	30	45
20	23	385	67	e39	48	46	44	34	22	15	21	23
21	23	79	60	e40	51	44	43	30	19	14	19	18
22	23	55	58	e40	47	39	42	29	18	14	19	16
23	23	46	57	e39	43	37	50	25	18	40	16	15
24	21	45	163	e29	44	36	64	23	17	37	15	14
25	21	64	104	e34	46	38	42	42	16	19	15	14
26	22	44	67	36	40	36	80	92	16	17	15	15
27	458	40	60	41	39	44	94	45	15	89	14	18
28	156	109	55	41	37	41	49	29	15	261	13	138
29	399	180	53	37	37	34	42	23	14	43	13	194
30	95	59	58	37	---	33	39	20	14	23	13	47
31	53	---	50	e21	---	34	---	23	---	19	13	---
TOTAL	2,011	2,369	3,686	1,347	2,774	1,727	2,509	1,241	835	1,167	1,278	936
MEAN	64.9	79.0	119	43.5	95.7	55.7	83.6	40.0	27.8	37.6	41.2	31.2
MAX	458	385	1,060	70	569	300	266	97	89	261	242	194
MIN	20	31	36	21	34	33	39	20	14	12	13	10
CFSM	1.71	2.08	3.13	1.14	2.52	1.47	2.20	1.05	0.73	0.99	1.08	0.82
IN.	1.97	2.32	3.61	1.32	2.72	1.69	2.46	1.21	0.82	1.14	1.25	0.92

e Estimated

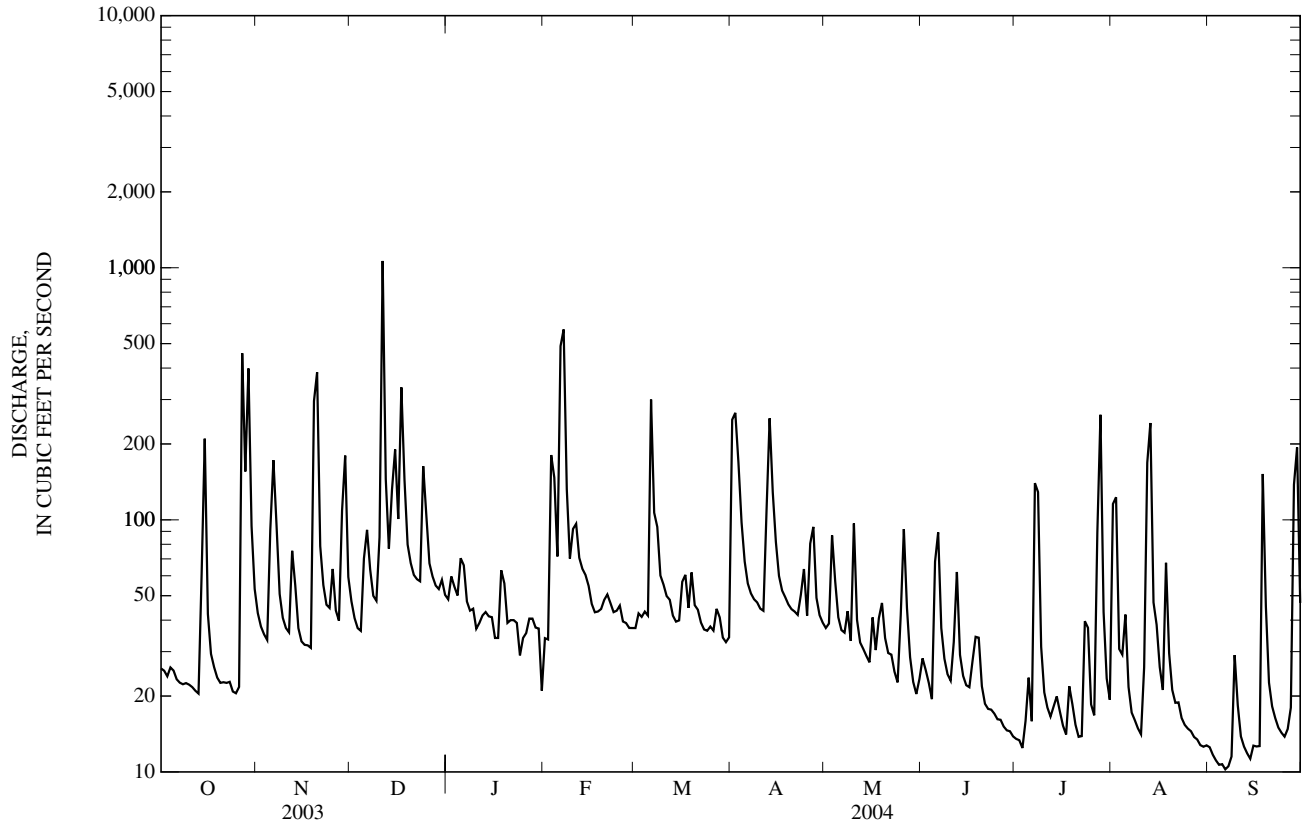
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 2004, BY WATER YEAR (WY)

MEAN	26.9	38.1	46.0	52.7	60.9	66.5	58.4	49.5	39.5	29.5	27.7	32.7
MAX	107	108	130	145	147	181	160	197	265	119	130	214
(WY)	(1980)	(1973)	(1997)	(1978)	(1979)	(1993)	(1973)	(1989)	(1972)	(1945)	(1955)	(1975)
MIN	5.90	9.31	11.6	12.9	14.4	24.9	21.0	15.7	9.32	6.66	4.91	3.88
(WY)	(1942)	(1942)	(1966)	(1955)	(2002)	(1981)	(1947)	(1955)	(1986)	(1966)	(1957)	(1932)

01593500 LITTLE PATUXENT RIVER AT GUILFORD, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1932 - 2004	
ANNUAL TOTAL	30,128		21,880			
ANNUAL MEAN	82.5		59.8		44.1	
HIGHEST ANNUAL MEAN					93.7	1972
LOWEST ANNUAL MEAN					18.9	2002
HIGHEST DAILY MEAN	1,090	Sep 23	1,060	Dec 11	4,680	Jun 22, 1972
LOWEST DAILY MEAN	15	Jan 28	10	Sep 6	0.00	Sep 8, 1966
ANNUAL SEVEN-DAY MINIMUM	16	Jan 25	11	Sep 2	0.73	Sep 6, 1966
MAXIMUM PEAK FLOW			1,660	Dec 11	(a)12,400	Jun 22, 1972
MAXIMUM PEAK STAGE			9.12	Dec 11	(b)18.38	Jun 22, 1972
INSTANTANEOUS LOW FLOW			10	(c)	0.00	(d)
ANNUAL RUNOFF (CFSM)	2.17		1.57		1.16	
ANNUAL RUNOFF (INCHES)	29.49		21.42		15.76	
10 PERCENT EXCEEDS	162		111		74	
50 PERCENT EXCEEDS	44		40		26	
90 PERCENT EXCEEDS	22		15		10	

a From rating curve extended above 1,800 ft^3/s on basis of contracted-opening measurement at gage height 13.26 ft and contracted-opening and flow-over-embankment measurement at gage height 18.38 ft.
b From high-water mark in well.
c Sept. 4-7.
d Sept. 6-12, 1966.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01594000 LITTLE PATUXENT RIVER AT SAVAGE, MD

LOCATION.--Lat 39°08'03.9", long 76°48'58.2", Howard County, Hydrologic Unit 02060006, on left bank 20 ft downstream from bridge on southbound lanes of U.S. Highway 1, 0.4 mi southeast of Savage, 0.9 mi downstream from Middle Patuxent River, and 16.2 mi upstream from mouth.

DRAINAGE AREA.--98.4 mi^2.

PERIOD OF RECORD.--October 1939 to September 1958. Annual maximums, water years 1959-66, 68, 72, 75. October 1975 to September 1980. May 1985 to current year. Prior to December 1939 monthly discharge only, published in WSP 1302.

REVISED RECORDS.--WRD MD-DE-89: 1985, 1987-88(P).

GAGE.--Water-stage recorder. Elevation of gage is 125 ft above National Geodetic Vertical Datum of 1929, from topographic maps. Prior to October 1958, water-stage recorder at site 400 ft downstream at same datum. October 1958 to September 1972, crest-stage gage at site 400 ft downstream on right bank at same datum. October 1975 to September 1980, water-stage recorder at site 500 ft downstream at same datum.

REMARKS.--Records good except those for estimated daily discharges (ice effect and missing record), which are poor. Some diurnal fluctuation at low flow caused by plant 0.5 mi upstream. U.S. Geological Survey gage-height telemeter at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 29	1145	1,520	7.99	Dec 11	1230	*6,000	*12.83
Nov 19	2230	2,430	9.33	Feb 6	2100	4,070	11.16

Minimum discharge, 28 ft^3/s, Sept. 7.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	85	154	155	139	e117	116	559	112	95	44	224	33
2	84	140	138	158	e117	127	581	e115	94	44	264	31
3	79	132	129	152	344	124	421	e221	79	40	79	e31
4	82	127	126	143	442	126	244	152	68	65	75	e30
5	84	222	183	177	220	122	179	118	199	71	115	e30
6	77	428	229	186	1,580	640	151	112	206	51	62	e30
7	74	245	178	139	1,300	271	143	107	112	162	50	e30
8	74	150	152	129	385	230	135	126	88	279	46	32
9	75	128	146	131	204	162	131	105	78	74	43	94
10	80	120	190	120	280	146	122	273	74	54	40	49
11	80	116	3,160	120	304	139	120	122	94	48	61	37
12	76	200	404	130	212	134	248	101	184	46	318	34
13	72	163	239	128	186	123	589	91	89	51	440	32
14	127	122	324	124	179	119	333	86	78	53	110	30
15	537	114	495	122	161	120	203	82	73	49	105	34
16	133	111	282	105	141	145	159	107	77	42	78	36
17	103	109	744	133	131	161	147	99	82	38	64	43
18	96	108	410	158	131	127	139	121	95	56	327	356
19	87	669	236	156	134	159	132	126	114	53	94	98
20	79	848	198	e118	148	131	126	105	71	42	68	55
21	80	224	173	e108	155	125	121	93	63	38	58	45
22	82	171	168	e107	142	114	118	90	61	36	58	40
23	78	150	163	106	130	109	141	82	60	66	51	36
24	72	142	390	e100	131	108	168	75	59	93	46	33
25	70	177	280	107	138	111	121	111	56	52	43	32
26	76	139	183	e108	123	110	204	242	54	48	42	32
27	949	130	165	e120	121	122	236	121	50	180	40	37
28	414	227	155	e120	117	119	138	92	48	555	39	250
29	823	517	152	e112	117	108	121	76	48	109	37	401
30	272	184	158	e112	---	104	115	70	46	67	36	96
31	172	---	144	e105	---	106	---	80	---	57	37	---
TOTAL	5,272	6,467	10,249	3,973	7,890	4,658	6,345	3,613	2,595	2,663	3,150	2,147
MEAN	170	216	331	128	272	150	212	117	86.5	85.9	102	71.6
MAX	949	848	3,160	186	1,580	640	589	273	206	555	440	401
MIN	70	108	126	100	117	104	115	70	46	36	36	30
CFSM	1.73	2.19	3.36	1.30	2.76	1.53	2.15	1.18	0.88	0.87	1.03	0.73
IN.	1.99	2.44	3.87	1.50	2.98	1.76	2.40	1.37	0.98	1.01	1.19	0.81

e Estimated

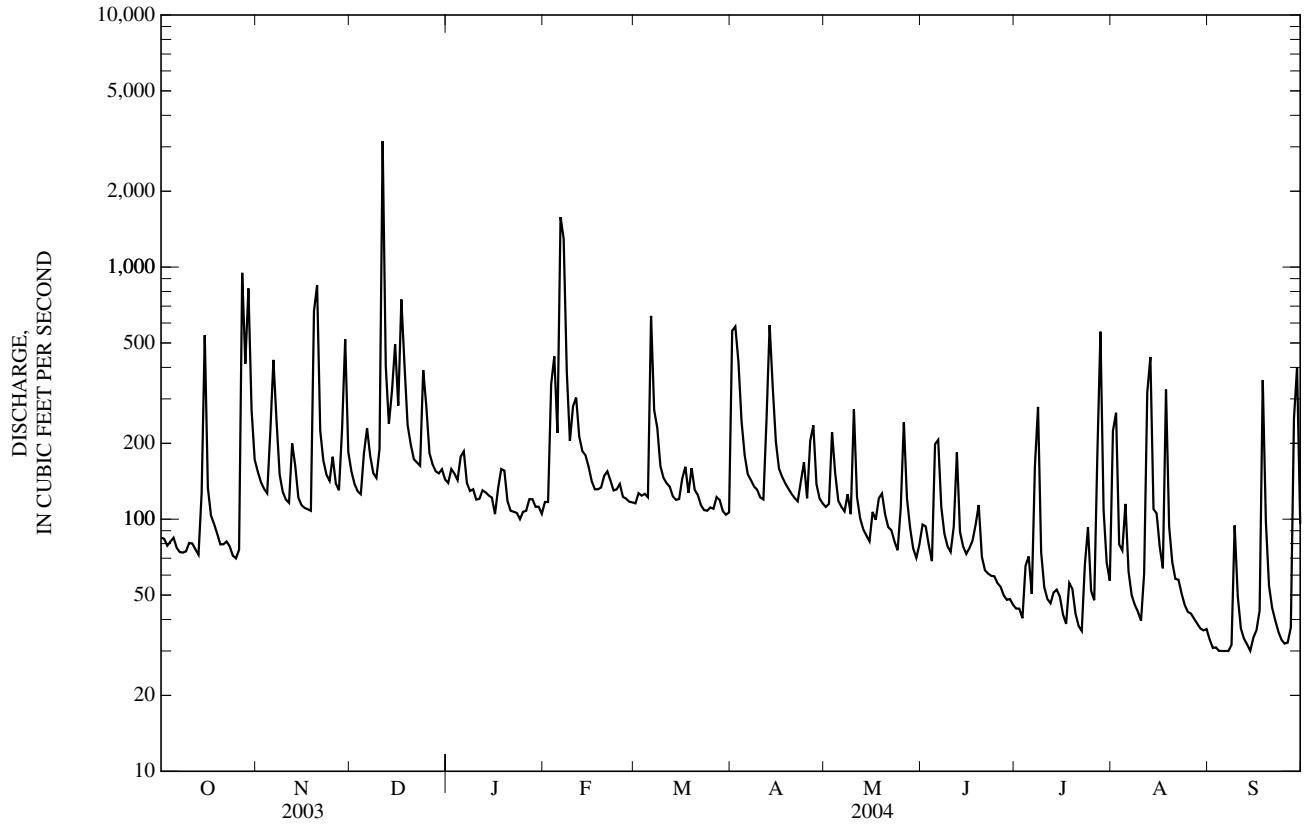
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1958, 1976 - 1980, 1985 - 2004, BY WATER YEAR (WY)

MEAN	72.8	100	123	145	146	170	140	126	99.8	75.0	64.2	75.2
MAX	336	260	386	386	375	368	351	367	339	312	315	432
(WY)	(1980)	(1997)	(1997)	(1979)	(1979)	(1994)	(1952)	(1989)	(2003)	(1945)	(1955)	(1979)
MIN	14.7	22.5	35.4	34.0	37.1	74.5	60.0	39.5	25.5	13.8	15.1	12.8
(WY)	(1942)	(1942)	(1999)	(1942)	(2002)	(2002)	(1947)	(1955)	(1986)	(1999)	(1957)	(1986)

01594000 LITTLE PATUXENT RIVER AT SAVAGE, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1940 - 1958, 1976 - 1980, 1985 - 2004	
ANNUAL TOTAL	78,568		59,022			
ANNUAL MEAN	215		161		112	
HIGHEST ANNUAL MEAN					196	1979
LOWEST ANNUAL MEAN					43.8	2002
HIGHEST DAILY MEAN	3,160	Dec 11	3,160	Dec 11	5,250	Sep 6, 1979
LOWEST DAILY MEAN	(e)45	Feb 16	30	(a)	1.1	Aug 22, 2002
ANNUAL SEVEN-DAY MINIMUM	55	Feb 13	31	Sep 2	2.1	Aug 17, 2002
MAXIMUM PEAK FLOW			6,000	Dec 11	(b)35,400	Jun 22, 1972
MAXIMUM PEAK STAGE			12.83	Dec 11	(c)25.40	Jun 22, 1972
INSTANTANEOUS LOW FLOW			28	Sep 7	1.1	(d)
ANNUAL RUNOFF (CFSM)	2.19		1.64		1.13	
ANNUAL RUNOFF (INCHES)	29.70		22.31		15.40	
10 PERCENT EXCEEDS	395		279		192	
50 PERCENT EXCEEDS	132		118		73	
90 PERCENT EXCEEDS	73		44		27	

e Estimated.
a Sept. 4-7, 14.
b From rating curve extended above 11,000 ft^3/s on basis of contracted-opening measurement of peak flow.
c From floodmarks.
d Aug. 21, 22, 2002.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01594440 PATUXENT RIVER NEAR BOWIE, MD

LOCATION.--Lat 38°57'21.3", long 76°41'37.3", Anne Arundel County, Hydrologic Unit 02060006, on left bank 45 ft upstream from bridge on U.S. Highway 50 (John Hanson Highway), 3.0 mi east of Bowie City Hall, 3.1 mi downstream from mouth of Little Patuxent River, 4.2 mi northwest of Davidsonville, and 60 mi upstream from mouth.

DRAINAGE AREA.--348 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1955 to June 1977 (gage heights and discharge measurements only), June 1977 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 13.10 ft above National Geodetic Vertical Datum of 1929. Prior to June 27, 1977, nonrecording gage at same site and datum.

REMARKS.--Water-discharge records good except those for estimated daily discharges (erroneous gage height), which are fair. Flow regulated by T. Howard Duckett Reservoir, usable capacity 5,600,000,000 gal, 21 mi upstream from station. U.S. Geological Survey gage-height telemeter at station.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,790 ft^3/s, Dec. 12, gage height, 13.99 ft; minimum discharge, 123 ft^3/s, Sept. 5, 6.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	290	1,280	812	583	647	363	669	343	347	152	354	138
2	434	837	582	599	678	378	1,680	345	304	156	918	135
3	518	708	458	651	739	389	1,400	564	304	147	388	132
4	473	547	418	588	1,210	374	762	930	267	149	380	130
5	305	452	738	590	733	379	551	886	763	447	516	129
6	249	1,430	1,320	781	1,030	813	448	819	1,120	307	336	128
7	233	1,480	1,110	597	4,390	1,530	413	459	475	263	264	134
8	224	966	587	545	2,700	891	667	411	360	837	201	137
9	221	466	582	449	1,400	896	857	353	321	324	189	297
10	220	402	636	389	1,260	790	686	754	302	209	233	221
11	216	377	2,240	349	1,400	757	393	491	327	181	242	153
12	214	488	5,240	398	1,300	561	465	365	512	176	419	141
13	208	893	2,670	483	1,220	390	1,700	334	364	343	1,360	138
14	218	934	1,920	539	1,160	371	1,500	316	312	255	744	133
15	1,120	832	2,470	434	815	367	1,220	307	296	243	487	155
16	881	573	1,900	354	453	395	e927	318	287	171	337	152
17	514	524	1,680	338	417	505	472	327	458	157	260	147
18	472	414	2,000	417	406	412	426	437	428	227	371	785
19	457	593	992	505	404	418	403	497	339	229	332	610
20	450	3,010	1,210	390	416	405	394	375	304	170	269	236
21	446	2,180	1,410	353	423	381	374	332	266	150	246	184
22	450	1,330	1,340	360	412	362	366	320	267	148	194	166
23	455	1,200	1,080	351	394	408	475	307	279	207	179	155
24	440	1,060	861	341	388	492	713	292	257	319	168	149
25	301	527	1,210	326	403	491	560	278	247	211	159	143
26	236	435	611	349	491	424	560	581	250	176	154	144
27	884	531	642	364	516	363	664	425	179	392	154	147
28	3,020	809	681	379	480	385	442	464	167	1,940	150	242
29	2,000	1,680	566	366	371	350	376	346	160	1,850	147	1,520
30	2,600	1,160	473	372	---	334	356	293	156	429	147	561
31	1,490	---	491	393	---	342	---	294	---	332	144	---
TOTAL	20,239	28,118	38,930	13,933	26,656	15,716	20,919	13,563	10,418	11,297	10,442	7,642
MEAN	653	937	1,256	449	919	507	697	438	347	364	337	255
MAX	3,020	3,010	5,240	781	4,390	1,530	1,700	930	1,120	1,940	1,360	1,520
MIN	208	377	418	326	371	334	356	278	156	147	144	128
CFSM	1.88	2.69	3.61	1.29	2.64	1.46	2.00	1.26	1.00	1.05	0.97	0.73
IN.	2.16	3.01	4.16	1.49	2.85	1.68	2.24	1.45	1.11	1.21	1.12	0.82

e Estimated

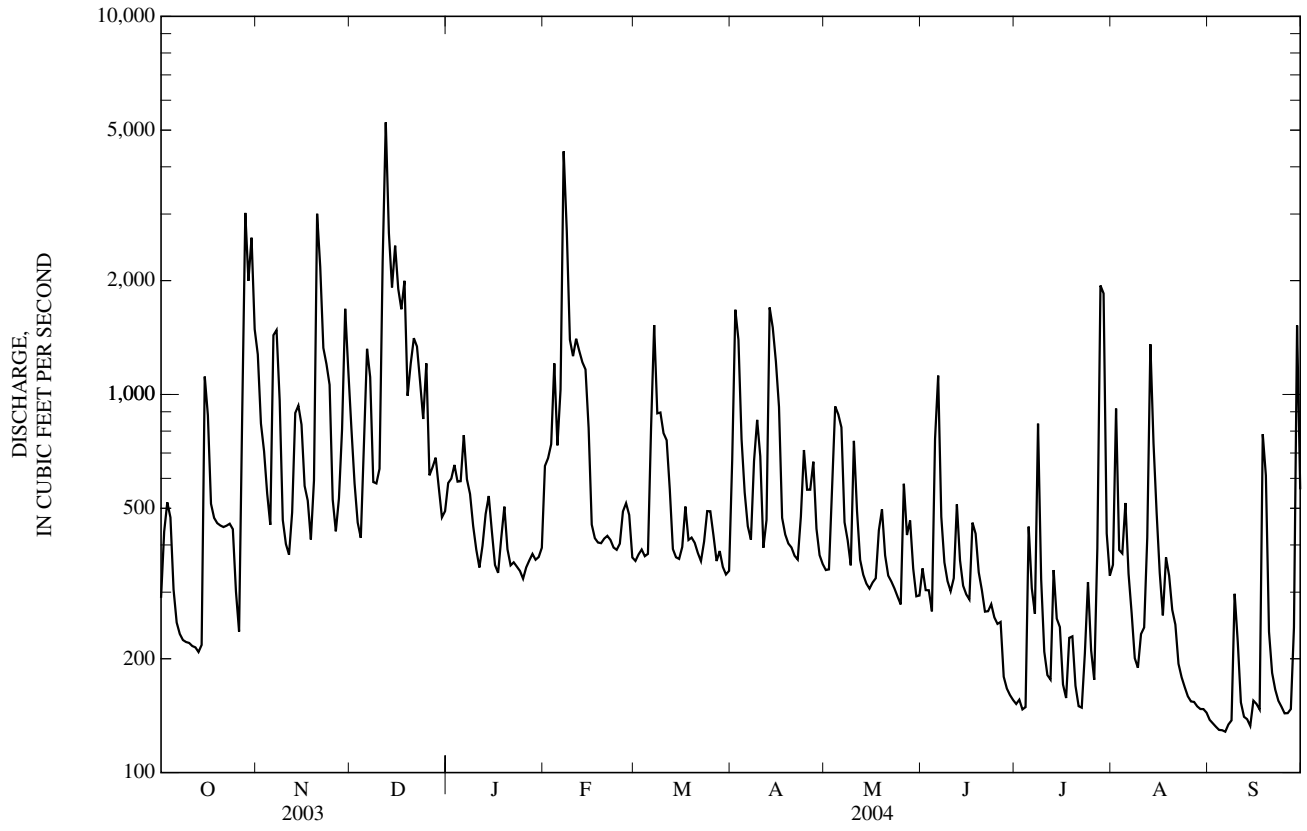
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 2004, BY WATER YEAR (WY)

MEAN	255	319	423	475	489	607	509	462	365	228	210	279
MAX	1,093	937	1,357	1,316	1,232	1,358	1,247	1,291	1,320	579	532	1,358
(WY)	(1980)	(2004)	(1997)	(1978)	(1979)	(1993)	(1983)	(1989)	(2003)	(1996)	(1979)	(1979)
MIN	80.4	108	128	119	142	173	167	154	115	97.3	86.1	65.2
(WY)	(1987)	(1982)	(1999)	(1981)	(2002)	(1981)	(1985)	(1986)	(1991)	(1999)	(1987)	(1986)

01594440 PATUXENT RIVER NEAR BOWIE, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1977 - 2004	
ANNUAL TOTAL	290,285		217,873			
ANNUAL MEAN	795		595		386	
HIGHEST ANNUAL MEAN					648	2003
LOWEST ANNUAL MEAN					170	2002
HIGHEST DAILY MEAN	5,600	Feb 23	5,240	Dec 12	8,860	Jan 27, 1978
LOWEST DAILY MEAN	180	Jan 28	128	Sep 6	56	(a)
ANNUAL SEVEN-DAY MINIMUM	194	Jan 22	132	Sep 2	57	Sep 15, 1986
MAXIMUM PEAK FLOW			5,790	Dec 12	(b)31,100	Jun 22, 1972
MAXIMUM PEAK STAGE			13.99	Dec 12	(c)27.90	Jun 22, 1972
INSTANTANEOUS LOW FLOW			123	(d)	32	Aug 9, 1966
ANNUAL RUNOFF (CFSM)	2.29		1.71		1.11	
ANNUAL RUNOFF (INCHES)	31.03		23.29		15.06	
10 PERCENT EXCEEDS	1,670		1,270		800	
50 PERCENT EXCEEDS	473		412		231	
90 PERCENT EXCEEDS	235		164		105	

a Sept. 17-19, 1986.
b From rating curve extended above 9,200 ft^3/s on basis of contracted-opening measurement of peak flow.
c From floodmarks.
d Sept. 5, 6.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01594440 PATUXENT RIVER NEAR BOWIE, MD—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1978-80, 1985 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: December 1977 to September 1980, October 1984 to September 1991.
WATER TEMPERATURE: December 1977 to September 1980, October 1984 to September 1991.
SUSPENDED-SEDIMENT DISCHARGE: October 1985 to September 1991.

REMARKS.--Water-quality samples are collected from bridge on Governor Bridge Road located 0.3 mi downstream from U.S. Highway 50 (John Hanson Highway). On May 6 and Nov. 16, 1994 samples were collected and analyzed using ultraclean methodologies. Data on trace metals for these dates are available from the University of Delaware. Data on organics for these dates are available from George Mason University.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE (water years 1985-91): Maximum daily, 954 microsiemens/cm, Dec. 15, 1989; minimum daily, 100 microsiemens/cm, May 7, 1989.
WATER TEMPERATURE (water years 1985-91): Maximum daily, 29.0°C, July 25, 1987; minimum daily, 0.0°C, on many days during winter periods.
SEDIMENT CONCENTRATION: Maximum daily mean, 700 mg/L, June 3, 1985; minimum daily mean, 1 mg/L, Jan. 22,1990.
SEDIMENT LOAD: Maximum daily, 4,050 tons, May 7, 1989; minimum daily, 0.55 ton, Jan. 22, 1990.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sample type	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Sampling method, code (82398)	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, air, deg C (00020)
OCT												
07...	0900	Environmental	1028	80020	234	40	765	9.9	96	7.6	308	17.5
07...	*0905*	*Replicate*	*1028*	*80020*	--	*70*	--	--	--	--	--	--
15...	0830	Environmental	1028	80020	798	40	748	9.6	99	7.7	254	16.5
NOV												
05...	1030	Environmental	1028	80020	421	40	761	9.9	101	7.8	247	27.0
05...	*1035*	*Replicate*	*1028*	*80020*	--	*40*	--	--	--	--	--	--
06...	1030	Environmental	1028	80020	1,400	10	761	8.1	86	--	197	19.0
20...	1030	Environmental	1028	80020	2,910	10	756	8.9	83	--	145	14.5
DEC												
04...	0930	Environmental	1028	80020	415	40	772	13.8	--	--	--	5.0
04...	*0931*	*Replicate*	*1028*	*80020*	--	*70*	--	--	--	--	--	--
JAN												
12...	1015	Environmental	1028	80020	409	40	759	13.3	97	7.6	304	4.5
FEB												
02...	1030	Environmental	1028	80020	687	40	774	16.1	110	7.5	301	1.5
18...	1045	Environmental	1028	80020	403	40	765	13.6	100	7.4	321	5.0
MAR												
04...	1000	Environmental	1028	80020	367	40	764	11.7	104	7.6	329	12.0
APR												
13...	0945	Environmental	1028	80020	1,790	10	755	13.1	115	7.3	229	10.0
13...	*0950*	*Replicate*	*1028*	*80020*	--	*10*	--	--	--	--	--	--
22...	0815	Environmental	1028	80020	366	40	760	9.7	102	7.8	289	24.0
22...	*0820*	*Replicate*	*1028*	*80020*	--	*40*	--	--	--	--	--	--
MAY												
04...	0845	Environmental	1028	80020	944	10	763	11.9	113	7.5	224	12.0
04...	*0850*	*Replicate*	*1028*	*80020*	--	*70*	--	--	--	--	--	--
18...	0830	Environmental	1028	80020	520	40	767	8.4	94	7.9	289	24.0
18...	*0835*	*Replicate*	*1028*	*80020*	--	*70*	--	--	--	--	--	--
27...	0830	Environmental	1028	80020	454	40	753	7.0	82	7.7	262	23.5
27...	*0835*	*Replicate*	*1028*	*80020*	--	*40*	--	--	--	--	--	--
JUN												
17...	0820	Environmental	1028	80020	428	40	761	7.4	86	7.8	290	27.0
17...	*0825*	*Replicate*	*1028*	*80020*	--	*40*	--	--	--	--	--	--
JUL												
27...	0730	Environmental	1028	80020	297	40	759	7.0	81	7.8	299	25.0
27...	*0735*	*Replicate*	*1028*	*80020*	--	*40*	--	--	--	--	--	--
AUG												
10...	0745	Environmental	1028	80020	234	40	760	7.7	86	7.6	299	23.0
10...	*0750*	*Replicate*	*1028*	*80020*	--	*40*	--	--	--	--	--	--
10...	*0755*	*Replicate*	*1028*	*80020*	--	*40*	--	--	--	--	--	--
10...	*0757*	*Replicate*	*1028*	*80020*	--	*40*	--	--	--	--	--	--
SEP												
08...	0715	Environmental	1028	80020	134	40	759	7.3	84	7.8	343	24.0
08...	*0720*	*Replicate*	*1028*	*80020*	--	*40*	--	--	--	--	--	--
29...	0900	Environmental	1028	80020	1,660	10	757	7.1	79	7.3	177	21.5
29...	*0905*	*Replicate*	*1028*	*80020*	--	*10*	--	--	--	--	--	--

Agency collecting sample: 1028 - U.S. Geological Survey
Agency analyzing sample: 80020 - USGS-National Water Quality Lab, Denver, CO
Sampling method: 40 - Multiple verticals
70 - Grab-sample
10 - Equal-width increments

01594440 PATUXENT RIVER NEAR BOWIE, MD—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Temperature, water, deg C (00010)	Hardness, water, 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)	Alkalinity, wat flt fxd end lab, mg/L as CaCO3 (29801)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Residue fixed nonfilterable, mg/L (00540)
OCT													
07...	14.0	79	22.1	5.69	4.65	24.9	57	42.4	.2	11.0	17.4	170	--
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
15...	16.0	--	--	--	--	--	--	--	--	7.1	--	--	170
NOV													
05...	16.5	--	--	--	--	--	--	--	--	10.0	--	--	--
05...	--	--	--	--	--	--	--	--	--	--	--	--	--
06...	18.0	--	--	--	--	--	--	--	--	7.8	--	--	55
20...	12.0	--	--	--	--	--	--	--	--	6.0	--	--	--
DEC													
04...	1.0	--	--	--	--	--	--	--	--	10.2	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
12...	2.0	76	21.0	5.71	3.66	24.5	47	44.1	<.2	10.5	16.7	166	--
FEB													
02...	.5	--	--	--	--	--	--	--	--	7.8	--	--	--
18...	3.0	--	--	--	--	--	--	--	--	9.9	--	--	<1
MAR													
04...	10.5	--	--	--	--	--	--	--	--	7.2	--	--	--
APR													
13...	9.0	55	16.1	3.67	2.50	22.6	33	37.0	<.2	5.27	10.7	125	--
13...	--	*57*	*16.5*	*3.74*	*2.58*	*22.9*	*33*	*36.3*	*<.2*	*5.40*	*10.7*	*131*	--
22...	18.0	--	--	--	--	--	--	--	--	5.9	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
04...	13.0	--	--	--	--	--	--	--	--	5.9	--	--	27
04...	--	--	--	--	--	--	--	--	--	--	--	--	--
18...	21.0	--	--	--	--	--	--	--	--	7.6	--	--	66
18...	--	--	--	--	--	--	--	--	--	--	--	--	--
27...	22.0	--	--	--	--	--	--	--	--	7.7	--	--	60
27...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
17...	23.0	--	--	--	--	--	--	--	--	9.2	--	--	33
17...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
27...	22.1	74	21.5	4.86	5.16	28.3	51	43.0	.2	10.2	16.8	164	--
27...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
10...	21.0	--	--	--	--	--	--	--	--	9.0	--	--	--
10...	--	--	--	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	*9.0*	--	--	--
10...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP													
08...	22.0	--	--	--	--	--	--	--	--	8.2	--	--	--
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
29...	20.4	--	--	--	--	--	--	--	--	5.6	--	--	116
29...	--	--	--	--	--	--	--	--	--	--	--	--	--

01594440 PATUXENT RIVER NEAR BOWIE, MD—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Residue total at 105 deg. C, suspended, mg/L (00530)	Residue volatile, suspended, mg/L (00535)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Particulate nitrogen, susp, water, mg/L (49570)	Organic nitrogen, water, fltrd, mg/L (00607)	Organic nitrogen, water, unfltrd mg/L (00605)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)
OCT													
07...	<10	<10	.41	.48	.14	1.60	1.61	.014	--	.27	.34	.03	.031
07...	--	--	--	--	--	--	--	--	*.09*	--	--	--	*.03*
15...	192	22	.31	1.1	<.04	1.31	1.32	.008	--	--	--	E.02	.031
NOV													
05...	11	<10	.37	.42	E.02	--	1.36	E.005	--	--	--	E.01	.022
05...	--	--	--	--	--	--	--	--	*.07*	--	--	--	*.02*
06...	67	12	.36	.69	<.04	.71	.72	.009	--	--	--	.03	.044
20...	58	<10	.40	.83	<.04	.77	.78	.008	--	--	--	E.02	.030
DEC													
04...	<10	<10	.32	.34	.12	--	1.63	E.004	--	.20	.22	E.02	.018
04...	--	--	--	--	--	--	--	--	*.04*	--	--	--	*.01*
JAN													
12...	<10	<10	.45	--	--	--	2.13	--	.04	--	--	.06	.06
FEB													
02...	25	<10	.33	--	--	--	2.10	--	.13	--	--	E.02	.03
18...	10	12	.37	--	--	--	1.76	--	.07	--	--	E.01	.02
MAR													
04...	<10	<10	--	--	.17	1.69	1.71	.019	.08	--	--	E.004	.01
APR													
13...	70	<20	--	--	.10	.97	.98	.013	.27	--	--	.007	.01
13...	*55*	*<13*	--	--	*.10*	*.97*	*.98*	*.013*	*.27*	--	--	*.008*	*.01*
22...	15	<10	--	--	.07	1.39	1.40	.012	.08	--	--	.025	.03
22...	--	--	--	--	--	--	--	--	--	--	--	--	*.036*
MAY													
04...	40	13	--	--	.08	1.29	1.30	.014	.17	--	--	.017	.03
04...	--	--	--	--	--	--	--	--	--	--	--	--	*.028*
18...	86	20	--	--	.05	1.58	1.60	.022	.38	--	--	.015	.02
18...	--	--	--	--	--	--	--	--	--	--	--	--	*.028*
27...	73	13	--	--	.10	1.45	1.49	.032	.30	--	--	.020	.03
27...	--	--	--	--	--	--	--	--	--	--	--	--	*.037*
JUN													
17...	43	10	--	--	.06	1.66	1.68	.012	.19	--	--	.016	.027
17...	--	--	--	--	--	--	--	--	--	--	--	--	*.02*
JUL													
27...	33	<10	--	--	.08	1.28	1.30	.016	.15	--	--	.018	.026
27...	--	--	--	--	--	--	--	--	--	--	--	--	*.03*
AUG													
10...	16	<10	--	--	.04	1.39	1.40	.007	.11	--	--	.030	.039
10...	--	--	--	--	--	--	--	--	--	--	--	--	*.03*
10...	*21*	*<10*	--	--	*.04*	*1.39*	*1.40*	*.007*	*.09*	--	--	*.032*	*.041*
10...	--	--	--	--	--	--	--	--	--	--	--	--	*.04*
SEP													
08...	17	<10	--	--	.06	1.57	1.58	.017	.03	--	--	.044	.063
08...	--	--	--	--	--	--	--	--	--	--	--	--	*.05*
29...	136	20	--	--	<.04	.62	.62	.007	.38	--	--	.027	.032
29...	--	--	--	--	--	--	--	--	--	--	--	--	*.04*

01594440 PATUXENT RIVER NEAR BOWIE, MD—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, wat flt by analysis, mg/L (62854)	Total nitrogen, water, fltrd, mg/L (00602)	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)	Organic carbon, water, unfltrd mg/L (00680)	Iron, water, fltrd, ug/L (01046)	Manganese, water, fltrd, ug/L (01056)	Suspended sediment concentration mg/L (80154)	Suspended sediment discharge, tons/d (80155)
OCT													
07...	.103	--	2.0	2.1	--	--	--	--	3.9	156	160	7	4.4
07...	--	*2.03*	--	--	*.6*	*<.1*	--	*3.5*	--	--	--	--	--
15...	.37	--	1.6	2.4	--	--	--	--	11.2	--	--	203	437
NOV													
05...	.064	--	1.7	1.8	--	--	--	--	5.0	--	--	11	13
05...	--	*1.68*	--	--	*.6*	*<.1*	--	*4.3*	--	--	--	--	--
06...	.22	--	1.1	1.4	--	--	--	--	10.1	--	--	90	340
20...	.192	--	1.2	1.6	--	--	--	--	8.9	--	--	108	849
DEC													
04...	.050	--	2.0	2.0	--	--	--	--	3.5	--	--	9	10
04...	--	*1.93*	--	--	*.5*	*<.1*	--	*2.9*	--	--	--	--	--
JAN													
12...	--	2.49	2.6	--	.6	--	--	2.5	--	119	143	10	11
FEB													
02...	--	2.34	2.4	--	1.0	<.1	1.0	2.4	--	--	--	31	58
18...	--	2.13	2.1	--	.6	<.1	.6	2.5	--	--	--	10	11
MAR													
04...	--	2.12	--	--	.6	<.1	.6	2.7	--	--	--	11	11
APR													
13...	--	1.38	--	--	2.4	<.1	2.4	4.6	--	132	102	89	430
13...	--	*1.33*	--	--	*2.4*	*<.1*	*2.4*	*4.5*	--	*120*	*104*	*94*	--
22...	--	1.61	--	--	1.0	<.1	1.0	3.3	--	--	--	17	17
22...	*.137*	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
04...	--	1.66	--	--	1.8	<.1	1.8	4.1	--	--	--	47	120
04...	*.091*	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	1.96	--	--	3.8	<.1	3.7	4.3	--	--	--	102	143
18...	*.173*	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	1.90	--	--	2.5	<.1	2.5	5.0	--	--	--	83	102
27...	*.160*	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
17...	.130	2.04	--	--	1.8	<.1	1.8	3.7	--	--	--	56	65
17...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
27...	.121	1.68	--	--	1.6	<.1	1.6	3.8	--	72	136	40	32
27...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
10...	.114	1.73	--	--	.8	<.1	.8	3.3	--	--	--	24	15
10...	--	--	--	--	--	--	--	--	--	--	--	--	--
10...	*.116*	*1.73*	--	--	*.9*	*<.1*	*.9*	*3.3*	--	--	--	*26*	--
10...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP													
08...	.136	2.04	--	--	.8	<.1	.7	3.2	--	--	--	15	5.4
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
29...	.197	.88	--	--	3.4	<.1	3.3	5.0	--	--	--	148	663
29...	--	--	--	--	--	--	--	--	--	--	--	--	--

01594440 PATUXENT RIVER NEAR BOWIE, MD—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Sampler type, code (84164)
OCT	
07...	3060
07...	*3060*
15...	3060
NOV	
05...	3060
05...	*3060*
06...	3051
20...	3053
DEC	
04...	3060
04...	*3060*
JAN	
12...	3060
FEB	
02...	3060
18...	3060
MAR	
04...	3060
APR	
13...	3051
13...	*3051*
22...	3060
22...	*3060*
MAY	
04...	3051
04...	*3060*
18...	3060
18...	*3060*
27...	3060
27...	*3060*
JUN	
17...	3060
17...	*3060*
JUL	
27...	3060
27...	*3060*
AUG	
10...	3060
10...	*3060*
10...	*3060*
10...	*3060*
SEP	
08...	3060
08...	*3060*
29...	3051
29...	*3051*

Remark codes used in this table:
< -- Less than
E -- Estimated value

Sample type: 3060 - Weighted-bottle sampler
3051 - US DH-95 Teflon Bottle
3053 - US D-95 Teflon Bottle

Photo by U.S. Geological Survey personnel

01594440 PATUXENT RIVER NEAR BOWIE, MD

01594526 WESTERN BRANCH AT UPPER MARLBORO, MD

LOCATION.--Lat 38°48'51.2", long 76°44'55.4", Prince Georges County, Hydrologic Unit 02060006, on left bank 1000 ft upstream from bridge on Water Street, 0.2 mi south of Upper Marlboro, and 4.7 mi upstream from mouth.

DRAINAGE AREA.--89.7 mi^2.

PERIOD OF RECORD.--October 1985 to April 1989, April 1992 to current year.

GAGE.--Water-stage recorder elevation of gage is 5 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges (ice effect, missing data), which are fair. U.S. Geological Survey gage- height telemeter at station.Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov 20	1130	1,010	8.92	Feb 7	0645	*1,930	*11.82
Dec 11	2000	1,160	9.65	Sep 29	1030	1,620	11.23
Dec 17	2330	1,030	9.02				

Minimum discharge, 17 ft^3/s, Sept. 5, 6.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	56	102	136	106	e71	67	259	61	52	69	192	21
2	53	85	111	115	e68	83	341	61	41	192	133	20
3	49	76	96	114	166	79	253	208	33	56	67	19
4	48	71	92	107	296	80	162	178	28	109	57	20
5	45	69	334	127	e185	78	114	93	560	436	237	18
6	42	483	406	163	501	377	93	76	386	148	85	18
7	41	410	231	111	1,660	419	86	65	119	121	51	18
8	40	172	163	96	639	184	80	114	76	337	37	19
9	40	116	146	96	249	127	77	70	58	104	31	163
10	39	97	158	84	218	105	73	206	49	63	28	56
11	38	88	847	e95	190	95	72	108	52	45	67	34
12	37	124	675	83	153	87	209	75	212	39	180	26
13	35	255	213	91	137	80	817	59	79	37	480	22
14	42	138	332	87	124	74	423	54	56	44	203	21
15	327	102	626	84	113	74	237	50	48	35	185	92
16	119	88	294	73	98	108	152	69	44	30	88	58
17	62	84	643	e80	92	152	122	63	189	27	60	33
18	49	79	708	135	93	104	107	81	779	72	49	491
19	42	191	264	158	91	106	98	60	244	51	43	241
20	38	904	187	e100	88	86	89	54	96	35	37	74
21	37	372	153	106	89	85	84	49	64	30	73	47
22	37	171	140	e82	81	74	81	49	119	27	75	36
23	36	134	130	e78	76	69	89	40	142	55	38	31
24	34	119	318	e76	76	67	141	35	74	48	32	29
25	33	167	294	70	80	73	86	33	81	36	30	27
26	35	121	175	88	74	70	83	43	197	32	27	26
27	269	106	144	86	72	75	123	36	83	438	26	25
28	391	126	130	85	69	75	87	54	54	423	25	121
29	547	457	123	e80	67	65	72	38	45	214	24	1,180
30	381	195	124	e76	---	62	64	31	40	77	23	336
31	141	---	113	e74	---	64	---	33	---	54	22	---
TOTAL	3,183	5,702	8,506	3,006	5,916	3,344	4,774	2,246	4,100	3,484	2,705	3,322
MEAN	103	190	274	97.0	204	108	159	72.5	137	112	87.3	111
MAX	547	904	847	163	1,660	419	817	208	779	438	480	1,180
MIN	33	69	92	70	67	62	64	31	28	27	22	18
CFSM	1.14	2.12	3.06	1.08	2.27	1.20	1.77	0.81	1.52	1.25	0.97	1.23
IN.	1.32	2.36	3.53	1.25	2.45	1.39	1.98	0.93	1.70	1.44	1.12	1.38

e Estimated

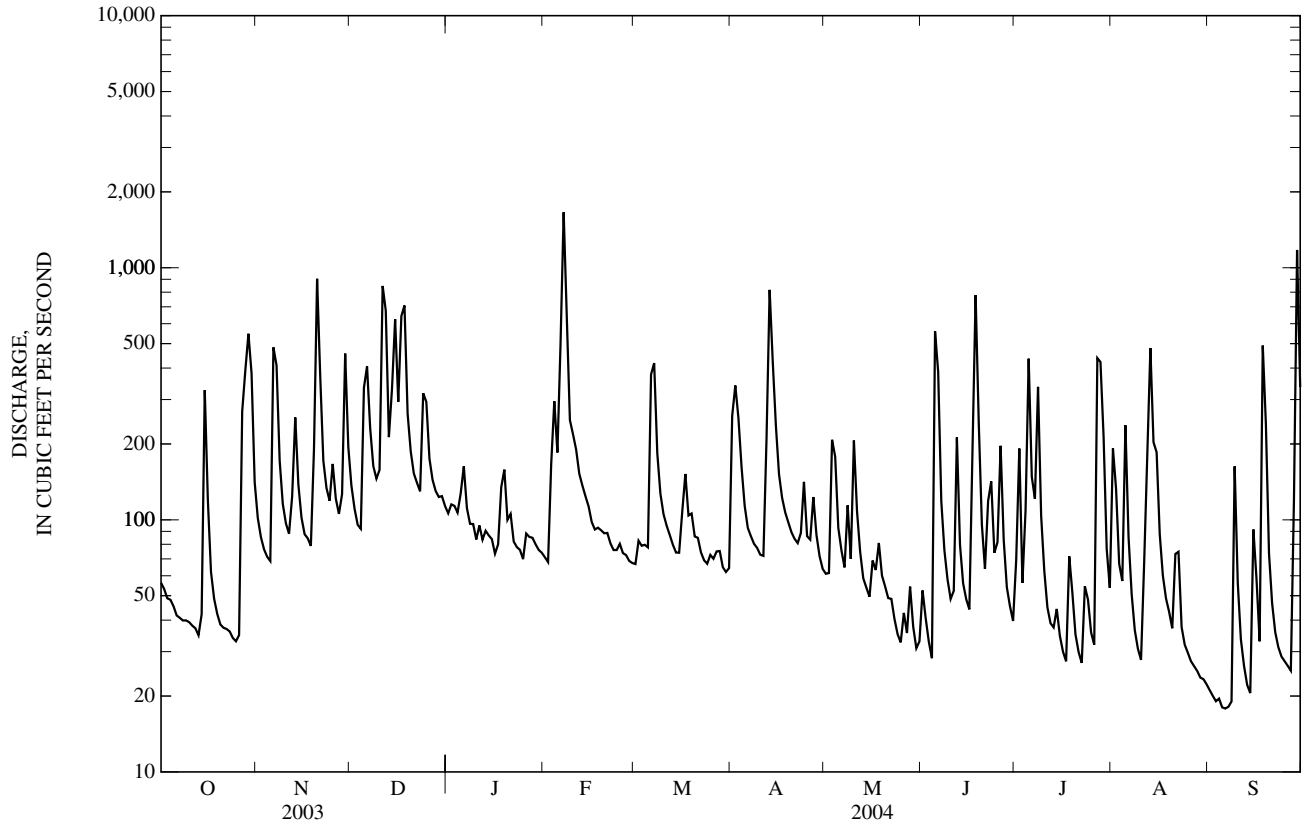
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 1989, 1992 - 2004, BY WATER YEAR (WY)

MEAN	50.0	87.6	106	118	142	177	115	91.6	76.6	63.7	48.4	75.3
MAX	145	190	274	260	333	445	191	186	339	175	95.5	322
(WY)	(1996)	(2004)	(2004)	(1996)	(1998)	(1994)	(1993)	(2003)	(2003)	(2003)	(1994)	(1999)
MIN	6.54	11.0	24.5	32.3	19.7	61.2	49.1	21.4	9.42	5.61	9.74	9.35
(WY)	(1999)	(1999)	(1999)	(2002)	(2002)	(2002)	(1995)	(1999)	(1986)	(1999)	(1995)	(1986)

01594526 WESTERN BRANCH AT UPPER MARLBORO, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1986 - 1989, 1992 - 2004	
ANNUAL TOTAL	71,025		50,288			
ANNUAL MEAN	195		137		97.8	
HIGHEST ANNUAL MEAN					175	2003
LOWEST ANNUAL MEAN					31.9	2002
HIGHEST DAILY MEAN	2,600	Feb 23	1,660	Feb 7	4,090	Sep 16, 1999
LOWEST DAILY MEAN	22	Aug 25	18	(a)	1.1	Aug 21, 2002
ANNUAL SEVEN-DAY MINIMUM	30	Aug 19	19	Sep 2	1.3	Aug 15, 2002
MAXIMUM PEAK FLOW			1,930	Feb 7	(b)10,400	Sep 16, 1999
MAXIMUM PEAK STAGE			11.82	Feb 7	15.39	Sep 16, 1999
INSTANTANEOUS LOW FLOW			17	(c)	0.32	Sep 21, 2002
ANNUAL RUNOFF (CFSM)	2.17		1.53		1.09	
ANNUAL RUNOFF (INCHES)	29.46		20.86		14.81	
10 PERCENT EXCEEDS	417		321		205	
50 PERCENT EXCEEDS	114		83		53	
90 PERCENT EXCEEDS	42		33		9.5	

a Sept. 5-7.
b From rating curve extended above 2,400 ft^3/s.
c Sept. 5, 6.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01594930 LAUREL RUN AT DOBBIN ROAD NEAR WILSON, MD

LOCATION.--Lat 39°14'37.0", long 79°25'41.9", Garrett County, Hydrologic Unit 02070002, on left bank at downstream side of bridge (abandoned) on Dobbin Road, 0.6 mi south of intersection of Kempton Road, 1.2 mi from mouth, and 3.0 mi southwest of Wilson.

DRAINAGE AREA.--8.23 mi^2.

PERIOD OF RECORD.--May 1980 to current year.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 2,600 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are poor. Natural flow of stream affected by inflow from deep coal mine dewatering process. Several measurements of water temperature were made during the year. Water-quality records for some prior years have been collected at this location.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 170 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov 12	0745	*528	*6.59	Mar 4	0945	298	4.76
Nov 19	1515	314	4.88	Mar 6	0730	286	4.67
Feb 6	1400	334	5.03	Jun 11	2330	264	4.49

Minimum discharge, 4.8 ft^3/s, Sept. 7, 8.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	16	32	32	e13	27	38	23	27	11	14	6.1
2	25	15	28	68	13	76	40	24	22	11	9.3	5.4
3	22	14	e24	89	e13	84	43	25	23	9.9	8.3	5.1
4	27	13	e23	60	e13	187	51	20	19	12	9.0	5.3
5	25	22	e21	84	e15	103	41	19	21	12	17	5.4
6	22	30	e20	60	228	213	40	17	18	9.5	11	4.9
7	20	27	e19	e40	176	112	67	18	16	8.7	9.2	4.9
8	19	23	19	e36	72	79	78	18	15	8.2	8.4	27
9	18	21	19	e31	49	57	62	15	14	7.8	8.1	35
10	17	19	22	28	40	47	46	14	14	8.1	7.9	18
11	16	19	61	e24	35	42	39	14	63	8.0	7.9	11
12	15	295	36	e22	30	40	49	36	97	12	17	9.1
13	15	115	30	e21	27	34	93	30	40	14	14	7.8
14	18	55	e26	e19	25	33	90	20	30	10	8.1	7.0
15	28	41	e24	e18	23	32	61	17	24	8.7	6.6	6.7
16	19	35	23	18	20	46	47	16	31	7.4	6.0	6.2
17	18	31	26	17	19	47	39	14	34	6.9	5.6	7.2
18	19	27	24	e16	18	43	34	14	47	7.6	5.3	26
19	17	132	22	e16	18	57	29	44	36	11	7.4	11
20	16	85	21	e16	22	50	27	26	29	7.8	6.1	8.5
21	15	49	20	e15	51	98	24	41	24	7.7	16	7.7
22	15	39	20	e15	35	58	22	72	25	7.6	10	7.1
23	15	34	30	e14	30	46	22	37	23	7.9	7.2	6.6
24	14	33	74	e14	29	41	20	28	18	7.5	6.5	6.3
25	13	29	49	e14	25	38	23	23	20	7.1	6.0	6.0
26	12	25	38	e14	23	33	64	25	21	11	5.7	5.8
27	18	23	33	e14	21	32	43	23	16	20	5.6	5.7
28	18	35	30	e14	20	28	34	64	14	12	5.4	15
29	19	37	28	e13	21	25	28	34	14	8.6	5.3	12
30	18	33	40	e13	---	24	25	28	12	8.0	11	7.9
31	17	---	35	e13	---	25	---	28	---	14	8.9	---
TOTAL	580	1,372	917	868	1,124	1,857	1,319	827	807	303.0	273.8	297.7
MEAN	18.7	45.7	29.6	28.0	38.8	59.9	44.0	26.7	26.9	9.77	8.83	9.92
MAX	30	295	74	89	228	213	93	72	97	20	17	35
MIN	12	13	19	13	13	24	20	14	12	6.9	5.3	4.9
CFSM	2.27	5.56	3.59	3.40	4.71	7.28	5.34	3.24	3.27	1.19	1.07	1.21
IN.	2.62	6.20	4.14	3.92	5.08	8.39	5.96	3.74	3.65	1.37	1.24	1.35

e Estimated

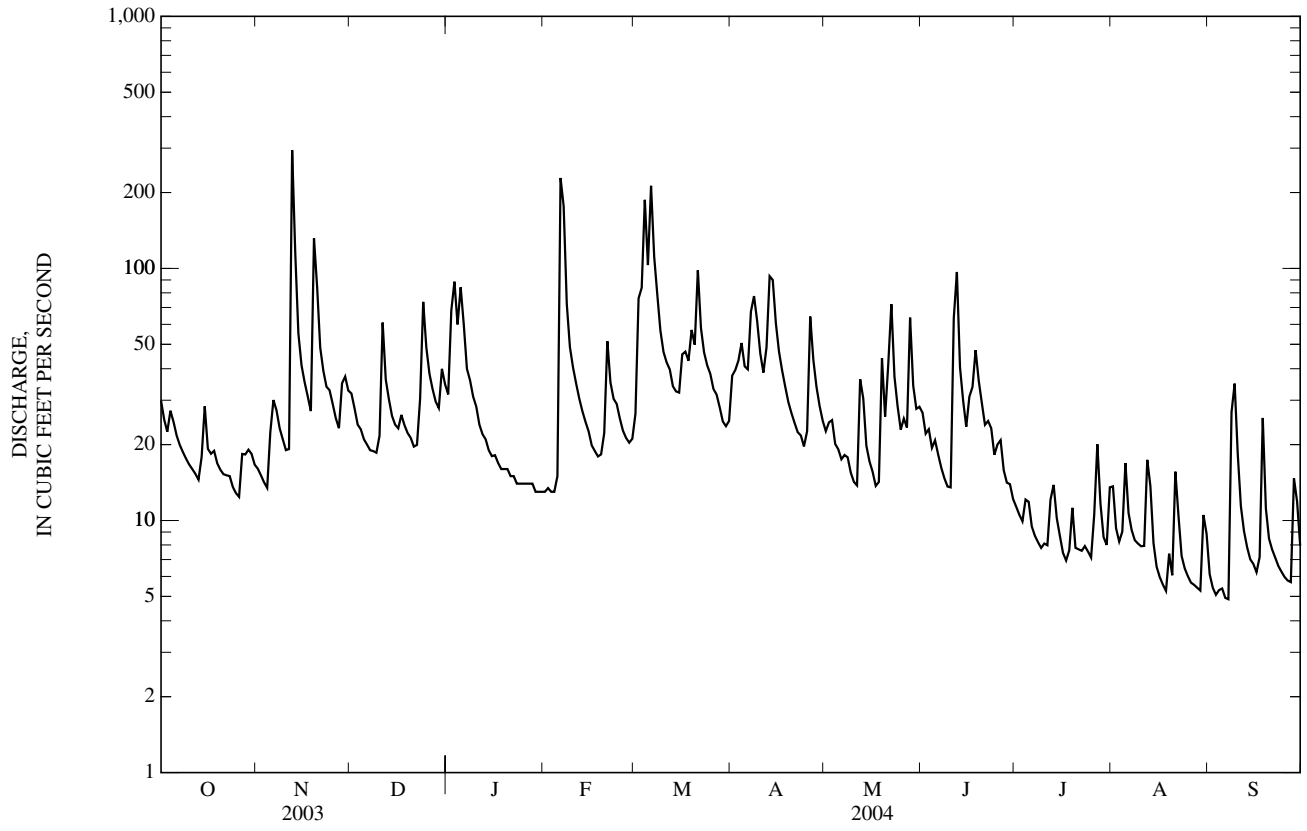
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 2004, BY WATER YEAR (WY)

MEAN	9.80	20.1	28.0	26.6	36.0	41.2	33.7	28.5	19.3	19.2	12.2	10.6
MAX	26.2	45.7	51.9	51.2	68.5	71.6	61.0	69.8	62.8	46.1	40.2	65.0
(WY)	(1997)	(2004)	(1985)	(1996)	(1994)	(1994)	(1984)	(1996)	(1981)	(2001)	(1980)	(2003)
MIN	3.27	2.20	5.09	8.85	7.24	13.9	9.60	9.35	2.78	2.84	1.71	2.64
(WY)	(1993)	(1999)	(1999)	(1981)	(1993)	(1990)	(1995)	(1991)	(1999)	(1999)	(1999)	(1999)

01594930 LAUREL RUN AT DOBBIN ROAD NEAR WILSON, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1980 - 2004	
ANNUAL TOTAL	12,585.4		10,545.5			
ANNUAL MEAN	34.5		28.8		23.5	
HIGHEST ANNUAL MEAN					35.6	1996
LOWEST ANNUAL MEAN					14.8	1999
HIGHEST DAILY MEAN	377	Sep 19	295	Nov 12	492	Feb 9, 1994
LOWEST DAILY MEAN	7.6	Aug 4	4.9	(a)	(e)0.62	Aug 18, 1999
ANNUAL SEVEN-DAY MINIMUM	8.0	Aug 1	5.3	Sep 1	0.93	Aug 30, 1999
MAXIMUM PEAK FLOW			528	Nov 12	(b)863	Nov 5, 1985
MAXIMUM PEAK STAGE			6.59	Nov 12	10.10	Nov 5, 1985
INSTANTANEOUS LOW FLOW			4.8	(c)	0.00	Aug 31, 1993
ANNUAL RUNOFF (CFSM)	4.19		3.50		2.86	
ANNUAL RUNOFF (INCHES)	56.89		47.67		38.80	
10 PERCENT EXCEEDS	66		56		49	
50 PERCENT EXCEEDS	24		21		16	
90 PERCENT EXCEEDS	11		7.7		3.7	

a Sept. 6, 7.
e Estimated.
b From rating curve extended above 450 ft^3/s on basis of runoff comparisons with nearby stations
c Sept. 7, 8.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01594936 NORTH FORK SAND RUN NEAR WILSON, MD

LOCATION.--Lat 39°15'37.1", long 79°24'35.2", Garrett County, Hydrologic Unit 02070002, on right bank, 0.1 mi northwest of Wilson-Corona Road, 0.1 mi upstream from mouth, and 0.8 mi northwest of Wilson.

DRAINAGE AREA.--1.91 mi^2.

PERIOD OF RECORD.--May 1980 to current year.

GAGE.--Water-stage recorder and steel weir plate. Elevation of gage is 2,515 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges (recorder malfunction and ice effect) which are poor, and those below 0.5 ft^3/s which are fair . Several measurements of water temperature were made during the year. Water-quality records for some prior years have been collected at this location.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 40 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb 6	---	(e)85	(a)*4.03	Mar 6	0600	73	3.71
Mar 4	0800	70	3.67	Jun 11	2130	*91	3.91

e Estimated.
a Ice jam.

Minimum discharge, 0.26 ft^3/s, July 25, 26.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.4	e3.5	e5.6	5.7	1.4	5.9	6.5	4.8	3.9	0.99	1.5	0.55
2	4.2	e3.3	e5.0	15	e1.6	17	6.6	4.3	3.0	0.88	0.77	0.38
3	3.7	e3.2	e4.6	17	e2.2	16	8.9	4.6	4.5	0.79	0.60	0.36
4	4.9	e3.0	e4.3	12	2.9	38	10	3.7	3.0	1.0	0.62	0.34
5	4.2	e4.5	e4.1	17	2.9	19	7.7	3.1	3.7	1.1	1.5	0.32
6	3.6	e6.2	e3.9	12	62	44	8.0	2.6	3.2	0.73	0.74	0.35
7	3.2	e6.3	e3.7	8.7	30	21	11	2.5	2.6	0.60	0.51	0.41
8	e3.4	e5.3	e3.6	7.0	14	16	11	2.4	2.5	0.66	0.42	6.0
9	e3.0	e4.9	e3.5	5.9	9.1	12	9.4	1.9	2.1	0.50	0.39	5.1
10	e2.8	e4.5	e4.3	4.7	e7.0	e9.5	7.5	1.8	1.9	0.49	0.39	2.5
11	e2.5	e4.5	e12	e4.2	e5.4	e9.0	6.7	1.8	18	0.55	0.36	1.5
12	e2.3	e51	e6.9	3.9	e4.5	e8.5	10	2.1	17	1.5	4.0	1.1
13	e2.2	e21	e5.5	3.5	e3.9	e7.5	e16	2.3	7.0	2.8	2.8	0.85
14	e2.8	e12	e5.0	3.2	e3.5	e6.4	e16	1.6	5.0	3.0	1.4	0.78
15	e5.4	e9.3	e4.6	2.9	e3.2	e5.8	e11	1.4	3.7	2.1	0.91	0.65
16	e3.7	e7.6	e4.1	2.6	e3.0	e5.7	e8.8	1.3	6.8	1.1	0.76	0.54
17	e3.3	e6.4	e3.8	2.4	e2.9	e5.5	e7.5	1.2	10	0.85	0.63	0.74
18	e3.8	e5.5	e3.5	e2.3	e2.8	e6.0	5.7	2.4	13	0.77	0.54	5.0
19	e4.1	e21	e3.3	e2.2	3.6	11	4.8	11	7.5	0.77	0.76	1.8
20	e3.9	e16	e3.2	e2.1	6.0	11	3.9	3.9	6.0	0.51	0.52	1.2
21	e3.7	e11	3.0	e2.0	14	21	3.6	5.1	5.0	0.77	2.5	1.1
22	e3.6	e9.1	3.2	e1.9	7.4	12	3.2	7.7	4.5	0.96	1.4	1.3
23	e3.5	e7.8	6.3	e1.8	6.4	8.8	3.2	3.9	4.2	0.52	0.70	1.2
24	e3.4	e7.2	16	e1.8	6.1	7.2	3.0	3.1	3.0	0.38	0.54	0.89
25	e3.1	e6.3	9.7	e1.7	5.4	6.3	3.3	2.6	2.5	0.28	0.45	0.52
26	e3.0	e5.5	7.4	e1.6	4.6	5.3	12	3.1	2.5	1.4	0.43	0.46
27	e4.0	e5.0	6.1	e1.6	3.8	4.8	6.9	2.8	1.8	3.5	0.37	0.45
28	e4.2	e6.6	5.3	e1.5	3.7	4.1	5.4	7.7	1.5	1.6	0.39	2.1
29	e4.3	e7.4	5.1	e1.5	4.2	3.5	e5.2	4.0	1.4	0.83	0.30	1.7
30	e4.1	e6.3	8.4	e1.4	---	3.4	5.0	3.1	1.1	0.79	1.4	0.83
31	e3.7	---	6.5	1.4	---	3.8	---	3.2	---	1.7	1.2	---
TOTAL	113.0	271.2	171.5	152.5	227.5	355.0	227.8	107.0	151.9	34.42	29.80	41.02
MEAN	3.65	9.04	5.53	4.92	7.84	11.5	7.59	3.45	5.06	1.11	0.96	1.37
MAX	5.4	51	16	17	62	44	16	11	18	3.5	4.0	6.0
MIN	2.2	3.0	3.0	1.4	1.4	3.4	3.0	1.2	1.1	0.28	0.30	0.32
CFSM	1.91	4.73	2.90	2.58	4.11	6.00	3.98	1.81	2.65	0.58	0.50	0.72
IN.	2.20	5.28	3.34	2.97	4.43	6.91	4.44	2.08	2.96	0.67	0.58	0.80

e Estimated

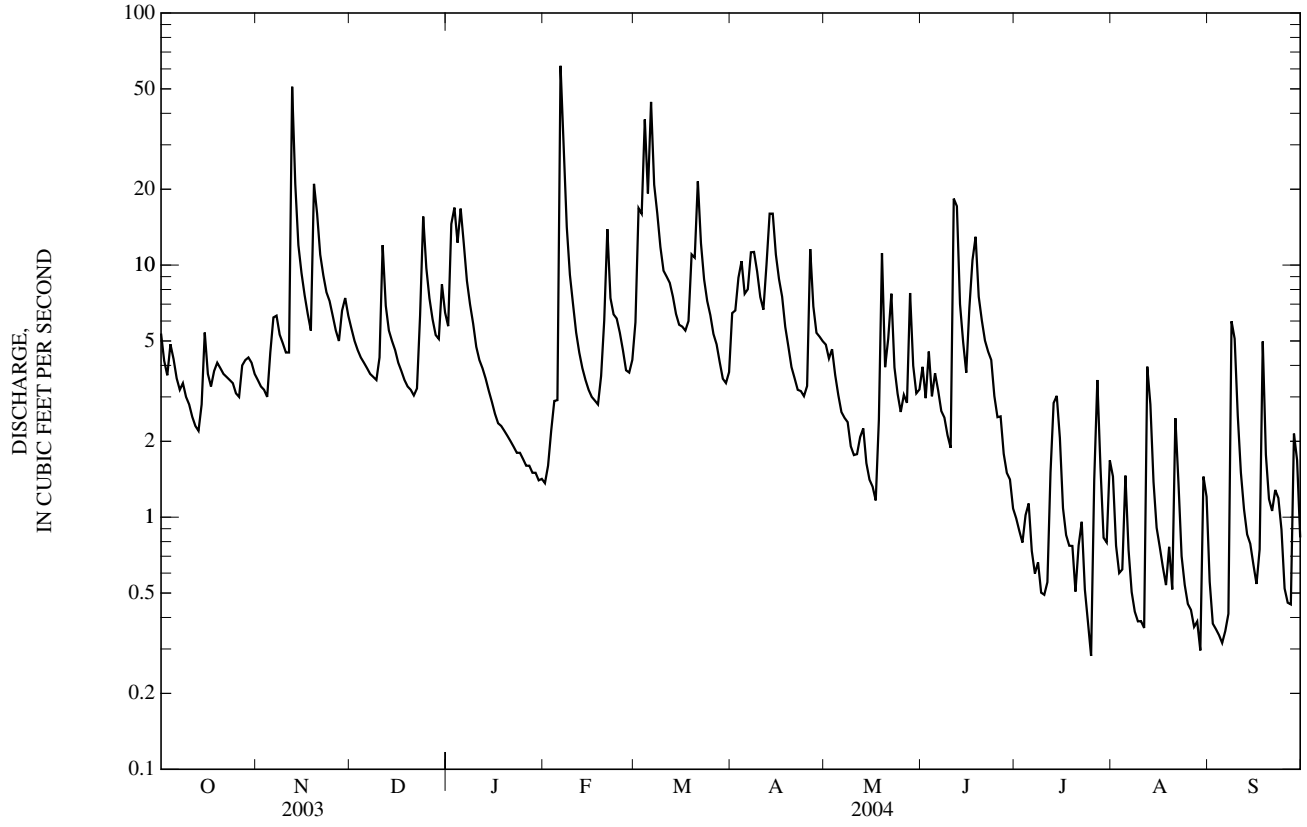
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 2004, BY WATER YEAR (WY)

MEAN	1.56	4.21	5.18	5.31	7.32	8.66	6.71	5.50	3.47	3.46	2.11	2.00
MAX	4.43	17.5	8.67	12.9	15.9	16.1	13.4	13.5	12.7	8.97	8.09	14.5
(WY)	(1997)	(1986)	(1991)	(1996)	(1986)	(1994)	(1984)	(1996)	(1981)	(1996)	(1996)	(2003)
MIN	0.21	0.26	0.78	1.29	1.37	2.52	2.22	1.32	0.43	0.28	0.30	0.19
(WY)	(1992)	(1999)	(1999)	(1981)	(1993)	(1990)	(1995)	(1999)	(1999)	(1988)	(1983)	(1991)

01594936 NORTH FORK SAND RUN NEAR WILSON, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1980 - 2004	
ANNUAL TOTAL	2,658.44		1,882.64			
ANNUAL MEAN	7.28		5.14		4.58	
HIGHEST ANNUAL MEAN					7.72	1996
LOWEST ANNUAL MEAN					2.74	1999
HIGHEST DAILY MEAN	100	Sep 4	62	Feb 6	141	Feb 9, 1994
LOWEST DAILY MEAN	0.66	Aug 7	0.28	(a)	0.09	(b)
ANNUAL SEVEN-DAY MINIMUM	0.79	Aug 2	0.39	Sep 1	0.12	Aug 12, 1988
MAXIMUM PEAK FLOW			(e)85	Feb 6	(c)895	May 31, 1985
MAXIMUM PEAK STAGE			(d)4.03	Feb 6	10.47	May 31, 1985
INSTANTANEOUS LOW FLOW			0.26	Jul 25	0.01	(f)
ANNUAL RUNOFF (CFSM)	3.81		2.69		2.40	
ANNUAL RUNOFF (INCHES)	51.78		36.67		32.55	
10 PERCENT EXCEEDS	16		11		10	
50 PERCENT EXCEEDS	4.5		3.6		2.8	
90 PERCENT EXCEEDS	1.7		0.66		0.43	

a July 25, 26.
b Aug. 22, 1985, Aug. 24, 1993.
e Estimated.
c From rating curve extended above 90 ft^3/s on basis of contracted-opening measurement of peak-flow.
d Ice jam.
f July 18 and Aug. 9, 1988, result of beaver activity upstream.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01594950 MCMILLAN FORK NEAR FORT PENDLETON, MD

LOCATION.--Lat 39°16'36.1", long 79°23'25.1", Garrett County, Hydrologic Unit 02070002, on left bank upstream side of culvert on private driveway off Wilson-Corona Road, 200 ft upstream from mouth, 1.0 mi south of Bayard, WV, and 1.7 mi southwest of Fort Pendleton.

DRAINAGE AREA.--2.30 mi^2.

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

REVISED RECORDS.--WDR MD-DE-95-1: 1988, 1991-93 (M).

GAGE.--Water-stage recorder and concrete bag control. Datum of gage is 2,441.94 ft above National Geodetic Vertical Datum of 1929 (Garrett County bench mark).

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are poor .U.S. Geological Survey satellite collection platform at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 40 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov 12	0630	*134	4.06
Nov 19	1330	62	2.74
Feb 6	0200	94	3.40
Feb 6	0600	---	*(a)4.17
Feb 6	1000	74	3.01
Mar 4	0800	84	3.20
Mar 6	0630	76	3.05
Mar 21	0030	51	2.48
Jun 11	2130	105	3.58

(a) Ice jam.

Minimum discharge, 0.20 ft^3/s, Sept. 6-8.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.6	3.6	e6.0	6.8	1.7	5.3	6.0	3.8	4.2	1.4	1.1	0.37
2	4.7	3.5	e5.4	15	e1.7	20	6.6	3.7	3.6	1.3	0.67	0.30
3	4.2	3.4	e4.8	21	e1.7	21	8.6	3.5	5.5	1.2	0.50	0.24
4	5.0	3.2	e4.6	16	e1.7	49	11	2.9	4.1	1.4	0.46	0.23
5	4.7	4.9	e4.4	19	e3.0	28	8.6	2.6	4.5	1.2	0.89	0.23
6	4.0	6.6	e4.2	15	e50	50	7.9	2.3	3.9	1.0	0.52	0.22
7	3.6	6.7	e4.0	12	36	28	11	2.3	3.3	0.95	0.46	0.20
8	3.3	5.8	e3.8	9.4	16	20	13	2.0	2.9	0.97	0.40	4.9
9	3.1	5.2	3.7	7.9	11	14	11	1.8	2.5	0.74	0.34	4.4
10	2.8	4.9	4.7	e6.4	8.4	11	8.6	1.5	2.2	0.81	0.31	2.5
11	2.5	4.9	13	e5.6	e6.6	9.7	7.2	1.3	17	0.73	0.30	1.5
12	2.3	62	7.2	5.0	e5.2	9.2	9.4	2.2	19	1.8	2.6	1.1
13	2.1	24	e5.4	4.4	e4.6	7.8	16	2.4	9.5	2.2	2.1	0.90
14	2.9	14	e5.0	4.0	e4.0	6.8	16	1.8	6.6	1.9	1.0	0.75
15	5.3	10	e4.4	e3.6	e3.6	6.5	12	1.5	5.1	1.3	0.71	0.70
16	3.7	8.4	e4.0	e3.4	e3.4	6.5	9.8	1.4	7.5	0.89	0.57	0.58
17	3.4	6.9	e3.8	e3.2	3.2	6.0	8.4	1.2	13	0.73	0.47	0.82
18	3.8	5.9	e3.6	e3.0	e3.1	6.6	6.8	1.8	17	0.70	0.42	5.0
19	4.4	24	e3.4	e2.8	e3.0	11	5.9	8.9	11	0.70	0.74	2.1
20	4.3	18	e3.2	e2.7	4.0	13	5.1	4.2	8.1	0.60	0.47	1.5
21	4.0	13	3.2	e2.6	12	26	4.5	4.6	6.4	0.51	2.0	1.2
22	4.0	10	3.2	e2.4	7.3	15	4.0	7.4	5.7	0.47	1.2	0.90
23	3.9	8.6	5.3	e2.3	6.0	11	3.6	4.4	4.6	0.46	0.50	0.67
24	3.6	7.9	16	e2.2	5.7	9.0	3.3	3.5	3.6	0.46	0.35	0.59
25	3.4	6.8	12	e2.1	5.0	7.3	3.7	2.9	3.0	0.43	0.42	0.54
26	3.2	6.0	9.0	e2.0	4.5	6.2	10	3.2	2.9	1.4	0.36	0.50
27	4.3	5.4	7.4	e2.0	4.1	5.6	7.0	2.9	2.4	2.4	0.32	0.48
28	4.4	7.3	6.3	e1.9	4.1	4.7	5.6	6.1	2.0	1.2	0.30	2.1
29	4.5	8.1	5.8	e1.9	4.0	4.3	4.6	4.0	1.7	0.71	0.27	1.4
30	4.2	6.9	9.2	e1.8	---	4.0	4.1	3.3	1.5	0.54	0.83	0.81
31	3.9	---	7.7	e1.8	---	4.0	---	3.3	---	1.2	0.71	---
TOTAL	119.1	305.9	183.7	189.2	224.6	426.5	239.3	98.7	184.3	32.30	22.29	37.73
MEAN	3.84	10.2	5.93	6.10	7.74	13.8	7.98	3.18	6.14	1.04	0.72	1.26
MAX	5.6	62	16	21	50	50	16	8.9	19	2.4	2.6	5.0
MIN	2.1	3.2	3.2	1.8	1.7	4.0	3.3	1.2	1.5	0.43	0.27	0.20
CFSM	1.67	4.43	2.58	2.65	3.37	5.98	3.47	1.38	2.67	0.45	0.31	0.55
IN.	1.93	4.95	2.97	3.06	3.63	6.90	3.87	1.60	2.98	0.52	0.36	0.61

e Estimated

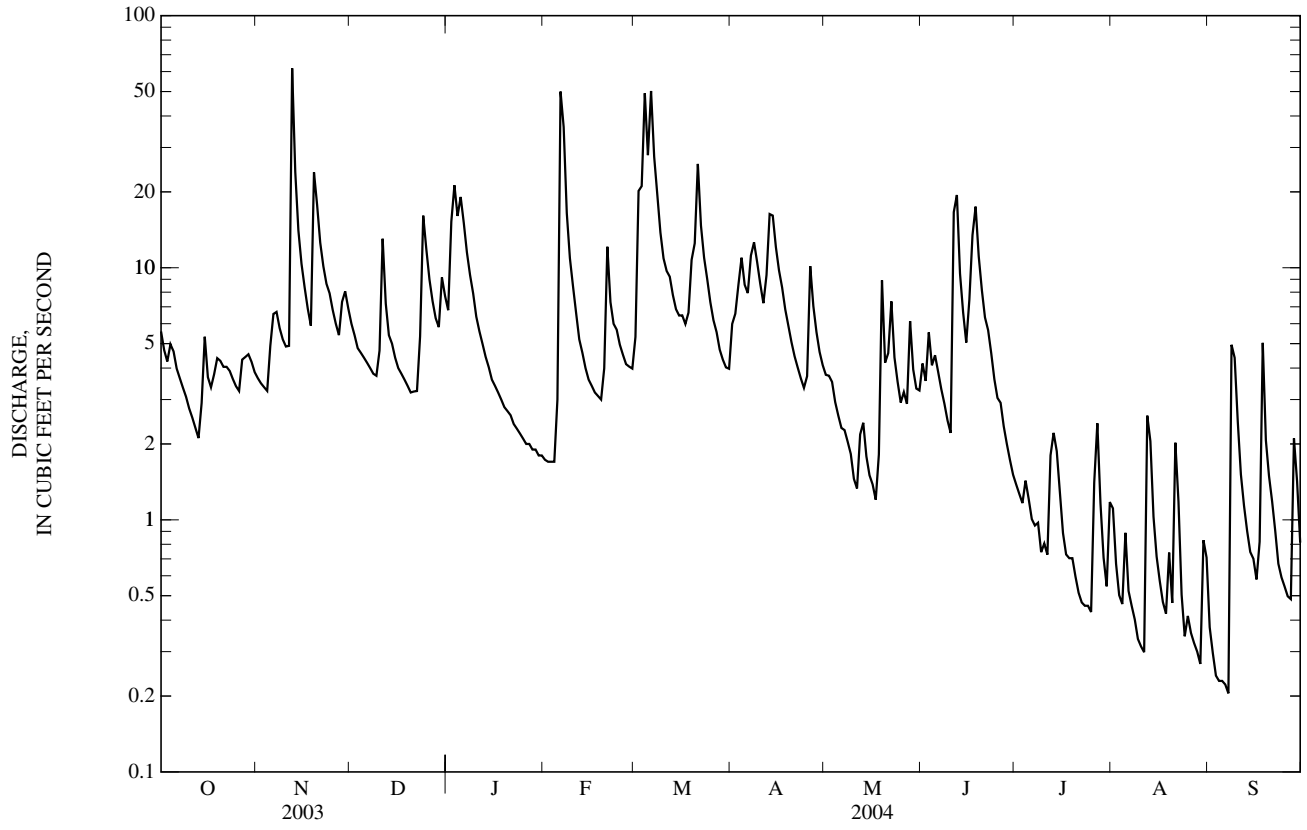
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 2004, BY WATER YEAR (WY)

MEAN	1.35	3.56	4.97	6.30	7.34	9.55	6.88	5.84	2.67	3.20	1.98	2.27
MAX	4.57	10.2	10.0	11.5	14.7	17.6	11.7	13.9	7.57	9.93	9.26	18.6
(WY)	(1990)	(1987)	(1991)	(1990)	(1994)	(1994)	(2002)	(1996)	(2003)	(2001)	(1996)	(2003)
MIN	0.04	0.03	0.20	1.69	1.27	3.34	1.27	1.11	0.16	0.02	0.03	0.06
(WY)	(2002)	(2002)	(1999)	(2000)	(1993)	(1990)	(1995)	(1999)	(1999)	(1999)	(1999)	(1998)

01594950 MCMILLAN FORK NEAR FORT PENDLETON, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1987 - 2004	
ANNUAL TOTAL	3,118.5		2,063.62			
ANNUAL MEAN	8.54		5.64		4.65	
HIGHEST ANNUAL MEAN					8.05	2003
LOWEST ANNUAL MEAN					2.73	1999
HIGHEST DAILY MEAN	130	Sep 4	62	Nov 12	130	Sep 4, 2003
LOWEST DAILY MEAN	1.2	(a)	0.20	Sep 7	0.00	(b)
ANNUAL SEVEN-DAY MINIMUM	1.5	Aug 2	0.26	Sep 1	0.00	Aug 10, 1999
MAXIMUM PEAK FLOW			134	Nov 12	(c)534	Aug 12, 2003
MAXIMUM PEAK STAGE			(d)4.17	Feb 6	8.23	Aug 12, 2003
INSTANTANEOUS LOW FLOW			0.20	(f)	0.00	(b)
ANNUAL RUNOFF (CFSM)	3.71		2.45		2.02	
ANNUAL RUNOFF (INCHES)	50.44		33.38		27.46	
10 PERCENT EXCEEDS	18		12		11	
50 PERCENT EXCEEDS	5.1		3.9		2.8	
90 PERCENT EXCEEDS	2.0		0.59		0.12	

a Aug. 7, 8, 25.
b Many days in 1999, 2002.
c From rating curve extended above 71 ft^3/s based on runoff comparison with Shields Run (adjacent stream, slope-area measurement, storm of Aug. 12, 2003).
d Ice jam.
f Sept. 6-8.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01595000 NORTH BRANCH POTOMAC RIVER AT STEYER, MD

LOCATION.--Lat 39°18'06.8", long 79°18'24.8", Garrett County, Hydrologic Unit 02070002, on left bank 0.3 mi southeast of Steyer, 0.4 mi downstream from Steyer Run, 2.0 mi northeast of Gorman, and at mile 81.8.

DRAINAGE AREA.--73.1 mi^2.

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

REVISED RECORDS.--WDR WV-97-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,276.01 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except those for estimated daily discharges (ice effect), which are poor. U.S. Geological Survey satellite collection platform at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 15, 1954, reached a stage of 13.0 ft, from floodmarks; discharge, 11,300 ft^3/s, from rating curve extended above 3,000 ft^3/s on basis of slope-area measurement at gage height of 10.30 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,200 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov 12	0930	*3,180	*7.21	Jun 11	2200	2,310	6.27
Feb 6	1815	2,290	6.24				

Minimum discharge, 22 ft^3/s, Sept. 4, 5.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	225	132	e200	254	e58	207	244	132	158	71	112	49
2	199	124	e180	489	e56	709	288	136	125	70	73	42
3	163	115	e170	676	e54	725	323	164	140	64	64	36
4	203	107	e160	502	e80	1,470	410	126	115	154	61	27
5	198	151	e150	603	e110	827	304	118	124	172	85	26
6	164	248	e140	480	1,440	1,490	287	109	116	91	70	28
7	141	239	e135	344	1,210	830	416	105	98	81	61	33
8	133	190	130	315	511	594	501	111	88	76	57	247
9	124	175	125	262	336	420	407	101	82	68	53	293
10	118	164	147	e210	e250	339	307	94	79	65	50	152
11	104	157	524	e180	e190	292	256	91	497	63	49	102
12	99	1,830	285	e150	e160	277	342	111	843	71	79	86
13	101	795	226	e140	e140	226	583	135	301	98	102	73
14	107	440	211	e130	e130	214	566	98	204	81	65	60
15	254	319	186	e120	e120	218	390	90	160	76	54	49
16	166	266	179	e110	e110	243	303	82	182	64	53	44
17	142	230	e170	e105	e100	271	253	77	261	60	43	50
18	162	197	e160	e100	e100	256	215	74	375	60	46	216
19	135	836	e150	e96	124	437	183	263	248	76	60	98
20	125	648	e150	e92	150	403	152	150	190	59	51	73
21	118	381	142	e88	427	871	130	138	149	54	81	67
22	103	302	142	e84	261	461	125	444	138	52	78	53
23	105	265	268	e80	218	340	133	194	137	52	58	51
24	110	248	636	e76	208	289	128	144	110	49	52	52
25	105	232	431	e72	187	256	143	120	102	45	51	59
26	99	196	313	e70	167	217	412	129	116	70	55	59
27	139	168	268	e68	154	197	294	134	97	198	52	59
28	160	219	241	e66	149	189	215	385	85	102	46	117
29	156	270	227	e64	165	160	175	219	85	74	46	123
30	159	226	342	e62	---	154	152	150	76	65	54	83
31	137	---	286	e60	---	163	---	147	---	85	60	---
TOTAL	4,454	9,870	7,074	6,148	7,365	13,745	8,637	4,571	5,481	2,466	1,921	2,507
MEAN	144	329	228	198	254	443	288	147	183	79.5	62.0	83.6
MAX	254	1,830	636	676	1,440	1,490	583	444	843	198	112	293
MIN	99	107	125	60	54	154	125	74	76	45	43	26
CFSM	1.97	4.50	3.12	2.71	3.47	6.07	3.94	2.02	2.50	1.09	0.85	1.14
IN.	2.27	5.02	3.60	3.13	3.75	6.99	4.40	2.33	2.79	1.25	0.98	1.28

e Estimated

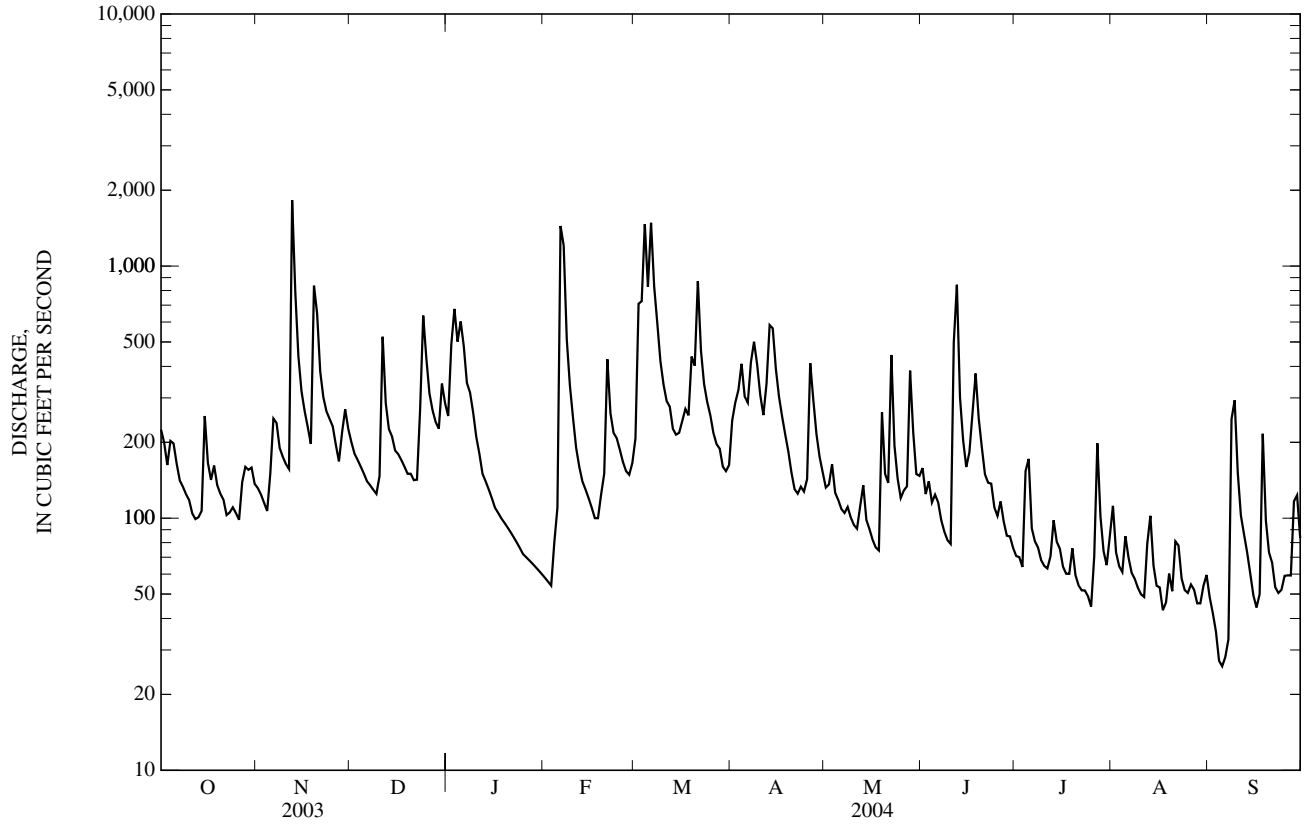
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1956 - 2004, BY WATER YEAR (WY)

MEAN	72.2	139	219	230	263	344	277	200	123	102	80.3	64.6
MAX	316	588	527	569	604	885	573	540	442	340	355	492
(WY)	(1977)	(1986)	(1973)	(1974)	(1994)	(1963)	(1958)	(1996)	(1981)	(1978)	(1996)	(2003)
MIN	12.8	22.2	46.1	41.8	65.9	112	78.2	62.5	15.5	14.3	6.72	5.99
(WY)	(1964)	(2002)	(1999)	(1977)	(1993)	(1990)	(1995)	(1965)	(1965)	(1965)	(1965)	(1959)

01595000 NORTH BRANCH POTOMAC RIVER AT STEYER, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1956 - 2004	
ANNUAL TOTAL	101,247		74,239			
ANNUAL MEAN	277		203		175	
HIGHEST ANNUAL MEAN					297	1996
LOWEST ANNUAL MEAN					115	1959
HIGHEST DAILY MEAN	3,180	Sep 19	1,830	Nov 12	4,530	Feb 9, 1994
LOWEST DAILY MEAN	55	Jul 27	26	Sep 5	3.1	Sep 9, 1965
ANNUAL SEVEN-DAY MINIMUM	60	Aug 2	34	Sep 1	3.6	Sep 23, 1959
MAXIMUM PEAK FLOW			3,180	Nov 12	(a)11,500	Nov 5, 1985
MAXIMUM PEAK STAGE			7.21	Nov 12	13.14	Nov 5, 1985
INSTANTANEOUS LOW FLOW			22	(b)	2.7	Aug 18, 1999
ANNUAL RUNOFF (CFSM)	3.79		2.77		2.40	
ANNUAL RUNOFF (INCHES)	51.52		37.78		32.59	
10 PERCENT EXCEEDS	574		411		386	
50 PERCENT EXCEEDS	189		140		106	
90 PERCENT EXCEEDS	95		58		22	

a From rating curve extended above 3,000 ft^3/s on basis of slope-area measurement at gage height of 10.30 ft.
b Sept. 4, 5.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01595200 STONY RIVER NEAR MOUNT STORM, WV

LOCATION.--Lat 39°16'10", long 79°15'45", NAD 27, Grant County, Hydrologic Unit 02070002, on left bank 100 ft downstream from highway bridge on U.S. Highway 50, 1.0 mi west of Mount Storm, and at mile 6.4.

DRAINAGE AREA.--48.7 mi^2.

PERIOD OF RECORD.--October 1961 to current year.

REVISED RECORDS.--WDR WV-97-1: Drainage area.

GAGE.--Water-stage recorder with satellite telemeter. Datum of gage is 2,554.54 ft above NGVD 29.

REMARKS.--Records good except those for periods of estimated daily discharges (ice effect), which are poor. Flow regulated by Stony River Reservoir, 14.0 mi upstream from station until use of reservoir discontinued June 1987. Regulation since 1963 by Virginia Electric and Power Company dam (Mount Storm Lake), 4.0 mi upstream from station. Water-quality records for some periods have been collected at this location.

PEAK DISCHARGE FOR CURRENT YEAR.--Maximum discharge, 1,850 ft^3/s, Sept. 8, gage height, 6.88 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	97	28	99	69	e17	105	132	37	109	15	74	12
2	84	21	33	87	e16	307	149	42	90	13	48	9.3
3	69	30	29	215	e16	450	200	152	81	28	36	8.7
4	39	52	39	343	e15	950	234	207	50	99	26	7.8
5	56	58	49	349	e15	744	199	157	26	96	29	6.7
6	49	103	63	254	316	921	130	144	23	71	22	6.8
7	36	121	71	174	390	654	112	37	20	59	21	7.7
8	35	114	65	143	394	426	226	179	18	47	19	502
9	29	96	63	128	206	347	343	129	17	32	17	775
10	29	67	105	87	93	308	278	25	17	19	15	351
11	35	33	349	40	95	209	217	21	178	21	83	271
12	35	628	267	43	84	118	317	20	356	27	40	198
13	35	468	198	55	90	91	682	76	284	33	23	105
14	28	337	162	63	85	127	577	163	207	39	16	77
15	111	255	130	72	79	99	292	131	84	34	14	66
16	140	156	113	77	89	120	170	102	60	22	14	173
17	101	136	111	62	82	98	164	69	73	15	13	330
18	114	119	112	74	63	96	147	19	79	16	13	694
19	92	575	104	91	53	172	255	128	35	14	16	300
20	53	597	103	39	37	250	192	192	52	12	13	141
21	33	411	98	e33	125	843	165	164	44	13	13	221
22	29	218	83	e30	139	261	98	246	25	15	12	139
23	39	139	131	e27	127	220	37	145	96	21	9.4	41
24	49	135	244	e24	111	191	36	39	41	17	13	43
25	19	129	244	e22	104	176	54	34	22	18	13	40
26	19	114	200	e21	97	163	312	53	21	60	12	43
27	75	103	152	e21	82	143	326	91	17	219	11	50
28	118	99	128	e20	77	141	231	277	18	110	8.6	238
29	83	144	97	e19	83	132	127	286	17	25	7.6	379
30	52	122	75	e18	---	115	41	201	15	54	8.1	186
31	45	---	68	e18	---	113	---	130	---	83	12	---
TOTAL	1,828	5,608	3,785	2,718	3,180	9,090	6,443	3,696	2,175	1,347	671.7	5,422.0
MEAN	59.0	187	122	87.7	110	293	215	119	72.5	43.5	21.7	181
MAX	140	628	349	349	394	950	682	286	356	219	83	775
MIN	19	21	29	18	15	91	36	19	15	12	7.6	6.7

e Estimated

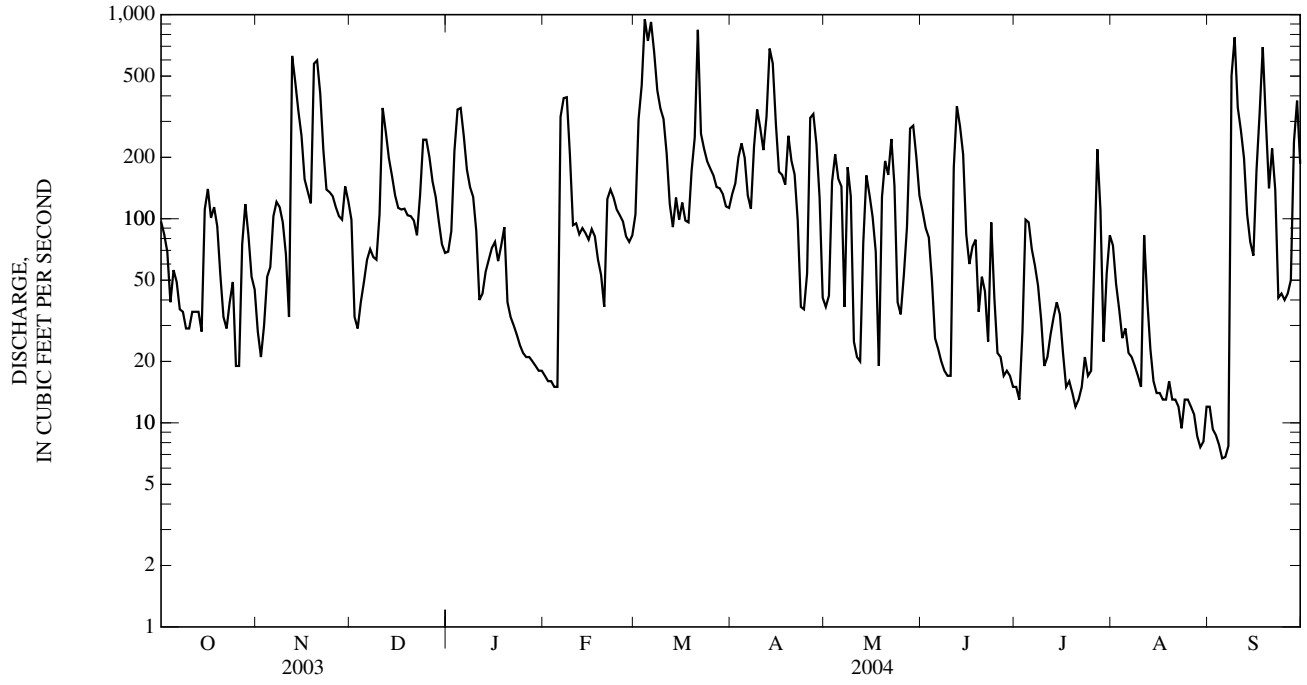
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 2004, BY WATER YEAR (WY)

MEAN	45.2	86.2	105	112	141	221	160	122	70.3	48.0	35.7	43.6
MAX	234	669	301	267	361	537	371	271	237	205	200	314
(WY)	(1977)	(1986)	(1973)	(1996)	(1994)	(1963)	(1987)	(1988)	(1981)	(1978)	(1996)	(1996)
MIN	3.36	5.53	8.36	20.9	21.3	46.9	51.8	28.3	9.91	4.36	3.28	3.89
(WY)	(1992)	(1999)	(1999)	(1981)	(1978)	(1990)	(1995)	(1964)	(1964)	(1968)	(1999)	(1985)

01595200 STONY RIVER NEAR MOUNT STORM, WV—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1962 - 2004	
ANNUAL TOTAL	57,771		45,963.7			
ANNUAL MEAN	158		126		99.0	
HIGHEST ANNUAL MEAN					166	1996
LOWEST ANNUAL MEAN					42.0	1964
HIGHEST DAILY MEAN	2,190	Sep 19	950	Mar 4	9,880	Nov 5, 1985
LOWEST DAILY MEAN	(e)10	(a)	6.7	Sep 5	1.3	Aug 28, 1988
ANNUAL SEVEN-DAY MINIMUM	11	Jan 23	8.4	Sep 1	1.7	Aug 28, 1988
MAXIMUM PEAK FLOW			1,850	Sep 8	(b)14,000	Nov 5, 1985
MAXIMUM PEAK STAGE			6.88	Sep 8	(c)16.41	Nov 5, 1985
INSTANTANEOUS LOW FLOW			6.0	Sep 6	1.3	(d)
10 PERCENT EXCEEDS	395		294		233	
50 PERCENT EXCEEDS	105		83		48	
90 PERCENT EXCEEDS	21		16		8.4	

e Estimated.
a Jan. 27, 28.
b From rating curve extended above 7,500 ft 3/s on basis of slope-area measurement of peak flow.
c From floodmarks.
d Aug. 22, 23, 28, 29, 1988.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01595500 NORTH BRANCH POTOMAC RIVER AT KITZMILLER, MD

LOCATION.--Lat 39°23'38.0", long 79°10'54.1", Garrett County, Hydrologic Unit 02070002, on left bank 0.6 mi downstream from bridge on State Highway 38 in Kitzmiller, 1.5 mi downstream from Wolfden Run, and at mile 68.9.

DRAINAGE AREA.--225 mi^2.

PERIOD OF RECORD.--October 1949 to September 1985, October 1985 to September 2003 (operated as a crest-stage partial-record station only), October 2003 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,572.26 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 15, 1954, at site 0.3 mi upstream at datum 7.58 ft higher. Oct. 15, 1954, to Nov. 20, 1955, nonrecording gage at bridge 0.5 mi upstream at datum 21.51 ft higher.

REMARKS.--Records good except those for estimated daily discharges (ice effect and missing record), which are poor. Flow regulated by Stony River Reservoir, 30.0 mi upstream from station until use of reservoir discontinued June 1987 (see station 01595200). Regulation since 1963 by Virginia Electric and Power Company dam (Mount Storm Lake), 20.0 mi upstream from station. U.S. Army Corps of Engineers satellite collection platform at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,400 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov 12	1000	*7,220	8.00
Nov 19	1600	5,770	7.46
Feb 6	---	(e)7,050	(a)*8.06
Mar 2	1930	4,060	6.70
Mar 4	1100	6,230	7.64
Mar 6	0900	5,210	7.23
Mar 21	0330	4,370	6.85
Jun 11	2330	5,740	7.45
Sep 8	2030	5,400	7.31

e Estimated.
a Ice jam.
Minimum discharge, 41 ft^3/s, Sept. 5, 6.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	508	260	e450	554	e164	541	660	368	368	113	338	69
2	450	242	e380	871	e162	2,040	836	362	322	109	188	63
3	386	231	336	1,460	e160	2,390	937	509	316	98	144	56
4	369	236	326	1,360	e220	4,380	1,270	504	269	185	116	49
5	394	265	e310	1,500	424	2,910	950	435	247	505	137	42
6	348	466	e294	1,260	3,550	4,260	797	417	241	222	131	43
7	290	515	e288	861	3,250	2,600	893	273	196	179	103	45
8	277	410	313	704	1,500	1,890	1,140	345	163	157	94	1,420
9	252	371	305	619	980	1,400	1,140	406	143	130	85	1,800
10	237	337	341	489	640	1,160	907	229	130	107	77	791
11	223	286	1,620	382	567	934	735	208	847	110	99	465
12	213	3,740	973	e362	496	778	1,100	201	2,240	111	174	417
13	213	2,050	693	e340	e450	594	2,260	290	891	219	221	242
14	206	1,250	608	e320	e400	574	2,020	349	609	158	123	203
15	539	918	544	e300	e370	589	1,300	308	419	144	91	182
16	444	692	476	293	347	559	892	262	345	115	85	215
17	356	572	e458	e275	e323	615	751	232	474	91	75	444
18	394	504	e438	e262	311	551	640	164	670	97	70	1,500
19	350	2,350	e418	e252	308	1,090	662	514	426	136	102	728
20	296	2,120	e405	e242	336	1,180	553	468	357	96	100	329
21	246	1,320	387	e232	998	3,030	513	387	301	80	105	374
22	231	931	375	e222	718	1,500	427	924	260	78	148	336
23	239	665	655	e215	575	1,040	354	477	290	94	93	160
24	249	605	1,570	e206	545	860	340	324	273	87	75	153
25	212	564	1,240	e200	491	747	383	247	190	77	74	152
26	192	490	910	e192	e447	645	1,220	270	209	101	71	146
27	273	437	715	e187	409	572	1,030	315	172	671	71	150
28	417	460	610	e180	388	545	740	711	141	343	65	481
29	374	640	561	e175	433	495	566	618	137	164	74	760
30	333	531	718	e172	---	445	413	455	125	121	86	450
31	294	---	623	e169	---	472	---	370	---	257	86	---
TOTAL	9,805	24,458	18,340	14,856	19,962	41,386	26,429	11,942	11,771	5,155	3,501	12,265
MEAN	316	815	592	479	688	1,335	881	385	392	166	113	409
MAX	539	3,740	1,620	1,500	3,550	4,380	2,260	924	2,240	671	338	1,800
MIN	192	231	288	169	160	445	340	164	125	77	65	42
CFSM	1.41	3.62	2.63	2.13	3.06	5.93	3.92	1.71	1.74	0.74	0.50	1.82
IN.	1.62	4.04	3.03	2.46	3.30	6.84	4.37	1.97	1.95	0.85	0.58	2.03

e Estimated

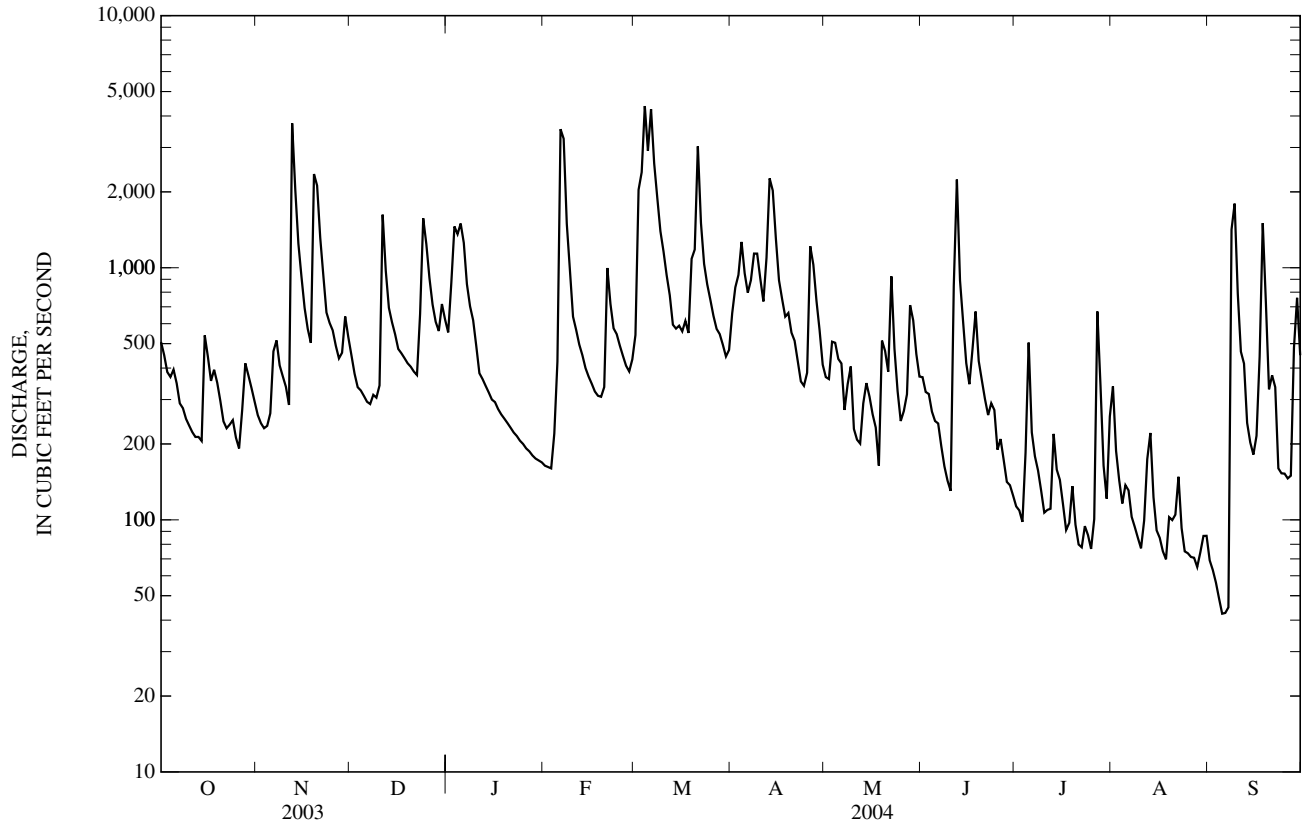
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 1985, 2004 BY WATER YEAR (WY)

MEAN	203	300	545	563	716	1,005	797	523	333	178	186	125
MAX	908	933	1,659	1,297	1,655	2,193	1,561	1,021	1,003	867	955	513
(WY)	(1977)	(1973)	(1973)	(1952)	(1956)	(1963)	(1958)	(1967)	(1981)	(1978)	(1955)	(1971)
MIN	23.3	36.0	88.6	94.2	190	492	301	200	63.2	28.5	24.2	20.2
(WY)	(1954)	(1954)	(1966)	(1981)	(1978)	(1976)	(1968)	(1977)	(1969)	(1952)	(1965)	(1953)

01595500 NORTH BRANCH POTOMAC RIVER AT KITZMILLER, MD—Continued

SUMMARY STATISTICS	FOR 2004 WATER YEAR		WATER YEARS 1950 - 1985, 2004	
ANNUAL TOTAL	199,870			
ANNUAL MEAN	546		(a)455	
HIGHEST ANNUAL MEAN			615	1973
LOWEST ANNUAL MEAN			276	1959
HIGHEST DAILY MEAN	4,380	Mar 4	13,200	Aug 18, 1955
LOWEST DAILY MEAN	42	Sep 5	4.6	Oct 3, 1953
ANNUAL SEVEN-DAY MINIMUM	52	Sep 1	4.9	Oct 1, 1953
MAXIMUM PEAK FLOW	7,220	Nov 12	33,400	Oct 15, 1954
MAXIMUM PEAK STAGE	(b)8.06	Feb 6	(c)13.73	Oct 15, 1954
INSTANTANEOUS LOW FLOW	41	(d)	4.6	Oct 3, 1953
ANNUAL RUNOFF (CFSM)	2.43		2.02	
ANNUAL RUNOFF (INCHES)	33.05		27.48	
10 PERCENT EXCEEDS	1,170		1,070	
50 PERCENT EXCEEDS	368		255	
90 PERCENT EXCEEDS	103		44	

a Adjusted for storage, 1950 - 1985.
b Ice jam.
c From floodmarks.
d Sept. 5, 6.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01595800 NORTH BRANCH POTOMAC RIVER AT BARNUM, WV

LOCATION.--Lat 39°26'42.4", long 79°06'38.9", Mineral County, W. Va., Hydrologic Unit 02070002, on right bank at highway bridge at Barnum, W. Va., 0.4 mi upstream from Polly Run, and 4.0 mi southwest of Piedmont, W. Va., and at mile 59.4.

DRAINAGE AREA.--266 mi^2.

PERIOD OF RECORD.--July 1966 to September 1985, October 1985 to September 2003 (operated as a partial-record station only), October 2003 to September 2004.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,151.82 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Prior to July 1981 regulation at low flow by Stony River Reservoir, 39 mi upstream from station (see station 01595200). Since July 1981 complete regulation by Jennings Randolf Lake, 1.5 mi upstream from station, capacity 96,600 acre-ft. U.S. Army Corps of Engineers satellite collection platform at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,450 ft^3/s, Mar. 6, 7, gage height, 6.46 ft; minimum discharge, 46 ft^3/s, Sept. 21.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	313	364	794	900	312	510	506	460	373	247	237	252
2	312	366	791	903	310	530	478	436	373	247	239	250
3	314	366	711	913	315	545	653	433	352	247	250	252
4	665	369	634	908	314	1,770	1,260	433	314	250	257	251
5	843	369	634	1,260	315	2,910	1,060	433	312	250	256	247
6	520	398	634	1,520	339	3,030	742	466	274	250	257	246
7	306	422	629	1,520	713	2,580	819	430	254	250	256	241
8	306	423	628	1,330	1,280	1,710	1,220	580	256	251	255	306
9	306	426	623	1,030	1,460	1,490	1,210	567	256	254	224	275
10	307	427	622	1,020	1,460	1,490	914	343	256	256	205	262
11	680	423	814	1,010	1,440	1,250	878	317	275	256	205	613
12	732	1,100	952	1,010	1,420	808	1,140	315	1,940	253	206	785
13	335	1,620	951	727	1,420	662	2,110	315	1,530	249	208	456
14	339	1,540	949	516	1,400	581	2,670	316	868	249	575	342
15	343	1,480	948	511	1,390	586	1,430	317	477	256	494	404
16	343	1,470	950	510	1,390	590	1,050	318	412	243	209	401
17	346	1,460	949	510	864	589	795	324	464	244	210	400
18	346	1,460	948	510	502	598	792	287	517	242	211	409
19	346	1,760	856	510	494	604	728	261	512	246	213	408
20	348	2,060	781	510	498	616	601	256	513	245	210	407
21	346	1,490	774	405	507	1,690	600	284	391	239	210	376
22	350	1,490	721	302	510	1,870	599	706	307	254	211	400
23	353	1,480	681	319	510	1,430	472	694	306	236	241	209
24	355	1,470	833	327	510	1,150	561	384	308	235	257	284
25	355	1,270	938	325	510	931	562	329	272	234	255	401
26	357	1,070	932	318	468	850	851	290	247	237	256	403
27	360	1,070	929	324	504	721	1,060	291	246	238	256	406
28	364	902	918	321	505	600	665	380	245	237	257	408
29	364	795	913	314	510	600	601	708	247	252	255	408
30	364	794	908	313	---	600	487	503	248	240	253	210
31	365	---	905	313	---	594	---	373	---	240	252	---
TOTAL	12,283	30,134	25,250	21,209	22,170	34,485	27,514	12,549	13,345	7,627	7,880	10,712
MEAN	396	1,004	815	684	764	1,112	917	405	445	246	254	357
MAX	843	2,060	952	1,520	1,460	3,030	2,670	708	1,940	256	575	785
MIN	306	364	622	302	310	510	472	256	245	234	205	209
†	82,400	80,400	75,100	68,700	66,600	92,900	95,200	95,400	93,700	89,300	81,200	89,200
CFSM	1.49	3.78	3.06	2.57	2.87	4.18	3.45	1.52	1.67	0.92	0.96	1.34
IN.	1.72	4.21	3.53	2.97	3.10	4.82	3.85	1.75	1.87	1.07	1.10	1.50

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1985, 2004, BY WATER YEAR (WY)

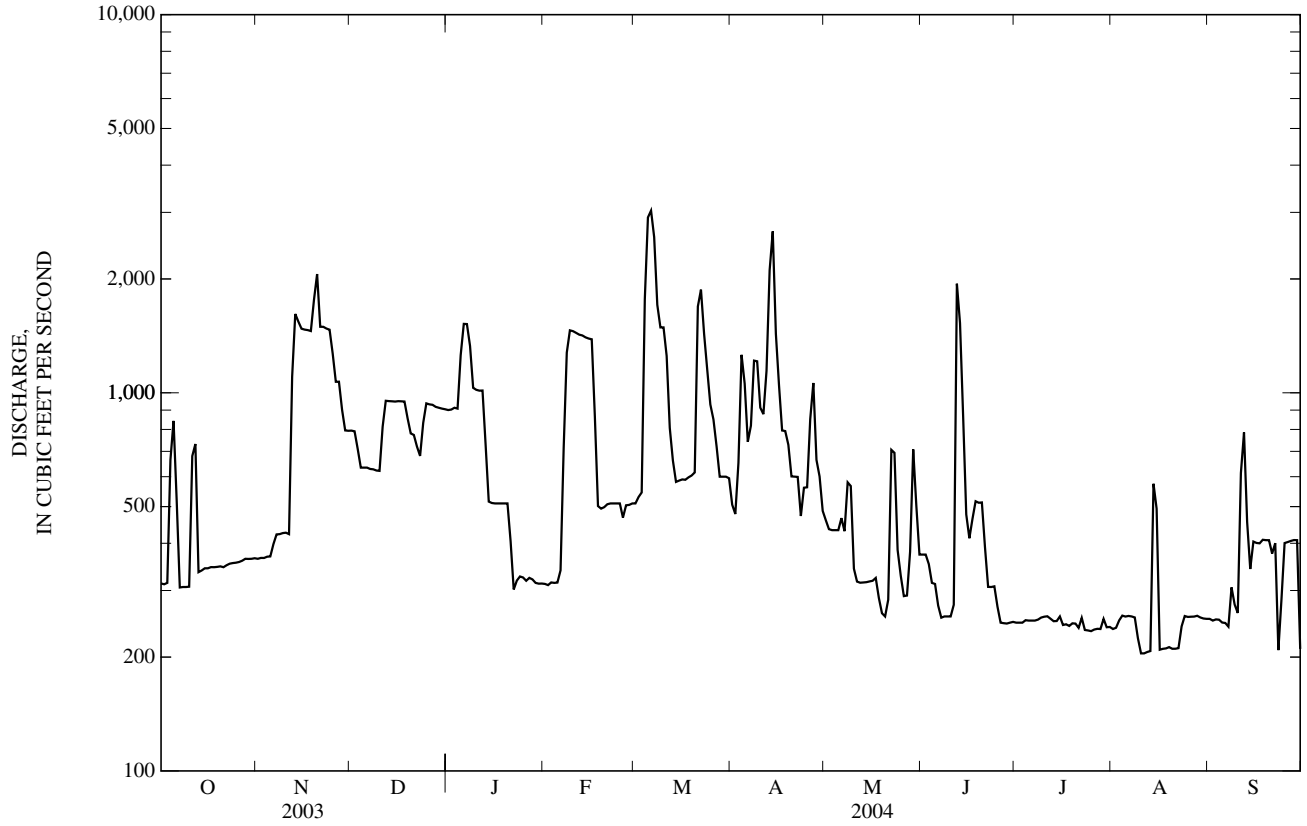
MEAN	308	411	693	588	734	1,085	873	633	441	254	219	205
MAX	1,035	1,070	1,746	1,219	1,246	2,001	1,645	1,199	1,149	985	551	546
(WY)	(1977)	(1973)	(1973)	(1974)	(1979)	(1967)	(1970)	(1967)	(1981)	(1978)	(1980)	(1971)
MIN	28.8	150	315	108	216	556	357	105	69.1	41.3	66.5	29.1
(WY)	(1969)	(1975)	(1976)	(1981)	(1978)	(1976)	(1968)	(1982)	(1969)	(1968)	(1968)	(1968)

† Monthend contents, in acre-feet, in Jennings Randolph Lake (contents on Sept. 30, 2003, 84,700 acre-feet).
Records furnished by U.S. Army Corp of Engineers.

01595800 NORTH BRANCH POTOMAC RIVER AT BARNUM, WV—Continued

SUMMARY STATISTICS	FOR 2004 WATER YEAR		WATER YEARS 1966 - 1985, 2004	
ANNUAL TOTAL	225,158			
ANNUAL MEAN	615		538	
ANNUAL MEAN‡	621		541	
HIGHEST ANNUAL MEAN			690	1973
LOWEST ANNUAL MEAN			318	1969
HIGHEST DAILY MEAN	3,030	Mar 6	10,900	Jul 3, 1978
LOWEST DAILY MEAN	205	(a)	10	Oct 1, 1968
ANNUAL SEVEN-DAY MINIMUM	211	Aug 16	11	Sep 27, 1968
MAXIMUM PEAK FLOW	3,450	(b)	(c)27,100	Jul 3, 1978
MAXIMUM PEAK STAGE	6.46	(b(	13.37	Jul 3, 1978
INSTANTANEOUS LOW FLOW	46	Sep 21	0.91	Aug 12, 1981
ANNUAL RUNOFF (CFSM)	2.31		2.02	
ANNUAL RUNOFF (CFSM)‡	2.34		2.03	
ANNUAL RUNOFF (INCHES)	31.49		27.46	
ANNUAL RUNOFF (INCHES)‡	31.70		27.64	
10 PERCENT EXCEEDS	1,390		1,200	
50 PERCENT EXCEEDS	433		320	
90 PERCENT EXCEEDS	247		72	

a Aug. 10, 11.
b March 6, 7.
c From rating curve extended above 8,000 ft^3/s on basis of slope-area measurement of peak flow.
‡ Adjusted for change in reservoir contents since October 1981.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01596500 SAVAGE RIVER NEAR BARTON, MD

LOCATION.--Lat 39°34'12.2", long 79°06'07.0", Garrett County, Hydrologic Unit 02070002, on right bank 0.9 mi upstream from Bear Pen Run, 1.5 mi downstream from Poplar Lick Run, 5.4 mi northwest of Barton, and 10 mi upstream from mouth.

DRAINAGE AREA.--49.1 mi^2.

PERIOD OF RECORD.--September 1948 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,603.88 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are poor. U.S. Army Corps of Engineers satellite collection platform at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 800 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov 12	0929	1,090	3.71	Apr 13	1959	833	3.44
Nov 19	1829	1,160	3.84	Sep 8	2159	*2,130	*4.86
Mar 2	2029	882	3.50	Sep 18	0229	948	3.58
Mar 6	0159	1,240	3.93				

Minimum discharge, 3.6 ft^3/s, July 25, 26, Aug. 10, 11.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	123	65	e70	103	e7.0	111	126	79	62	9.3	21	16
2	93	60	e64	125	e7.0	421	254	79	52	8.7	13	11
3	74	55	e60	202	e6.8	657	359	84	52	8.5	9.5	9.0
4	66	49	e56	219	e6.8	625	483	67	44	8.6	7.8	7.9
5	58	57	e52	304	29	725	328	66	41	11	7.5	7.0
6	48	74	e50	290	e80	1,100	227	61	38	8.5	7.0	6.2
7	42	85	e49	164	e250	599	184	69	34	7.6	5.7	6.2
8	37	85	e48	99	167	384	155	103	29	7.3	4.7	567
9	33	83	48	68	119	248	144	90	26	6.7	4.2	915
10	30	76	50	47	90	177	116	80	24	6.2	3.8	339
11	28	69	445	e35	79	143	104	71	36	5.8	3.8	169
12	26	752	312	e25	70	130	175	81	96	9.8	30	107
13	25	496	196	e20	67	109	587	117	80	16	44	77
14	29	251	147	15	63	95	605	85	71	9.2	21	59
15	76	157	116	14	59	88	325	68	59	7.2	14	50
16	60	116	88	e12	134	86	202	58	48	6.3	15	44
17	55	96	80	e11	230	78	147	49	44	5.5	12	76
18	58	79	73	e10	e150	73	115	54	39	5.6	8.8	610
19	55	545	66	e9.5	e120	83	105	176	33	6.0	9.9	250
20	52	668	62	e9.0	e100	106	87	121	28	6.1	10	141
21	49	330	e60	e8.8	e95	606	76	169	24	6.8	13	96
22	48	205	68	e8.6	e90	344	69	538	22	5.3	16	77
23	46	145	83	e8.4	e85	201	67	271	21	3.9	10	61
24	42	115	381	e8.2	e82	145	59	154	18	4.0	8.1	50
25	37	94	392	e8.0	e80	125	58	105	16	3.7	6.8	43
26	35	77	238	e7.8	78	117	100	158	14	6.6	5.9	37
27	51	67	162	e7.6	76	109	116	116	13	35	6.3	32
28	70	72	124	e7.4	73	95	114	99	12	23	5.6	51
29	73	89	104	e7.4	86	83	100	80	12	11	38	51
30	73	81	108	e7.2	---	77	88	66	10	14	27	38
31	68	---	106	e7.2	---	78	---	61	---	27	23	---
TOTAL	1,660	5,193	3,958	1,868.1	2,579.6	8,018	5,675	3,475	1,098	300.2	412.4	4,003.3
MEAN	53.5	173	128	60.3	89.0	259	189	112	36.6	9.68	13.3	133
MAX	123	752	445	304	250	1,100	605	538	96	35	44	915
MIN	25	49	48	7.2	6.8	73	58	49	10	3.7	3.8	6.2
CFSM	1.09	3.53	2.60	1.23	1.81	5.27	3.85	2.28	0.75	0.20	0.27	2.72
IN.	1.26	3.93	3.00	1.42	1.95	6.07	4.30	2.63	0.83	0.23	0.31	3.03

e Estimated

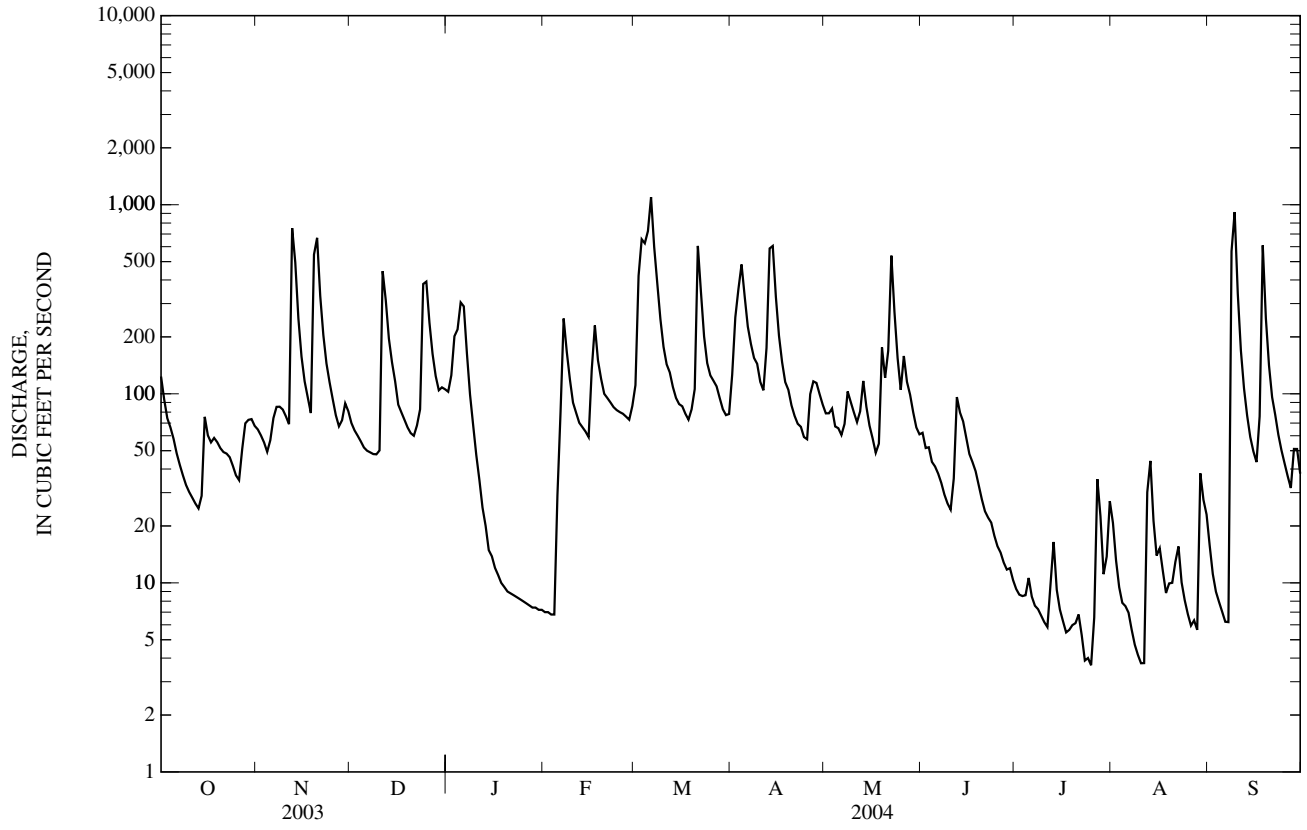
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 2004, BY WATER YEAR (WY)

MEAN	26.3	53.0	87.6	93.8	125	184	142	96.1	50.6	20.4	18.1	22.9
MAX	157	336	256	251	307	362	343	235	218	111	116	233
(WY)	(1955)	(1986)	(1973)	(1952)	(1956)	(1994)	(1993)	(1996)	(2003)	(1989)	(1956)	(1996)
MIN	1.52	2.29	2.37	13.7	19.4	30.8	33.0	21.8	5.48	2.60	1.57	1.78
(WY)	(1964)	(1999)	(1999)	(1977)	(1954)	(1990)	(1968)	(1991)	(1965)	(1999)	(1999)	(1991)

01596500 SAVAGE RIVER NEAR BARTON, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1948 - 2004	
ANNUAL TOTAL	48,970.4		38,240.6			
ANNUAL MEAN	134		104		76.3	
HIGHEST ANNUAL MEAN					138	1996
LOWEST ANNUAL MEAN					34.9	1954
HIGHEST DAILY MEAN	1,620	Sep 19	1,100	Mar 6	2,180	Nov 5, 1985
LOWEST DAILY MEAN	4.1	Aug 26	3.7	Jul 25	0.50	(a)
ANNUAL SEVEN-DAY MINIMUM	5.3	Aug 20	5.1	Jul 19	0.63	Aug 29, 1966
MAXIMUM PEAK FLOW			2,130	Sep 8	(b)7,510	Oct 15, 1954
MAXIMUM PEAK STAGE			4.86	Sep 8	8.45	Oct 15, 1954
INSTANTANEOUS LOW FLOW			3.6	(c)	0.40	(d)
ANNUAL RUNOFF (CFSM)	2.73		2.13		1.55	
ANNUAL RUNOFF (INCHES)	37.10		28.97		21.13	
10 PERCENT EXCEEDS	355		249		188	
50 PERCENT EXCEEDS	71		66		34	
90 PERCENT EXCEEDS	13		7.4		3.8	

a Sept. 2, 3, 12, 1966.
b From rating curve extended above 1,600 ft^3/s on basis of slope-area measurement of peak flow.
c July 25, 26, Aug. 10, 11.
d Sept. 3, 4, 1966.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01597500 SAVAGE RIVER, BELOW SAVAGE RIVER DAM, NEAR BLOOMINGTON, MD

LOCATION.--Lat 39°30'09.9", long 79°07'26.3", Garrett County, Hydrologic Unit 02070002, on left bank 0.7 mi downstream from Savage River Dam, 1.1 mi downstream from Crabtree Creek, 3.2 mi northwest of Bloomington, and 3.7 mi upstream from mouth.

DRAINAGE AREA.--106 mi^2.

PERIOD OF RECORD.--October 1948 to current year.

REVISED RECORDS.--WSP 1432: 1955. WDR MD-DE-96-1: 1996(P).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,276.40 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Diversions upstream from station by Baltimore and Ohio Railroad and by cities of Frostburg and Westernport for municipal supply. Flow regulated by Savage River Reservoir beginning December 1950, capacity 20,000 acre-ft. U.S. Army Corps of Engineers satellite collection platform at station. Upper Potomac River Commission gage-height telemeter at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,940 ft^3/s, Mar. 7, gage height, 4.23 ft; minimum discharge, 19 ft^3/s, Nov. 10.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	180	89	149	277	81	206	188	187	100	68	65	61
2	155	89	149	277	81	211	376	181	100	67	41	61
3	155	89	185	277	81	336	597	229	100	67	33	61
4	124	89	206	280	81	793	951	237	100	67	47	61
5	95	90	206	475	81	953	652	237	100	67	67	61
6	88	106	206	581	83	1,190	452	160	100	67	67	61
7	88	115	206	581	85	1,480	351	126	87	66	67	60
8	88	115	167	577	86	1,040	306	126	82	66	67	209
9	88	115	146	570	160	986	281	179	82	66	67	383
10	88	164	147	448	207	978	234	203	82	66	66	757
11	88	243	233	388	251	755	205	148	83	66	66	997
12	87	626	277	325	298	333	260	126	83	66	68	975
13	87	836	277	171	308	237	1,120	126	109	66	67	383
14	88	831	315	107	306	237	1,420	126	121	66	255	112
15	89	823	333	107	306	237	766	126	122	66	202	112
16	89	814	333	107	306	237	447	126	123	66	61	111
17	89	577	332	107	175	237	320	104	123	66	61	112
18	89	465	292	107	106	237	262	95	98	66	61	113
19	89	524	212	107	106	237	218	153	87	66	61	322
20	89	763	182	106	106	239	185	250	87	65	61	254
21	89	825	182	91	106	296	160	298	87	65	61	46
22	89	817	182	83	107	740	141	813	87	65	61	46
23	89	809	182	83	173	512	132	605	87	65	61	229
24	89	796	250	83	206	366	118	480	86	65	61	245
25	89	610	284	83	206	289	114	310	86	65	61	159
26	89	504	460	83	206	256	204	231	86	65	61	159
27	89	497	577	83	206	239	282	229	86	65	60	159
28	89	358	569	82	206	209	282	229	85	65	60	157
29	89	291	376	82	206	180	251	189	72	65	62	157
30	89	199	277	82	---	159	210	140	68	65	61	261
31	89	---	277	82	---	159	---	110	---	65	61	---
TOTAL	3,012	13,269	8,169	6,892	4,916	14,564	11,485	6,879	2,799	2,041	2,220	6,884
MEAN	97.2	442	264	222	170	470	383	222	93.3	65.8	71.6	229
MAX	180	836	577	581	308	1,480	1,420	813	123	68	255	997
MIN	87	89	146	82	81	159	114	95	68	65	33	46
(†)	14900	11500	11300	9700	10800	20000	20000	19200	18100	15600	13000	12400

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 2004, BY WATER YEAR (WY)

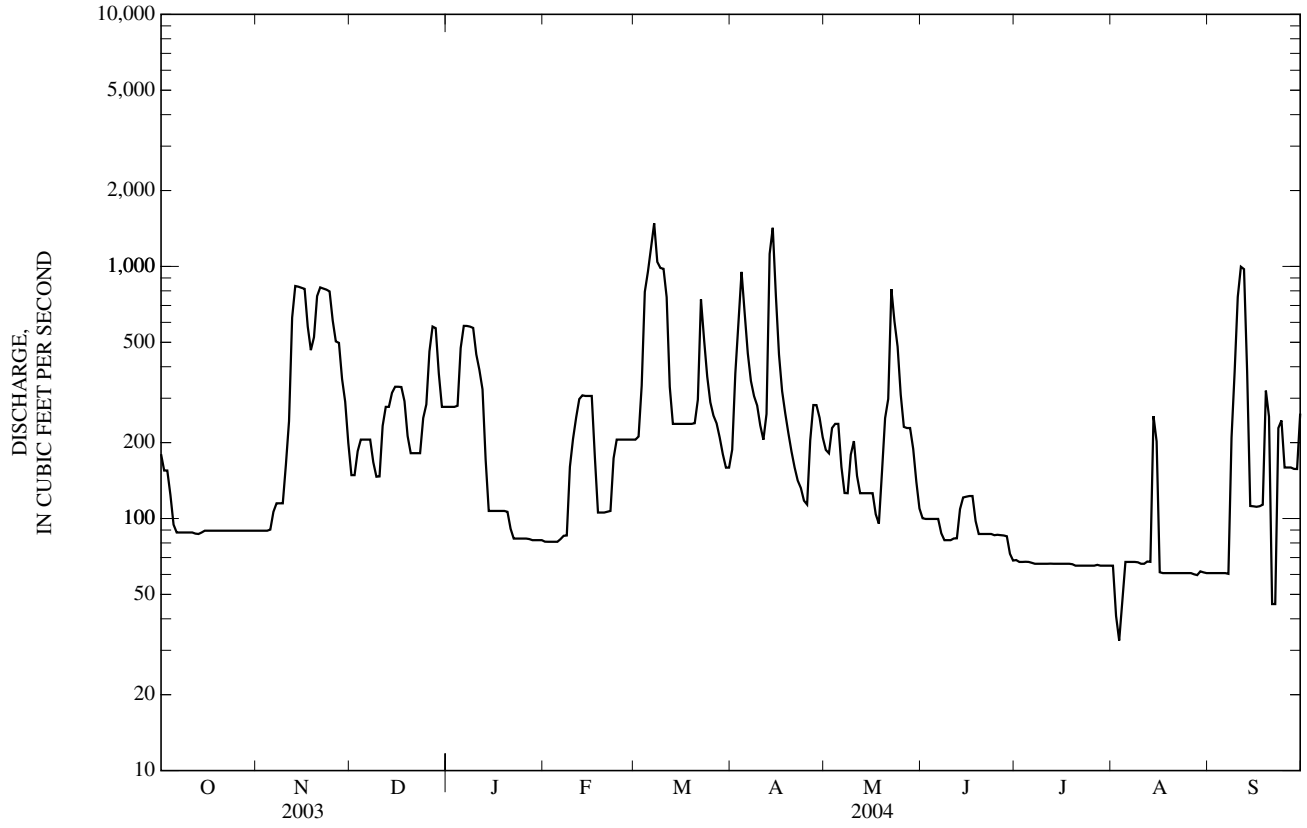
MEAN	103	125	205	211	269	338	227	207	124	70.6	72.9	98.6
MAX	446	641	655	713	633	842	813	563	494	329	262	472
(WY)	(1955)	(1986)	(1973)	(1952)	(1998)	(1994)	(1993)	(1996)	(2003)	(1990)	(1956)	(1996)
MIN	8.14	8.88	12.7	23.7	38.7	105	11.9	18.0	15.8	23.4	6.37	11.7
(WY)	(1952)	(1952)	(1954)	(1954)	(1954)	(1976)	(1954)	(1976)	(1977)	(1951)	(1951)	(1951)

† Monthend contents, in acre-feet, in Savage River Reservoir (contents on Sept. 30, 2003, 14,400 acre-feet). Records furnished by U.S. Army Corps of Engineers.

01597500 SAVAGE RIVER, BELOW SAVAGE RIVER DAM, NEAR BLOOMINGTON, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1951 - 2004	
ANNUAL TOTAL	109,446		83,130			
ANNUAL MEAN	300		227		171	
ANNUAL MEAN‡	303		224		171	
HIGHEST ANNUAL MEAN					300	1996
LOWEST ANNUAL MEAN					69.7	1954
HIGHEST DAILY MEAN	1,990	May 10	1,480	Mar 7	4,320	Sep 7, 1996
LOWEST DAILY MEAN	31	(a)	33	Aug 3	0.60	(b)
ANNUAL SEVEN-DAY MINIMUM	38	Aug 20	54	Jul 29	0.64	Aug 4, 1951
MAXIMUM PEAK FLOW			1,940	Mar 7	9,190	Sep 7, 1996
MAXIMUM PEAK STAGE			4.23	Mar 7	10.09	Sep 7, 1996
INSTANTANEOUS LOW FLOW			19	Nov 10	0.35	Oct 27, 1966
ANNUAL RUNOFF (CFSM)	2.83		2.14		1.61	
ANNUAL RUNOFF (CFSM)‡	2.86		2.12		1.61	
ANNUAL RUNOFF (INCHES)	38.41		29.17		21.86	
ANNUAL RUNOFF (INCHES)‡	38.87		28.74		21.86	
10 PERCENT EXCEEDS	824		572		417	
50 PERCENT EXCEEDS	164		126		84	
90 PERCENT EXCEEDS	74		65		26	

‡ Adjusted for change in reservoir contents since December 1950.
a Aug. 22-24.
b July 27-31, Aug. 5, 6, 9, 10, 1951.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01598500 NORTH BRANCH POTOMAC RIVER AT LUKE, MD

LOCATION.--Lat 39°28'45.1", long 79°03'54.0", Mineral County, W. Va., Hydrologic Unit 02070002, on right bank 0.2 mi downstream from Savage River, 0.5 mi northwest of Luke, and at mile 53.3.

DRAINAGE AREA.--406 mi^2.

PERIOD OF RECORD.--June 1899 to July 1906 (published as "at Piedmont, W. Va."), October 1949 to current year.

REVISED RECORDS.--WSP 192: 1899-1904. WSP 1432: 1905-6, drainage area at former site. WDR WV-97-1: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 944.22 ft above National Geodetic Vertical Datum of 1929. June 27, 1899, to July 15, 1906, nonrecording gage at bridge 1.1 mi downstream at datum about 35 ft lower.

REMARKS.--No estimated daily discharges. Records good. Flow regulated prior to July 1981 by Stony River Reservoir 45 mi upstream from station, since December 1950 by Savage River Reservoir, 5 mi upstream from station (see station 01597500), and since July 1981 by Jennings Randolph Lake, 9 mi upstream from station. Some regulation at low flow by West Virginia Pulp and Paper Company at site used 1899-1906. U.S. Army Corps of Engineers satellite collection platform at station. Upper Potomac River Commission gage-height telemeter at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,360 ft^3/s, Mar. 7, gage height, 7.95 ft; minimum discharge, 211 ft^3/s, Jan. 22.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	576	416	985	1,330	381	842	939	780	566	342	343	322
2	518	416	977	1,330	379	1,040	1,120	735	559	340	319	319
3	501	416	925	1,350	383	1,240	1,570	781	540	337	304	319
4	853	416	845	1,380	379	2,880	2,620	790	491	352	309	319
5	1,080	421	844	1,920	381	4,600	2,170	795	491	345	330	319
6	711	468	843	2,380	511	5,040	1,580	745	454	339	330	319
7	403	508	837	2,350	936	5,060	1,530	652	412	340	328	318
8	400	503	798	2,170	1,540	3,370	1,890	823	388	339	326	1,120
9	394	501	763	1,830	1,800	2,950	1,890	853	364	336	305	1,060
10	391	555	785	1,690	1,860	2,900	1,460	609	361	334	283	1,160
11	782	664	1,270	1,590	1,900	2,470	1,370	517	413	335	283	1,770
12	935	1,880	1,420	1,520	1,950	1,510	1,750	490	2,310	338	298	2,030
13	414	2,680	1,380	1,050	1,970	1,170	3,550	484	1,950	340	295	1,080
14	426	2,530	1,420	660	1,950	1,040	4,990	480	1,270	337	875	483
15	435	2,450	1,440	654	1,930	1,030	2,710	477	695	347	882	557
16	422	2,420	1,420	637	1,910	1,040	1,980	476	603	334	283	557
17	423	2,220	1,410	637	1,220	1,030	1,480	454	655	334	280	582
18	426	2,090	1,350	643	633	1,040	1,370	416	712	338	279	640
19	422	2,610	1,160	637	635	1,140	1,230	455	692	336	289	822
20	419	3,170	1,020	630	662	1,150	1,000	563	688	334	280	796
21	416	2,520	1,010	502	728	2,470	962	698	558	334	283	471
22	418	2,470	940	359	708	3,130	934	1,590	439	346	282	487
23	418	2,430	927	380	752	2,420	761	1,620	438	326	300	504
24	416	2,400	1,340	383	796	1,980	831	1,050	433	326	323	570
25	414	2,070	1,490	387	793	1,610	836	796	418	326	321	612
26	412	1,730	1,610	395	744	1,460	1,220	607	370	336	319	612
27	419	1,710	1,740	389	798	1,280	1,730	606	366	344	319	612
28	419	1,410	1,710	385	797	1,060	1,210	691	364	332	319	646
29	416	1,180	1,490	383	811	1,020	1,090	1,090	351	344	332	634
30	416	1,070	1,350	383	---	983	850	839	341	377	338	557
31	416	---	1,340	382	---	985	---	578	---	352	324	---
TOTAL	15,511	46,324	36,839	30,716	30,237	60,940	48,623	22,540	18,692	10,520	10,681	20,597
MEAN	500	1,544	1,188	991	1,043	1,966	1,621	727	623	339	345	687
MAX	1,080	3,170	1,740	2,380	1,970	5,060	4,990	1,620	2,310	377	882	2,030
MIN	391	416	763	359	379	842	761	416	341	326	279	318
CFSM	1.23	3.80	2.93	2.44	2.57	4.84	3.99	1.79	1.53	0.84	0.85	1.69
IN.	1.42	4.24	3.38	2.81	2.77	5.58	4.46	2.07	1.71	0.96	0.98	1.89

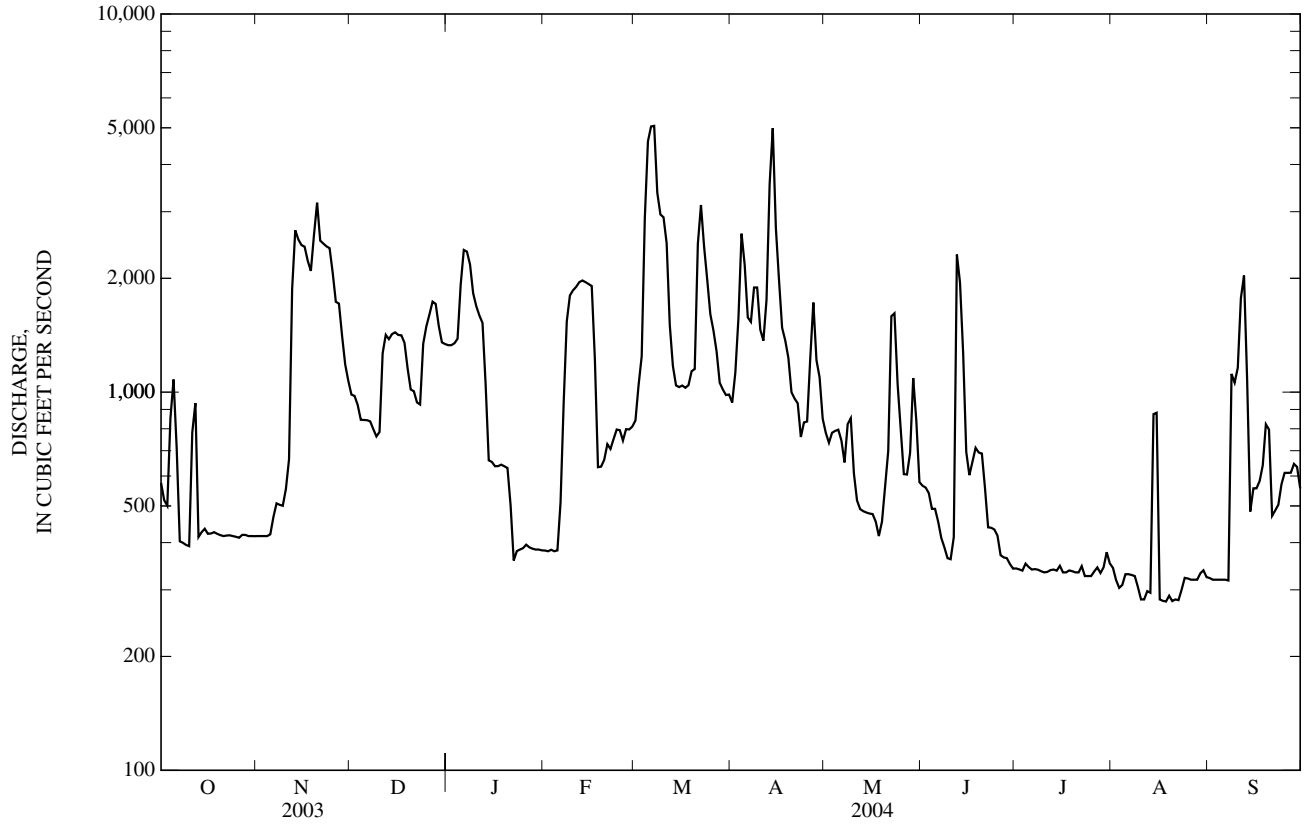
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1899 - 1906, 1950 - 2004, BY WATER YEAR (WY)

MEAN	333	472	803	893	1,073	1,542	1,214	913	556	358	327	327
MAX	1,423	2,806	2,536	2,368	2,487	3,414	3,098	2,484	1,918	1,294	1,525	2,404
(WY)	(1955)	(1986)	(1973)	(1996)	(1994)	(1963)	(1993)	(1996)	(2003)	(1990)	(1996)	(2003)
MIN	27.6	33.5	123	166	99.8	467	278	165	108	91.4	37.0	17.1
(WY)	(1905)	(1905)	(1999)	(1977)	(1905)	(1988)	(1995)	(1982)	(1969)	(1953)	(1904)	(1904)

01598500 NORTH BRANCH POTOMAC RIVER AT LUKE, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1899 - 1906, 1950 - 2004	
ANNUAL TOTAL	483,645		352,220			
ANNUAL MEAN	1,325		962		735	
ANNUAL MEAN‡	1,344		966		736	
HIGHEST ANNUAL MEAN					1,342	1996
LOWEST ANNUAL MEAN					412	1969
HIGHEST DAILY MEAN	8,000	May 11	5,060	Mar 7	18,400	Aug 18, 1955
LOWEST DAILY MEAN	276	Aug 24	279	Aug 18	6.0	Sep 4, 1904
ANNUAL SEVEN-DAY MINIMUM	301	Aug 21	282	Aug 16	11	Aug 29, 1904
MAXIMUM PEAK FLOW			6,360	Mar 7	(a)39,400	Oct 15, 1954
MAXIMUM PEAK STAGE			7.95	Mar 7	17.15	Oct 15, 1954
INSTANTANEOUS LOW FLOW			211	Jan 22	6.0	Sep 4, 1904
ANNUAL RUNOFF (CFSM)	3.26		2.37		1.81	
ANNUAL RUNOFF (CFSM)‡	3.31		2.38		1.81	
ANNUAL RUNOFF (INCHES)	44.31		32.27		24.59	
ANNUAL RUNOFF (INCHES)‡	44.96		32.31		24.63	
10 PERCENT EXCEEDS	2,990		1,970		1,660	
50 PERCENT EXCEEDS	849		663		416	
90 PERCENT EXCEEDS	368		331		116	

‡ Adjusted for change in reservoir contents since October 1949.
a From rating curve extended above 25,000 ft^3/s on basis of slope-area measurement of peak flow.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01599000 GEORGES CREEK AT FRANKLIN, MD

LOCATION.--Lat 39°29'38.1", long 79°02'40.9", Allegany County, Hydrologic Unit 02070002, on right bank at Franklin, and 1.2 mi upstream from Westernport and mouth.

DRAINAGE AREA.--72.4 mi^2.

PERIOD OF RECORD.--May 1905 to July 1906 (published as "at Westernport"), October 1929 to current year.

REVISED RECORDS.--WSP 726: Drainage area. WSP 1502: 1940. WDR MD-DE-86-1: 1984(M).

GAGE.--Water-stage recorder. Datum of gage is 958.18 ft above National Geodetic Vertical Datum of 1929. May 4, 1905, to July 15, 1906, nonrecording gage at bridge 0.8 mi downstream at different datum. Oct. 16, 1929, to Oct. 1, 1937, water-stage recorder at site 95 ft downstream at present datum.

REMARKS.--Records good except those for estimated daily discharges (ice effect, partially plugged intake), which are poor. Records include about 0.5 ft^3/s of sewage from city of Frostburg, which obtains its water supply from Big Piney Run (Monongahela River basin) and Savage River. A negligible discharge is diverted upstream from station by Frostburg Water Co. for municipal supplies of Eckhart and Welsh Hill. An undetermined amount of water is diverted from the upper third of basin into the Wills Creek basin by the Hoffman drainage tunnel (see station 01601500). National Weather Service gage-height telemeter at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 29, 1924, reached a stage of about 10 ft, from floodmarks, at site 95 ft downstream.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov 19	1415	1,770	7.31	Sep 8	1845	*4,950	*11.40
Jul 30	1745	1,750	7.29	Sep 18	0200	2,080	7.72

Minimum discharge, 12 ft^3/s, July 21, 22, 24-26.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	230	57	112	140	e33	191	179	107	e66	21	109	23
2	186	54	101	155	e32	563	290	113	e62	20	59	20
3	154	51	92	185	e32	698	312	119	e58	19	43	19
4	141	50	88	221	e32	728	317	95	e56	23	34	17
5	123	52	91	293	42	696	263	89	e53	24	30	16
6	108	72	93	261	201	958	222	81	e50	19	25	15
7	97	79	85	211	288	654	193	94	e48	19	23	17
8	85	74	79	e170	169	525	173	112	e44	18	21	1,410
9	78	67	77	e150	131	404	165	85	e38	17	19	1,240
10	73	62	85	e120	121	316	138	77	e30	16	18	480
11	67	59	563	e100	113	270	127	72	e44	16	18	281
12	62	577	290	e85	102	240	272	70	e90	19	41	174
13	56	358	e190	e74	98	196	625	78	e70	19	65	119
14	72	253	e160	e67	91	172	563	71	e62	16	31	89
15	144	196	e145	e60	83	155	391	65	e56	15	23	75
16	86	161	e130	e55	73	154	292	59	e50	14	25	69
17	78	140	e118	e52	71	140	241	54	e44	14	26	134
18	91	122	e108	e49	69	155	199	e53	e40	15	19	949
19	78	715	e100	e47	80	260	168	e160	e37	15	21	339
20	70	580	e92	e45	112	268	148	e130	e34	14	19	206
21	66	371	e92	e43	205	625	135	e230	e32	13	23	143
22	66	275	108	e42	161	390	124	e430	e30	13	21	104
23	64	219	173	e41	134	294	116	e200	e28	14	18	80
24	58	188	469	e40	133	245	103	e140	e30	13	16	71
25	52	163	367	e38	122	210	115	e120	52	12	15	63
26	50	142	274	e37	113	179	221	e160	45	17	15	56
27	62	127	222	e36	107	159	169	e100	28	42	14	51
28	85	129	189	e35	115	142	141	e84	25	30	14	101
29	73	139	169	e34	140	128	125	e80	27	18	94	115
30	66	118	175	e34	---	122	115	e74	26	340	62	73
31	61	---	153	e33	---	128	---	e70	---	234	32	---
TOTAL	2,782	5,650	5,190	2,953	3,203	10,365	6,642	3,472	1,355	1,099	993	6,549
MEAN	89.7	188	167	95.3	110	334	221	112	45.2	35.5	32.0	218
MAX	230	715	563	293	288	958	625	430	90	340	109	1,410
MIN	50	50	77	33	32	122	103	53	25	12	14	15
CFSM	1.24	2.60	2.31	1.32	1.53	4.62	3.06	1.55	0.62	0.49	0.44	3.02
IN.	1.43	2.90	2.67	1.52	1.65	5.33	3.41	1.78	0.70	0.56	0.51	3.36

e Estimated

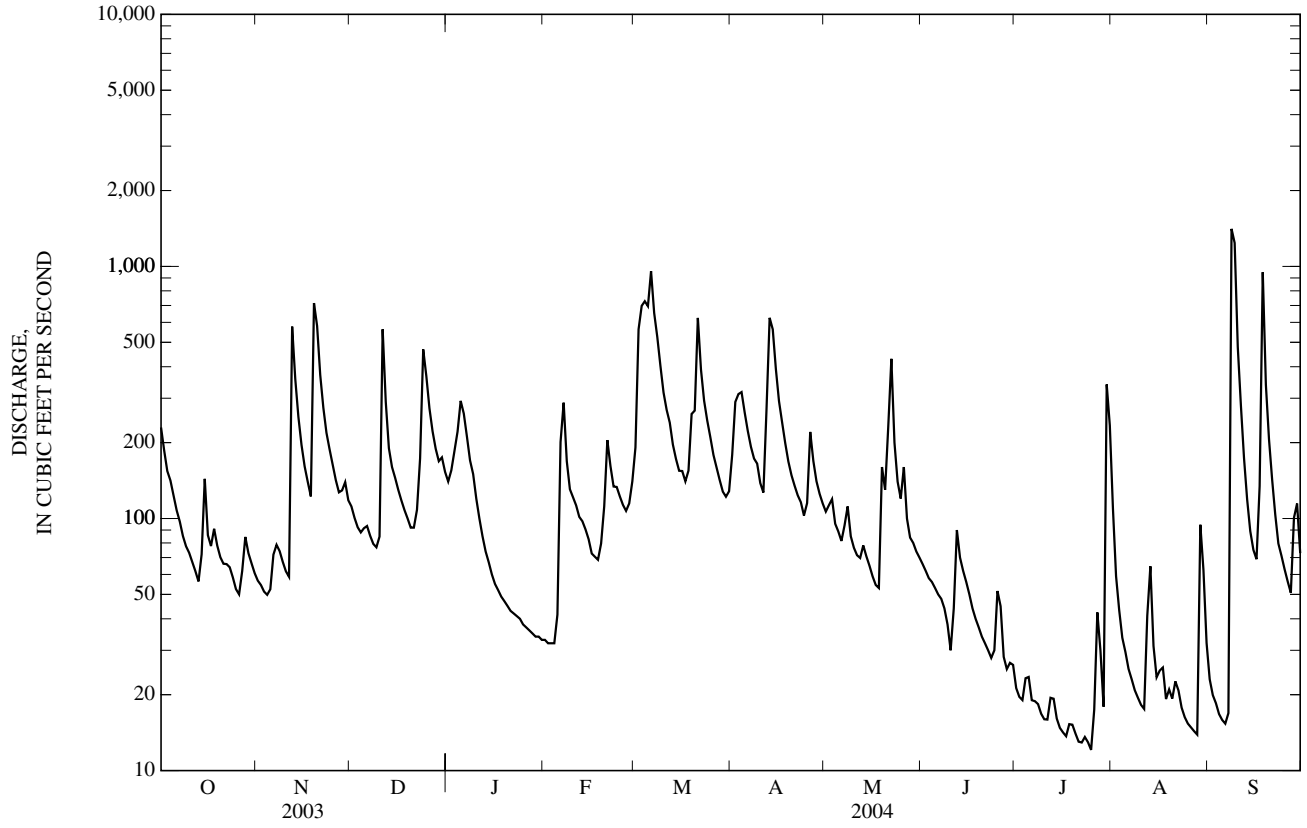
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1905 - 1906, 1930 - 2004, BY WATER YEAR (WY)

MEAN	32.3	44.4	73.8	92.0	124	208	172	122	62.0	31.2	23.9	28.1
MAX	270	355	314	371	355	682	420	294	288	185	120	277
(WY)	(1943)	(1986)	(1973)	(1937)	(1998)	(1936)	(1993)	(1989)	(2003)	(1989)	(1955)	(1996)
MIN	1.78	3.40	3.42	10.9	8.77	43.2	40.0	27.7	12.5	5.19	3.97	2.65
(WY)	(1931)	(1931)	(1944)	(1940)	(1954)	(1990)	(1954)	(1934)	(1969)	(1930)	(1930)	(1932)

01599000 GEORGES CREEK AT FRANKLIN, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1905 - 2004	
ANNUAL TOTAL	63,587		50,253			
ANNUAL MEAN	174		137		83.6	
HIGHEST ANNUAL MEAN					151	2003
LOWEST ANNUAL MEAN					30.7	1969
HIGHEST DAILY MEAN	1,710	Sep 19	1,410	Sep 8	4,130	Mar 17, 1936
LOWEST DAILY MEAN	15	(a)	12	Jul 25	1.6	(b)
ANNUAL SEVEN-DAY MINIMUM	17	Aug 20	13	Jul 19	1.6	Sep 29, 1930
MAXIMUM PEAK FLOW			4,950	Sep 8	(c)8,500	Mar 17, 1936
MAXIMUM PEAK STAGE			11.40	Sep 8	(d)9.60	Mar 17, 1936
INSTANTANEOUS LOW FLOW			12	(f)	1.6	(g)
ANNUAL RUNOFF (CFSM)	2.41		1.90		1.15	
ANNUAL RUNOFF (INCHES)	32.67		25.82		15.69	
10 PERCENT EXCEEDS	433		289		200	
50 PERCENT EXCEEDS	99		86		38	
90 PERCENT EXCEEDS	32		19		7.2	

a Aug. 25, 26.
b Sept. 29, 30, 1930.
c From rating curve extended above 2,000 ft^3/s on basis of slope-area measurement of peak flow.
d At site then in use.
f July 21, 22, 24-26.
g Sept. 29 to Oct. 13, 1930.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01600000 NORTH BRANCH POTOMAC RIVER AT PINTO, MD

LOCATION.--Lat 39°34'00.5", long 78°50'22.4", Mineral County, W. Va., Hydrologic Unit 02070002, on right bank at downstream side of Western Maryland Railway bridge at Pinto, 2.8 mi downstream from Mill Run, and at mile 32.6

DRAINAGE AREA.--596 mi^2.

PERIOD OF RECORD.--October 1938 to September 1985, October 1985 to September 2003 (operated as a partial-record station only), October 2003 to September 2004.

REVISED RECORDS.--WSP 1332: 1943.

GAGE.--Water-stage recorder. Datum of gage is 648.23 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 10, 1938, nonrecording gage at highway bridge 250ft downstream at same datum.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are poor. Some regulation at low flow by Stony River Reservoir, 66 mi upstream from station (see station 01595200) prior to July 1981. Low-flow regulation since December 1950 by Savage River Reservoir, 25 mi upstream from station (see station 01597500). Flow regulated by Jennings Randolph Lake, 29 mi upstream from station (see station 01595800) since July 1981. U.S. Army Corps of Engineers satellite collection platform at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES OUTSIDE PERIOD OF RECORD.-- Flood of March 29, 1924, reached a stage of about 24 ft, discharge, about 55,000 ft^3/s. Flood of March 17, 1936, reached a stage of about 23.5 ft, from floodmarks, discharge, about 50,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 11,100 ft^3/s, Sept. 8, gage height, 11.52 ft; minimum discharge, 294 ft^3/s, Aug. 18, 19, gage height, 1.45 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	983	565	1,190	1,540	505	1,310	1,300	1,050	624	369	541	347
2	850	558	1,160	1,520	496	1,850	1,750	998	604	363	423	339
3	786	553	1,130	1,560	511	2,540	2,050	1,050	597	358	362	338
4	901	551	1,030	1,630	506	3,390	2,820	1,000	533	377	345	334
5	1,220	554	1,030	2,020	502	5,450	2,680	978	525	395	355	334
6	1,050	602	1,040	2,610	1,080	5,690	1,910	940	517	364	355	334
7	613	683	1,030	2,500	1,910	5,980	1,760	871	460	359	348	e334
8	592	663	1,000	2,380	1,990	4,200	1,930	1,010	432	364	348	e1,200
9	573	646	953	1,980	2,090	3,430	2,140	970	425	356	346	e1,150
10	562	640	958	1,840	2,100	3,220	1,660	811	420	353	303	e1,300
11	700	756	2,580	1,680	2,130	2,950	1,500	697	460	e350	298	1,720
12	1,080	2,450	2,240	1,670	2,140	1,910	1,890	639	2,070	348	308	1,920
13	628	3,370	1,890	1,410	2,160	1,460	4,350	639	1,790	360	396	e1,390
14	568	2,970	1,820	896	2,150	1,270	6,550	622	e1,200	354	e800	557
15	705	2,710	1,770	876	2,100	1,230	3,520	613	776	352	e900	640
16	602	2,610	1,680	809	2,040	1,230	2,690	598	673	356	e500	627
17	578	2,420	1,670	805	1,700	1,210	1,970	585	635	348	307	727
18	601	2,190	1,630	834	898	1,230	1,760	552	723	351	298	1,930
19	580	3,700	1,470	817	916	1,800	1,610	634	697	351	311	1,140
20	567	4,640	1,250	786	1,100	1,670	1,310	e680	689	348	304	1,110
21	558	3,200	1,210	714	1,580	3,040	1,240	732	651	347	303	682
22	553	2,900	1,190	566	1,490	3,880	1,180	1,440	472	346	303	622
23	552	2,730	1,360	495	1,280	2,860	1,090	1,730	471	e340	e315	603
24	547	2,630	2,200	e500	1,310	2,430	1,030	1,070	464	338	328	612
25	544	2,410	2,420	e505	1,250	1,900	1,040	935	466	334	e330	673
26	541	1,950	2,120	e510	1,160	1,740	1,380	702	489	338	330	e660
27	589	1,900	2,130	e510	1,150	1,570	2,210	703	417	434	330	644
28	627	1,740	2,020	e500	1,140	1,290	1,520	692	406	389	330	833
29	593	1,430	1,840	e500	1,200	1,210	1,400	980	400	359	361	891
30	587	1,320	1,630	e500	---	1,150	1,120	971	374	441	479	731
31	574	---	1,580	503	---	1,160	---	633	---	795	370	---
TOTAL	21,004	56,041	48,221	35,966	40,584	75,250	60,360	26,525	19,460	11,637	11,927	24,722
MEAN	678	1,868	1,556	1,160	1,399	2,427	2,012	856	649	375	385	824
MAX	1,220	4,640	2,580	2,610	2,160	5,980	6,550	1,730	2,070	795	900	1,930
MIN	541	551	953	495	496	1,150	1,030	552	374	334	298	334
CFSM	1.14	3.13	2.61	1.95	2.35	4.07	3.38	1.44	1.09	0.63	0.65	1.38
IN.	1.31	3.50	3.01	2.24	2.53	4.70	3.77	1.66	1.21	0.73	0.74	1.54

e Estimated

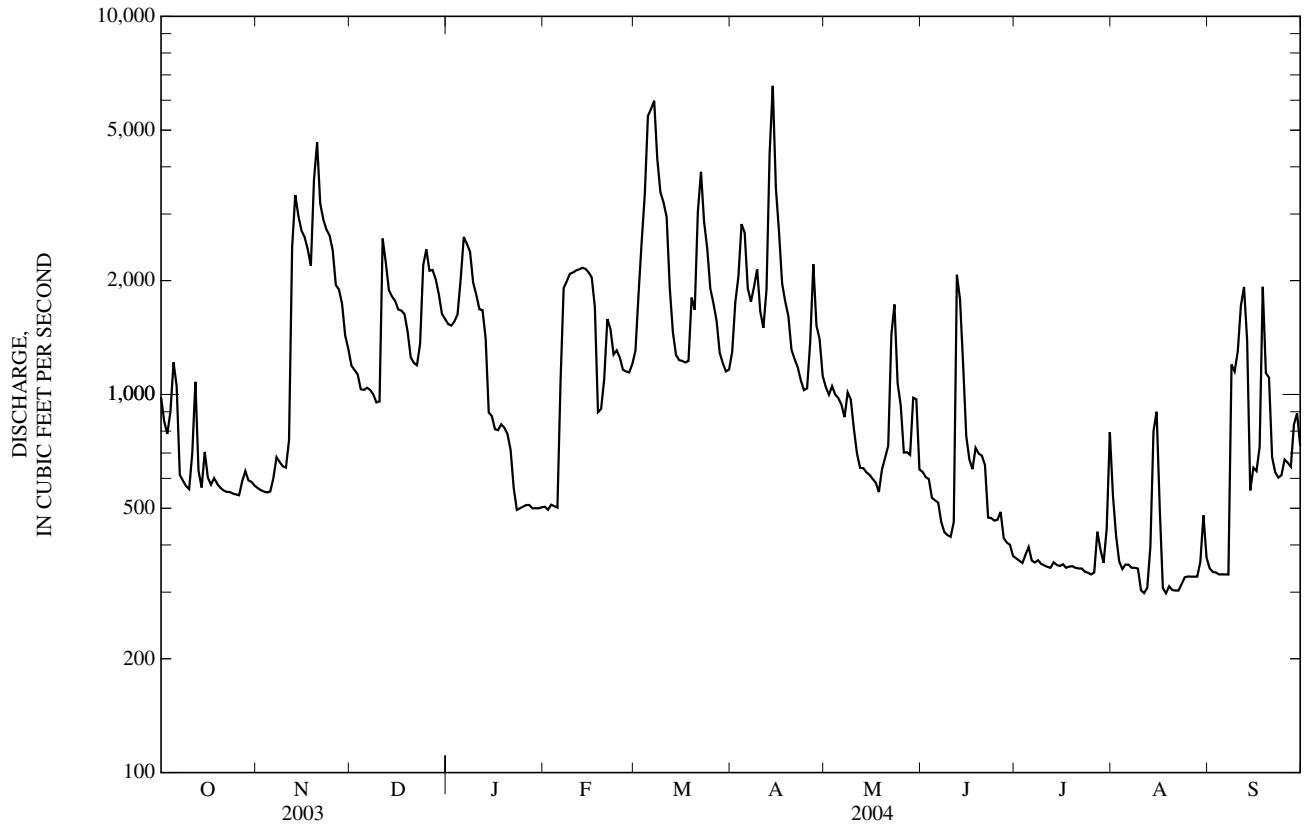
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1985, 2004, BY WATER YEAR (WY)

MEAN	424	507	964	1,069	1,453	2,008	1,591	1,118	678	373	343	306
MAX	2,265	1,868	3,177	2,787	3,157	4,768	3,158	2,239	1,796	1,345	1,788	1,596
(WY)	(1943)	(2004)	(1973)	(1952)	(1956)	(1963)	(1940)	(1967)	(1981)	(1978)	(1955)	(1945)
MIN	57.6	94.2	98.4	196	385	933	512	317	136	111	45.3	71.0
(WY)	(1952)	(1947)	(1944)	(1940)	(1954)	(1976)	(1968)	(1982)	(1969)	(1966)	(1944)	(1946)

01600000 NORTH BRANCH POTOMAC RIVER AT PINTO, MD—Continued

SUMMARY STATISTICS	FOR 2004 WATER YEAR		WATER YEARS 1939 - 1985, 2004	
ANNUAL TOTAL	431,697			
ANNUAL MEAN	1,180		900	
ANNUAL MEAN‡	1,183		902	
HIGHEST ANNUAL MEAN			1,225	1973
LOWEST ANNUAL MEAN			469	1969
HIGHEST DAILY MEAN	6,550	Apr 14	21,500	Oct 16, 1942
LOWEST DAILY MEAN	298	Aug 11	35	Dec 19, 1943
ANNUAL SEVEN-DAY MINIMUM	306	Aug 17	40	Aug 8, 1944
MAXIMUM PEAK FLOW	11,100	Sep 8	37,000	Oct 16, 1954
MAXIMUM PEAK STAGE	11.52	Sep 8	23.23	Oct 16, 1954
INSTANTANEOUS LOW FLOW	294	(a)	31	(b)
ANNUAL RUNOFF (CFSM)	1.98		1.51	
ANNUAL RUNOFF (CFSM)‡	1.98		1.51	
ANNUAL RUNOFF (INCHES)	26.94		20.52	
ANNUAL RUNOFF (INCHES‡	26.95		20.55	
10 PERCENT EXCEEDS	2,390		2,090	
50 PERCENT EXCEEDS	874		480	
90 PERCENT EXCEEDS	351		123	

a Aug. 18, 19.
b Dec.18, 19, 1943, result of freezeup.
‡ Adjusted for change in contents since July 1981.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01601500 WILLS CREEK NEAR CUMBERLAND, MD

LOCATION.--Lat 39°40'10.6", long 78°47'16.9", Allegany County, Hydrologic Unit 02070002, on right bank at downstream side of railway bridge, 0.15 mi downstream from Braddock Run, 2.0 mi upstream from Cumberland, and mouth.

DRAINAGE AREA.--247 mi^2.

PERIOD OF RECORD.--May 1905 to July 1906 (published as "at Cumberland"), October 1929 to current year.

REVISED RECORDS.--WSP 726: Drainage area. WSP 1432: 1906, 1930(M), 1933-34(M), 1936-37, 1945(M).

GAGE.--Water-stage recorder. Datum of gage is 640.89 ft above National Geodetic Vertical Datum of 1929. May 6, 1905, to July 14, 1906, nonrecording gage at highway bridge 700 ft upstream at different datum. Oct. 18, 1929, to Mar. 17, 1936, water-stage recorder, and Apr. 1, 1936, to Mar. 19, 1937, nonrecording gage at site 200 ft upstream at present datum.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are poor. Records include drainage from numerous active and abandoned coal mines. An undetermined amount of water is diverted into the basin from Georges Creek basin by Hoffman drainage tunnel. Miscellaneous measurements of discharge from the Hoffman drainage tunnel have been made in the water years 1944, 1964-65, 1967-82, and 1984 by the U.S. Geological Survey, and in the water years 1958 and 1959 by the Maryland Geological Survey. Slight diurnal fluctuation at low flow caused by quarry upstream. U.S. Army Corps of Engineers satellite collection platform at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov 19	1730	9,160	9.18	Apr 13	1800	4,000	6.84
Dec 11	0730	3,540	6.56	Sep 9	0230	*10,900	*9.90
Mar 6	0630	3,950	6.81	Sep 18	0500	10,200	9.60

Minimum discharge, 42 ft^3/s, Sept. 6, 7.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	399	269	365	392	e105	569	643	423	167	71	402	81
2	323	245	344	414	e104	1,440	2,590	417	147	66	249	65
3	263	227	318	502	e102	2,540	2,340	508	149	63	183	56
4	234	207	298	696	e100	2,430	1,810	420	133	67	147	50
5	209	220	295	1,170	127	2,190	1,170	405	131	68	130	46
6	180	291	298	1,310	258	3,230	862	369	130	68	108	43
7	160	344	264	951	581	1,950	697	340	119	60	94	43
8	146	330	239	728	534	1,390	594	317	108	62	83	2,310
9	133	329	228	600	404	1,020	587	273	101	57	74	5,480
10	124	304	236	472	e360	816	473	243	94	53	67	1,430
11	117	285	2,610	e400	e315	686	441	220	156	50	63	732
12	111	1,000	1,550	e330	e280	611	741	212	278	94	96	471
13	105	975	939	e285	e260	507	2,580	237	240	109	177	339
14	148	751	745	e245	e240	439	2,660	217	181	85	115	262
15	343	585	606	e215	e220	407	1,420	199	161	67	90	236
16	240	481	490	e190	e210	386	950	187	151	61	81	213
17	216	414	450	e180	e190	365	740	168	142	55	75	1,120
18	234	355	409	e165	e185	361	598	185	162	55	65	6,200
19	214	3,830	354	e155	250	593	503	980	143	73	63	1,770
20	202	3,700	327	e150	337	562	438	655	128	69	60	931
21	196	1,540	283	e145	596	1,440	391	547	116	56	66	617
22	199	973	287	e137	657	1,180	362	578	109	53	111	446
23	202	717	441	e134	550	846	350	438	105	90	79	344
24	181	584	1,320	e128	522	672	307	363	95	59	67	282
25	165	516	1,540	e124	467	573	309	296	100	51	60	236
26	157	419	1,040	e120	425	491	651	362	122	72	54	204
27	239	366	775	e115	395	444	794	268	93	219	50	182
28	366	364	606	e112	400	401	709	225	82	178	47	304
29	374	423	499	e110	462	360	563	195	80	112	86	332
30	353	372	474	e108	---	333	479	171	77	389	148	231
31	301	---	425	e106	---	341	---	164	---	657	110	---
TOTAL	6,834	21,416	19,055	10,889	9,636	29,573	27,752	10,582	4,000	3,289	3,300	25,056
MEAN	220	714	615	351	332	954	925	341	133	106	106	835
MAX	399	3,830	2,610	1,310	657	3,230	2,660	980	278	657	402	6,200
MIN	105	207	228	106	100	333	307	164	77	50	47	43
CFSM	0.89	2.89	2.49	1.42	1.35	3.86	3.75	1.38	0.54	0.43	0.43	3.38
IN.	1.03	3.23	2.87	1.64	1.45	4.45	4.18	1.59	0.60	0.50	0.50	3.77

e Estimated

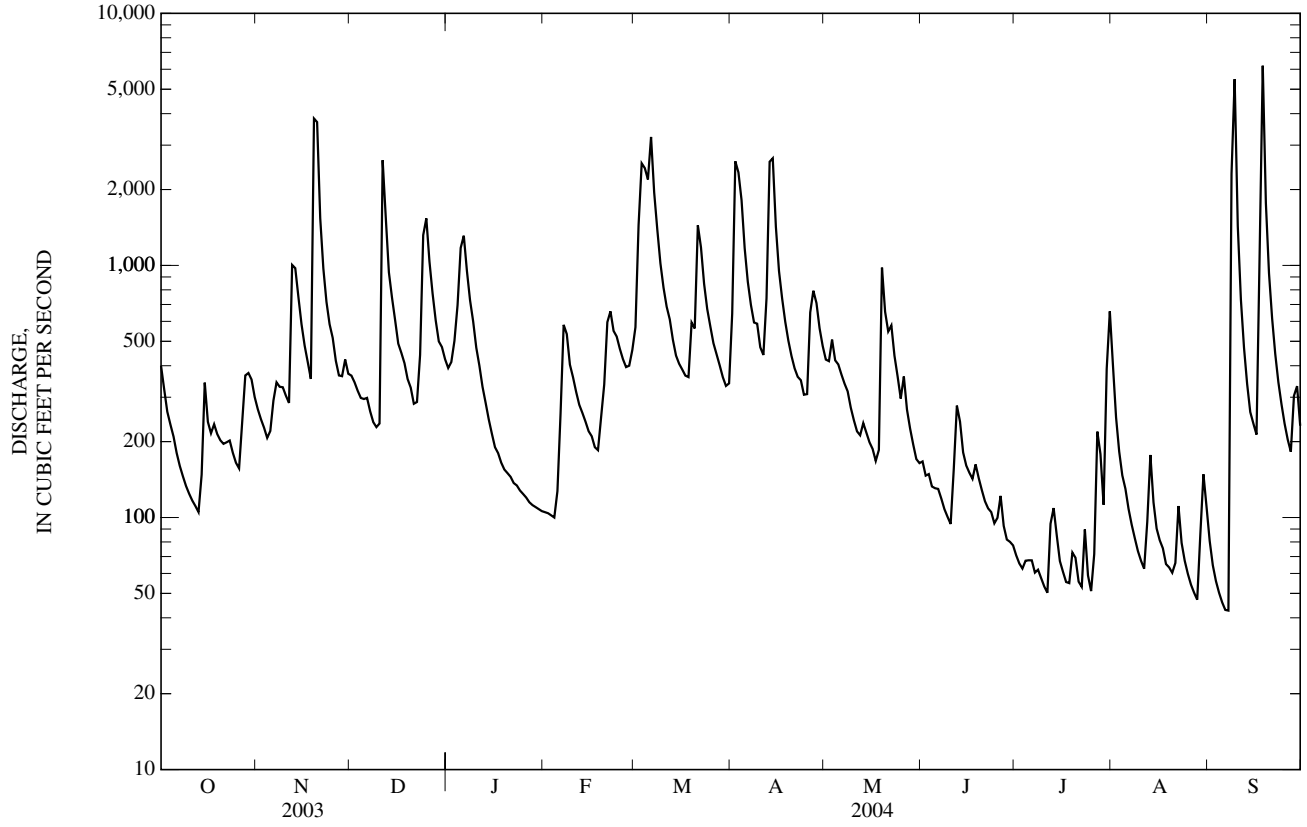
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1905, 1930 - 2004, BY WATER YEAR (WY)

MEAN	134	208	325	386	503	809	676	459	237	111	88.1	97.6
MAX	1,130	1,520	1,113	1,481	1,255	2,410	1,910	1,109	967	641	674	1,083
(WY)	(1943)	(1986)	(1973)	(1996)	(1971)	(1936)	(1993)	(1989)	(1972)	(1989)	(1984)	(1996)
MIN	11.9	15.5	18.4	54.2	65.8	182	184	101	51.1	24.3	16.6	12.1
(WY)	(1931)	(1931)	(1944)	(1940)	(1954)	(1990)	(1968)	(1934)	(1965)	(1965)	(1930)	(1932)

01601500 WILLS CREEK NEAR CUMBERLAND, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1905, 1930 - 2004	
ANNUAL TOTAL	202,127		171,382			
ANNUAL MEAN	554		468		336	
HIGHEST ANNUAL MEAN					599	1996
LOWEST ANNUAL MEAN					122	1954
HIGHEST DAILY MEAN	4,770	Jun 4	6,200	Sep 18	19,200	Jan 19, 1996
LOWEST DAILY MEAN	40	Aug 25	43	(a)	10	(b)
ANNUAL SEVEN-DAY MINIMUM	44	Aug 20	55	Sep 1	10	Oct 8, 1930
MAXIMUM PEAK FLOW			10,900	Sep 9	(c)45,900	Jan 19, 1996
MAXIMUM PEAK STAGE			9.90	Sep 9	(d)23.11	Jan 19, 1996
INSTANTANEOUS LOW FLOW			42	(f)	9.0	Oct 14, 1930
ANNUAL RUNOFF (CFSM)	2.24		1.90		1.36	
ANNUAL RUNOFF (INCHES)	30.44		25.81		18.46	
10 PERCENT EXCEEDS	1,420		974		798	
50 PERCENT EXCEEDS	319		281		148	
90 PERCENT EXCEEDS	71		70		29	

a Sept. 6, 7.
b Oct. 8-10, 1930.
c From rating curve extended above 11,000 ft^3/s on basis of slope-area measurement at gage heights of 13.45 and 20.2 ft.
d From floodmarks at present site.
f Sept. 6, 7.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01603000 NORTH BRANCH POTOMAC RIVER NEAR CUMBERLAND, MD

LOCATION.--Lat 39°37'18.5", long 78°46'24.3", Allegany County, Hydrologic Unit 02070002, on left bank at downstream side of Wiley Ford Bridge, 2.0 mi south of Cumberland, 2.1 mi downstream from Wills Creek, and at mile 19.6.

DRAINAGE AREA.--877 mi^2.

PERIOD OF RECORD.--May 1929 to current year. Gage-height records collected at various sites about 2.0 mi upstream from September 1901 to December 1932 and thereafter at present site, are contained in reports of the National Weather Service.

REVISED RECORDS.--WSP 726: Drainage area. WSP 781: 1932(M). WDR WV-97-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 585.22 ft above National Geodetic Vertical Datum of 1929. Prior to June 18, 1929, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are poor. Prior to July 1981 some regulation at low flow by Stony River Reservoir, 79 mi upstream from station. Low-flow regulation since December 1950 by Savage River Reservoir, 39 mi upstream from station (see station 01597500). Flow regulated by Jennings Randolph Lake, 43 mi upstream from station since July 1981. Prior to July 1957, small amount of inflow from industrial wastes and sewage from city of Cumberland from water diverted from Evitts Creek, mouth of which is downstream from station. Diversion to Chesapeake and Ohio Canal prior to 1935. National Weather Service gage height telemeter at station. U.S. Army Corps of Engineers satellite collection platform at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 29.2 ft, June 1, 1889, discharge, about 89,000 ft^3/s. Flood of Mar. 29, 1924, reached a stage of 28.4 ft, discharge, about 82,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 19,600 ft^3/s, Sept. 9, gage height, 15.54 ft; minimum discharge, 396 ft^3/s, Aug. 12, 18, 19.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,680	991	1,800	2,220	e720	2,220	2,200	1,690	799	471	1,140	455
2	1,430	966	1,730	2,220	e715	3,580	4,950	1,580	736	463	727	432
3	1,280	941	1,680	2,350	e720	5,750	4,880	1,750	729	455	585	425
4	1,260	914	1,510	2,640	e710	6,050	4,970	1,580	667	481	522	416
5	1,680	933	1,520	3,450	e710	8,270	4,290	1,520	650	511	509	410
6	1,550	1,060	1,540	4,330	e2,500	9,210	3,090	1,450	647	469	495	402
7	942	1,220	1,470	3,770	2,820	8,710	2,710	1,360	584	461	475	405
8	873	1,200	1,400	3,430	2,870	6,240	2,710	1,390	544	466	458	3,050
9	826	1,170	1,320	2,870	2,790	4,840	3,020	1,350	526	447	448	10,800
10	795	1,130	1,340	2,580	2,780	4,360	2,380	1,260	519	437	416	3,480
11	833	1,210	5,780	2,300	2,800	4,000	2,180	1,000	623	435	402	2,750
12	1,400	3,520	4,470	e2,200	2,760	2,880	2,790	889	2,310	488	436	2,720
13	984	4,810	3,300	2,130	2,770	2,270	7,190	939	2,270	500	581	2,260
14	850	4,100	2,940	1,380	2,720	1,990	10,200	878	2,030	471	509	873
15	1,280	3,590	2,720	1,330	2,640	1,900	5,540	837	1,070	449	1,390	947
16	1,030	3,360	2,490	1,130	2,500	1,880	4,070	800	872	448	525	889
17	961	3,140	2,430	1,080	2,330	1,850	2,970	754	772	431	423	1,620
18	1,000	2,800	2,350	1,200	1,280	1,830	2,590	764	951	442	404	8,290
19	958	7,370	2,150	1,180	1,310	2,740	2,330	1,810	871	455	405	3,290
20	924	9,510	1,850	1,080	1,700	2,570	2,000	1,520	836	448	408	2,370
21	902	5,340	1,740	971	2,520	4,600	1,840	1,460	805	431	414	1,560
22	903	4,280	1,740	802	2,610	5,570	1,740	2,110	605	438	447	1,160
23	905	3,780	2,120	682	2,180	4,020	1,670	2,470	588	474	413	1,010
24	869	3,510	3,840	706	2,190	3,420	1,390	1,720	573	431	421	901
25	826	3,280	4,550	730	2,070	2,730	1,490	1,450	627	423	425	961
26	807	2,620	3,560	739	1,950	2,480	2,270	1,200	650	444	422	883
27	975	2,490	3,250	e740	1,830	2,240	3,310	1,060	531	684	416	848
28	1,210	2,390	2,950	e735	1,860	1,950	2,510	975	504	605	416	1,200
29	1,160	2,130	2,710	e730	2,000	1,790	2,220	1,190	497	499	451	1,430
30	1,120	1,980	2,430	e725	---	1,690	1,860	1,340	483	999	636	1,060
31	1,040	---	2,310	e720	---	1,720	---	814	---	1,840	507	---
TOTAL	33,253	85,735	76,990	53,150	59,355	115,350	97,360	40,910	24,869	16,496	16,226	57,297
MEAN	1,073	2,858	2,484	1,715	2,047	3,721	3,245	1,320	829	532	523	1,910
MAX	1,680	9,510	5,780	4,330	2,870	9,210	10,200	2,470	2,310	1,840	1,390	10,800
MIN	795	914	1,320	682	710	1,690	1,390	754	483	423	402	402
CFSM	1.22	3.26	2.83	1.95	2.33	4.24	3.70	1.50	0.95	0.61	0.60	2.18
IN.	1.41	3.64	3.27	2.25	2.52	4.89	4.13	1.74	1.05	0.70	0.69	2.43

e Estimated

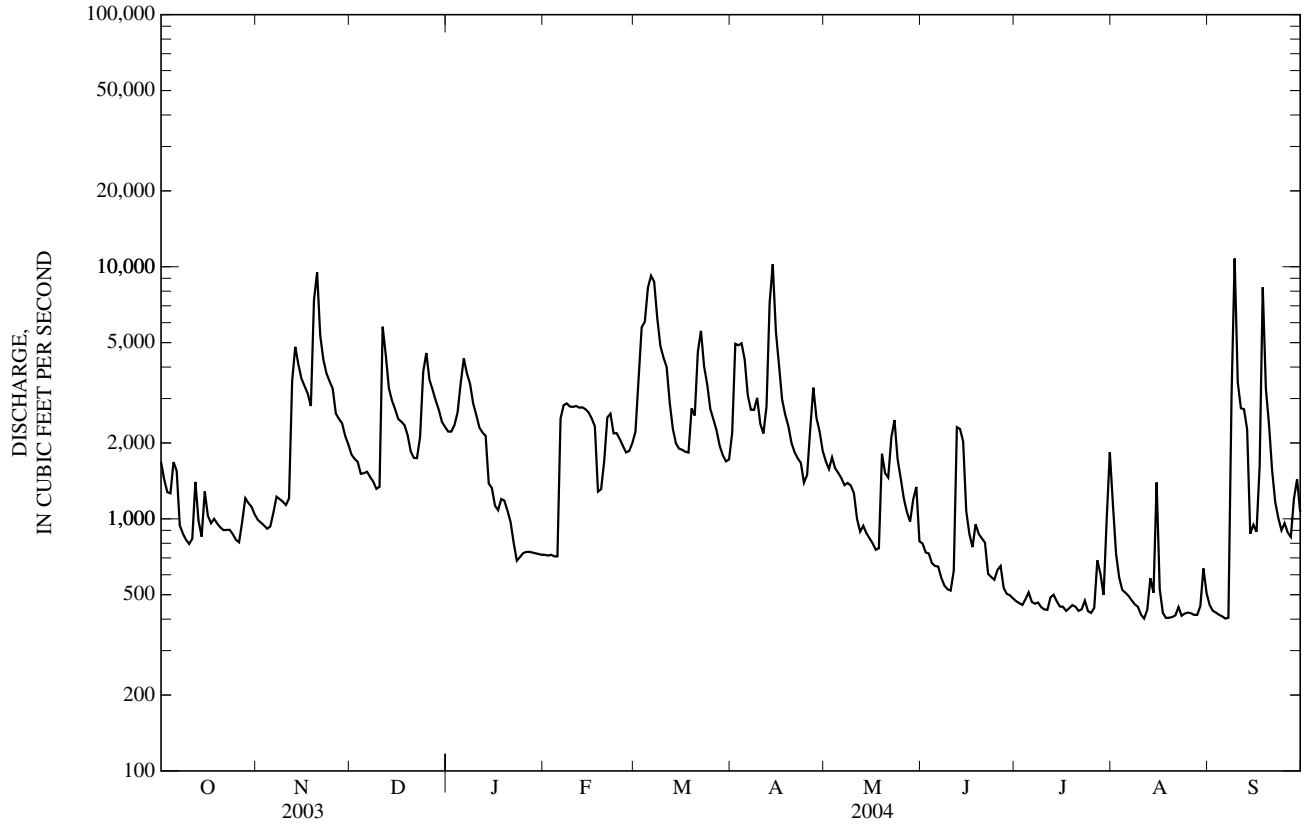
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 2004, BY WATER YEAR (WY)

MEAN	594	810	1,294	1,554	1,979	2,901	2,370	1,748	942	541	470	499
MAX	3,791	5,350	4,652	5,115	4,410	8,763	5,866	4,070	3,613	2,270	2,152	4,117
(WY)	(1943)	(1986)	(1973)	(1937)	(1998)	(1936)	(1993)	(1996)	(2003)	(1989)	(1996)	(1996)
MIN	28.9	44.8	134	269	393	789	705	374	209	89.7	57.7	40.3
(WY)	(1931)	(1931)	(1931)	(1940)	(1934)	(1990)	(1995)	(1934)	(1965)	(1930)	(1930)	(1932)

01603000 NORTH BRANCH POTOMAC RIVER NEAR CUMBERLAND, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1929 - 2004	
ANNUAL TOTAL	887,798		676,991			
ANNUAL MEAN	2,432		1,850		1,306	
ANNUAL MEAN‡	2,451		1,853		1,307	
HIGHEST ANNUAL MEAN					2,390	1996
LOWEST ANNUAL MEAN					632	1969
HIGHEST DAILY MEAN	12,200	May 11	10,800	Sep 9	47,400	Mar 18, 1936
LOWEST DAILY MEAN	387	Aug 25	402	(a)	13	(b)
ANNUAL SEVEN-DAY MINIMUM	441	Aug 20	416	Aug 18	16	Sep 20, 1932
MAXIMUM PEAK FLOW			19,600	Sep 9	(c)88,200	Mar 17, 1936
MAXIMUM PEAK STAGE			15.54	Sep 9	29.10	Mar 17, 1936
INSTANTANEOUS LOW FLOW			396	(d)	12	Sep 22, 1932
ANNUAL RUNOFF (CFSM)	2.77		2.11		1.49	
ANNUAL RUNOFF (CFSM)‡	2.80		2.11		1.49	
ANNUAL RUNOFF (INCHES)	37.66		28.72		20.24	
ANNUAL RUNOFF (INCHES)‡	37.96		28.70		20.23	
10 PERCENT EXCEEDS	5,510		3,580		3,030	
50 PERCENT EXCEEDS	1,670		1,340		689	
90 PERCENT EXCEEDS	589		454		180	

‡ Adjusted for change in reservoir contents since October 1949.
a Aug. 11, Sept. 6.
b Sept. 21-24, 1932.
c From rating curve extended above 33,000 ft^3/s on basis of slope-area measurement of peak flow.
d Aug. 12, 18, 19.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01604500 PATTERSON CREEK NEAR HEADSVILLE, WV

LOCATION.--Lat 39°26'35", long 78°49'20", NAD 27, Mineral County, Hydrologic Unit 02070002, on right bank 100 ft downstream from Hazel Run, 1.0 mi downstream from Cabin Run, 4.0 mi northeast of Headsville, 8.0 mi east of Keyser, and at mile 13.0.

DRAINAGE AREA.--211 mi^2.

PERIOD OF RECORD.--August 1938 to current year.

REVISED RECORDS.--WSP 951: 1939-40. WDR WV-97-1: Drainage area.

GAGE.--Water-stage recorder with satellite telemeter. Datum of gage is 624.90 ft above NGVD 29 (levels by U.S. Army Corps of Engineers). Prior to Oct. 11, 1946, nonrecording gage on bridge 1.0 mi upstream at datum 6.14 ft higher. Oct. 11-23, 1946, nonrecording gage at present site and datum.

REMARKS.--Records good except those for periods of estimated daily discharges (ice effect), which are poor. The flow from 115 mi^2 upstream from station is partially controlled, but not diverted, by several floodwater detention reservoirs with a total combined detention capacity of 19,887 acre-ft.

PEAK DISCHARGE FOR CURRENT YEAR.--Maximum discharge, 2,890 ft^3/s, Feb. 6, gage height, (a)9.03 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	258	79	198	250	e61	435	231	321	71	34	47	15
2	211	73	171	228	e58	563	348	286	65	33	41	14
3	167	68	153	211	e55	574	420	292	59	31	36	13
4	136	64	140	205	e52	568	389	248	55	32	31	13
5	112	67	142	203	66	543	339	214	56	79	28	12
6	95	82	146	193	898	727	302	187	57	67	26	12
7	84	95	141	170	1,600	638	277	165	54	52	23	13
8	77	99	136	167	953	593	259	151	49	46	21	184
9	72	92	133	149	591	576	251	136	45	40	20	773
10	69	85	144	136	553	538	221	121	42	35	19	381
11	65	80	1,200	125	567	422	198	108	57	33	18	260
12	62	823	823	128	540	360	338	100	402	31	18	180
13	58	753	590	125	528	314	1,510	93	274	35	25	122
14	60	574	554	118	528	281	1,680	88	218	32	25	82
15	103	488	507	114	475	259	936	106	172	29	22	63
16	88	411	417	95	393	248	706	114	144	28	20	51
17	77	351	385	91	341	250	621	102	139	25	19	51
18	77	297	367	97	302	259	561	92	118	26	18	256
19	73	730	332	91	307	579	530	126	95	27	19	212
20	68	1,050	294	82	492	572	514	149	78	26	20	142
21	64	647	260	e67	875	624	439	133	66	24	32	101
22	61	566	250	e62	833	583	360	136	60	23	31	77
23	57	499	466	e58	651	553	320	131	57	23	25	62
24	55	427	634	e55	612	450	274	114	51	25	22	53
25	52	378	594	e53	591	371	278	96	47	24	20	46
26	50	329	544	e51	574	326	901	85	60	23	18	41
27	72	286	467	83	553	292	719	83	48	58	16	38
28	123	264	398	84	457	265	554	82	42	79	16	238
29	115	256	356	79	405	238	511	88	39	61	16	648
30	100	224	322	75	---	213	394	77	37	45	17	394
31	88	---	279	64	---	210	---	71	---	42	15	---
TOTAL	2,849	10,237	11,543	3,709	14,911	13,424	15,381	4,295	2,757	1,168	724	4,547
MEAN	91.9	341	372	120	514	433	513	139	91.9	37.7	23.4	152
MAX	258	1,050	1,200	250	1,600	727	1,680	321	402	79	47	773
MIN	50	64	133	51	52	210	198	71	37	23	15	12
CFSM	0.44	1.62	1.76	0.57	2.44	2.05	2.43	0.66	0.44	0.18	0.11	0.72
IN.	0.50	1.80	2.04	0.65	2.63	2.37	2.71	0.76	0.49	0.21	0.13	0.80

e Estimated

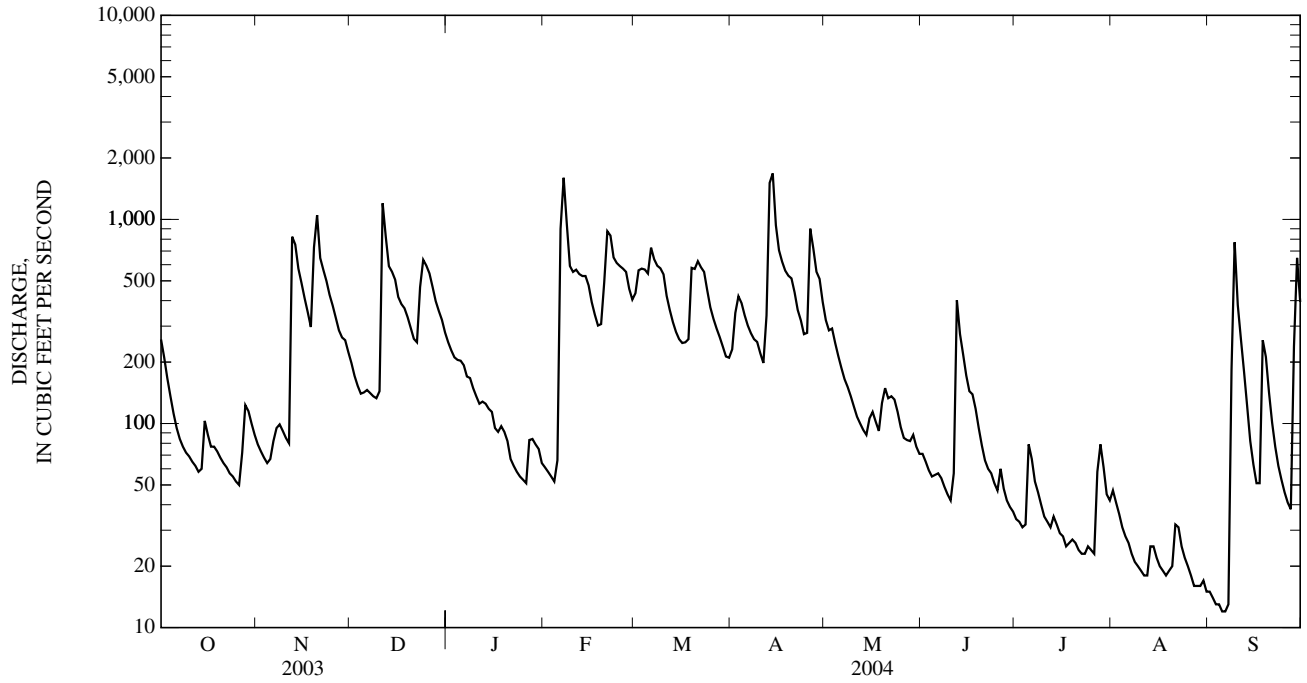
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 2004, BY WATER YEAR (WY)

MEAN	71.9	88.3	164	205	305	430	318	224	110	59.8	57.8	56.4
MAX	745	901	825	908	893	1,346	1,085	763	459	415	586	767
(WY)	(1943)	(1986)	(1973)	(1996)	(1994)	(1963)	(1993)	(1988)	(2003)	(1989)	(1996)	(1996)
MIN	2.24	4.39	9.70	18.1	22.2	58.3	54.1	21.2	8.38	3.14	5.20	2.80
(WY)	(1992)	(1992)	(1944)	(2002)	(2002)	(1990)	(1969)	(1969)	(1999)	(1999)	(1966)	(1991)

01604500 PATTERSON CREEK NEAR HEADSVILLE, WV—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1938 - 2004	
ANNUAL TOTAL	129,894		85,545			
ANNUAL MEAN	356		234		174	
HIGHEST ANNUAL MEAN					387	1996
LOWEST ANNUAL MEAN					35.1	1969
HIGHEST DAILY MEAN	3,860	Sep 19	1,680	Apr 14	11,100	Oct 15, 1942
LOWEST DAILY MEAN	32	Feb 17	12	(b)	0.48	Aug 23, 1999
ANNUAL SEVEN-DAY MINIMUM	45	Aug 22	13	Sep 1	0.87	Aug 17, 1999
MAXIMUM PEAK FLOW			2,890	Feb 6	(c)16,000	Aug 19, 1955
MAXIMUM PEAK STAGE			9.03	Feb 6	12.20	Aug 19, 1955
INSTANTANEOUS LOW FLOW			12	(d)	0.45	(f)
ANNUAL RUNOFF (CFSM)	1.69		1.11		0.823	
ANNUAL RUNOFF (INCHES)	22.90		15.08		11.18	
10 PERCENT EXCEEDS	793		574		450	
50 PERCENT EXCEEDS	239		124		60	
90 PERCENT EXCEEDS	61		25		10	

a From float-tape indicator.
b Sept. 5, 6.
c From rating curve extended above 4,900 ft^3/s on basis of contracted-opening measurement of peak flow.
d Sept. 5-7.
f Aug. 23, 24, 1999.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01606500 SOUTH BRANCH POTOMAC RIVER NEAR PETERSBURG, WV

LOCATION.--Lat 38°59'28", long 79°10'34", NAD 27, Grant County, Hydrologic Unit 02070001, on right bank 1.1 mi downstream from North Fork South Branch Potomac River, 2.6 mi west of Petersburg, and at mile 74.7.

DRAINAGE AREA.--676 mi^2.

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

REVISED RECORDS.--WSP 951: 1939-41. WSP 1141: 1932, 1933(M), 1936-38. WDR WV-97-1: Drainage area.

GAGE.--Water-stage recorder with satellite telemeter. Datum of gage is 968.34 ft above NGVD 29. Prior to Dec. 4, 1928, nonrecording gage and June 1928 to Nov. 5, 1985, water-stage recorder at site 1,125 ft downstream at datum 6.34 ft lower. Nov. 5, 1985, to June 22, 1994, and October 23, 1996 to current year, water-stage recorder at present site and datum. June 22, 1994, to October 23, 1996, water-stage recorder at site 325 ft downstream at datum 2.34 ft lower.

REMARKS.--Records good except those for periods of estimated daily discharges (doubtful or no gage-height record, ice effect), which are poor.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1877 reached a stage of 21.2 ft, from floodmarks at previous site and datum, about 59,000 ft^3/s.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 6,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov 19	2000	*29,000	*14.86	Apr 14	0200	11,500	10.87
Dec 11	0730	9,600	10.35	Sep 8	2200	17,000	12.36
Feb 7	0100	9,540	10.33	Sep 28	1900	16,000	12.09

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	544	578	989	e1,050	325	863	838	1,260	1,120	261	175	120
2	503	536	924	e1,000	e315	1,360	883	1,130	911	251	191	114
3	453	498	848	1,310	305	2,470	851	2,100	748	272	190	107
4	420	463	790	1,640	329	2,670	901	1,840	634	277	204	101
5	417	441	791	1,430	341	2,810	896	1,520	734	259	172	97
6	392	483	765	1,260	3,180	3,410	844	1,280	873	229	165	98
7	357	517	692	1,020	6,870	3,590	860	1,080	728	215	167	103
8	330	496	625	864	3,380	2,880	1,030	953	631	211	151	2,480
9	308	467	590	860	2,240	2,260	1,080	835	557	202	140	6,500
10	294	442	632	739	1,730	1,810	922	740	522	186	133	1,860
11	282	429	6,240	608	1,540	1,500	814	666	543	341	125	1,010
12	269	1,050	3,960	660	1,330	1,360	1,000	704	1,670	294	129	693
13	258	4,450	2,670	626	1,210	1,190	5,450	1,070	1,150	296	155	527
14	259	3,010	2,150	557	1,200	1,040	8,650	946	853	285	185	421
15	882	2,020	1,730	533	1,090	992	4,550	905	879	242	151	356
16	1,040	1,450	1,350	435	920	1,030	3,020	1,250	944	211	142	311
17	820	1,150	1,350	389	819	1,390	2,270	1,050	1,220	188	137	348
18	778	951	1,440	495	758	1,380	1,760	1,360	1,110	183	146	2,300
19	691	9,690	1,240	481	734	2,070	1,420	1,240	1,280	184	135	1,620
20	617	10,000	1,080	390	967	2,260	1,200	1,260	953	229	124	986
21	560	4,350	928	366	2,500	3,020	1,080	1,120	740	186	129	713
22	531	2,870	893	e350	2,310	2,830	955	1,230	618	172	134	552
23	503	2,130	1,290	e320	1,690	2,220	863	1,110	548	182	134	448
24	459	1,660	2,440	e310	1,430	1,750	824	887	480	165	129	375
25	410	1,520	3,010	e295	1,250	1,420	744	727	449	148	120	328
26	377	1,210	2,280	287	1,080	1,210	2,590	703	516	142	112	294
27	399	1,030	1,760	340	965	1,080	3,960	942	402	246	109	270
28	728	957	e1,550	359	866	993	2,750	2,180	344	220	107	4,850
29	791	1,210	e1,400	356	825	889	1,990	2,720	308	195	108	6,460
30	729	1,060	e1,250	347	---	813	1,530	1,780	282	172	106	2,880
31	641	---	e1,150	338	---	803	---	1,360	---	161	103	---
TOTAL	16,042	57,118	48,807	20,015	42,499	55,363	56,525	37,948	22,747	6,805	4,408	37,322
MEAN	517	1,904	1,574	646	1,465	1,786	1,884	1,224	758	220	142	1,244
MAX	1,040	10,000	6,240	1,640	6,870	3,590	8,650	2,720	1,670	341	204	6,500
MIN	258	429	590	287	305	803	744	666	282	142	103	97
CFSM	0.77	2.82	2.33	0.96	2.17	2.64	2.79	1.81	1.12	0.32	0.21	1.84
IN.	0.88	3.14	2.69	1.10	2.34	3.05	3.11	2.09	1.25	0.37	0.24	2.05

e Estimated

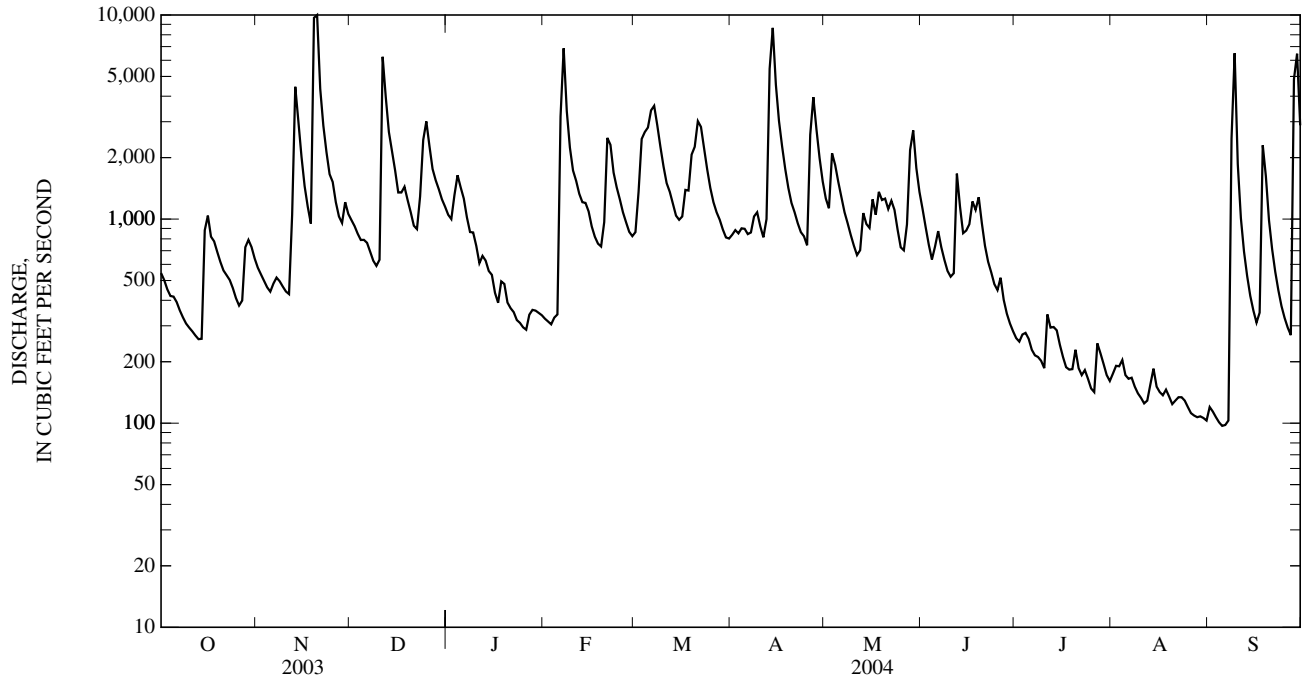
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 2004, BY WATER YEAR (WY)

MEAN	322	504	714	921	1,163	1,652	1,294	1,035	553	293	287	284
MAX	1,863	5,569	2,511	3,386	3,519	4,090	2,888	3,546	2,196	1,479	1,601	2,968
(WY)	(1977)	(1986)	(1973)	(1996)	(1994)	(1936)	(1993)	(1996)	(2003)	(1949)	(1996)	(1996)
MIN	49.3	62.7	95.1	143	212	543	398	233	125	63.9	54.1	52.3
(WY)	(1931)	(1931)	(1966)	(1981)	(1934)	(1990)	(1986)	(1930)	(1999)	(1999)	(1930)	(1930)

01606500 SOUTH BRANCH POTOMAC RIVER NEAR PETERSBURG, WV—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1928 - 2004	
ANNUAL TOTAL	591,715		405,599			
ANNUAL MEAN	1,621		1,108		750	
HIGHEST ANNUAL MEAN					1,619	1996
LOWEST ANNUAL MEAN					365	1969
HIGHEST DAILY MEAN	18,600	Sep 19	10,000	Nov 20	77,000	Nov 5, 1985
LOWEST DAILY MEAN	170	Aug 31	97	Sep 5	43	(a)
ANNUAL SEVEN-DAY MINIMUM	179	Aug 26	106	Aug 31	44	Sep 6, 1966
MAXIMUM PEAK FLOW			29,000	Nov 19	(b)130,000	Nov 5, 1985
MAXIMUM PEAK STAGE			14.86	Nov 19	(c)25.40	Nov 5, 1985
INSTANTANEOUS LOW FLOW			93	Sep 5	42	(d)
ANNUAL RUNOFF (CFSM)	2.40		1.64		1.11	
ANNUAL RUNOFF (INCHES)	32.56		22.32		15.07	
10 PERCENT EXCEEDS	3,710		2,350		1,690	
50 PERCENT EXCEEDS	1,010		814		380	
90 PERCENT EXCEEDS	246		170		96	

a Sept. 27-29, 1959, Sept. 11, 12, 1966.
b From rating curve extended above 16,700 ft^3/s on basis of slope-area measurement of peak flow.
c From floodmarks at former site at gage datum 962.00 ft.
d Sept. 28, 29, 1959, Sept. 11, 12, 1966.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01608000 SOUTH FORK SOUTH BRANCH POTOMAC RIVER NEAR MOOREFIELD, WV

LOCATION.--Lat 39°00'44", long 78°57'23", NAD 27, Hardy County, Hydrologic Unit 02070001, on right bank 0.2 mi downstream from Stony Creek, 3.5 mi south of Moorefield, and at mile 5.3.

DRAINAGE AREA.--277 mi^2.

PERIOD OF RECORD.--June 1928 to September 1935, August 1938 to current year.

REVISED RECORDS.--WSP 1141: 1933(M), 1940, 1942-43, 1945, 1948(M). WSP 1302:l93l(M), l935(M). WDR WV-97-1: Drainage area.

GAGE.--Water-stage recorder with satellite telemeter. Datum of gage is 861.51 ft above sea level (U.S. Army Corps of Engineers datum). Prior to Mar. 11, 1940, nonrecording gage at Harness Ford Bridge 2.0 mi upstream at datum about 31 ft higher.

REMARKS.--Records good except those for periods of estimated discharges (ice effect, doubtful gage-height record), which are poor. The flow from 92.7 mi^2 upstream from station is partially controlled, but not diverted, by several floodwater detention reservoirs with a total combined detention capacity of 19,870 acre-ft. Water-quality data furnished by Maryland USGS.

PEAK DISCHARGE FOR CURRENT YEAR.--Maximum discharge, 7,570 ft^3/s, Sept. 28, gage height, 8.35 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	197	183	510	276	e70	234	196	419	332	59	39	e21
2	172	173	412	251	e65	228	270	370	267	55	49	e21
3	153	161	332	236	e60	240	387	720	223	64	101	e21
4	136	149	286	225	e110	265	349	711	189	79	71	20
5	126	143	274	215	e200	282	280	564	187	74	57	20
6	116	147	260	207	445	345	230	458	219	64	51	20
7	106	147	235	193	2,360	662	204	369	198	60	47	21
8	97	145	213	176	1,030	636	196	310	171	58	44	46
9	86	139	198	163	570	535	190	263	150	55	39	1,640
10	81	132	203	162	414	415	161	238	135	54	35	1,010
11	77	127	2,720	158	407	345	147	224	134	54	32	652
12	72	200	1,770	140	357	304	203	193	250	65	33	309
13	69	688	954	148	330	273	2,000	200	253	74	43	196
14	78	826	709	140	320	253	3,710	199	209	64	62	147
15	164	580	570	133	314	e215	1,710	190	287	57	70	119
16	235	442	462	143	259	e220	920	205	247	49	59	98
17	194	354	534	146	207	e230	613	510	261	44	52	89
18	172	295	665	128	176	240	472	687	235	44	46	505
19	158	856	557	e115	157	332	370	521	206	47	42	969
20	147	3,190	457	e105	186	458	307	448	177	45	39	540
21	136	1,600	373	e90	440	467	271	414	149	42	39	310
22	130	1,060	325	e74	596	454	237	414	128	44	38	217
23	126	631	369	e64	514	393	211	359	114	45	35	161
24	118	477	601	e56	439	340	201	281	101	50	33	127
25	113	469	1,030	e52	410	301	190	232	92	46	31	105
26	109	437	809	e49	348	269	1,010	215	93	43	28	90
27	117	391	608	e120	307	247	1,630	242	83	40	26	81
28	156	366	491	e110	274	237	1,020	502	75	43	e25	1,990
29	213	563	414	e98	250	231	662	668	69	40	e24	4,610
30	213	580	356	e86	---	207	510	483	63	39	e23	1,920
31	202	---	316	e78	---	191	---	397	---	38	e22	---
TOTAL	4,269	15,651	18,013	4,337	11,615	10,049	18,857	12,006	5,297	1,635	1,335	16,075
MEAN	138	522	581	140	401	324	629	387	177	52.7	43.1	536
MAX	235	3,190	2,720	276	2,360	662	3,710	720	332	79	101	4,610
MIN	69	127	198	49	60	191	147	190	63	38	22	20
CFSM	0.50	1.88	2.10	0.51	1.45	1.17	2.27	1.40	0.64	0.19	0.16	1.93
IN.	0.57	2.10	2.42	0.58	1.56	1.35	2.53	1.61	0.71	0.22	0.18	2.16

e Estimated

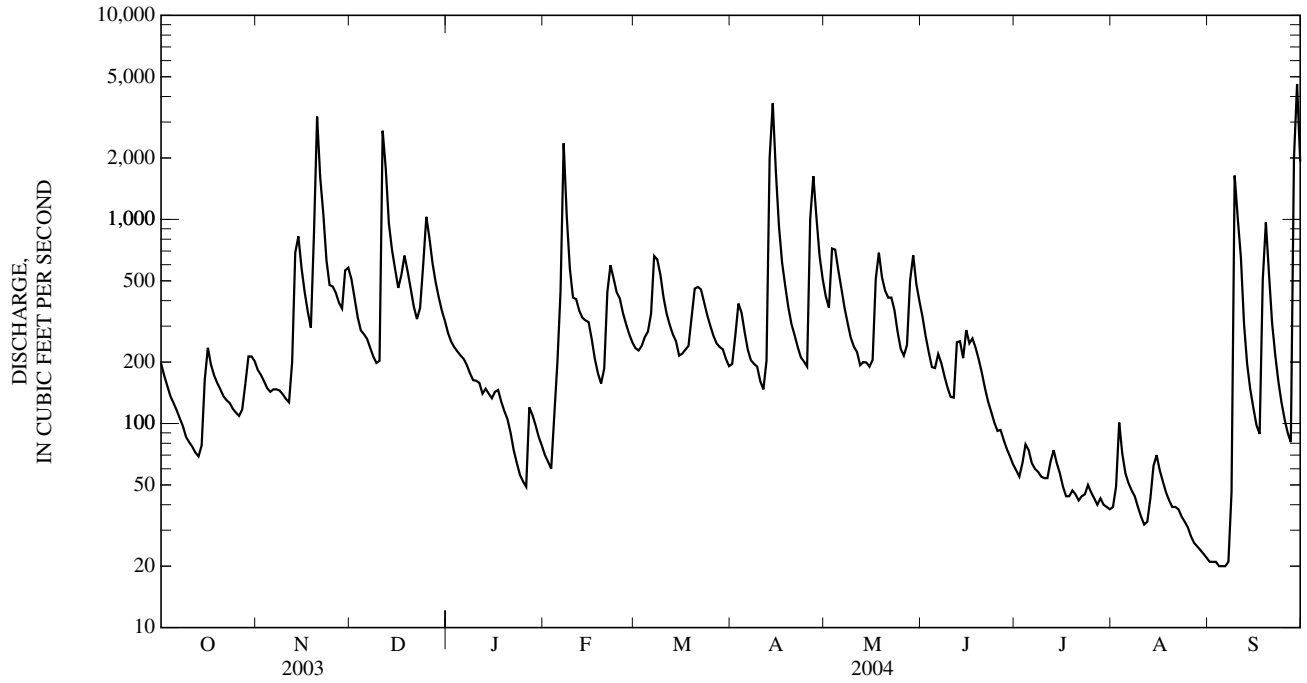
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 2004, BY WATER YEAR (WY)

MEAN	126	181	211	263	337	495	416	331	173	84.1	106	110
MAX	776	2,951	879	1,267	1,591	1,327	1,787	946	1,071	510	801	1,340
(WY)	(1977)	(1986)	(1974)	(1996)	(1998)	(1993)	(1987)	(1988)	(1949)	(1949)	(1955)	(1996)
MIN	12.8	14.0	17.4	21.3	25.2	72.2	91.7	51.2	28.1	9.48	10.4	10.2
(WY)	(1992)	(1999)	(1966)	(1981)	(1934)	(1981)	(1981)	(1930)	(1977)	(1999)	(1965)	(1968)

01608000 SOUTH FORK SOUTH BRANCH POTOMAC RIVER NEAR MOOREFIELD, WV—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1928 - 2004	
ANNUAL TOTAL	195,533		119,139			
ANNUAL MEAN	536		326		235	
HIGHEST ANNUAL MEAN					526	2003
LOWEST ANNUAL MEAN					85.9	1934
HIGHEST DAILY MEAN	9,680	Sep 19	4,610	Sep 29	28,000	Nov 5, 1985
LOWEST DAILY MEAN	31	(a)	20	(b)	4.4	Sep 10, 1966
ANNUAL SEVEN-DAY MINIMUM	33	Aug 26	21	Sep 1	5.3	Sep 5, 1966
MAXIMUM PEAK FLOW			7,570	Sep 28	(c)110,000	Nov 5, 1985
MAXIMUM PEAK STAGE			8.35	Sep 28	(d)19.99	Nov 5, 1985
INSTANTANEOUS LOW FLOW			20	(f)	3.1	Aug 13, 1999
ANNUAL RUNOFF (CFSM)	1.93		1.18		0.850	
ANNUAL RUNOFF (INCHES)	26.26		16.00		11.54	
10 PERCENT EXCEEDS	1,250		632		522	
50 PERCENT EXCEEDS	267		202		97	
90 PERCENT EXCEEDS	48		44		21	

a Aug. 31, Sept. 1.
b Sept. 4-6.
c From rating curve extended above 39,000 ft^3/s on basis of slope-area measurement of peak flow.
d From floodmarks.
f Sept. 5,6.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01608500 SOUTH BRANCH POTOMAC RIVER NEAR SPRINGFIELD, WV

LOCATION.--Lat 39°26'49", long 78°39'16", NAD 27, Hampshire County, Hydrologic Unit 02070001, on left bank at highway bridge, 2.0 mi east of Springfield, and at mile 13.5.

DRAINAGE AREA.--1,486 mi^2.

PERIOD OF RECORD.--June 1894 to February 1896 (fragmentary), June 1899 to February 1902, August 1903 to July 1906, August 1928 to current year.

REVISED RECORDS.--WSP 1552: 1903-06, 1929-30(M), 1932-33(M), 1935(M), 1937-40(M), 1942-43(M), 1945(M). WDR WV-97-1: Drainage area.

GAGE.--Water-stage recorder with satellite telemeter. Datum of gage is 562.02 ft above NGVD 29. June 1894 to February 1896, nonrecording gage at Baltimore & Ohio Railroad bridge 11.2 mi upstream at different datum. June 26, 1899, to Feb. 2, 1902, nonrecording gage at bridge 10.0 mi upstream at different datum. Aug. 28, 1903, to July 14, 1906, nonrecording gage at present site at different datum. Aug. 8 to Sept. 24, 1928, nonrecording gage at present site and datum.

REMARKS.--Records good except those for period of estimated daily discharges (ice effect), which are poor.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in November 1877 reached a stage of about 34 ft, from floodmarks, discharge, 140,000 ft^3/s.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 10,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov 20	1230	*29,000	*18.00	Apr 14	1430	19,800	14.25
Dec 11	2100	16,100	12.45	Sep 9	1430	14,400	11.62
Feb 6	2400	25,700	16.71	Sep 29	1030	21,800	15.19

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,370	1,150	2,050	1,860	856	1,650	1,550	2,390	1,880	498	351	160
2	1,220	1,060	1,860	1,710	830	1,830	2,760	2,070	1,580	465	309	153
3	1,100	998	1,690	1,700	778	2,740	2,820	2,670	1,340	440	286	164
4	1,010	942	1,540	2,030	770	3,140	2,430	3,390	1,160	473	358	160
5	949	910	1,490	2,150	863	3,600	2,110	2,740	1,060	755	349	154
6	910	933	1,480	1,970	2,750	3,850	1,820	2,320	1,210	664	312	150
7	862	1,040	1,420	1,750	16,100	5,280	1,640	1,970	1,270	491	276	145
8	805	1,070	1,320	1,510	8,570	4,580	1,590	1,770	1,100	448	265	246
9	758	1,000	1,240	1,400	4,840	3,680	1,740	1,540	980	437	263	7,400
10	713	941	1,230	1,340	3,520	2,960	1,640	1,370	898	399	244	4,760
11	680	903	8,740	1,200	3,590	2,470	1,450	1,230	877	383	225	2,510
12	655	2,530	10,400	1,120	3,200	2,160	1,510	1,130	2,500	446	217	1,600
13	627	4,770	5,710	1,150	2,890	1,960	8,210	1,150	2,640	543	222	1,110
14	616	5,730	4,030	1,090	2,930	1,750	17,900	1,470	1,790	510	256	853
15	892	3,670	3,300	1,020	2,630	1,590	10,900	1,360	1,450	478	281	703
16	1,500	2,720	2,720	944	2,210	1,550	6,290	1,450	1,560	426	324	601
17	1,490	2,180	2,460	814	1,860	1,750	4,280	1,650	2,070	384	264	542
18	1,330	1,840	3,070	798	1,670	2,070	3,260	2,030	1,940	364	246	1,790
19	1,260	2,230	2,760	896	1,600	2,620	2,630	2,540	1,740	360	238	3,700
20	1,140	20,500	2,360	858	2,160	3,430	2,220	2,540	1,650	348	245	2,360
21	1,060	9,850	2,030	701	3,830	3,990	1,990	2,080	1,330	363	274	1,550
22	983	5,820	1,800	649	5,380	4,440	1,790	2,020	1,110	361	259	1,150
23	941	3,940	2,440	e620	3,750	3,540	1,630	1,990	980	344	250	913
24	911	2,980	3,960	e570	3,050	2,850	1,530	1,670	891	374	224	750
25	859	2,610	5,650	e515	2,650	2,390	1,520	1,380	793	378	212	638
26	804	2,370	4,630	497	2,290	2,060	4,710	1,210	753	317	202	560
27	831	2,040	3,470	913	2,000	1,830	9,040	1,300	820	331	190	507
28	1,270	1,850	2,810	1,040	1,800	1,680	5,870	1,700	671	383	178	1,210
29	1,420	2,040	2,410	1,010	1,660	1,540	3,910	3,600	595	372	175	16,700
30	1,390	2,320	2,160	916	---	1,420	2,940	2,950	538	342	170	7,760
31	1,270	---	2,030	929	---	1,380	---	2,180	---	315	165	---
TOTAL	31,626	92,937	94,260	35,670	91,027	81,780	113,680	60,860	39,176	13,192	7,830	60,999
MEAN	1,020	3,098	3,041	1,151	3,139	2,638	3,789	1,963	1,306	426	253	2,033
MAX	1,500	20,500	10,400	2,150	16,100	5,280	17,900	3,600	2,640	755	358	16,700
MIN	616	903	1,230	497	770	1,380	1,450	1,130	538	315	165	145
CFSM	0.69	2.08	2.05	0.77	2.11	1.78	2.55	1.32	0.88	0.29	0.17	1.37
IN.	0.79	2.33	2.36	0.89	2.28	2.05	2.85	1.52	0.98	0.33	0.20	1.53

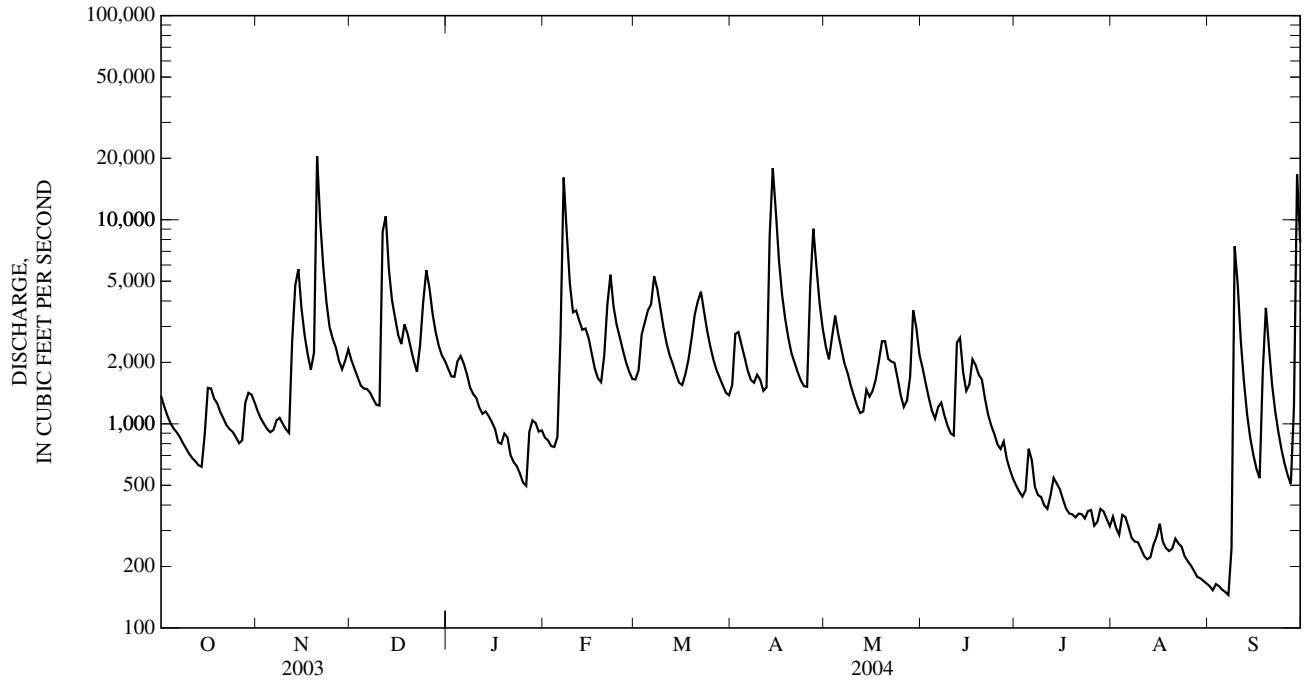
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1899 - 2004, BY WATER YEAR (WY)

MEAN	616	884	1,250	1,620	2,053	3,021	2,405	1,846	1,048	528	542	521
MAX	4,629	12,850	5,000	6,928	6,474	10,490	6,421	5,785	5,231	2,638	3,923	6,538
(WY)	(1977)	(1986)	(1973)	(1996)	(1998)	(1936)	(1987)	(1996)	(1949)	(1949)	(1955)	(1996)
MIN	79.4	82.2	147	271	330	791	829	366	217	86.7	73.5	76.6
(WY)	(1931)	(1905)	(1966)	(1981)	(2002)	(1981)	(1976)	(1977)	(1999)	(1999)	(1930)	(1930)

01608500 SOUTH BRANCH POTOMAC RIVER NEAR SPRINGFIELD, WV—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1899 - 2004	
ANNUAL TOTAL	1,050,566		723,037			
ANNUAL MEAN	2,878		1,976		1,358	
HIGHEST ANNUAL MEAN					2,975	1996
LOWEST ANNUAL MEAN					566	1969
HIGHEST DAILY MEAN	34,700	Sep 20	20,500	Nov 20	145,000	Nov 5, 1985
LOWEST DAILY MEAN	321	Feb 17	145	Sep 7	52	(a)
ANNUAL SEVEN-DAY MINIMUM	345	Aug 26	155	Sep 1	54	Sep 7, 1966
MAXIMUM PEAK FLOW			29,000	Nov 20	(b)240,000	Nov 5, 1985
MAXIMUM PEAK STAGE			18.00	Nov 20	(c)44.22	Nov 5, 1985
INSTANTANEOUS LOW FLOW			143	(d)	29	(f)
ANNUAL RUNOFF (CFSM)	1.94		1.33		0.914	
ANNUAL RUNOFF (INCHES)	26.30		18.10		12.41	
10 PERCENT EXCEEDS	6,020		3,770		3,070	
50 PERCENT EXCEEDS	1,780		1,440		660	
90 PERCENT EXCEEDS	453		316		152	

a Sept. 11, 12, 1966.
b From rating curve extended above 145,000 ft^3/s on basis of slope-area measurement of peak flow.
c From floodmarks.
d Sept. 7, 8.
e Estimated.
f Jan. 28, 1956 (result of freeze-up), July 30, 1966 (result of temporary dam).



01609000 TOWN CREEK NEAR OLDTOWN, MD

LOCATION.--Lat 39°33'11.6", long 78°33'18.0", Allegany County, Md., Hydrologic Unit 02070003, on right bank at downstream side of bridge on Pack Horse Road (formerly Oldtown Road), 0.4 mi northeast of Maryland 51 State Highway 51, 2.0 mi upstream from mouth of Sawpit Run, 3.0 mi northeast of Oldtown, and 4.0 mi upstream from mouth.

DRAINAGE AREA.--148 mi^2.

PERIOD OF RECORD.--July 1928 to September 1935, June 1967 to September 1981, May 2001 to current year.

REVISED RECORDS.--OFR 95-292: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 547.97 ft above National Geodetic Vertical Datum of 1929.

REMARKS.-- Records good except those for estimated daily discharges (ice effect), which are poor. U.S. Geological Survey gage-height telemeter at station. Several measurements of water temperature were made during the year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 17 or 18, 1936 reached a stage of 19.08 ft, from floodmarks, discharge 27,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov 20	0345	2,880	9.77	Aug 1	0515	2,280	8.79
Dec 11	1600	3,230	10.26	Sep 9	1445	3,870	10.77
Apr 2	0030	1,640	7.49	Sep 18	1630	*7,070	*12.54
Apr 14	0145	2,050	8.35				

Minimum discharge, 14 ft^3/s, Sept. 5-7.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	288	127	193	177	e47	414	423	240	66	20	1,510	19
2	230	115	167	168	e46	747	1,490	222	58	18	566	17
3	174	105	148	169	e46	1,150	1,240	335	53	17	305	16
4	150	97	135	193	e56	915	775	241	50	49	197	16
5	138	94	140	358	110	724	516	211	48	34	150	15
6	115	131	146	439	399	905	382	186	51	39	115	14
7	99	151	131	347	1,000	769	313	163	46	28	91	14
8	88	137	119	295	708	625	266	160	41	51	76	170
9	80	122	116	251	483	471	270	131	36	51	65	1,950
10	73	113	120	214	e400	368	214	115	34	30	56	534
11	67	109	2,450	e185	e360	304	187	101	39	24	50	248
12	63	786	1,190	e155	e320	270	271	95	180	261	46	159
13	59	569	629	e130	e290	223	1,280	89	96	471	63	117
14	59	355	478	e110	e270	190	1,490	80	66	194	60	91
15	229	266	383	e98	e250	179	773	78	53	101	45	80
16	148	215	296	e87	e240	169	521	71	46	66	39	97
17	115	184	e260	e80	e230	171	399	64	41	48	35	82
18	113	157	e230	e74	e230	159	320	104	48	45	32	3,140
19	105	696	e200	e70	278	498	266	497	39	57	31	899
20	93	1,900	e180	e66	442	472	231	299	34	58	35	423
21	87	794	167	e63	585	711	218	226	30	40	62	266
22	85	521	160	e61	594	579	192	478	29	34	70	191
23	82	382	341	e58	422	418	207	232	28	46	46	145
24	75	307	743	e56	404	328	176	153	26	88	35	118
25	67	280	785	e55	350	278	169	115	26	72	29	100
26	63	222	525	e54	311	237	844	132	32	54	26	87
27	118	190	388	e52	273	210	848	105	29	62	24	76
28	333	186	308	e51	279	187	515	86	25	119	22	514
29	223	281	261	e50	340	163	363	73	22	79	21	694
30	179	217	239	e49	---	151	286	62	21	75	21	341
31	144	---	206	e48	---	181	---	59	---	507	20	---
TOTAL	3,942	9,809	11,834	4,263	9,763	13,166	15,445	5,203	1,393	2,838	3,943	10,633
MEAN	127	327	382	138	337	425	515	168	46.4	91.5	127	354
MAX	333	1,900	2,450	439	1,000	1,150	1,490	497	180	507	1,510	3,140
MIN	59	94	116	48	46	151	169	59	21	17	20	14
CFSM	0.86	2.21	2.58	0.93	2.27	2.87	3.48	1.13	0.31	0.62	0.86	2.39
IN.	0.99	2.47	2.97	1.07	2.45	3.31	3.88	1.31	0.35	0.71	0.99	2.67

e Estimated

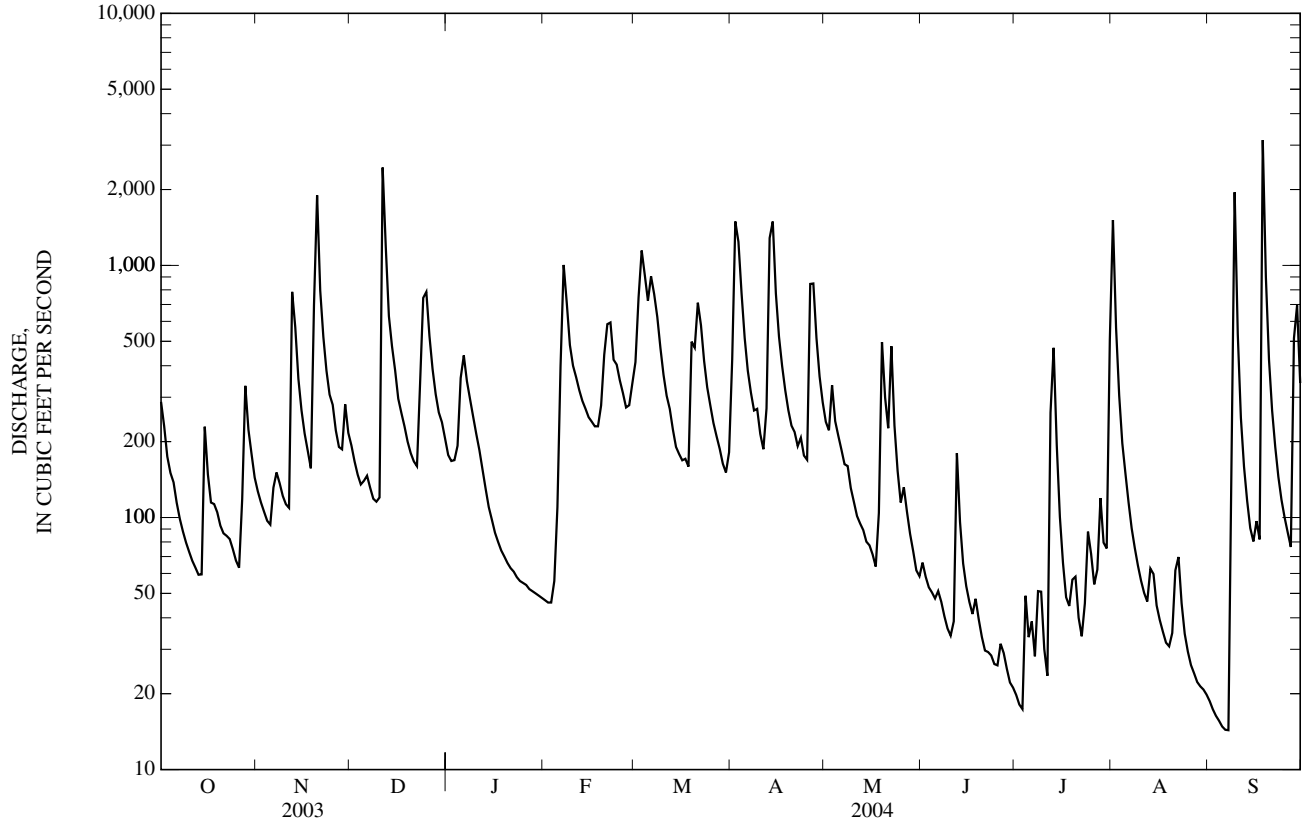
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1935, 1967 - 1981, 2001 - 2004, BY WATER YEAR (WY)

MEAN	95.6	118	178	168	215	326	329	240	135	57.4	40.7	65.0
MAX	623	343	576	383	616	645	712	560	830	306	162	354
(WY)	(1977)	(1971)	(1973)	(1974)	(1971)	(2003)	(1970)	(2003)	(1972)	(1931)	(1969)	(2004)
MIN	2.97	4.40	12.3	17.4	19.0	112	76.8	36.4	16.2	2.59	2.06	1.77
(WY)	(1931)	(1931)	(1931)	(1929)	(2002)	(2002)	(1968)	(1934)	(1930)	(1930)	(1930)	(1932)

01609000 TOWN CREEK NEAR OLDTOWN, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1928 - 1935 1967 - 1981, 2001 - 2004	
ANNUAL TOTAL	122,485		92,232			
ANNUAL MEAN	336		252		165	
HIGHEST ANNUAL MEAN					318	2003
LOWEST ANNUAL MEAN					61.4	2002
HIGHEST DAILY MEAN	2,900	Jun 4	3,140	Sep 18	8,140	Jun 22, 1972
LOWEST DAILY MEAN	15	Aug 25	14	(a)	0.66	Sep 14, 2002
ANNUAL SEVEN-DAY MINIMUM	17	Aug 20	16	Sep 1	0.90	Aug 7, 1930
MAXIMUM PEAK FLOW			7,070	Sep 18	(b)11,700	Jun 22, 1972
MAXIMUM PEAK STAGE			12.54	Sep 18	14.13	Jun 22, 1972
INSTANTANEOUS LOW FLOW			14	(c)	(d)0.00	(f)
ANNUAL RUNOFF (CFSM)	2.27		1.70		1.12	
ANNUAL RUNOFF (INCHES)	30.79		23.18		15.18	
10 PERCENT EXCEEDS	856		567		398	
50 PERCENT EXCEEDS	174		150		68	
90 PERCENT EXCEEDS	33		35		10	

a Sept. 6, 7.
b From rating curve extended above 9,500 ft^3/s.
c Sept. 5-7.
d Result of freezeup.
f Dec. 27, 28, 2001.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01610000 POTOMAC RIVER AT PAW PAW, WV

LOCATION.--Lat 39°32'20.1", long 78°27'23.0", Allegany County, Md., Hydrologic Unit 02070003, on left bank 250 ft upstream from bridge on Maryland State Highway 51 at Paw Paw, 3.3 mi downstream from Little Cacapon River, and at mile 277.

DRAINAGE AREA.--3,129 mi^2.

PERIOD OF RECORD.--October 1938 to current year.

REVISED RECORDS.--WDR WV-97-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 487.88 ft above National Geodetic Vertical Datum of 1929. Prior to Mar. 25, 1939, nonrecording gage at bridge 250 ft downstream at same datum.

REMARKS.-- Records good except those for estimated daily discharge (ice effect), which are fair. Low flow affected by Stony River Reservoir prior to July 1981, since December 1950 by Savage River Reservoir (see station 01597500), and since July 1981 by Jennings Randolph Lake. National Weather Service gage-height telemeter at station. U.S. Army Corps of Engineers satellite collection platform at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 54.0 ft on Mar. 18, 1936, discharge, 240,000 ft^3/s, from rating curve extended above 85,000 ft^3/s on basis of slope-area measurement of peak flow at site 5.0 mi upstream at Okonoko, WV.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 20,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov 20	1700	*42,000	*22.80	Apr 14	1400	36,900	21.24
Dec 11	2330	28,800	18.60	Sep 9	1700	29,600	18.89
Feb 7	0530	25,500	17.46	Sep 29	1330	25,700	17.54

Minimum discharge, 665 ft^3/s, Sept. 6-8.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4,650	2,890	5,130	5,330	e1,430	5,860	5,010	5,820	3,590	1,300	5,780	826
2	3,890	2,670	4,670	5,030	e1,420	7,420	13,300	5,220	3,180	1,220	2,980	754
3	3,350	2,530	4,300	5,000	e1,420	11,800	12,700	5,950	2,820	1,170	2,070	718
4	3,030	2,400	3,960	5,550	e2,050	11,700	10,700	6,670	2,540	1,570	1,710	712
5	3,200	2,320	3,840	6,580	2,060	13,900	9,270	5,770	2,340	1,780	1,530	696
6	3,170	2,520	3,910	7,900	3,760	16,000	7,340	5,130	2,390	1,850	1,390	676
7	2,650	2,800	3,760	7,110	22,300	17,600	6,240	4,550	2,550	1,410	1,210	665
8	2,210	2,960	3,550	6,250	16,200	14,200	5,780	4,320	2,260	1,310	1,110	1,320
9	2,090	2,820	3,360	5,600	10,600	11,300	6,280	3,990	2,060	1,270	1,060	21,500
10	1,990	2,670	3,300	4,980	8,620	9,640	5,650	3,650	1,930	1,130	996	12,100
11	1,910	2,600	18,000	4,250	8,520	8,500	4,920	3,170	1,880	1,070	891	6,950
12	2,180	7,230	21,700	e3,800	8,140	7,180	5,160	2,900	4,850	1,340	855	5,550
13	2,310	13,000	12,900	e3,400	7,650	5,940	18,700	2,850	6,710	2,030	1,110	4,540
14	1,780	12,400	9,820	e3,000	7,620	5,190	34,900	3,080	5,230	1,660	1,220	2,990
15	2,800	9,600	8,510	e2,700	7,190	4,750	22,700	3,050	3,710	1,400	1,530	2,320
16	3,170	7,920	7,280	e2,500	6,400	4,550	14,100	3,190	3,510	1,240	1,760	2,220
17	3,210	6,920	6,570	e2,300	5,790	4,710	10,200	3,300	3,490	1,130	982	2,110
18	2,960	5,980	7,030	e2,100	4,630	5,000	8,340	3,520	3,800	1,080	890	13,900
19	2,850	8,230	6,660	e1,900	4,190	7,450	7,100	6,150	3,380	1,210	849	10,800
20	2,640	34,600	5,800	e1,800	5,590	8,470	6,160	5,800	3,270	1,170	882	6,800
21	2,470	21,000	5,120	e1,750	8,920	10,700	5,570	5,000	2,840	1,070	1,030	4,730
22	2,360	13,200	4,700	e1,700	12,200	12,800	5,080	6,070	2,460	1,040	1,050	3,500
23	2,290	10,300	5,920	e1,650	9,270	10,300	4,790	5,900	2,140	1,160	1,000	2,900
24	2,200	8,580	10,200	e1,600	8,100	8,580	4,270	4,770	2,000	1,330	877	2,510
25	2,100	7,760	13,800	e1,580	7,310	7,170	4,180	3,760	1,850	1,190	852	2,290
26	2,000	6,690	11,300	e1,550	6,590	6,290	10,100	3,360	2,030	1,060	822	2,150
27	2,300	5,900	9,210	e1,530	5,860	5,630	16,500	3,180	1,900	1,240	792	2,010
28	3,810	5,520	7,850	e1,500	5,540	5,080	11,700	3,250	1,680	1,870	764	4,000
29	3,670	5,640	6,950	e1,460	5,520	4,550	8,640	5,160	1,510	1,550	747	19,600
30	3,510	5,650	6,200	e1,450	---	4,200	6,920	5,330	1,390	1,320	924	11,800
31	3,160	---	5,760	e1,440	---	4,160	---	4,080	---	3,560	1,020	---
TOTAL	85,910	225,300	231,060	104,290	204,890	260,620	292,300	137,940	85,290	43,730	40,683	153,637
MEAN	2,771	7,510	7,454	3,364	7,065	8,407	9,743	4,450	2,843	1,411	1,312	5,121
MAX	4,650	34,600	21,700	7,900	22,300	17,600	34,900	6,670	6,710	3,560	5,780	21,500
MIN	1,780	2,320	3,300	1,440	1,420	4,160	4,180	2,850	1,390	1,040	747	665
CFSM	0.89	2.40	2.38	1.08	2.26	2.69	3.11	1.42	0.91	0.45	0.42	1.64
IN.	1.02	2.68	2.75	1.24	2.44	3.10	3.48	1.64	1.01	0.52	0.48	1.83

e Estimated

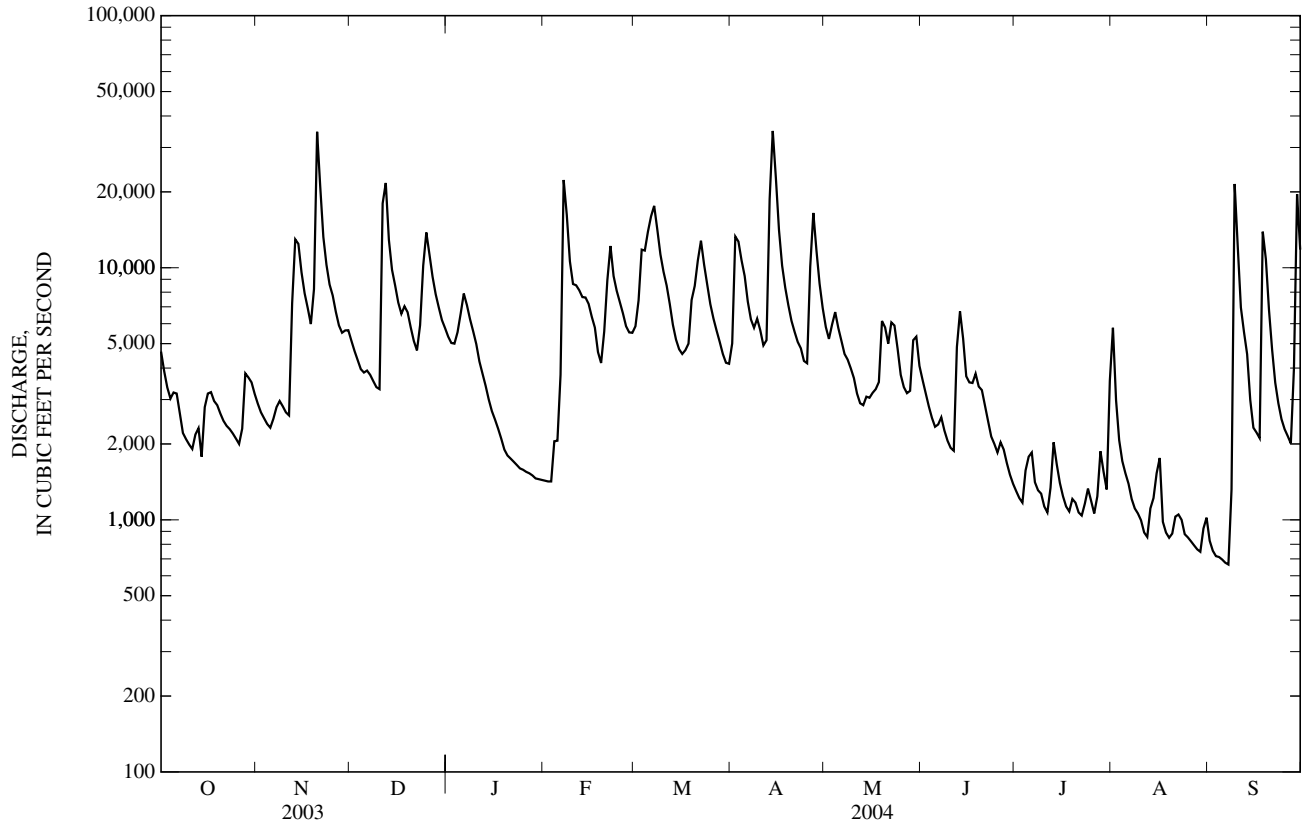
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 2004, BY WATER YEAR (WY)

MEAN	1,511	2,121	3,330	3,946	5,303	7,521	6,095	4,567	2,660	1,372	1,282	1,314
MAX	9,709	17,180	12,300	13,040	14,040	17,440	15,620	11,210	10,510	5,071	6,775	12,080
(WY)	(1977)	(1986)	(1973)	(1996)	(1998)	(1994)	(1993)	(1996)	(2003)	(1949)	(1996)	(1996)
MIN	261	327	388	679	853	2,043	1,882	1,074	544	303	278	252
(WY)	(1952)	(1966)	(1966)	(1981)	(2002)	(1990)	(1995)	(1941)	(1965)	(1966)	(1944)	(1959)

01610000 POTOMAC RIVER AT PAW PAW, WV—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1939 - 2004	
ANNUAL TOTAL	2,562,700		1,865,650			
ANNUAL MEAN	7,021		5,097		3,409	
HIGHEST ANNUAL MEAN					6,556	2003
LOWEST ANNUAL MEAN					1,499	1969
HIGHEST DAILY MEAN	48,500	Sep 20	34,900	Apr 14	125,000	Nov 6, 1985
LOWEST DAILY MEAN	1,030	Aug 26	665	Sep 7	172	(a)
ANNUAL SEVEN-DAY MINIMUM	1,180	Aug 23	721	Sep 1	179	Sep 7, 1966
MAXIMUM PEAK FLOW			42,000	Nov 20	(b)235,000	Nov 5, 1985
MAXIMUM PEAK STAGE			22.80	Nov 20	53.58	Nov 5, 1985
INSTANTANEOUS LOW FLOW			665	(c)	164	(d)
ANNUAL RUNOFF (CFSM)	2.24		1.63		1.09	
ANNUAL RUNOFF (INCHES)	30.47		22.18		14.80	
10 PERCENT EXCEEDS	15,600		10,700		7,790	
50 PERCENT EXCEEDS	4,840		3,740		1,820	
90 PERCENT EXCEEDS	1,750		1,170		452	

a Sept. 10, 12, 13, 1966.
b From rating curve extended above 85,000 ft^3/s on basis of slope-area measurement of peak flow at site 5.0 mi upstream at Okonoko, WV.
c Sept. 6-8.
d Sept. 10, 11, 1966.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01610155 SIDELING HILL CREEK NEAR BELLEGROVE, MD

LOCATION.--Lat 39°38'58.3", long 78°20'38.9", Washington County, Hydrologic Unit 02070003, on left bank at downstream side of bridge on Zeigler Road, 1.2 mi upstream from mouth, and 4.0 mi south of Bellegrove.

DRAINAGE AREA.--102 mi^2.

PERIOD OF RECORD.--July 1967 to September 1977, April 1999 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 440.41 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good above 1.0 ft^3/s and poor below except those for estimated daily discharges (missing record), which are poor. U.S. Geological Survey gage-height telemeter at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,100 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec 11	1030	4,510	7.44	Apr 26	1900	1,260	4.06
Feb 7	1415	1,140	3.88	May 19	0745	1,320	4.14
Mar 3	0100	1,450	4.31	Sep 9	0645	8,200	10.11
Apr 2	0645	2,080	5.11	Sep 18	0615	*11,000	*11.78
Apr 14	0115	1,580	4.47				

Minimum discharge, 1.9 ft^3/s, Sept. 7, 8.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	154	e100	131	109	e20	304	318	145	46	4.3	640	6.5
2	119	e85	107	101	e19	653	1,810	131	37	3.5	291	4.8
3	84	e75	86	101	e18	1,080	1,010	284	33	3.0	139	3.8
4	71	e65	82	119	e17	733	516	223	28	2.9	83	2.9
5	66	66	86	230	44	525	315	176	35	3.2	61	2.5
6	50	99	90	340	299	551	224	139	43	9.3	44	2.3
7	41	113	76	269	457	474	177	113	34	10	31	2.1
8	36	e108	76	222	296	359	147	103	26	8.5	24	396
9	33	e102	68	179	196	255	144	80	22	18	19	4,480
10	30	95	66	152	129	194	113	67	18	11	16	651
11	28	95	2,670	e130	128	159	96	57	21	7.0	13	256
12	27	e690	e1,400	e110	142	139	122	48	89	196	12	148
13	26	e490	e570	e96	145	114	1,000	63	62	272	15	100
14	28	261	e400	e84	142	94	1,160	54	41	118	20	72
15	140	188	e300	e74	e130	89	518	58	36	68	16	75
16	114	142	e230	e66	e120	85	307	83	28	40	12	105
17	85	115	e180	e60	e113	87	223	52	25	26	9.3	1,270
18	80	93	161	e54	104	81	173	103	23	20	7.6	6,400
19	71	e400	132	e49	99	203	139	905	19	16	6.5	985
20	60	e2,000	120	e45	166	265	119	587	15	24	7.1	360
21	52	e900	100	e41	355	395	114	353	13	18	51	213
22	50	e400	94	e38	450	352	97	286	11	13	32	144
23	46	e300	165	e35	327	253	108	198	11	13	24	106
24	40	e200	602	e33	304	193	97	136	10	27	16	86
25	35	e140	770	e30	257	159	93	108	8.5	23	12	71
26	31	113	422	e28	221	131	631	125	7.5	15	9.3	61
27	79	94	281	e26	195	114	810	93	6.4	14	7.5	53
28	306	e85	213	e25	194	100	398	70	5.4	28	6.2	384
29	245	e220	173	e23	245	86	252	55	4.7	31	5.1	611
30	174	e170	154	e22	---	78	185	41	4.7	20	7.4	303
31	e122	---	129	e21	---	97	---	36	---	266	8.6	---
TOTAL	2,523	8,004	10,134	2,912	5,332	8,402	11,416	4,972	763.2	1,328.7	1,645.6	17,354.9
MEAN	81.4	267	327	93.9	184	271	381	160	25.4	42.9	53.1	578
MAX	306	2,000	2,670	340	457	1,080	1,810	905	89	272	640	6,400
MIN	26	65	66	21	17	78	93	36	4.7	2.9	5.1	2.1
CFSM	0.80	2.62	3.20	0.92	1.80	2.66	3.73	1.57	0.25	0.42	0.52	5.67
IN.	0.92	2.92	3.70	1.06	1.94	3.06	4.16	1.81	0.28	0.48	0.60	6.33

e Estimated

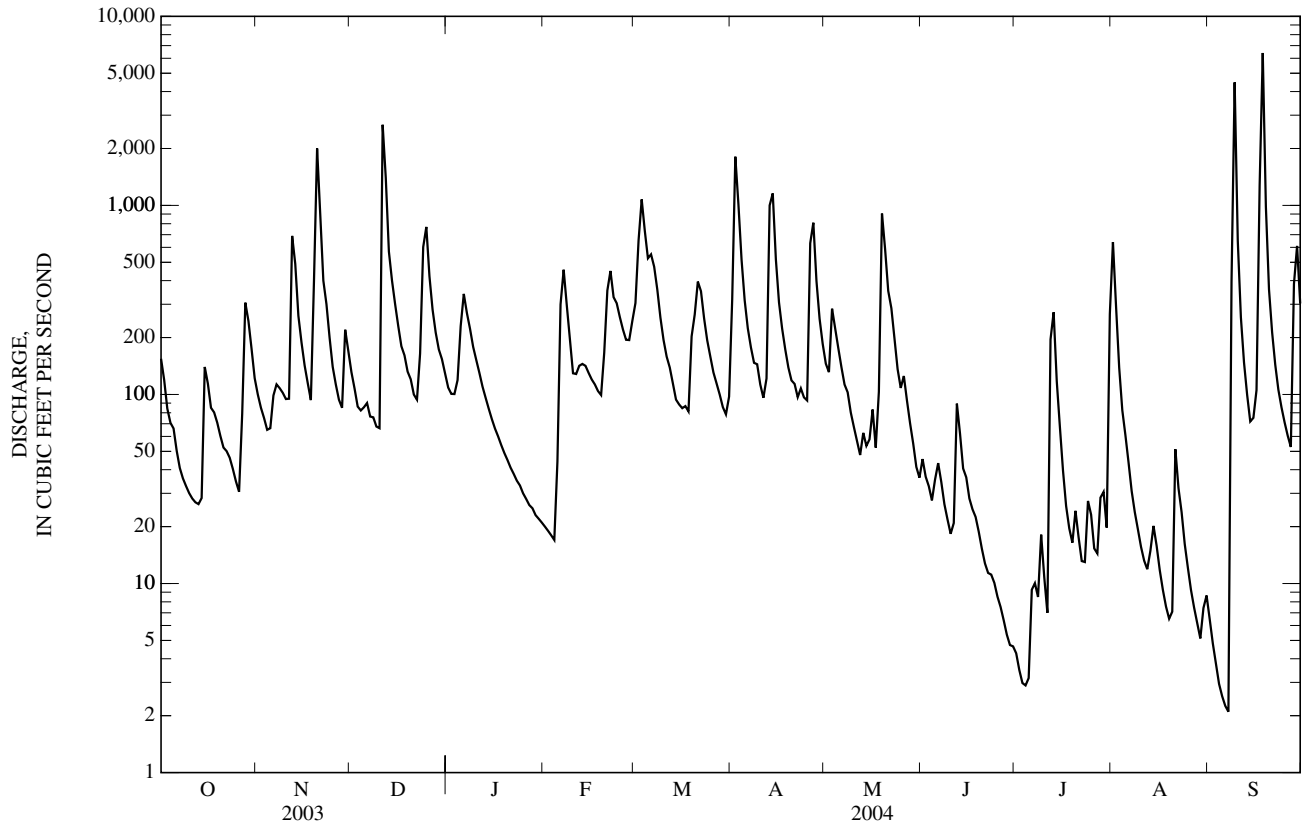
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 2004, BY WATER YEAR (WY)

MEAN	83.6	91.5	162	109	168	215	221	137	127	30.1	22.7	67.3
MAX	569	293	401	230	523	416	518	435	726	87.6	85.1	578
(WY)	(1977)	(1971)	(1973)	(1974)	(1971)	(2003)	(1970)	(2003)	(1972)	(1977)	(1969)	(2004)
MIN	0.38	0.76	3.93	11.1	7.84	65.5	37.8	22.9	5.10	1.22	0.04	0.69
(WY)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(1971)	(1969)	(1999)	(1999)	(1968)	(2001)

01610155 SIDELING HILL CREEK NEAR BELLEGROVE, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1967 - 2004	
ANNUAL TOTAL	84,876.62		74,787.4			
ANNUAL MEAN	233		204		121	
HIGHEST ANNUAL MEAN					207	2003
LOWEST ANNUAL MEAN					31.1	2002
HIGHEST DAILY MEAN	2,670	Dec 11	6,400	Sep 18	9,200	Jun 22, 1972
LOWEST DAILY MEAN	0.63	Jul 31	2.1	Sep 7	0.00	(a)
ANNUAL SEVEN-DAY MINIMUM	1.7	Jul 26	3.6	Sep 1	0.00	Aug 18, 1968
MAXIMUM PEAK FLOW			11,000	Sep 18	(b)14,200	Jun 22, 1972
MAXIMUM PEAK STAGE			11.78	Sep 18	12.44	Jun 22, 1972
INSTANTANEOUS LOW FLOW			1.9	(c)	0.00	(d)
ANNUAL RUNOFF (CFSM)	2.28		2.00		1.18	
ANNUAL RUNOFF (INCHES)	30.96		27.28		16.10	
10 PERCENT EXCEEDS	614		400		286	
50 PERCENT EXCEEDS	114		95		39	
90 PERCENT EXCEEDS	9.9		12		1.8	

a Aug. 18-31, Sept. 1-9, 1968, Aug. 6-24, 1999.
b From rating curve extended above 10,400 ft^3/s.
c Sept. 7, 8.
d Aug. 17-31, Sept. 1-10, 1968, Aug. 6-25, 1999.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01610400 WAITES RUN NEAR WARDENSVILLE, WV

LOCATION.--Lat 39°02'33.8", long 78°35'54.0", Hardy County, Hydrologic Unit 02070003, on left bank at downstream side of bridge on Waites Run Road, 2.6 mi south of Wardensville, 4.3 mi upstream from mouth, and 8.2 mi east of Baker.

DRAINAGE AREA.--12.6 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 2002 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1240.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good except those for estimated daily discharges (missing record), which are poor. U.S. Geological Survey gage-height telemeter at station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 140 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov 19	1315	615	5.40	Apr 26	1030	248	4.77
Dec 11	0130	385	5.06	May 16	2145	185	4.57
Feb 6	1515	146	4.38	Sep 8	1900	*1,160	*5.94
Apr 12	2115	176	4.52	Sep 18	0530	286	4.86
Apr 26	0400	226	4.71	Sep 28	1400	419	5.12

Minimum discharge, 1.1 ft^3/s, Sept. 4, 5.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	16	28	22	e6.4	19	24	38	12	4.5	3.2	1.3
2	15	15	25	20	e6.4	22	36	46	10	4.4	2.5	1.2
3	14	14	23	19	e6.2	23	41	48	10	3.9	2.1	1.3
4	13	14	21	18	e6.0	24	38	38	9.3	5.9	1.9	1.2
5	12	14	21	17	5.9	24	34	34	31	9.8	1.8	1.2
6	11	16	20	16	54	38	31	31	17	6.5	1.8	1.9
7	10	16	18	14	56	36	29	36	14	4.5	1.6	2.0
8	9.6	14	17	e13	31	35	27	38	12	4.1	1.6	249
9	9.1	13	17	e12	25	32	25	32	10	3.5	1.5	102
10	8.7	13	26	e12	23	29	22	29	9.7	3.4	1.4	33
11	8.5	13	173	e12	22	26	20	25	18	3.5	1.4	21
12	8.2	34	67	e12	20	24	64	22	26	3.5	5.4	16
13	7.8	31	47	e11	20	21	111	19	15	4.1	9.7	13
14	21	27	42	e10	19	19	83	22	14	3.2	2.7	11
15	27	24	35	e10	18	18	62	24	19	2.8	2.3	10
16	16	22	32	e10	e16	19	50	52	20	2.6	2.1	8.7
17	15	20	44	e9.8	e14	19	43	77	16	2.5	2.0	28
18	15	18	35	e9.4	e14	21	37	47	15	2.8	1.9	147
19	13	142	30	e9.2	e16	35	33	43	13	2.7	1.8	59
20	12	91	27	e9.0	e17	27	30	35	12	2.4	1.8	39
21	12	56	24	e8.8	40	29	28	32	10	2.2	3.2	29
22	12	43	24	e8.8	35	25	24	28	9.9	2.5	2.6	23
23	11	35	30	e8.6	30	24	24	24	9.4	2.7	2.0	18
24	10	36	60	e8.4	29	23	22	20	8.1	2.3	1.7	16
25	9.8	34	54	e8.0	26	22	20	18	7.3	2.2	1.6	14
26	9.8	29	44	e7.8	22	20	150	21	6.9	2.8	1.6	12
27	23	27	37	e7.6	20	19	99	17	5.9	2.6	1.5	11
28	25	36	32	e7.2	19	18	66	18	5.3	2.5	1.5	144
29	21	35	29	e7.0	19	17	52	15	5.1	2.1	1.4	108
30	18	31	27	e6.8	---	16	44	13	4.7	1.9	1.5	63
31	17	---	24	e6.6	---	17	---	13	---	2.0	1.4	---
TOTAL	431.5	929	1,133	351.0	635.9	741	1,369	955	375.6	106.4	70.5	1,184.8
MEAN	13.9	31.0	36.5	11.3	21.9	23.9	45.6	30.8	12.5	3.43	2.27	39.5
MAX	27	142	173	22	56	38	150	77	31	9.8	9.7	249
MIN	7.8	13	17	6.6	5.9	16	20	13	4.7	1.9	1.4	1.2
CFSM	1.10	2.46	2.90	0.90	1.74	1.90	3.62	2.44	0.99	0.27	0.18	3.13
IN.	1.27	2.74	3.35	1.04	1.88	2.19	4.04	2.82	1.11	0.31	0.21	3.50

e Estimated

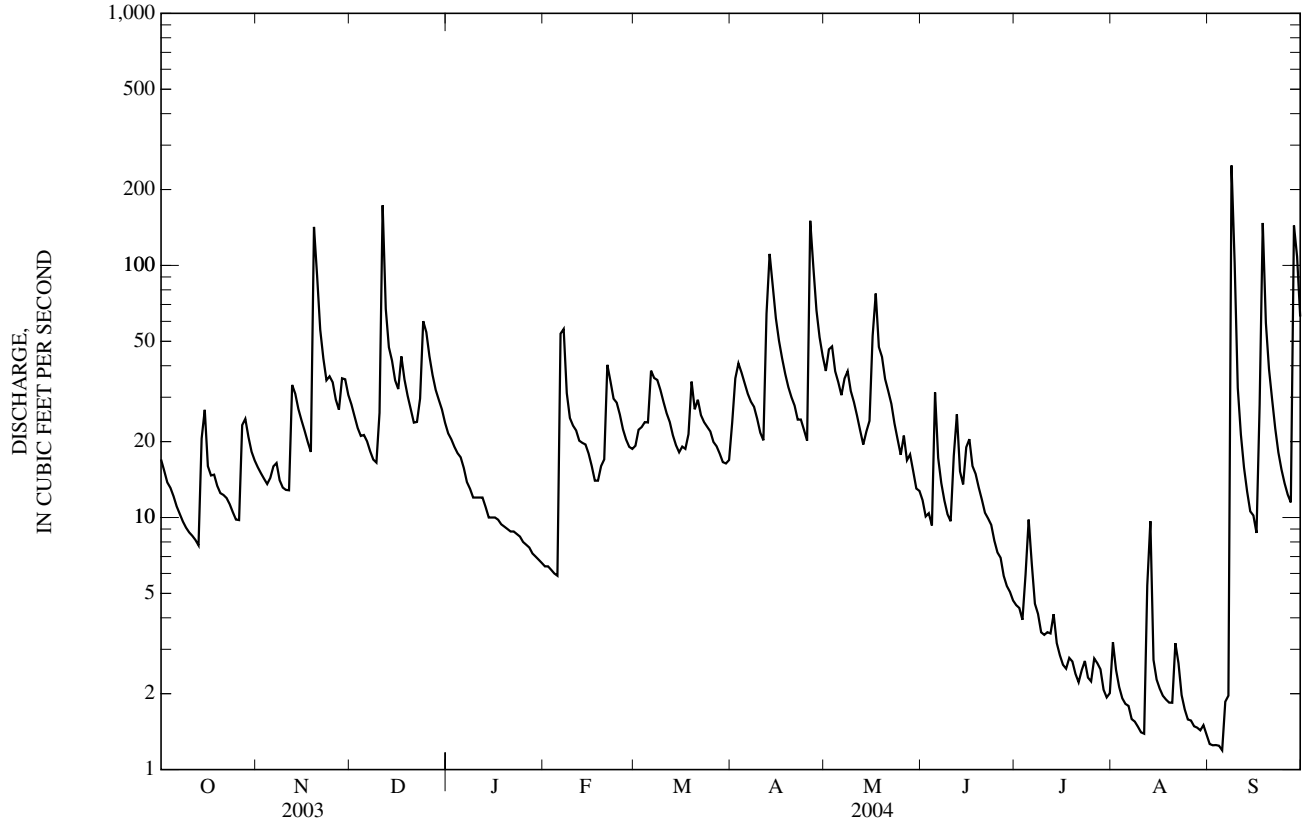
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2002 - 2004, BY WATER YEAR (WY)

MEAN	11.2	30.4	30.4	19.0	16.2	30.9	40.2	30.8	21.3	5.85	4.91	31.0
MAX	13.9	31.0	36.5	26.7	22.6	55.8	45.6	33.9	44.1	7.58	9.21	48.3
(WY)	(2004)	(2004)	(2004)	(2003)	(2003)	(2003)	(2004)	(2003)	(2003)	(2003)	(2003)	(2003)
MIN	8.43	29.8	24.4	11.3	3.79	13.0	30.8	27.7	7.26	3.43	2.27	5.32
(WY)	(2003)	(2003)	(2003)	(2004)	(2002)	(2002)	(2002)	(2002)	(2002)	(2004)	(2004)	(2002)

01610400 WAITES RUN NEAR WARDENSVILLE, WV—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 2002 - 2004	
ANNUAL TOTAL	11,353.9		8,282.7			
ANNUAL MEAN	31.1		22.6		26.1	
HIGHEST ANNUAL MEAN					29.5	2003
LOWEST ANNUAL MEAN					22.6	2004
HIGHEST DAILY MEAN	679	Sep 19	249	Sep 8	679	Sep 19, 2003
LOWEST DAILY MEAN	3.4	Jul 27	1.2	(a)	(e)0.78	Sep 14, 2002
ANNUAL SEVEN-DAY MINIMUM	4.1	Jul 21	1.3	Aug 30	1.0	Sep 12, 2002
MAXIMUM PEAK FLOW			1,160	Sep 8	(b)1,380	Sep 19, 2003
MAXIMUM PEAK STAGE			5.94	Sep 8	6.09	Sep 19, 2003
INSTANTANEOUS LOW FLOW			1.1	(c)		
ANNUAL RUNOFF (CFSM)	2.47		1.80		2.07	
ANNUAL RUNOFF (INCHES)	33.52		24.45		28.11	
10 PERCENT EXCEEDS	66		43		54	
50 PERCENT EXCEEDS	20		17		18	
90 PERCENT EXCEEDS	5.2		2.3		3.8	

a Sept. 2, 4, 5.
e Estimated.
b From rating curve extended above 420 ft^3/s.
c Sept. 4, 5.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01610400 WAITES RUN NEAR WARDENSVILLE, WV—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 2001 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: January 2002 to September 2004 (discontinued).
WATER TEMPERATURE: January 2002 to September 2004 (discontinued).

INSTRUMENTATION.--Water-quality monitor January 2002 to September 2004.

REMARKS.--Water-quality monitor records for specific conductance rated excellent except for the period July 21 - Aug. 4, rated good. Water temperature records rated excellent.

EXTREMES FOR PERIOD OF DAILY RECORD--
SPECIFIC CONDUCTANCE: Maximum, 156 microsiemens/cm, July 27, 2004; minimum, 23 microsiemens/cm, Feb. 22, 2003.
WATER TEMPERATURE: Maximum, 24.5°C, July 3, 2002; minimum, 0.0°C. on many days during winter periods

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 156 microsiemens/cm (upstream bridge construction), July 27; minimum, 25 microsiemens/cm, Sept. 8.
WATER TEMPERATURE: Maximum, 23.8°C, July 31; minimum, 0.0°C. on many days.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sample type	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Sampling method, code (82398)	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, air, deg C (00020)
NOV												
03...	1200	Environmental	1028	80020	14	40	734	9.2	89	7.0	45	27.0
JAN												
05...	1200	Environmental	1028	80020	17	40	722	10.4	88	6.9	34	9.0
MAR												
01...	1045	Environmental	1028	80020	18	40	733	13.3	104	6.8	38	14.0
APR												
05...	1045	Environmental	1028	80020	34	40	731	13.5	105	5.8	31	3.5
MAY												
03...	1130	Environmental	1028	80020	46	40	735	9.1	87	6.8	33	12.5
JUN												
01...	1045	Environmental	1028	80020	12	40	725	9.1	96	6.9	46	22.0
JUL												
06...	*1142*	*Blank*	*1028*	*80020*	--	--	--	--	--	--	--	--
06...	1215	Environmental	1028	80020	6.0	40	731	6.7	77	7.6	63	29.0
06...	*1216*	*Replicate*	*1028*	*80020*	--	*40*	--	--	--	--	--	--
SEP												
02...	1000	Environmental	1028	80020	1.2	40	736	9.1	99	7.9	125	20.5

Date	Temperature, water, deg C (00010)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Chloride, water, fltrd, mg/L (00940)	Sulfate water, fltrd, mg/L (00945)	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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, wat unf by analysis, mg/L (62855)	Total carbon, suspnd sedimnt total, mg/L (00694)
NOV													
03...	13.5	12	14	.76	4.8	<.04	.07	<.008	<.02	<.006	.005	.15	.1
JAN													
05...	8.0	11	14	.67	4.8	<.04	.19	<.008	<.02	<.006	.004	.22	.2
MAR													
01...	3.5	11	14	.64	4.8	<.04	.28	E.004	<.02	<.006	.004	.30	<.1
APR													
05...	3.0	9	11	.68	5.1	<.04	.45	<.008	<.02	<.006	E.003	.43	<.1
MAY													
03...	11.5	8	10	.62	4.7	<.04	.28	<.008	<.02	<.006	.008	.39	.2
JUN													
01...	15.5	15	18	.58	4.1	<.04	.17	<.008	<.02	<.006	.011	.24	.1
JUL													
06...	--	--	--	--	--	--	--	--	*<.02*	--	--	--	*<.1*
06...	20.0	22	27	.75	4.7	<.04	.17	<.008	<.02	<.006	.010	.28	.4
06...	--	*23*	*28*	*.64*	*4.6*	--	--	--	*.02*	--	--	--	*.3*
SEP													
02...	17.5	53	65	.74	5.0	<.04	E.06	<.008	<.02	E.003	.007	.12	.2

Agency collecting sample: 1028 - U.S. Geological Survey
Agency analyzing sample: 80020 - USGS-National Water Quality Lab, Denver, CO
Sampling method: 40 - Multiple verticals

01610400 WAITES RUN NEAR WARDENSVILLE, WV—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Inorganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	Suspended sediment concentration mg/L (80154)	Suspended sediment discharge, tons/d (80155)	Sampler type, code (84164)
NOV						
03...	<.1	.1	1.4	2	.08	3070
JAN						
05...	<.1	.2	1.5	2	.09	3070
MAR						
01...	<.1	<.1	1.1	1	.05	3070
APR						
05...	<.1	<.1	1.1	1	.09	3070
MAY						
03...	<.1	.2	2.3	3	.37	3070
JUN						
01...	<.1	.1	1.1	2	.06	3070
JUL						
06...	*<.1*	*<.1*	--	*1*	--	--
06...	<.1	.4	2.1	3	.05	3070
06...	*<.1*	*.3*	--	--	--	*3070*
SEP						
02...	<.1	.2	.8	6	.02	3070

Remark codes used in this table:
< -- Less than
E -- Estimated value
Sample Type: 3070 - Grab sample

01610400 WAITES RUN NEAR WARDENSVILLE, WV—Continued

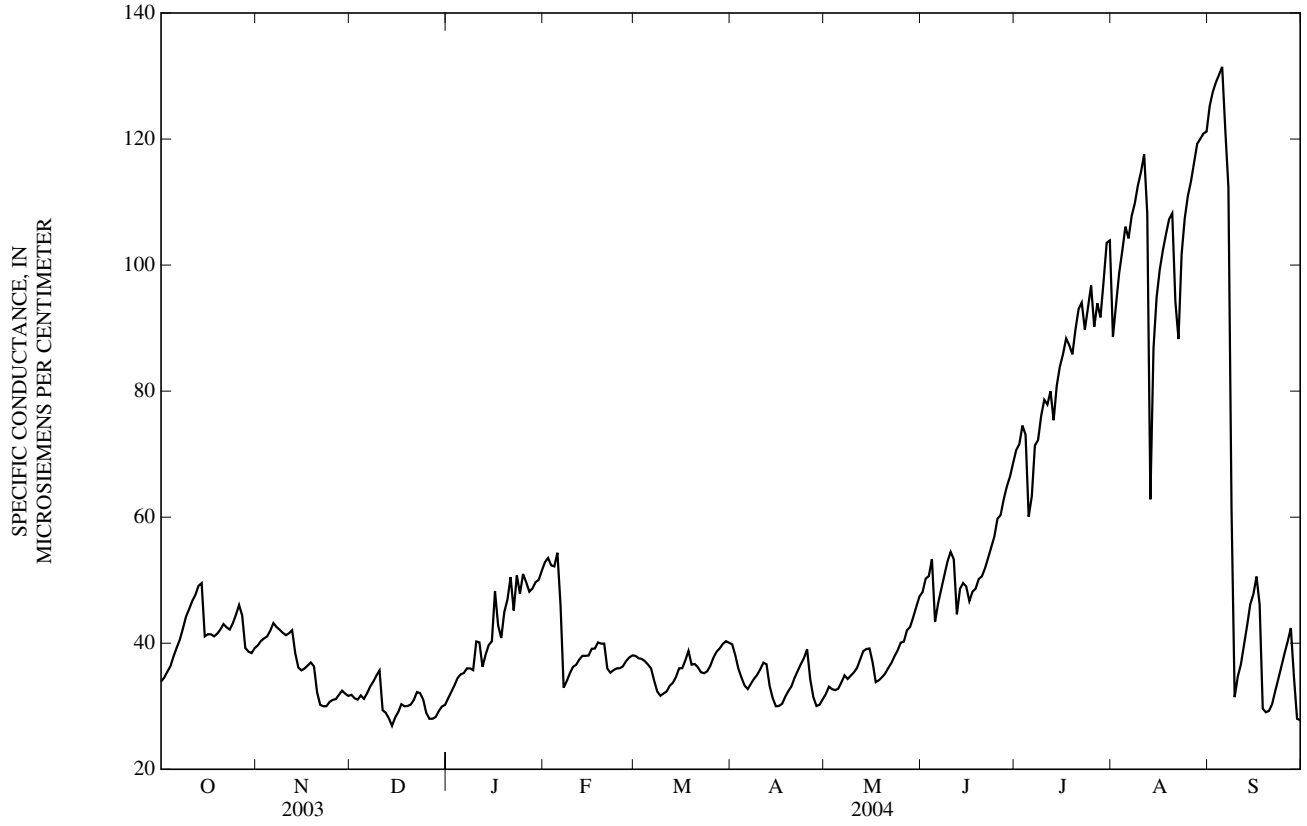
SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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

01610400 WAITES RUN NEAR WARDENSVILLE, WV—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	50	47	48	73	67	71	104	80	89	128	123	125
2	53	49	50	75	68	72	97	92	94	130	126	127
3	54	47	51	77	71	75	101	97	99	131	128	129
4	54	52	53	79	60	73	104	100	102	132	129	130
5	54	38	43	68	47	60	109	104	106	134	130	131
6	48	45	46	71	53	63	106	103	104	134	109	121
7	51	48	49	73	70	71	109	106	108	115	109	112
8	54	49	51	76	71	72	111	108	110	114	25	61
9	56	51	53	79	73	76	114	110	113	34	28	31
10	56	53	55	80	76	79	116	113	115	36	33	35
11	56	41	53	80	75	78	119	115	118	39	36	37
12	49	40	45	83	76	80	119	52	108	42	38	40
13	50	47	49	79	72	75	80	50	63	45	42	43
14	51	48	50	83	78	81	93	80	87	48	45	46
15	52	40	49	86	81	84	98	93	95	49	47	48
16	49	43	47	88	83	86	101	98	99	53	49	51
17	49	47	48	92	85	88	104	101	102	54	33	46
18	51	47	49	92	84	87	106	103	105	34	28	30
19	51	49	50	88	83	86	109	105	107	30	29	29
20	54	49	51	92	87	90	110	103	108	30	29	29
21	54	50	52	96	90	93	106	77	94	32	30	30
22	55	52	54	99	85	94	98	78	88	34	32	32
23	57	54	55	92	87	90	105	98	102	36	33	34
24	61	55	57	96	90	93	109	105	107	38	36	36
25	62	58	60	99	94	97	112	109	111	40	38	38
26	63	59	60	96	86	90	115	112	113	42	40	40
27	66	60	63	156	89	94	118	115	116	44	42	42
28	68	62	65	95	89	92	120	118	119	43	27	35
29	69	64	66	100	95	97	121	119	120	28	28	28
30	72	66	69	130	99	104	122	119	121	28	27	28
31	---	---	---	106	96	104	124	119	121	---	---	---
MONTH	72	38	53	156	47	84	124	50	105	134	25	58
YEAR	156	25	50									



DAILY MEAN SPECIFIC CONDUCTIVITY - 2004 WATER YEAR

01610400 WAITES RUN NEAR WARDENSVILLE, WV—Continued

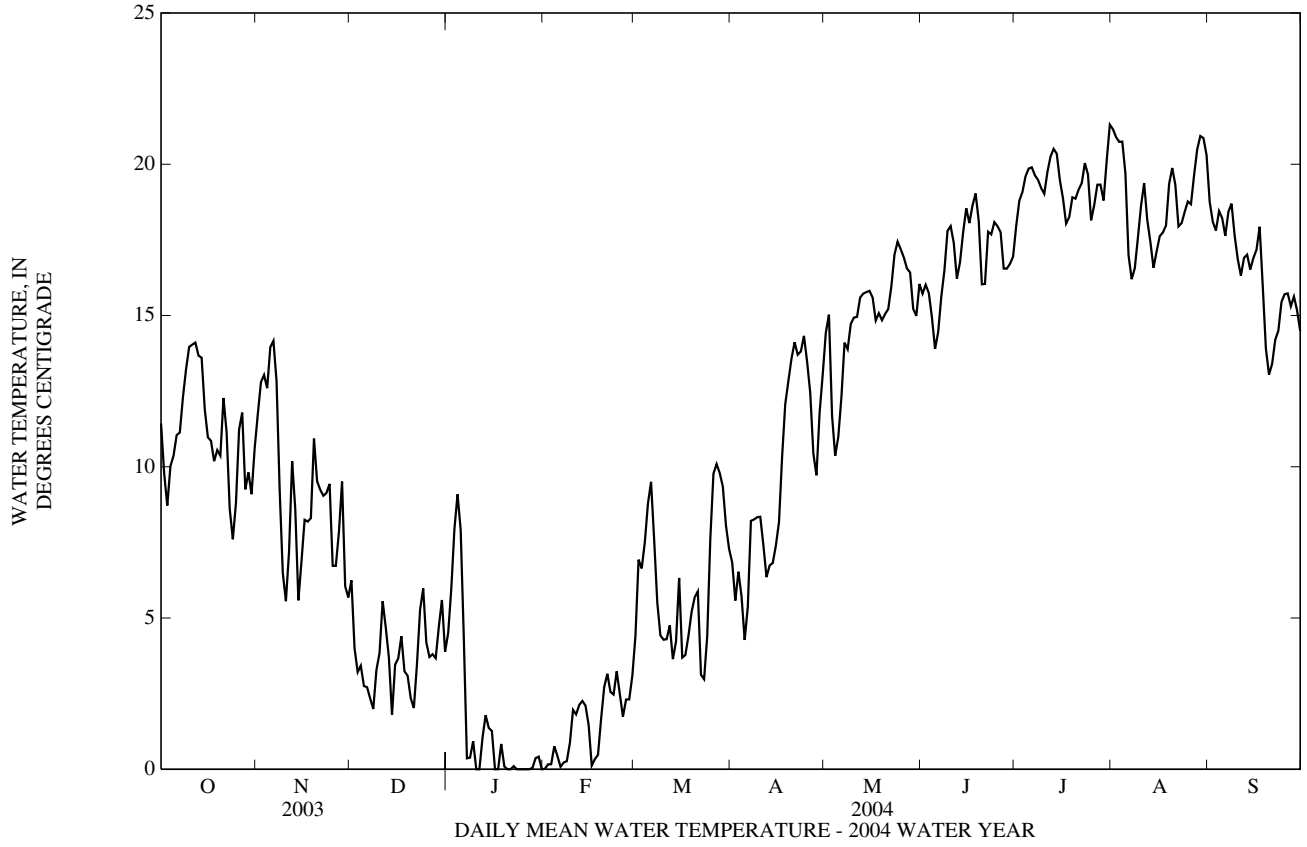
TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	11.9	10.6	11.4	13.0	10.3	11.7	7.0	4.9	6.2	5.3	3.6	4.5
2	10.6	8.6	9.8	13.9	11.5	12.8	4.9	3.3	4.0	6.7	5.3	6.0
3	9.6	7.5	8.7	14.2	12.0	13.0	3.7	2.6	3.2	9.2	6.6	8.0
4	10.5	9.4	10.0	13.8	11.4	12.6	4.0	2.9	3.4	9.8	8.6	9.1
5	11.2	9.3	10.4	14.9	12.6	14.0	3.3	2.5	2.8	8.6	6.6	7.9
6	12.0	10.2	11.0	14.4	13.9	14.2	3.2	2.3	2.7	6.6	1.4	4.4
7	12.3	9.8	11.1	13.9	11.2	12.8	2.8	1.8	2.3	1.4	0.0	0.4
8	13.6	11.1	12.3	11.2	7.5	9.2	2.8	1.0	2.0	1.0	0.0	0.4
9	14.1	12.3	13.2	7.5	5.4	6.5	4.1	2.4	3.3	1.6	0.0	0.9
10	15.0	13.0	14.0	6.6	4.2	5.6	4.3	3.2	3.8	0.0	0.0	0.0
11	14.3	13.7	14.0	8.8	5.8	7.2	6.2	4.2	5.6	0.0	0.0	0.0
12	15.4	12.9	14.1	11.2	8.8	10.2	5.0	4.0	4.7	1.8	0.0	1.0
13	14.7	12.7	13.7	11.2	5.9	8.6	4.0	3.2	3.7	2.8	1.0	1.8
14	14.5	12.7	13.6	6.1	4.9	5.6	3.6	0.9	1.8	2.0	0.6	1.4
15	13.4	10.6	11.9	7.7	6.1	6.9	4.1	2.7	3.5	1.8	0.0	1.3
16	12.1	9.8	11.0	8.8	7.6	8.2	4.8	2.4	3.7	0.0	0.0	0.0
17	11.2	10.5	10.9	9.1	7.3	8.2	4.8	3.2	4.4	0.1	0.0	0.0
18	11.0	9.4	10.2	9.5	7.4	8.3	3.6	2.9	3.2	1.3	0.1	0.8
19	11.8	9.7	10.5	12.5	9.5	10.9	3.5	2.6	3.1	0.7	0.0	0.1
20	11.5	8.9	10.4	10.1	8.6	9.5	2.8	1.6	2.3	0.0	0.0	0.0
21	13.5	11.1	12.3	10.5	8.1	9.2	2.9	1.0	2.0	0.0	0.0	0.0
22	12.4	9.6	11.1	10.0	8.0	9.0	4.5	2.2	3.5	0.5	0.0	0.1
23	9.6	7.6	8.6	10.2	8.1	9.1	6.1	4.5	5.3	0.0	0.0	0.0
24	8.9	6.4	7.6	10.8	8.0	9.4	6.7	4.6	6.0	0.0	0.0	0.0
25	10.2	7.2	8.8	8.0	6.1	6.7	4.6	3.5	4.2	0.0	0.0	0.0
26	12.3	10.1	11.2	7.5	5.8	6.7	4.2	3.4	3.7	0.0	0.0	0.0
27	12.5	9.7	11.8	9.0	6.9	7.8	4.8	3.0	3.8	0.0	0.0	0.0
28	9.8	8.2	9.3	10.6	7.8	9.5	4.5	2.7	3.7	0.2	0.0	0.0
29	10.6	8.9	9.8	7.8	5.2	6.0	5.9	3.5	4.7	0.8	0.0	0.4
30	10.2	7.7	9.1	6.6	4.7	5.7	6.3	4.1	5.6	0.9	0.0	0.4
31	12.0	9.2	10.6	---	---	---	4.7	3.0	3.9	0.0	0.0	0.0
MONTH	15.4	6.4	11.0	14.9	4.2	9.2	7.0	0.9	3.7	9.8	0.0	1.6
		FEBRUARY			MARCH			APRIL			MAY	
1	0.1	0.0	0.0	6.2	2.6	4.4	7.2	5.9	6.8	16.5	12.5	14.4
2	0.5	0.0	0.2	8.5	5.8	6.9	5.9	5.2	5.6	17.2	13.2	15.0
3	0.6	0.0	0.2	8.0	5.1	6.6	7.7	5.7	6.5	13.2	10.4	11.7
4	1.4	0.3	0.8	8.2	7.0	7.5	6.6	4.3	5.7	11.9	8.9	10.4
5	1.0	0.1	0.4	10.8	6.9	8.8	6.2	2.7	4.3	13.0	9.1	11.0
6	0.4	0.0	0.1	10.3	7.9	9.5	7.6	3.1	5.4	14.6	9.8	12.3
7	0.6	0.0	0.2	8.9	6.6	7.6	10.6	6.1	8.2	15.8	12.3	14.1
8	1.0	0.0	0.3	6.9	4.5	5.5	9.9	6.9	8.3	15.3	12.5	13.9
9	1.8	0.0	0.9	5.1	3.8	4.4	9.7	7.4	8.3	16.5	12.9	14.7
10	3.3	1.1	2.0	5.4	3.4	4.3	10.2	6.8	8.3	16.2	13.4	14.9
11	2.8	1.1	1.8	6.0	2.5	4.3	8.7	6.5	7.4	15.9	14.0	15.0
12	3.2	1.4	2.1	6.0	3.7	4.8	6.5	6.2	6.4	17.1	14.2	15.6
13	3.4	1.4	2.3	5.3	2.3	3.6	7.2	6.4	6.7	16.9	14.6	15.7
14	3.0	1.4	2.1	5.9	2.6	4.2	7.1	6.2	6.8	16.3	15.3	15.8
15	2.3	0.4	1.5	8.2	5.1	6.3	9.8	5.4	7.4	16.9	14.8	15.8
16	0.7	0.0	0.1	5.6	2.2	3.7	10.8	5.5	8.2	16.3	14.9	15.6
17	1.2	0.0	0.3	4.3	3.4	3.8	12.9	7.8	10.3	16.0	13.7	14.8
18	1.6	0.0	0.5	5.6	3.2	4.4	14.8	9.5	12.1	16.1	14.3	15.1
19	3.7	0.2	1.7	6.6	4.4	5.2	15.0	10.6	12.8	15.4	14.5	14.8
20	4.3	1.5	2.7	7.8	3.6	5.7	15.3	12.2	13.6	15.9	14.2	15.0
21	3.6	2.6	3.2	7.5	3.7	5.9	16.3	12.1	14.1	15.6	14.8	15.2
22	3.3	2.0	2.6	4.4	2.1	3.1	14.4	12.7	13.7	17.6	14.5	16.0
23	3.6	1.2	2.5	5.3	0.9	3.0	15.8	12.2	13.8	18.7	15.6	17.0
24	3.7	2.9	3.2	6.0	2.4	4.4	16.5	12.6	14.3	19.0	16.3	17.4
25	3.7	1.5	2.5	9.8	5.7	7.6	14.6	12.5	13.5	18.4	16.1	17.2
26	2.5	0.8	1.7	12.0	7.8	9.8	14.2	10.7	12.4	17.5	16.2	16.9
27	3.8	1.2	2.3	10.7	9.4	10.1	11.9	8.8	10.4	17.6	15.6	16.6
28	4.2	0.6	2.3	11.8	8.5	9.8	11.9	7.6	9.7	17.2	15.7	16.4
29	4.9	1.2	3.1	11.5	7.7	9.3	14.4	9.2	11.8	16.5	14.2	15.2
30	---	---	---	8.9	7.5	8.1	15.0	10.9	13.0	16.5	13.5	15.0
31	---	---	---	7.6	7.0	7.3	---	---	---	17.0	15.5	16.0
MONTH	4.9	0.0	1.5	12.0	0.9	6.1	16.5	2.7	9.5	19.0	8.9	15.0

01610400 WAITES RUN NEAR WARDENSVILLE, WV—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	17.0	14.7	15.7	19.9	16.4	18.0	22.8	20.1	21.2	20.6	17.3	18.8
2	17.7	14.8	16.0	20.9	17.2	18.8	22.3	19.8	20.9	19.6	16.6	18.1
3	17.0	14.9	15.7	20.8	17.6	19.1	22.8	19.2	20.7	19.1	16.5	17.8
4	15.3	14.4	14.9	21.3	18.4	19.6	22.9	19.2	20.7	20.5	17.0	18.5
5	14.4	13.7	13.9	21.8	18.6	19.9	20.5	18.4	19.7	19.6	16.7	18.2
6	15.5	13.5	14.5	21.4	18.7	19.9	18.4	15.9	17.0	18.5	17.4	17.6
7	17.1	14.3	15.6	21.0	18.7	19.6	18.0	14.7	16.2	19.5	17.5	18.4
8	18.3	14.8	16.5	21.5	18.3	19.5	18.6	14.6	16.6	19.2	18.1	18.7
9	19.2	16.5	17.8	20.7	18.0	19.2	20.0	15.6	17.6	18.1	16.9	17.6
10	18.8	17.2	18.0	19.8	18.0	19.0	20.7	16.9	18.6	17.7	16.1	16.9
11	17.8	16.2	17.4	21.5	18.3	19.7	20.9	18.2	19.4	17.1	15.3	16.3
12	17.3	15.4	16.2	21.6	19.3	20.3	19.0	17.4	18.2	17.9	15.8	16.9
13	18.1	15.7	16.8	22.1	19.4	20.5	17.9	16.9	17.4	18.0	16.2	17.0
14	18.8	16.6	17.7	22.0	19.4	20.3	17.3	15.6	16.6	17.1	16.0	16.5
15	20.1	17.3	18.5	21.1	18.5	19.5	19.0	15.5	17.1	17.5	16.5	16.9
16	18.7	17.4	18.1	20.9	17.5	18.9	19.4	16.3	17.6	18.3	16.1	17.2
17	20.1	17.4	18.6	19.4	16.7	18.0	19.6	16.2	17.7	18.5	17.5	17.9
18	20.1	18.2	19.0	19.3	17.5	18.3	19.9	16.4	18.0	17.6	14.4	16.0
19	18.8	16.8	18.1	20.4	17.9	18.9	21.3	17.9	19.4	14.8	13.1	13.9
20	17.6	14.7	16.0	21.1	17.2	18.9	21.7	18.4	19.9	14.2	11.8	13.0
21	18.0	14.0	16.0	21.4	17.4	19.2	19.9	17.8	19.3	14.6	12.1	13.4
22	19.0	16.9	17.8	20.2	18.4	19.4	20.0	16.4	17.9	15.4	13.0	14.2
23	18.4	17.3	17.7	21.5	18.8	20.0	20.3	16.3	18.1	15.5	13.2	14.5
24	20.0	16.6	18.1	21.3	18.6	19.7	20.7	16.5	18.4	16.4	14.4	15.4
25	18.6	17.3	18.0	18.6	17.9	18.1	20.5	17.3	18.8	16.6	14.7	15.7
26	19.6	16.4	17.8	19.5	17.9	18.6	20.8	16.9	18.7	16.1	15.4	15.7
27	18.4	14.9	16.5	20.2	18.7	19.3	21.7	17.9	19.6	15.6	14.7	15.3
28	18.2	15.0	16.6	20.7	18.5	19.3	22.4	19.0	20.5	16.0	15.2	15.6
29	18.7	15.1	16.7	20.8	17.1	18.8	22.6	19.5	20.9	15.6	14.9	15.2
30	19.2	15.2	16.9	22.0	18.5	20.1	22.2	19.9	20.9	15.1	13.6	14.5
31	---	---	---	23.8	19.9	21.3	21.8	18.7	20.3	---	---	---
MONTH	20.1	13.5	16.9	23.8	16.4	19.3	22.9	14.6	18.8	20.6	11.8	16.4
YEAR	23.8	0.0	10.8									



DAILY MEAN WATER TEMPERATURE - 2004 WATER YEAR

01611500 CACAPON RIVER NEAR GREAT CACAPON, WV

LOCATION.--Lat 39°34'56", long 78°18'36", NAD 27, Morgan County, Hydrologic Unit 02070003, on left bank at Rock Ford, 3.0 mi southwest of Great Cacapon, and at mile 6.1.

DRAINAGE AREA.--675 mi^2.

PERIOD OF RECORD.--December 1922 to September 1995, October 1996 to current year.

REVISED RECORDS.--WSP 800: 1924(M). WSP 921: Drainage area. WSP 951: 1936-37. WSP 1552: 1925-26(M), 1928-1929(M), 1932. WDR WV-97-1: Drainage area.

GAGE.--Water-stage recorder with satellite telemeter. Datum of gage is 456.78 ft above NGVD 29 (U.S. Army Corps of Engineers bench mark). Prior to Nov. 10, 1933, nonrecording gage at same site and datum.

REMARKS.--Records fair except those for periods of estimated daily discharges (ice effect, no gage-height record), which are poor. High end of rating not confirmed above 3,000 ft^3/s since cableway removed in July 1992.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in May 1889 reached a stage of about 24.7 ft, from floodmarks, discharge, 57,500 ft^3/s.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,900 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov 20	1000	9,160	10.25	Apr 14	1230	8,780	10.04
Dec 11	1800	*14,000	*12.54	Apr 27	0230	10,800	11.07
Dec 25	0530	3,990	6.88	Sep 9	1330	9,980	10.68
Feb 7	1100	11,400	11.39	Sep 18	2130	6,370	8.61
Apr 2	1930	4,000	6.89	Sep 29	1000	9,150	10.24

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	652	619	1,500	920	411	1,090	802	1,470	632	217	442	86
2	570	546	1,240	831	374	1,240	3,280	1,270	596	207	266	86
3	497	496	1,020	791	e360	1,450	3,540	2,220	511	201	297	85
4	439	457	873	760	e350	1,280	2,650	2,590	439	202	235	84
5	414	433	814	733	411	1,200	2,010	1,860	461	294	195	82
6	389	433	820	720	656	1,230	1,620	1,530	1,010	933	175	82
7	358	456	786	655	5,410	1,660	1,330	1,260	779	562	156	82
8	329	520	718	561	3,600	1,590	1,140	1,150	586	390	146	148
9	303	479	660	499	2,080	1,430	1,050	1,150	477	301	139	4,160
10	285	428	640	494	1,670	1,220	945	913	411	252	136	2,170
11	268	400	7,350	410	1,530	1,050	813	783	378	223	131	e1,020
12	254	730	6,130	465	1,530	921	803	696	1,200	216	129	e634
13	243	2,550	2,920	504	1,380	828	5,210	629	1,880	226	153	e451
14	242	1,950	2,100	481	1,270	735	7,440	599	1,490	223	167	e363
15	350	1,510	1,830	449	1,240	668	4,020	636	982	214	213	e315
16	898	1,160	1,560	433	1,070	635	2,350	899	1,190	199	203	e271
17	636	931	1,380	385	859	648	1,830	1,020	1,040	183	170	535
18	516	770	1,650	426	786	729	1,540	1,360	751	175	149	3,160
19	488	760	1,620	498	738	801	1,300	1,910	644	172	139	3,540
20	443	5,690	1,400	538	983	1,230	1,120	2,140	546	166	133	1,690
21	397	3,280	1,190	472	2,150	1,370	1,040	1,640	467	161	135	1,080
22	369	2,060	1,020	432	3,190	1,490	983	2,140	417	159	129	758
23	346	1,630	1,080	e390	2,170	1,280	865	1,590	379	162	125	580
24	331	1,350	2,170	e360	1,850	1,090	821	1,140	357	167	118	467
25	313	1,310	3,580	e340	1,700	961	886	853	331	169	113	394
26	293	1,290	2,440	e330	1,500	855	2,990	704	304	168	106	346
27	363	1,060	1,880	e430	1,260	767	8,050	716	278	172	103	312
28	1,070	971	1,580	556	1,120	707	3,530	889	269	171	99	565
29	1,320	1,460	1,340	525	1,050	652	2,210	924	249	157	96	6,260
30	980	1,750	1,190	470	---	596	1,760	908	230	152	93	3,060
31	755	---	1,070	440	---	583	---	706	---	151	89	---
TOTAL	15,111	37,479	55,551	16,298	42,698	31,986	67,928	38,295	19,284	7,345	4,980	32,866
MEAN	487	1,249	1,792	526	1,472	1,032	2,264	1,235	643	237	161	1,096
MAX	1,320	5,690	7,350	920	5,410	1,660	8,050	2,590	1,880	933	442	6,260
MIN	242	400	640	330	350	583	802	599	230	151	89	82
CFSM	0.72	1.85	2.65	0.78	2.18	1.53	3.35	1.83	0.95	0.35	0.24	1.62
IN.	0.83	2.07	3.06	0.90	2.35	1.76	3.74	2.11	1.06	0.40	0.27	1.81

e Estimated

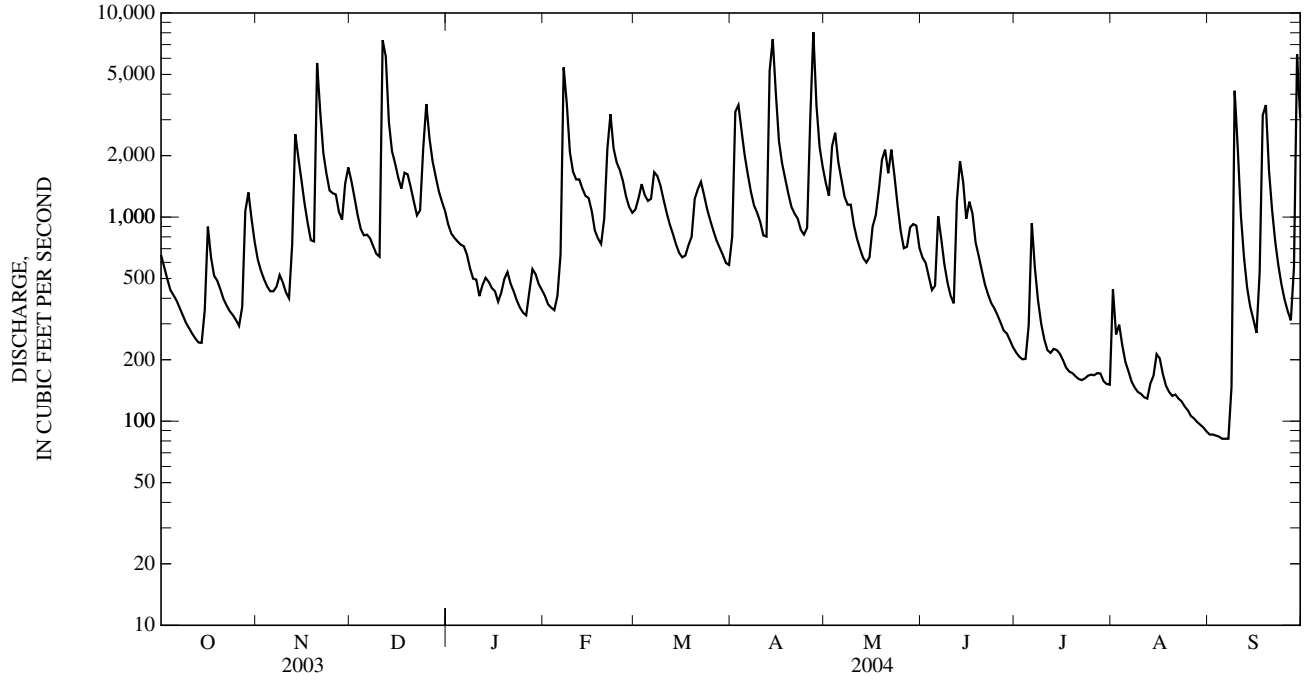
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1923 - 1995, 1997 - 2004, BY WATER YEAR (WY)

MEAN	325	378	529	636	890	1,286	1,132	866	441	194	233	205
MAX	2,976	2,577	2,121	1,751	3,234	5,708	2,976	3,565	3,525	936	2,791	1,698
(WY)	(1943)	(1986)	(1973)	(1998)	(1998)	(1936)	(1987)	(1924)	(1972)	(1972)	(1955)	(2003)
MIN	44.8	51.1	56.5	69.6	89.1	247	242	157	72.5	53.8	39.8	39.4
(WY)	(1931)	(1966)	(1966)	(1956)	(1934)	(1990)	(1947)	(1969)	(1999)	(1999)	(1966)	(1932)

01611500 CACAPON RIVER NEAR GREAT CACAPON, WV—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1923 - 1995, 1997 - 2004	
ANNUAL TOTAL	481,707		369,821			
ANNUAL MEAN	1,320		1,010		595	
HIGHEST ANNUAL MEAN					1,192	2003
LOWEST ANNUAL MEAN					180	1969
HIGHEST DAILY MEAN	14,900	Sep 20	8,050	Apr 27	67,900	Mar 18, 1936
LOWEST DAILY MEAN	147	Sep 1	82	(a)	26	Sep 12, 1966
ANNUAL SEVEN-DAY MINIMUM	154	Aug 27	84	Sep 1	28	Sep 7, 1966
MAXIMUM PEAK FLOW			14,000	Dec 11	(b)87,600	Mar 18, 1936
MAXIMUM PEAK STAGE			12.54	Dec 11	30.10	Mar 18, 1936
INSTANTANEOUS LOW FLOW			80	Sep 5	26	(c)
ANNUAL RUNOFF (CFSM)	1.96		1.50		0.881	
ANNUAL RUNOFF (INCHES)	26.55		20.38		11.97	
10 PERCENT EXCEEDS	2,610		2,090		1,370	
50 PERCENT EXCEEDS	814		705		247	
90 PERCENT EXCEEDS	216		167		68	

a Sept. 5-7.
b From rating curve extended above 52,000 ft^3/s.
c Sept. 11-13, 1966.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01613000 POTOMAC RIVER AT HANCOCK, MD

LOCATION.--Lat 39°41'51.2", long 78°10'40.4", Washington County, Hydrologic Unit 02070004, on left bank, 0.2 mi downstream from Little Tonoloway Creek, 0.5 mi downstream from bridge on U.S. Highway 522 at Hancock, 1.1 mi upstream from Tonoloway Creek (formerly called Great or Big Tonoloway Creek), and at mile 239. DRAINAGE AREA.--4,090 mi^2.

PERIOD OF RECORD.--October 1932 to current year. Gage-height records collected at same site since June 1925 are contained in reports of National Weather Service.

REVISED RECORDS.--WSP 781: 1933(M). WDR WV-97-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 383.68 ft above National Geodetic Vertical Datum of 1929. Oct. 1, 1932, to Jan. 5, 1935, Mar. 18, 1936, to Jan. 20, 1937, nonrecording gage, on former highway bridge just upstream at same datum.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair. Slight regulation at low flow from power plants upstream. Low flow affected slightly by Stony River Reservoir prior to July 1981, since December 1950 by Savage River Reservoir (see station 01597500), and since July 1981 by Jennings Randolph Lake. National Weather Service gage-height telemeter at station. U.S. Army Corps of Engineers satellite collection platform at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known prior to 1932, about 40 ft in May 1889, discharge, about 220,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 23,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov 20	2230	*45,100	*18.97	Apr 27	0730	26,400	14.17
Dec 12	0000	40,200	17.80	Sep 9	2230	32,800	15.93
Feb 7	1030	37,300	17.09	Sep 18	0630	37,100	17.03
Apr 14	1630	42,200	18.30	Sep 29	2000	29,400	15.02

Minimum discharge, 606 ft^3/s, Sept. 7, 8.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5,960	3,610	6,590	6,110	e1,750	6,760	5,090	7,190	4,100	1,280	6,760	878
2	4,690	3,240	5,830	5,650	e1,700	8,100	17,100	6,310	3,730	1,200	4,960	740
3	3,990	2,990	5,240	5,470	e1,700	12,700	18,200	7,230	3,230	1,140	2,850	684
4	3,510	2,790	4,780	5,660	e1,700	13,100	14,200	8,950	2,850	1,100	2,020	652
5	3,240	2,650	4,470	6,610	e2,100	13,800	11,700	7,550	2,750	1,690	1,640	639
6	3,470	2,670	4,500	8,000	7,950	15,700	9,260	6,490	3,010	2,290	1,420	625
7	3,190	2,920	4,410	7,950	24,900	18,500	7,540	5,680	3,050	2,000	1,260	613
8	2,490	3,280	4,130	6,880	22,600	16,400	6,730	5,190	2,790	1,510	1,100	1,100
9	2,210	3,250	3,890	6,240	13,600	12,900	6,620	4,940	2,400	1,350	1,010	23,800
10	2,060	3,030	3,720	5,410	10,200	10,700	6,610	4,330	2,120	1,240	956	19,700
11	1,940	2,860	21,100	4,770	9,230	9,250	5,640	3,910	2,010	1,110	898	9,000
12	1,830	5,070	32,700	e4,500	9,220	8,130	5,290	3,430	3,300	1,220	812	6,510
13	2,270	15,200	18,000	e4,400	8,510	6,790	17,100	3,200	8,180	1,890	858	5,270
14	2,070	14,200	12,500	e3,900	8,220	5,910	37,900	3,240	6,810	2,020	1,070	4,180
15	2,150	11,400	10,400	e3,200	8,050	5,310	30,500	3,520	5,170	1,560	1,120	2,690
16	3,770	9,080	8,860	e2,900	7,240	5,010	17,600	3,890	4,340	1,300	1,620	2,430
17	3,770	7,750	7,740	e2,700	6,450	4,970	12,500	3,930	4,050	1,160	1,420	3,770
18	3,410	6,780	7,810	e2,500	5,750	5,220	9,770	4,300	4,280	1,060	916	28,800
19	3,200	6,610	8,070	e2,400	4,750	6,560	8,200	7,680	4,010	1,030	836	18,800
20	2,990	31,900	7,140	e2,250	5,490	9,170	7,140	9,070	3,660	1,120	824	10,100
21	2,730	30,400	6,230	e2,150	9,060	10,400	6,430	7,100	3,270	1,080	1,020	6,880
22	2,560	16,500	5,580	e2,050	15,200	13,400	5,880	7,630	2,830	996	1,040	4,990
23	2,410	12,200	5,740	e2,000	12,300	11,900	5,450	7,360	2,410	1,020	1,010	3,940
24	2,310	9,800	10,600	e2,000	10,000	9,530	5,070	6,300	2,130	1,210	929	3,270
25	2,190	8,670	17,700	e1,950	9,030	8,100	4,750	4,830	1,960	1,210	822	2,820
26	2,070	7,890	14,800	e1,900	8,070	6,980	9,150	4,230	1,890	1,110	790	2,580
27	2,320	6,750	11,400	e1,900	7,150	6,260	24,200	3,840	1,930	1,060	757	2,340
28	4,430	6,240	9,440	e1,850	6,610	5,670	16,800	3,800	1,740	1,340	737	3,800
29	5,380	6,600	8,150	e1,800	6,460	5,080	11,400	4,340	1,520	1,640	710	20,400
30	4,710	7,160	7,290	e1,800	---	4,650	8,780	6,090	1,390	1,310	693	18,500
31	4,090	---	6,650	e1,750	---	4,470	---	5,060	---	2,050	833	---
TOTAL	97,410	253,490	285,460	118,650	244,990	281,420	352,600	170,610	96,910	42,296	43,691	210,501
MEAN	3,142	8,450	9,208	3,827	8,448	9,078	11,750	5,504	3,230	1,364	1,409	7,017
MAX	5,960	31,900	32,700	8,000	24,900	18,500	37,900	9,070	8,180	2,290	6,760	28,800
MIN	1,830	2,650	3,720	1,750	1,700	4,470	4,750	3,200	1,390	996	693	613
CFSM	0.77	2.07	2.25	0.94	2.07	2.22	2.87	1.35	0.79	0.33	0.34	1.72
IN.	0.89	2.31	2.60	1.08	2.23	2.56	3.21	1.55	0.88	0.38	0.40	1.91

e Estimated

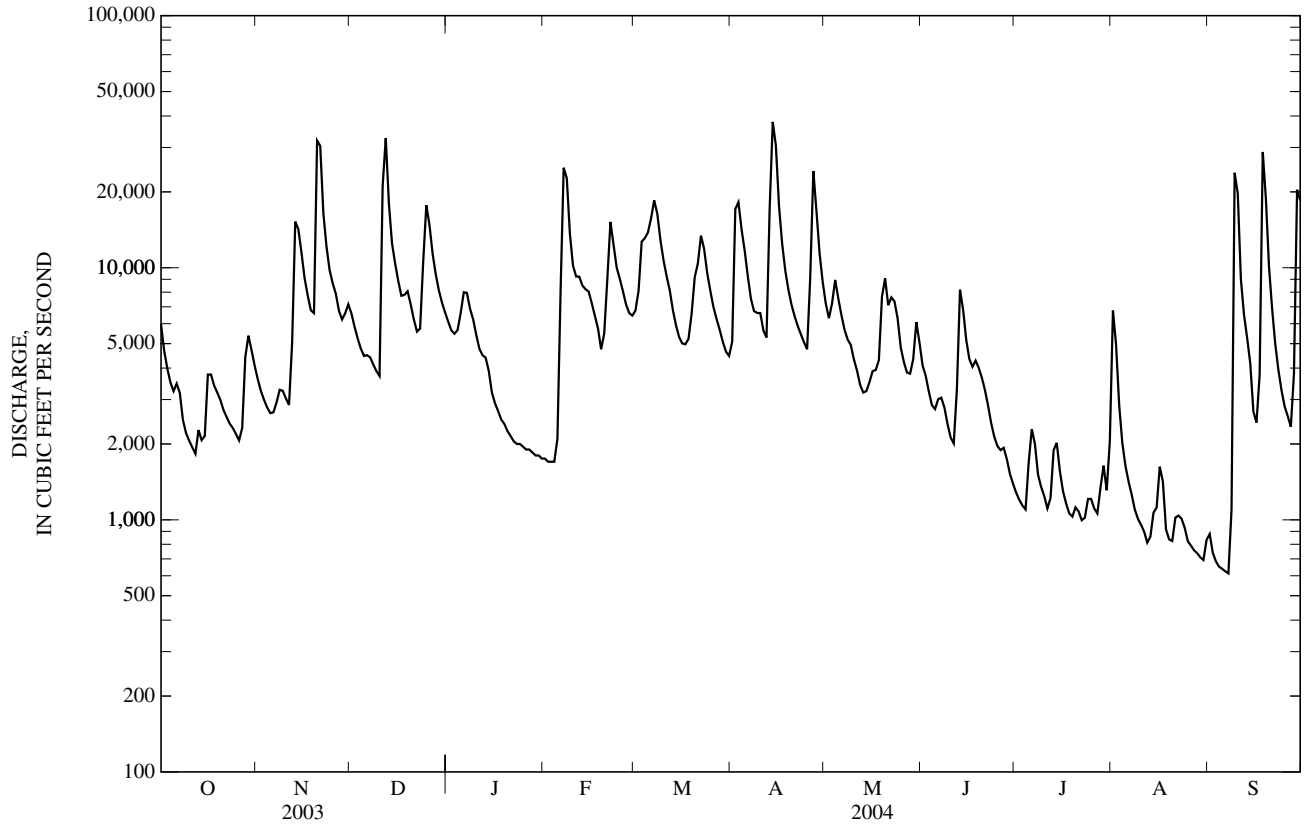
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1933 - 2004, BY WATER YEAR (WY)

MEAN	1,988	2,584	4,022	5,054	6,532	9,368	7,699	5,589	3,199	1,586	1,600	1,620
MAX	13,270	20,090	15,160	17,180	17,560	32,280	19,170	13,260	13,390	6,677	9,479	15,100
(WY)	(1977)	(1986)	(1973)	(1996)	(1998)	(1936)	(1993)	(1988)	(1972)	(1949)	(1955)	(1996)
MIN	309	399	463	751	955	2,311	2,286	1,344	622	357	342	329
(WY)	(1942)	(1966)	(1966)	(1956)	(2002)	(1990)	(1995)	(1941)	(1969)	(1966)	(1944)	(1946)

01613000 POTOMAC RIVER AT HANCOCK, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1933 - 2004	
ANNUAL TOTAL	3,003,890		2,198,028			
ANNUAL MEAN	8,230		6,006		4,225	
HIGHEST ANNUAL MEAN					7,932	1996
LOWEST ANNUAL MEAN					1,770	1969
HIGHEST DAILY MEAN	70,000	Sep 20	37,900	Apr 14	261,000	Mar 18, 1936
LOWEST DAILY MEAN	1,070	Aug 25	613	Sep 7	184	Oct 3, 1932
ANNUAL SEVEN-DAY MINIMUM	1,190	Aug 24	690	Sep 1	215	Sep 7, 1966
MAXIMUM PEAK FLOW			45,100	Nov 20	(a)340,000	Mar 18, 1936
MAXIMUM PEAK STAGE			18.97	Nov 20	47.60	Mar 18, 1936
INSTANTANEOUS LOW FLOW			606	(b)	180	Oct 4, 1932
ANNUAL RUNOFF (CFSM)	2.01		1.47		1.03	
ANNUAL RUNOFF (INCHES)	27.32		19.99		14.03	
10 PERCENT EXCEEDS	18,900		12,800		9,670	
50 PERCENT EXCEEDS	5,740		4,420		2,190	
90 PERCENT EXCEEDS	1,840		1,110		546	

a From rating curve extended above 120,000 ft^3/s on basis of slope-area measurement of peak flow.
b Sept. 7, 8.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01614500 CONOCOCHEAGUE CREEK AT FAIRVIEW, MD

LOCATION.--Lat 39°42'59.0", long 77°49'29.2", Washington County, Hydrologic Unit 02070004, on right bank 0.7 mi upstream from highway bridge in Fairview, 2.0 mi upstream from Rockdale Run, 6.5 mi northwest of Hagerstown, and 19.1 mi upstream from mouth.

DRAINAGE AREA.--494 mi^2.

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 756: Drainage area. WSP 1432: 1929(M), 1930, 1931-32(M), 1935(M).

GAGE.--Water-stage recorder. Datum of gage is 391.85 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 6, 1932, nonrecording gage at highway bridge 0.7 mi downstream at datum 2.93 ft lower. Dec. 6, 1932, to Oct. 7, 1933, nonrecording gage 150 ft downstream from former site at datum 4.92 ft lower than present datum.

REMARKS.--Water-discharge records good except those for estimated daily discharges (ice effect), which are poor. Diversions for irrigation upstream from station. National Weather Service gage-height telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known prior to 1928, about 16.5 ft, present datum, sometime in 1889, from information by local residents, discharge, about 22,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,300 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec 11	1945	12,000	12.69	Sep 19	0215	*13,900	*13.75
Apr 14	0445	4,440	7.63	Sep 29	0200	9,360	11.21

Minimum discharge, 192 ft^3/s, Sept. 7, 8.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	956	977	990	969	e300	1,330	923	996	602	317	2,570	259
2	854	863	878	909	e340	1,570	2,690	962	554	303	1,820	255
3	729	783	791	891	e700	2,150	2,130	1,790	531	260	1,040	225
4	711	724	725	917	627	1,890	1,670	1,400	488	255	685	218
5	714	676	727	1,420	403	1,730	1,410	1,160	1,060	259	564	215
6	618	792	745	1,740	728	2,030	1,190	1,040	1,490	250	479	208
7	551	826	695	1,350	1,920	2,070	1,070	932	1,010	251	417	198
8	507	749	647	1,140	1,520	1,740	977	915	790	478	372	206
9	475	669	621	1,040	1,070	1,490	957	804	681	306	338	965
10	447	616	626	908	900	1,300	854	737	605	268	305	908
11	422	593	7,930	836	e800	1,160	785	682	608	251	286	519
12	402	963	8,840	e780	e750	1,070	865	635	918	809	272	404
13	384	1,010	3,400	e720	e700	971	3,150	600	716	1,070	729	350
14	384	811	2,390	e660	e650	877	4,020	594	607	680	557	315
15	1,000	720	2,010	e630	e610	832	2,490	613	999	492	416	354
16	882	662	1,660	595	e580	802	1,830	762	840	379	349	323
17	652	621	1,470	e560	562	802	1,530	669	690	320	319	323
18	624	579	1,430	e540	559	780	1,340	586	651	304	301	7,120
19	578	915	1,240	e520	576	950	1,180	1,110	579	294	279	9,660
20	517	3,680	1,110	e490	787	1,030	1,060	1,100	501	269	325	2,430
21	486	2,120	994	e460	1,310	1,070	989	974	460	250	1,540	1,640
22	462	1,530	927	e440	1,820	1,020	915	1,040	463	240	1,070	1,290
23	441	1,270	1,110	e420	1,570	906	879	860	482	235	697	1,050
24	414	1,120	2,110	e410	1,410	837	837	723	430	272	529	900
25	388	1,210	3,030	e390	1,170	784	770	702	394	222	456	791
26	371	1,040	1,990	e380	1,040	736	1,670	1,080	379	212	407	710
27	797	923	1,600	e360	954	706	2,350	903	361	239	360	631
28	2,390	907	1,380	e350	1,010	682	1,560	738	338	602	337	3,090
29	1,610	1,320	1,230	e330	1,190	650	1,280	636	338	356	305	8,140
30	1,440	1,130	1,170	e320	---	613	1,110	565	320	293	281	3,310
31	1,140	---	1,080	e310	---	627	---	541	---	285	269	---
TOTAL	22,346	30,799	55,546	21,785	26,556	35,205	44,481	26,849	18,885	11,021	18,674	47,007
MEAN	721	1,027	1,792	703	916	1,136	1,483	866	630	356	602	1,567
MAX	2,390	3,680	8,840	1,740	1,920	2,150	4,020	1,790	1,490	1,070	2,570	9,660
MIN	371	579	621	310	300	613	770	541	320	212	269	198
CFSM	1.46	2.08	3.63	1.42	1.85	2.30	3.00	1.75	1.27	0.72	1.22	3.17
IN.	1.68	2.32	4.18	1.64	2.00	2.65	3.35	2.02	1.42	0.83	1.41	3.54

e Estimated

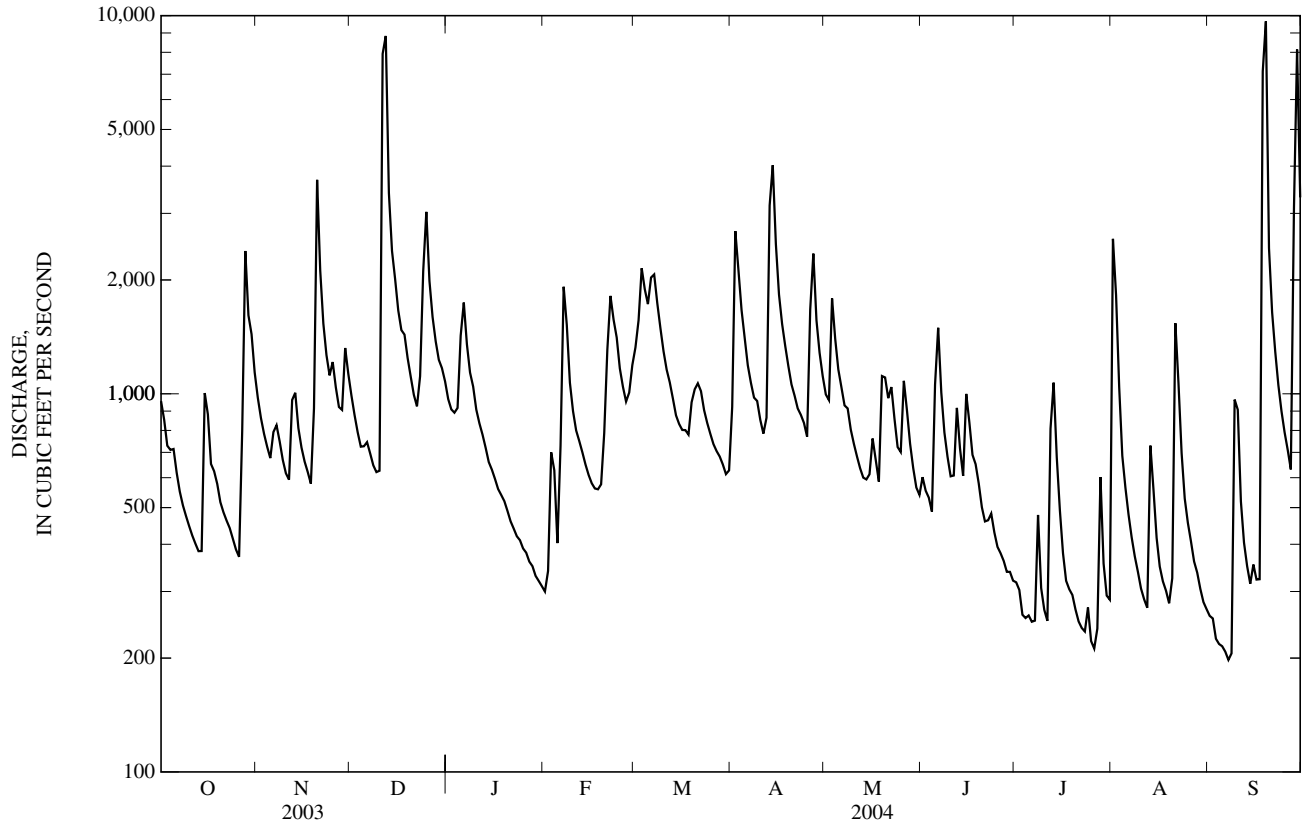
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 2004, BY WATER YEAR (WY)

MEAN	335	457	633	682	835	1,196	1,057	746	531	322	235	283
MAX	2,177	1,571	1,926	2,404	2,473	3,725	2,991	1,736	3,278	1,358	921	1,886
(WY)	(1977)	(1998)	(1997)	(1996)	(1998)	(1994)	(1993)	(1989)	(1972)	(1928)	(1942)	(1996)
MIN	42.3	45.4	61.2	88.8	115	274	304	218	120	62.2	48.0	54.6
(WY)	(1931)	(1931)	(1931)	(1931)	(2002)	(1990)	(1995)	(1941)	(1965)	(1966)	(1966)	(1930)

01614500 CONOCOCHEAGUE CREEK AT FAIRVIEW, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1928 - 2004	
ANNUAL TOTAL	428,596		359,154			
ANNUAL MEAN	1,174		981		605	
HIGHEST ANNUAL MEAN					1,183	1996
LOWEST ANNUAL MEAN					184	2002
HIGHEST DAILY MEAN	13,300	Jun 4	9,660	Sep 19	26,700	Jun 23, 1972
LOWEST DAILY MEAN	(e)200	Feb 17	198	Sep 7	25	Nov 28, 1930
ANNUAL SEVEN-DAY MINIMUM	237	Jul 26	218	Sep 2	28	Sep 7, 1966
MAXIMUM PEAK FLOW			13,900	Sep 19	(a)32,400	Jun 23, 1972
MAXIMUM PEAK STAGE			13.75	Sep 19	(b)24.50	Jun 23, 1972
INSTANTANEOUS LOW FLOW			192	(c)	21	(d)
ANNUAL RUNOFF (CFSM)	2.38		1.99		1.22	
ANNUAL RUNOFF (INCHES)	32.27		27.05		16.64	
10 PERCENT EXCEEDS	2,120		1,690		1,330	
50 PERCENT EXCEEDS	818		738		338	
90 PERCENT EXCEEDS	293		305		102	

e Estimated.
a From rating curve extended above 15,000 ft^3/s on basis of contracted-opening and flow-over-road measurement of peak flow.
b From floodmarks.
c Sept. 7, 8.
d Aug. 8, Sept. 12, 1966.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01614500 CONOCOCHEAGUE CREEK AT FAIRVIEW, MD—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967-83, 1992 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: November 1966 to September 1980.
SUSPENDED SEDIMENT DISCHARGE: October 1966 to September 1980.

REMARKS.--Water temperatures were measured in field at time of sampling.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum daily, 30.0°C, July 17, 1969; minimum daily, 0.0°C on many days during winter periods.
SEDIMENT CONCENTRATION: Maximum daily mean, 1,050 mg/L, Oct. 25, 1971; minimum daily mean, 1 mg/L, on many days.
SEDIMENT LOAD: Maximum daily, 73,000 tons, June 23, 1972; minimum daily, 0.17 ton, Nov. 24, 26, 27, 1966.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sample type	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Sampling method, code (82398)	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, air, deg C (00020)
OCT												
02...	1145	Environmental	1028	80020	856	50	755	9.7	67	8.1	372	11.0
NOV												
13...	1030	Environmental	1028	80020	1,030	50	744	14.5	130	7.6	321	7.0
19...	2106	Environmental	1028	80020	1,760	50	--	--	--	7.6	317	--
20...	1141	Environmental	1028	80020	4,010	50	--	--	--	7.7	241	--
21...	0110	Environmental	1028	80020	2,720	50	--	--	--	7.8	243	--
DEC												
04...	1100	Environmental	1028	80020	727	50	761	16.5	124	7.7	350	1.0
04...	*1115*	*Replicate*	*1028*	*80020*	--	*10*	--	--	--	--	--	--
JAN												
08...	1215	Environmental	1028	80020	1,130	50	757	13.8	100	7.7	323	-.5
FEB												
10...	1230	Environmental	1028	80020	886	50	752	14.4	109	7.4	368	5.0
MAR												
04...	1400	Environmental	1028	80020	1,890	50	759	9.2	78	7.1	265	10.0
APR												
06...	1130	Environmental	1028	80020	1,190	50	756	14.5	122	8.3	288	6.0
13...	1156	Environmental	1028	80020	3,110	50	--	--	--	7.7	237	--
13...	2205	Environmental	1028	80020	4,020	50	--	--	--	7.7	234	--
14...	0814	Environmental	1028	80020	4,420	50	--	--	--	7.8	230	--
15...	0431	Environmental	1028	80020	2,790	50	--	--	--	7.7	254	--
MAY												
17...	1000	Environmental	1028	80020	667	50	766	8.3	90	7.8	335	20.0
17...	*1015*	*Replicate*	*1028*	*80020*	--	*10*	--	--	--	--	--	--
JUN												
03...	1115	Environmental	1028	80020	542	50	754	10.6	114	7.9	379	20.5
JUL												
13...	1230	Environmental	1028	80020	1,140	50	749	6.7	77	7.5	272	24.2
AUG												
11...	0745	Environmental	1028	80020	287	50	750	6.6	75	7.9	463	20.5
11...	*0800*	*Replicate*	*1028*	*80020*	--	*10*	--	--	--	--	--	--
SEP												
08...	1215	Environmental	1028	80020	199	50	751	9.6	108	8.1	483	22.0
08...	*1230*	*Replicate*	*1028*	*80020*	--	*10*	--	--	--	--	--	--
18...	1015	Environmental	1028	80020	7,060	50	--	--	--	7.8	179	--
18...	1815	Environmental	1028	80020	10,200	50	--	--	--	7.8	154	--
19...	0215	Environmental	1028	80020	13,900	50	--	--	--	7.6	156	--
19...	1815	Environmental	1028	80020	6,310	50	--	--	--	7.6	213	--
20...	0615	Environmental	1028	80020	2,680	50	--	--	--	7.5	250	--

Agency collecting sample: 1028 - U.S. Geological Survey
Agency analyzing sample: 80020 - USGS-National Water Quality Lab, Denver, CO
Sample method: 50- Point sample
10 - Equal-width increment

01614500 CONOCOCHEAGUE CREEK AT FAIRVIEW, MD—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Temperature, water, deg C (00010)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Organic nitrogen, water, fltrd, mg/L (00607)	Organic nitrogen, water, unfltrd mg/L (00605)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, fltrd, mg/L (00602)
OCT													
02...	.0	.24	.27	<.04	--	4.33	E.006	--	--	.03	.046	.065	4.6
NOV													
13...	9.5	.30	.42	<.04	3.61	3.62	.009	--	--	.03	.044	.080	3.9
19...	--	.41	1.2	<.04	3.29	3.31	.011	--	--	.07	.091	.33	3.7
20...	--	.47	1.5	E.03	2.94	2.95	.013	--	--	.05	.068	.34	3.4
21...	--	.36	.86	<.04	3.29	3.30	.010	--	--	.03	.043	.177	3.7
DEC													
04...	3.5	.12	.15	<.04	--	4.22	<.008	--	--	E.02	.028	.037	4.3
04...	--	*.14*	*.17*	*<.04*	--	*4.29*	*<.008*	--	--	*.03*	*.031*	*.041*	*4.4*
JAN													
08...	1.7	.22	.58	<.04	--	4.49	E.006	--	--	.03	.037	.103	4.7
FEB													
10...	3.6	.29	--	E.03	3.98	4.00	.018	--	--	.02	.036	--	4.3
MAR													
04...	8.0	.20	--	E.02	3.36	3.38	.020	--	--	.02	.025	--	3.6
APR													
06...	7.6	.22	--	<.04	3.48	3.49	.008	--	--	E.01	.019	--	3.7
13...	--	.51	--	.07	2.78	2.81	.022	.43	--	.04	.069	--	3.3
13...	--	.41	--	.09	2.76	2.77	.019	.32	--	.03	.051	--	3.2
14...	--	.44	--	.09	2.80	2.82	.023	.35	--	.04	.056	--	3.3
15...	--	.27	--	.04	3.41	3.42	.011	.23	--	.02	.032	--	3.7
MAY													
17...	19.2	.29	--	E.03	3.43	3.45	.022	--	--	E.02	.027	--	3.7
17...	--	*.29*	*.39*	*E.03*	*3.44*	*3.46*	*.022*	--	--	*E.01*	*.024*	*.057*	*3.7*
JUN													
03...	18.2	.21	--	<.04	4.18	4.20	.014	--	--	.04	.058	--	4.4
JUL													
13...	21.3	.55	1.4	.06	3.15	3.17	.023	.49	1.3	.05	.078	.26	3.7
AUG													
11...	20.7	.37	.27	<.04	--	5.00	E.006	--	--	.05	.083	.088	5.4
11...	--	*.23*	*.28*	*<.04*	--	*4.97*	*E.006*	--	--	*.05*	*.073*	*.090*	*5.2*
SEP													
08...	20.0	.23	.28	<.04	4.65	4.66	.012	--	--	.04	.053	.062	4.9
08...	--	*.22*	*.23*	*<.04*	*4.76*	*4.77*	*.014*	--	--	*.04*	*.050*	*.060*	*5.0*
18...	--	.60	3.1	E.03	1.79	1.80	.015	--	--	.08	.112	.63	2.4
18...	--	.54	1.5	E.03	1.91	1.93	.014	--	--	.09	.122	.37	2.5
19...	--	.51	1.2	E.03	2.19	2.20	.015	--	--	.08	.101	.29	2.7
19...	--	.39	.82	<.04	2.77	2.77	.009	--	--	.05	.069	.156	3.2
20...	--	.26	.60	<.04	3.16	3.16	.008	--	--	.03	.043	.118	3.4

01614500 CONOCOCHEAGUE CREEK AT FAIRVIEW, MD—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Total nitrogen, water, unfltrd mg/L (00600)	Organic carbon, water, unfltrd mg/L (00680)	Suspended sediment concentration mg/L (80154)	Suspended sediment discharge, tons/d (80155)	Sampler type, code (84164)
OCT					
02...	4.6	--	11	25	4115
NOV					
13...	4.0	--	16	44	4115
19...	4.5	--	130	618	4115
20...	4.4	--	167	1,810	4115
21...	4.2	--	76	558	4115
DEC					
04...	4.4	1.6	5	9.8	4115
04...	*4.5*	--	*5*	--	*3045*
JAN					
08...	5.1	--	89	272	4115
FEB					
10...	--	--	--	--	4115
MAR					
04...	--	--	--	--	4115
APR					
06...	--	--	--	--	4115
13...	--	--	--	--	4115
13...	--	--	1--	--	4115
14...	--	--	2--	--	4115
15...	--	--	1--	--	4115
MAY					
17...	--	3.4	1--	--	4115
17...	*3.9*	--	*24*	--	*3045*
JUN					
03...	--	--	3--	--	4115
JUL					
13...	4.6	--	167	514	4115
AUG					
11...	5.3	4.7	12	9.3	4115
11...	*5.3*	--	*19*	--	*3045*
SEP					
08...	4.9	--	31	17	4115
08...	*5.0*	--	*62*	--	*3045*
18...	4.9	--	595	11,300	4115
18...	3.4	--	181	4,980	4115
19...	3.4	--	125	4,690	4115
19...	3.6	--	69	1,180	4115
20...	3.8	--	71	514	4115

Remark codes used in this table:
< -- Less than
E -- Estimated value
Sampler type: 4115 - Sampler, point, automatic
3045 - US DH-81 with Teflon cap and nozzle

Photo by U.S. Geological Survey personnel

01614500 CONOCOCHEAGUE CREEK AT FAIRVIEW, MD

01617800 MARSH RUN AT GRIMES, MD

LOCATION.--Lat 39°30'52.4", long 77°46'38.0", Washington County, Hydrologic Unit 02070004, on right bank 220 ft up- stream from bridge on Sprecher Road, 0.1 mi downstream from unnamed tributary, 0.5 mi southwest of Grimes, 1.5 mi upstream from mouth, and 2.2 mi southwest of Fairplay.

DRAINAGE AREA.--18.9 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 354.72 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 60 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov 19	2045	61	1.92	Apr 13	2230	74	2.09
Dec 11	0730	*143	*2.68	Apr 26	1545	113	2.43
Dec 24	1515	61	1.92	Jun 5	1345	108	2.39
Feb 6	2115	142	2.67	Sep 18	0800	62	1.98
Feb 21	2015	68	2.03	Sep 28	1830	68	2.03
Apr 13	0045	68	2.03				

Minimum discharge, 7.2 ft^3/s, Sept. 13-17.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	19	23	30	16	30	25	30	19	15	32	8.2
2	24	18	22	30	16	30	29	32	18	15	17	8.1
3	23	18	21	30	19	29	25	40	20	15	13	7.9
4	26	18	21	29	20	28	22	30	19	15	13	7.8
5	25	18	23	30	19	28	20	28	68	15	12	7.8
6	23	19	23	29	71	36	20	26	47	14	12	7.8
7	20	19	21	25	91	32	19	24	31	14	11	7.8
8	18	17	20	24	51	30	19	25	27	15	11	7.9
9	18	15	20	25	40	28	19	23	25	14	10	11
10	19	14	21	23	36	26	18	21	23	13	10	9.6
11	19	14	109	22	35	25	18	20	29	13	9.8	8.8
12	19	32	60	23	31	24	27	20	39	13	9.9	8.5
13	18	27	47	23	29	23	60	19	27	13	12	8.1
14	19	23	44	23	29	22	53	20	25	14	11	7.2
15	34	21	43	23	27	22	37	27	38	13	11	7.3
16	22	18	39	21	24	23	33	34	40	12	11	7.2
17	20	16	38	20	23	23	30	22	30	12	10	8.4
18	20	16	35	22	23	22	29	23	27	12	10	40
19	19	32	33	21	25	26	27	41	24	12	9.9	14
20	17	43	32	19	36	22	26	27	23	12	9.8	12
21	17	28	30	18	51	22	25	25	22	11	10	11
22	17	24	31	18	45	20	24	24	20	11	10	10
23	16	24	34	18	40	19	24	21	20	14	9.8	9.8
24	15	25	48	18	39	19	23	20	20	16	9.5	9.4
25	15	28	46	17	35	19	26	20	19	13	9.4	9.4
26	15	24	38	18	32	19	73	27	20	12	9.1	9.0
27	23	23	35	18	31	19	54	22	18	13	8.9	8.5
28	24	25	33	18	29	18	38	20	18	14	8.8	31
29	24	31	33	17	29	17	33	19	18	12	8.8	32
30	22	25	32	17	---	17	31	18	16	11	8.5	16
31	20	---	30	16	---	18	---	19	---	11	8.5	---
TOTAL	636	674	1,085	685	992	736	907	767	790	409	346.7	351.5
MEAN	20.5	22.5	35.0	22.1	34.2	23.7	30.2	24.7	26.3	13.2	11.2	11.7
MAX	34	43	109	30	91	36	73	41	68	16	32	40
MIN	15	14	20	16	16	17	18	18	16	11	8.5	7.2
CFSM	1.09	1.19	1.85	1.17	1.81	1.26	1.60	1.31	1.39	0.70	0.59	0.62
IN.	1.25	1.33	2.14	1.35	1.95	1.45	1.79	1.51	1.55	0.81	0.68	0.69

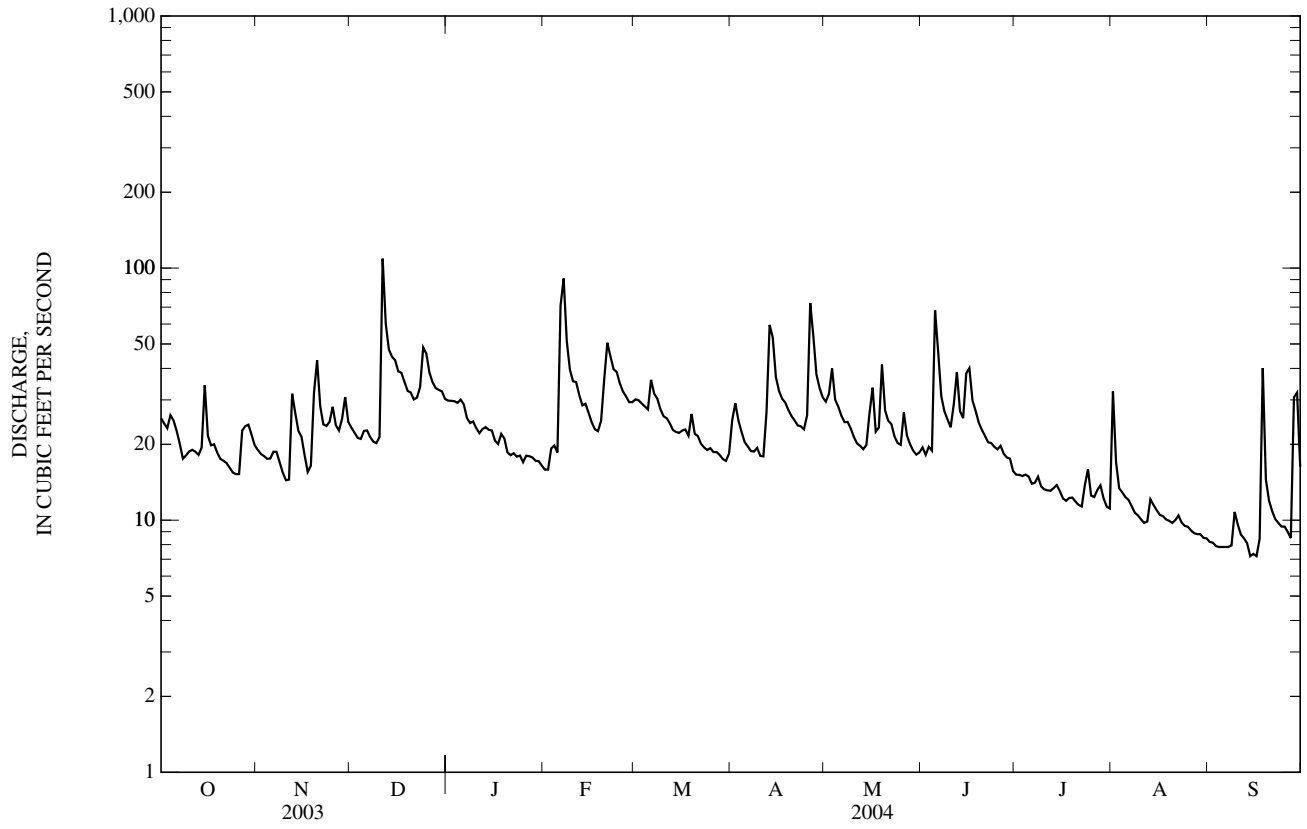
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2004, BY WATER YEAR (WY)

MEAN	7.82	7.98	11.1	12.6	15.0	19.1	19.0	15.8	13.9	9.71	7.55	7.16
MAX	39.5	29.3	39.9	30.1	34.2	48.6	49.8	36.2	48.2	32.4	24.2	36.7
(WY)	(1977)	(1997)	(1997)	(1979)	(2004)	(1994)	(1984)	(1972)	(1972)	(1972)	(1996)	(2003)
MIN	0.66	1.12	1.24	1.28	1.27	2.26	2.16	1.90	1.49	0.67	0.35	0.39
(WY)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)

01617800 MARSH RUN AT GRIMES, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1964 - 2004	
ANNUAL TOTAL	9,357.3		8,379.2			
ANNUAL MEAN	25.6		22.9		12.3	
HIGHEST ANNUAL MEAN					23.9	1972
LOWEST ANNUAL MEAN					1.23	2002
HIGHEST DAILY MEAN	233	Sep 4	109	Dec 11	233	Sep 4, 2003
LOWEST DAILY MEAN	8.5	Feb 14	7.2	Sep 14	(a)0.00	Oct 1, 1977
ANNUAL SEVEN-DAY MINIMUM	8.7	Feb 12	7.9	Sep 2	0.04	Aug 17, 2002
MAXIMUM PEAK FLOW			143	Dec 11	(b)459	Feb 12, 1985
MAXIMUM PEAK STAGE			2.68	Dec 11	4.45	Feb 12, 1985
INSTANTANEOUS LOW FLOW			7.2	(c)	(a)0.00	Oct 1, 1977
ANNUAL RUNOFF (CFSM)	1.36		1.21		0.653	
ANNUAL RUNOFF (INCHES)	18.42		16.49		8.87	
10 PERCENT EXCEEDS	42		35		25	
50 PERCENT EXCEEDS	22		21		9.1	
90 PERCENT EXCEEDS	12		10		2.5	

a Result of regulation caused by construction work upstream from station.
b From rating curve extended above 220 ft^3/s.
c Sept. 13-17.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01618000 POTOMAC RIVER AT SHEPHERDSTOWN, WV

LOCATION.--Lat 39°26'05.0", long 77°48'05.0", Jefferson County, Hydrologic Unit 02070004, on right bank, 0.1 mi downstream from Rumsey Bridge at Shepherdstown, 3.3 mi upstream from Antietam Creek, and at mile 184.

DRAINAGE AREA.--5,929 mi^2.

PERIOD OF RECORD.--August 1928 to September 1953. Annual maximums, water years 1954-64. July 1964 to September 1993. October 2000 to September 2001. Gage-height record and estimated discharges October 1953 to June 1964 available in files of the Maryland/Delaware/DC district office.

REVISED RECORDS.--WSP 756: Drainage area. WSP 781: 1929(M). OFR 95-0292: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 281.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges (ice effect, erroneous record), which are fair. Some regulation at low flow by power plants upstream from station, prior to July 1981 by Stony River Reservoir, since December 1950 by Savage River Reservoir (see station 01597500), and since July 1981 by Jennings Randolph Lake. National Weather Service gage-height telemeter at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of June 1889 and May 1924 reached stages of 39.2 ft and 29.8 ft respectively, from floodmarks, discharges, about 290,000 ft^3/s and 168,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 23,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov 21	0845	55,100	15.35	Apr 3	0345	34,300	11.31
Dec 12	0815	*73,700	*18.41	Apr 15	0015	56,800	15.63
Dec 25	1845	30,600	10.52	Apr 27	1700	42,400	12.95
Feb 8	0200	43,300	13.12	Sep 10	0215	42,400	12.96
Feb 22	2245	25,700	9.37	Sep 18	2045	70,700	17.94
Mar 7	1600	27,600	9.79	Sep 30	0145	51,900	14.76

Minimum discharge, 1,220 ft^3/s, Sept. 3.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10,600	7,010	11,700	10,300	e3,600	11,800	7,100	12,700	6,630	2,430	5,110	1,590
2	8,330	6,230	10,300	9,490	3,370	13,100	19,100	10,800	5,790	2,330	12,800	1,560
3	6,960	5,660	9,110	8,940	3,300	18,500	31,900	11,900	5,250	2,230	6,990	1,370
4	6,080	5,240	8,130	8,820	3,370	21,800	25,400	15,000	4,670	2,030	4,550	1,330
5	5,620	4,920	7,690	9,760	3,300	20,600	20,000	13,500	5,080	2,100	3,550	1,310
6	5,350	4,880	7,520	12,300	4,190	22,300	16,300	11,300	7,620	2,640	2,990	1,290
7	5,250	5,220	7,430	13,400	13,300	26,500	13,100	9,780	6,720	3,370	2,620	1,280
8	4,780	5,460	7,010	11,800	35,900	26,100	11,300	8,690	5,640	3,050	2,300	1,330
9	4,110	5,580	6,580	10,400	26,500	21,500	10,400	8,160	4,850	2,720	2,110	14,700
10	3,880	5,310	6,290	9,270	18,600	17,700	10,400	7,410	4,270	2,350	2,010	35,700
11	3,570	5,040	24,200	7,710	16,500	15,100	9,390	6,590	3,940	2,190	1,870	16,400
12	3,450	5,680	66,900	7,400	16,300	13,400	8,500	5,830	4,670	2,060	1,780	10,000
13	3,240	16,500	37,800	7,500	15,000	11,500	18,400	5,280	8,790	3,370	2,070	7,600
14	3,750	20,700	24,300	7,160	13,300	9,810	47,900	5,060	11,100	4,500	2,610	6,160
15	4,090	18,200	19,600	6,480	12,900	8,670	50,300	5,460	8,920	3,790	2,280	4,910
16	5,700	14,400	16,600	5,450	11,900	7,980	31,000	6,120	7,550	2,980	2,280	3,740
17	6,190	12,100	14,200	4,480	10,400	7,730	21,700	6,530	6,830	2,290	2,600	3,580
18	5,800	10,500	13,300	4,860	9,460	7,820	16,800	6,190	5,940	2,230	2,290	39,900
19	5,310	9,580	13,600	e4,700	8,330	8,500	13,900	9,570	6,070	3,180	1,800	54,600
20	5,010	26,900	12,500	e4,500	8,390	12,200	11,900	15,800	5,310	2,280	1,680	23,400
21	4,710	49,900	11,000	4,340	12,400	14,100	10,600	12,800	4,980	2,170	1,960	14,000
22	4,390	28,800	9,700	4,070	22,100	17,400	9,740	11,900	4,480	2,100	3,520	9,890
23	4,230	20,500	9,290	e3,600	23,100	18,500	8,870	13,000	4,120	1,980	2,670	7,350
24	3,980	16,400	13,400	3,480	18,400	15,100	8,460	10,600	3,710	2,060	2,310	5,920
25	3,830	14,300	27,900	3,130	16,300	12,900	7,830	8,530	3,330	2,210	2,040	5,040
26	3,640	13,400	26,800	2,560	14,400	11,000	10,800	7,290	3,220	2,190	1,760	4,460
27	3,750	11,500	20,600	e2,800	12,800	9,780	35,900	7,030	3,090	1,980	1,730	3,960
28	7,720	10,400	16,800	e3,100	11,500	8,840	31,100	6,170	3,150	2,160	1,630	4,570
29	11,100	11,100	14,300	e3,400	11,300	8,030	20,800	5,960	2,870	2,810	1,620	34,600
30	9,710	12,500	12,700	e3,600	---	7,250	15,700	7,110	2,570	2,580	1,510	40,500
31	8,220	---	11,400	e3,800	---	6,840	---	7,760	---	2,220	1,540	---
TOTAL	172,350	383,910	498,650	202,600	380,210	432,350	554,590	279,820	161,160	78,580	88,580	362,040
MEAN	5,560	12,800	16,090	6,535	13,110	13,950	18,490	9,026	5,372	2,535	2,857	12,070
MAX	11,100	49,900	66,900	13,400	35,900	26,500	50,300	15,800	11,100	4,500	12,800	54,600
MIN	3,240	4,880	6,290	2,560	3,300	6,840	7,100	5,060	2,570	1,980	1,510	1,280
CFSM	0.94	2.16	2.71	1.10	2.21	2.35	3.11	1.52	0.90	0.43	0.48	2.03
IN.	1.08	2.41	3.12	1.27	2.38	2.71	3.48	1.75	1.01	0.49	0.56	2.27

e Estimated

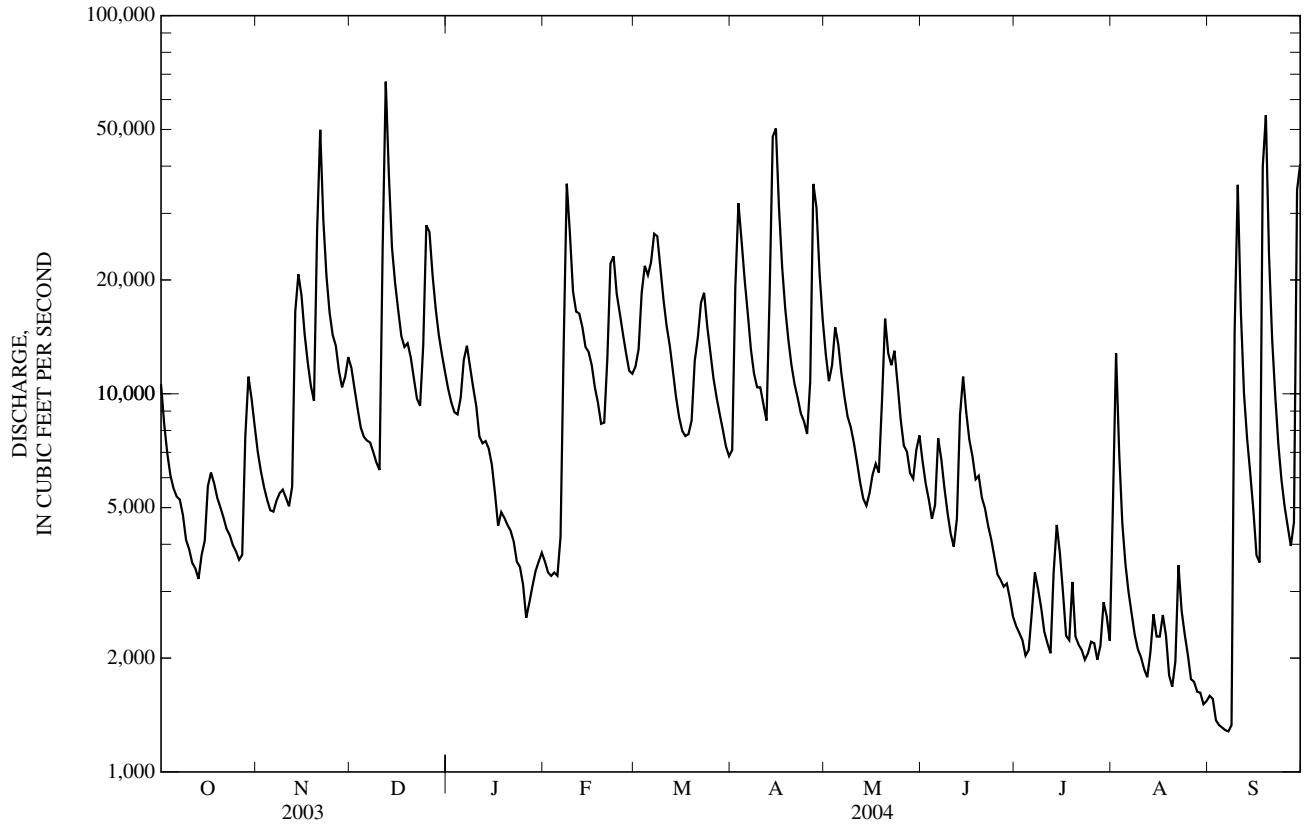
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 2004, BY WATER YEAR (WY)

MEAN	3,129	3,834	5,845	6,860	9,078	13,290	11,580	8,243	4,756	2,490	2,304	2,275
MAX	20,080	24,780	22,070	20,480	23,770	45,990	30,490	20,450	22,600	9,529	12,140	13,990
(WY)	(1977)	(1986)	(1973)	(1937)	(1971)	(1936)	(1993)	(1988)	(1972)	(1949)	(1955)	(2003)
MIN	351	395	621	1,009	1,451	3,081	4,010	2,049	970	556	429	378
(WY)	(1931)	(1931)	(1931)	(1981)	(2002)	(1990)	(1969)	(1930)	(1969)	(1966)	(1930)	(1930)

01618000 POTOMAC RIVER AT SHEPHERDSTOWN, WV—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1928 - 2004	
ANNUAL TOTAL	4,727,690		3,594,840			
ANNUAL MEAN	12,950		9,822		6,123	
HIGHEST ANNUAL MEAN					11,860	2003
LOWEST ANNUAL MEAN					2,607	1969
HIGHEST DAILY MEAN	73,500	Sep 20	66,900	Dec 12	287,000	Mar 19, 1936
LOWEST DAILY MEAN	1,890	Aug 26	1,280	Sep 7	185	Jul 31, 1966
ANNUAL SEVEN-DAY MINIMUM	2,070	Aug 25	1,350	Sep 2	294	Sep 4, 1966
MAXIMUM PEAK FLOW			74,100	Dec 12	(a)335,000	Mar 19, 1936
MAXIMUM PEAK STAGE			18.48	Dec 12	(b)42.10	Mar 19, 1936
INSTANTANEOUS LOW FLOW			1,200	Sep 3	170	Aug 1, 1966
ANNUAL RUNOFF (CFSM)	2.18		1.65		1.03	
ANNUAL RUNOFF (INCHES)	29.63		22.53		14.02	
10 PERCENT EXCEEDS	28,600		20,500		13,800	
50 PERCENT EXCEEDS	9,580		7,320		3,280	
90 PERCENT EXCEEDS	2,960		2,230		886	

a From rating curve extended above 200,000 ft^3/s, on the basis of slope-area measurement of peak flow.
b From floodmarks.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01619500 ANTIETAM CREEK NEAR SHARPSBURG, MD

LOCATION.--Lat 39°26'59.2", long 77°43'48.7", Washington County, Hydrologic Unit 02070004, on left bank 400 ft downstream from Burnside Bridge, 1.0 mi southeast of Sharpsburg, and 4.0 mi upstream from mouth.

DRAINAGE AREA.--281 mi^2.

PERIOD OF RECORD.--June 1897 to September 1905, August 1928 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WSP 192: 1897-1905. WSP 726: Drainage area. WSP 1432: 1929-31(M), 1933, 1935(M), 1937(M), 1949(M), 1952(M).

GAGE.--Water-stage recorder. Concrete control since Mar. 29, 1934. Datum of gage is 311.05 ft above National Geodetic Vertical Datum of 1929. June 24, 1897, to Aug. 25, 1905, nonrecording gage a few hundred feet downstream from Middle Bridge, 1.2 mi upstream at datum 12 ft higher. Aug. 21, 1928, to July 13, 1933, nonrecording gage at Burnside Bridge, 0.1 mi upstream at present datum.

REMARKS.--No estimated daily discharges. Records good. Some diurnal fluctuation caused by powerplant upstream from station. Since 1928 records include pumpage from the Potomac River for municipal supply of Hagerstown. This water later enters Antietam Creek upstream from station as sewage. National Weather Service gage-height telemeter at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec 12	0015	*4,800	*9.31	Jun 5	1415	1,780	5.49
Feb 7	0230	3,450	7.73	Jun 15	0700	1,910	5.68
Apr 13	2115	1,930	5.70	Sep 28	1700	2,810	6.92
Apr 26	2315	1,990	5.79	Sep 29	0600	2,040	5.87

Minimum discharge, 129 ft^3/s, Sept. 5, 6.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	563	446	603	598	309	555	510	696	502	327	480	147
2	540	429	569	585	304	573	858	679	467	317	346	142
3	501	416	539	576	345	644	718	1,010	449	307	249	139
4	508	404	517	566	446	624	651	753	424	299	222	136
5	511	397	520	605	402	611	589	679	986	298	225	133
6	470	430	527	603	1,400	731	541	647	1,090	291	217	132
7	440	418	497	537	2,770	774	512	608	715	291	203	135
8	419	387	475	514	1,260	707	493	594	627	303	192	145
9	406	369	461	503	808	657	492	549	573	276	192	192
10	392	360	468	486	682	608	461	527	541	262	189	212
11	381	358	3,510	458	691	575	444	503	559	252	183	156
12	370	524	2,840	466	623	554	497	480	692	262	181	141
13	363	601	1,470	466	587	525	1,360	460	547	316	215	139
14	378	485	1,220	452	570	499	1,700	451	528	272	199	142
15	630	461	1,130	440	534	487	1,210	526	1,230	261	185	157
16	484	441	988	416	495	479	993	726	704	241	180	146
17	415	427	986	400	471	481	870	510	593	231	174	166
18	406	412	975	429	460	467	784	468	553	228	171	928
19	388	572	844	460	493	513	719	848	507	228	169	630
20	374	1,130	776	404	625	484	670	719	474	223	162	299
21	369	803	714	381	823	471	633	605	454	219	184	243
22	365	683	682	373	842	446	599	633	440	212	209	216
23	354	625	687	363	717	425	592	547	430	228	178	199
24	341	595	807	355	693	414	586	503	413	270	169	191
25	327	656	965	346	654	410	558	489	391	211	161	180
26	322	578	809	355	603	397	1,140	1,000	388	204	157	175
27	394	540	754	351	574	391	1,520	653	375	215	155	172
28	522	559	713	347	554	388	1,000	567	357	278	152	855
29	506	816	682	335	549	374	842	520	360	220	147	1,550
30	532	656	664	328	---	368	759	484	349	200	146	619
31	469	---	630	315	---	383	---	473	---	198	149	---
TOTAL	13,440	15,978	28,022	13,813	20,284	16,015	23,301	18,907	16,718	7,940	6,141	8,817
MEAN	434	533	904	446	699	517	777	610	557	256	198	294
MAX	630	1,130	3,510	605	2,770	774	1,700	1,010	1,230	327	480	1,550
MIN	322	358	461	315	304	368	444	451	349	198	146	132
(†)	-16.0	-15.1	-15.9	-17.2	-17.5	-15.4	-15.3	-16.1	-16.3	-16.8	-16.8	-16.6
MEAN‡	418	518	888	429	681	502	762	594	541	239	181	277
CFSM‡	1.49	1.84	3.16	1.53	2.42	1.79	2.71	2.11	1.92	0.85	0.64	0.98
IN.‡	1.72	2.05	3.64	1.76	2.61	2.06	3.02	2.35	2.14	0.98	0.74	1.09

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 2004, BY WATER YEAR (WY)

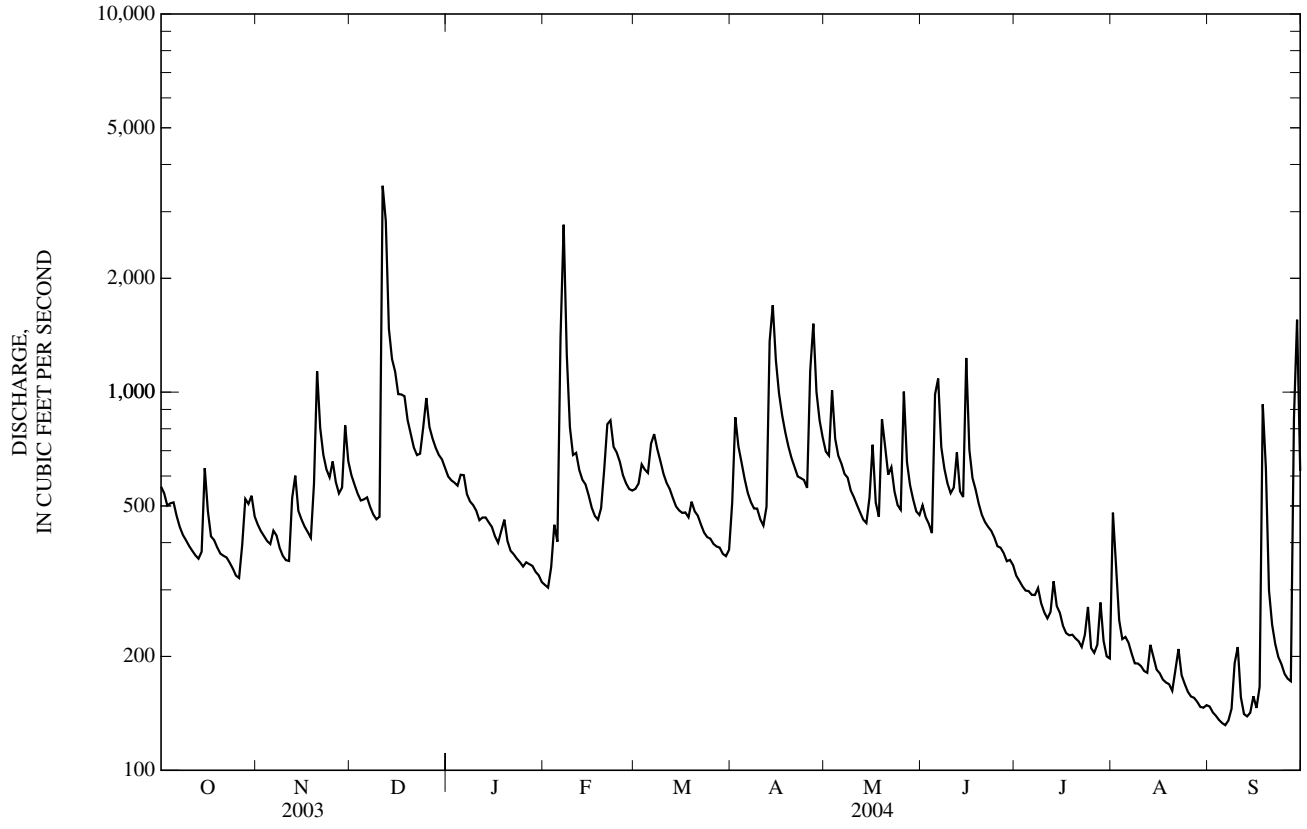
MEAN	179	197	264	303	361	471	468	379	299	215	174	179
MAX	916	628	964	943	1,206	1,299	1,201	859	1,278	604	531	1,090
(WY)	(1977)	(1997)	(1997)	(1996)	(1998)	(1994)	(1993)	(1998)	(1972)	(1996)	(1996)	(1975)
MIN	65.5	65.6	61.5	57.3	66.0	91.5	105	119	95.9	66.4	58.6	69.4
(WY)	(1964)	(1966)	(1966)	(1966)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(1963)

† Pumpage in cubic feet per second, from Potomac River for municipal supply of Hagerstown.
‡ Adjusted for pumpage.

01619500 ANTIETAM CREEK NEAR SHARPSBURG, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1931 - 2004	
ANNUAL TOTAL	215,822		189,376			
ANNUAL MEAN	591		517		290	
ANNUAL MEAN‡	574		501		280	
HIGHEST ANNUAL MEAN					554	1996
LOWEST ANNUAL MEAN					82.7	2002
HIGHEST DAILY MEAN	3,510	Dec 11	3,510	Dec 11	8,970	Sep 26, 1975
LOWEST DAILY MEAN	165	Feb 17	132	Sep 6	37	Jan 30, 1966
ANNUAL SEVEN-DAY MINIMUM	202	Feb 11	137	Sep 2	43	Aug 17, 2002
MAXIMUM PEAK FLOW			4,800	Dec 12	(a)12,600	Jul 20, 1956
MAXIMUM PEAK STAGE			9.31	Dec 12	16.73	Jul 20, 1956
INSTANTANEOUS LOW FLOW			129	(b)	(c)9.4	Nov 22, 1957
ANNUAL RUNOFF (CFSM)	2.10		1.84		1.03	
ANNUAL RUNOFF (CFSM)‡	2.04		1.78		1.00	
ANNUAL RUNOFF (INCHES)	28.57		25.07		14.03	
ANNUAL RUNOFF (INCHES)‡	27.69		24.23		13.53	
10 PERCENT EXCEEDS	1,000		811		563	
50 PERCENT EXCEEDS	510		474		209	
90 PERCENT EXCEEDS	256		188		97	

‡ Adjusted for inflow since January 1930.
a From rating curve extended above 7,300 ft^3/s on basis of contracted-opening measurement of peak flow.
b Sept. 5, 6.
c Result of regulation caused by construction work upstream from station.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01621050 MUDDY CREEK AT MOUNT CLINTON, VA

LOCATION.--Lat 38°29'12", long 78°57'37", NAD83, Rockingham County, Hydrologic Unit 02070005, on right downstream side of bridge on State Highway 726, at Mount Clinton.

DRAINAGE AREA.--14.2 mi^2.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Elevation of gage is 1,320 ft NGVD of 1929, from topographic map.

REMARKS.--Records good except for period with ice effect, Jan. 23 to Feb. 2, which is fair. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 150 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov 19	1330	*539	*5.30	May 16	2000	199	4.26
Dec 10	2400	313	4.67	Sep 28	1700	422	4.98

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	8.5	15	16	e7.0	14	9.7	11	8.6	4.6	6.0	0.90
2	20	8.2	14	15	e6.8	14	9.2	12	7.9	3.9	6.4	0.90
3	19	8.1	13	15	7.7	13	8.6	11	7.5	3.5	3.2	0.90
4	18	7.8	12	14	6.6	12	8.4	9.8	7.6	4.3	2.5	0.89
5	17	8.1	13	14	6.5	12	8.0	9.2	13	5.1	3.2	0.83
6	16	8.4	12	13	30	16	7.8	8.7	10	3.6	2.6	1.2
7	16	7.9	12	12	40	13	7.7	8.5	8.7	3.6	2.0	1.3
8	15	7.5	12	12	25	12	7.9	8.4	8.2	3.8	1.9	13
9	14	7.0	12	12	18	12	7.6	8.1	7.9	3.0	1.8	16
10	14	6.9	36	11	19	11	7.4	7.9	7.9	3.5	1.7	6.8
11	14	6.5	86	10	20	11	7.4	7.8	8.7	3.7	1.6	5.3
12	13	11	34	11	18	10	19	7.5	9.9	5.1	3.2	4.4
13	13	14	27	10	19	10	42	6.7	8.3	3.8	7.4	3.8
14	23	9.8	26	10	19	9.7	34	6.2	8.0	3.1	3.0	3.4
15	21	8.8	24	10	17	9.5	22	6.1	7.8	2.6	2.3	3.2
16	15	8.6	23	9.3	15	14	18	19	7.5	2.5	2.0	2.9
17	14	8.0	27	9.1	14	12	16	11	7.0	2.4	1.8	6.5
18	13	7.8	24	9.3	14	11	14	11	6.3	2.5	1.7	13
19	13	105	22	8.8	25	16	13	10	5.9	4.0	1.6	8.0
20	12	35	20	8.4	49	13	12	15	5.7	3.7	1.7	6.6
21	12	23	18	8.1	41	12	12	12	5.3	2.3	2.5	5.7
22	12	19	20	8.1	25	11	11	10	5.1	3.7	1.9	5.2
23	11	17	23	e7.9	22	11	11	9.0	5.6	3.9	1.5	4.8
24	11	17	28	e7.8	21	10	11	8.3	5.4	2.5	1.4	4.3
25	10	16	24	e7.8	19	10	11	8.0	5.9	2.1	1.2	3.9
26	10	14	22	e7.6	17	9.6	18	8.0	6.1	2.7	1.2	3.6
27	11	14	20	e7.5	16	9.7	16	8.5	5.0	2.8	1.2	3.4
28	10	20	19	e7.5	15	9.3	12	14	4.9	2.4	1.1	128
29	9.6	19	18	e7.4	15	8.9	11	10	4.6	1.9	1.1	38
30	9.2	16	18	e7.2	---	9.2	11	9.2	4.1	1.9	1.1	20
31	8.9	---	17	e7.0	---	9.8	---	9.3	---	1.8	1.0	---
TOTAL	435.7	467.9	691	313.8	567.6	355.7	403.7	301.2	214.4	100.3	72.8	316.72
MEAN	14.1	15.6	22.3	10.1	19.6	11.5	13.5	9.72	7.15	3.24	2.35	10.6
MAX	23	105	86	16	49	16	42	19	13	5.1	7.4	128
MIN	8.9	6.5	12	7.0	6.5	8.9	7.4	6.1	4.1	1.8	1.0	0.83
CFSM	0.99	1.10	1.57	0.71	1.38	0.81	0.95	0.68	0.50	0.23	0.17	0.74
IN.	1.14	1.23	1.81	0.82	1.49	0.93	1.06	0.79	0.56	0.26	0.19	0.83

e Estimated.

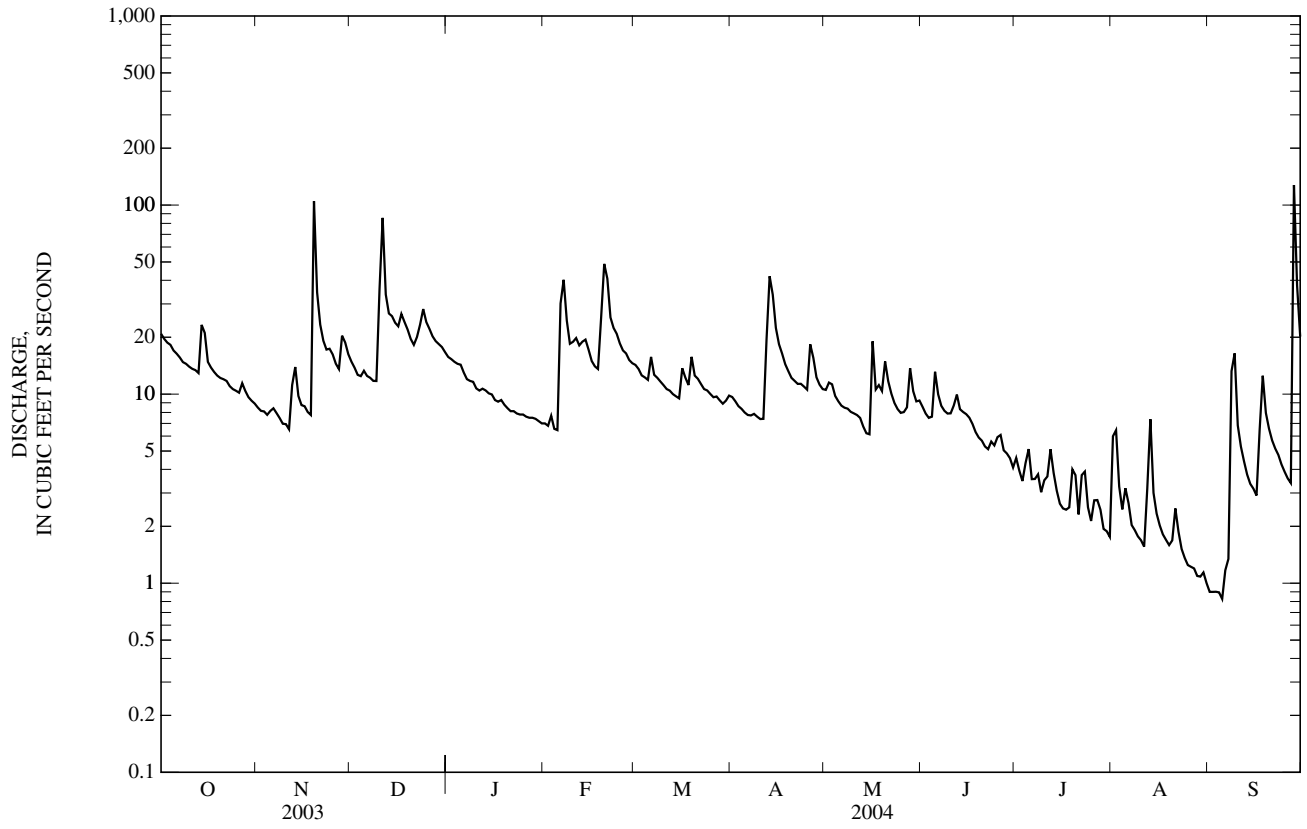
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 2004, BY WATER YEAR (WY)

MEAN	6.82	7.16	10.0	15.8	16.9	19.0	12.2	10.3	11.5	8.44	7.66	15.7
MAX	22.1	19.3	37.5	66.9	63.5	44.0	26.3	22.7	40.8	35.7	33.8	105
(WY)	(1996)	(1997)	(1997)	(1996)	(1998)	(1998)	(2003)	(1998)	(2003)	(2003)	(1996)	(1996)
MIN	0.96	0.92	0.96	0.73	0.59	0.81	2.64	2.30	1.01	1.20	0.97	0.71
(WY)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(1999)	(1999)	(1999)	(1999)	(2002)	(2001)

01621050 MUDDY CREEK AT MOUNT CLINTON, VA—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1993 - 2004	
ANNUAL TOTAL	9,485.8		4,240.82			
ANNUAL MEAN	26.0		11.6		12.0	
HIGHEST ANNUAL MEAN					30.0	1996
LOWEST ANNUAL MEAN					1.92	2002
HIGHEST DAILY MEAN	697	Sep 19	128	Sep 28	1,760	Sep 6, 1996
LOWEST DAILY MEAN	4.8	Feb 16	0.83	Sep 5	0.29	Sep 14, 2002
ANNUAL SEVEN-DAY MINIMUM	4.9	Feb 13	0.93	Aug 30	0.33	Sep 11, 2002
MAXIMUM PEAK FLOW			539	Nov 19	3,850	Sep 6, 1996
MAXIMUM PEAK STAGE			5.30	Nov 19	10.37	Sep 6, 1996
INSTANTANEOUS LOW FLOW			0.80	(a)	0.27	(b)
ANNUAL RUNOFF (CFSM)	1.83		0.816		0.844	
ANNUAL RUNOFF (INCHES)	24.85		11.11		11.47	
10 PERCENT EXCEEDS	45		20		24	
50 PERCENT EXCEEDS	18		9.6		5.4	
90 PERCENT EXCEEDS	8.2		2.5		1.2	

a Sept. 4, 5.
b Oct. 5, 2001, Sept. 14, 2002.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01621050 MUDDY CREEK AT MOUNT CLINTON, VA—Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: January 2002 to current year.
WATER TEMPERATURE: January 2002 to current year.

INSTRUMENTATION.--Water-quality monitor January 2002 to current year.

REMARKS.-- Water temperatures were measured in field at time of sampling. Missing record Dec. 2-4 and Mar. 2, 3 due to instrument malfunction. Water-quality monitor records for specific conductance rated excellent except for the following periods : Oct. 1-6, Apr. 18 - May 4, and Sept. 23-30 rated good. Water temperature records rated excellent.

EXTREMES FOR PERIOD OF DAILY RECORD--
SPECIFIC CONDUCTANCE: Maximum, 596 microsiemens/cm, Nov. 1-3, 2002; minimum, 136 microsiemens/cm, July 6, Sept. 19, 2003.
WATER TEMPERATURE: Maximum, 31.0 C, Aug. 2, 2002; minimum, 0.0 C, on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 537 microsiemens/cm, Sept. 26; minimum, 168 microsiemens/cm, Nov. 19.
WATER TEMPERATURE: Maximum, 27.7 C, Aug. 3; minimum, 0.0 C on several days.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sample type	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Sampling method, code (82398)	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, air, deg C (00020)
NOV												
04...	1145	Environmental	1028	80020	7.8	40	728	16.8	171	8.2	505	21.0
JAN												
06...	1015	Environmental	1028	80020	13	40	727	11.7	97	8.1	470	4.0
MAR												
02...	1030	Environmental	1028	80020	14	40	727	11.2	107	8.0	470	15.5
APR												
08...	1045	Environmental	1028	80020	8.1	40	724	12.9	125	8.3	443	13.0
MAY												
04...	1100	Environmental	1028	80020	10	40	734	12.8	128	8.4	421	12.5
JUN												
02...	1030	Environmental	1028	80020	8.1	40	724	11.6	128	8.3	470	22.5
JUL												
01...	*0930*	*Blank*	*1028*	*80020*	--	--	--	--	--	--	--	--
01...	1015	Environmental	1028	80020	5.2	40	731	11.5	132	8.2	455	24.0
01...	*1016*	*Replicate*	*1028*	*80020*	--	*40*	--	--	--	--	--	--
SEP												
01...	1000	Environmental	1028	80020	1.0	40	733	10.4	120	8.1	477	23.0

Date	Temperature, water, deg C (00010)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Chloride, water, fltrd, mg/L (00940)	Sulfate water, fltrd, mg/L (00945)	Ammonia water, fltrd, mg/L as N (00608)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, wat unf by analysis, mg/L (62855)
NOV													
04...	14.0	196	240	9.76	11.4	.09	6.52	6.61	.084	.07	.016	.043	7.70
JAN													
06...	5.5	190	232	8.90	12.2	<.04	7.47	7.49	.024	.10	.016	.051	8.09
MAR													
02...	11.0	189	230	9.19	12.4	<.04	7.05	7.09	.035	.06	.014	.043	7.39
APR													
08...	11.5	166	203	8.67	11.4	<.04	5.35	5.38	.032	.05	<.006	.032	6.12
MAY													
04...	13.5	193	236	7.59	10.4	<.04	4.94	4.98	.038	.06	.026	.065	5.36
JUN													
02...	17.5	189	231	9.14	11.5	<.04	6.02	6.10	.077	.13	.044	.104	7.10
JUL													
01...	--	--	--	*<.20*	*<.2*	*<.04*	--	*<.06*	*<.008*	--	*<.006*	*<.004*	*<.03*
01...	20.0	210	252	8.87	10.1	<.04	4.88	4.92	.037	.11	.047	.095	4.96
01...	--	*210*	*252*	*9.03*	*10.1*	*<.04*	*4.95*	*4.98*	*.037*	*.09*	*.045*	*.095*	*5.26*
SEP													
01...	20.5	213	260	8.01	9.4	<.04	3.67	3.69	.020	<.02	.054	.088	4.06

Agency collecting sample: 1028 - U.S. Geological Survey
Agency analyzing sample: 80020 - USGS-National Water Quality Lab, Denver, CO
Sampling method: 40 - Multiple verticals

01621050 MUDDY CREEK AT MOUNT CLINTON, VA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	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)	2,6-Diethylaniline water fltrd 0.7u GF ug/L (82660)	CIAT, water, fltrd, ug/L (04040)	Acetochlor, water, fltrd, ug/L (49260)	Alachlor, water, fltrd, ug/L (46342)	alpha-HCH, water, fltrd, ug/L (34253)	alpha-HCH-d6, surrog, wat flt 0.7u GF percent recovry (91065)	Atrazine, water, fltrd, ug/L (39632)	Azinphosmethyl, water, fltrd 0.7u GF ug/L (82686)	Benfluralin, water, fltrd 0.7u GF ug/L (82673)
NOV													
04...	.5	<.1	.5	1.8	<.006	E.192	<.006	<.005	<.005	94.7	.136	<.050	<.010
JAN													
06...	1.0	<.1	1.0	1.5	<.006	E.151	<.006	<.005	<.005	92.7	.110	<.050	<.010
MAR													
02...	.5	<.1	.5	1.6	<.006	E.149	<.006	<.005	<.005	97.3	.112	<.050	<.010
APR													
08...	.4	<.1	.4	1.7	<.006	E.105	<.006	<.005	<.005	95.7	.096	<.050	<.010
MAY													
04...	.5	.6	<.1	2.1	<.006	E.088	<.006	<.005	<.005	96.9	.168	<.050	<.010
JUN													
02...	.9	<.1	.9	2.3	<.006	E.059	<.006	<.005	<.005	97.6	.736	<.050	<.010
JUL													
01...	--	--	--	--	*<.006*	*<.006*	*<.006*	*<.005*	*<.005*	*85.3*	*<.007*	*<.050*	*<.010*
01...	.8	<.1	.8	2.2	<.006	E.109	<.006	<.005	<.005	88.2	.163	<.050	<.010
01...	*.8*	*<.1*	*.7*	*2.2*	*<.006*	*E.127*	*<.006*	*<.005*	*<.005*	*92.9*	*.174*	*<.050*	*<.010*
SEP													
01...	.4	<.1	.4	2.4	<.006	E.083	<.006	<.005	<.005	92.5	.076	<.050	<.010

Date	Butylate, water, fltrd, ug/L (04028)	Carbaryl, water, fltrd 0.7u GF ug/L (82680)	Carbofuran, water, fltrd 0.7u GF ug/L (82674)	Chlorpyrifos water, fltrd, ug/L (38933)	cis-Permethrin water fltrd 0.7u GF ug/L (82687)	Cyanazine, water, fltrd, ug/L (04041)	DCPA, water fltrd 0.7u GF ug/L (82682)	Desulfinyl fipronil, water, fltrd, ug/L (62170)	Diazinon, water, fltrd, ug/L (39572)	Diazinon-d10 surrog. wat flt 0.7u GF percent recovry (91063)	Dieldrin, water, fltrd, ug/L (39381)	Disulfoton, water, fltrd 0.7u GF ug/L (82677)	EPTC, water, fltrd 0.7u GF ug/L (82668)
NOV													
04...	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.012	<.005	101	<.009	<.02	<.004
JAN													
06...	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.012	<.005	113	<.009	<.02	<.004
MAR													
02...	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.012	<.005	126	<.009	<.02	<.004
APR													
08...	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.012	<.005	112	<.009	<.02	<.004
MAY													
04...	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.012	<.005	110	<.009	<.02	<.004
JUN													
02...	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.012	<.005	99.9	<.009	<.02	<.004
JUL													
01...	*<.004*	*<.041*	*<.020*	*<.005*	*<.006*	*<.018*	*<.003*	*<.012*	*<.005*	*96.4*	*<.009*	*<.02*	*<.004*
01...	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.012	<.005	91.1	<.009	<.02	<.004
01...	*<.004*	*<.041*	*<.020*	*<.005*	*<.006*	*<.018*	*<.003*	*<.012*	*<.005*	*101*	*<.009*	*<.02*	*<.004*
SEP													
01...	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.012	<.005	95.0	<.009	<.02	<.004

01621050 MUDDY CREEK AT MOUNT CLINTON, VA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Ethalfluralin, water, fltrd 0.7u GF ug/L (82663)	Ethoprop, water, fltrd 0.7u GF ug/L (82672)	Desulfinylfipronil 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 water, fltrd, ug/L (04095)	Lindane water, fltrd, ug/L (39341)	Linuron water fltrd 0.7u GF ug/L (82666)	Malathion, water, fltrd, ug/L (39532)	Methyl parathion, water, fltrd 0.7u GF ug/L (82667)	Metolachlor, water, fltrd, ug/L (39415)	Metribuzin, water, fltrd, ug/L (82630)
NOV													
04...	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035	<.027	<.015	E.007	<.006
JAN													
06...	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035	<.027	<.015	E.008	<.006
MAR													
02...	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035	<.027	<.015	E.009	E.005
APR													
08...	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035	<.027	<.015	E.006	<.006
MAY													
04...	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035	<.027	<.015	.044	<.006
JUN													
02...	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035	<.027	<.015	.052	<.006
JUL													
01...	*<.009*	*<.005*	*<.029*	*<.013*	*<.024*	*<.016*	*<.003*	*<.004*	*<.035*	*<.027*	*<.015*	*<.013*	*<.006*
01...	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035	<.027	<.015	E.012	<.006
01...	*<.009*	*<.005*	*<.029*	*<.013*	*<.024*	*<.016*	*<.003*	*<.004*	*<.035*	*<.027*	*<.015*	*E.013*	*<.006*
SEP													
01...	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035	<.027	<.015	E.007	<.006

Date	Molinate, water, fltrd 0.7u GF ug/L (82671)	Napropamide, water, fltrd 0.7u GF ug/L (82684)	p,p'-DDE, water, fltrd, ug/L (34653)	Parathion, water, fltrd, ug/L (39542)	Pebulate, water, fltrd 0.7u GF ug/L (82669)	Pendimethalin, water, fltrd 0.7u GF ug/L (82683)	Phorate water fltrd 0.7u GF ug/L (82664)	Prometon, water, fltrd, ug/L (04037)	Propyzamide, water, fltrd 0.7u GF ug/L (82676)	Propachlor, water, fltrd, ug/L (04024)	Propanil, water, fltrd 0.7u GF ug/L (82679)	Propargite, water, fltrd 0.7u GF ug/L (82685)	Simazine, water, fltrd, ug/L (04035)
NOV													
04...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	.01	<.004	<.025	<.011	<.02	.054
JAN													
06...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	M	<.004	<.025	<.011	<.02	.045
MAR													
02...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	.038
APR													
08...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	.033
MAY													
04...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	.059
JUN													
02...	<.003	<.007	<.003	<.010	<.004	E.015	<.011	.01	<.004	<.025	<.011	<.02	.255
JUL													
01...	*<.003*	*<.007*	*<.003*	*<.010*	*<.004*	*<.022*	*<.011*	*<.01*	*<.004*	*<.025*	*<.011*	*<.02*	*<.005*
01...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	.01	<.004	<.025	<.011	<.02	.062
01...	*<.003*	*<.007*	*<.003*	*<.010*	*<.004*	*<.022*	*<.011*	*.01*	*<.004*	*<.025*	*<.011*	*<.02*	*.064*
SEP													
01...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	.032

01621050 MUDDY CREEK AT MOUNT CLINTON, VA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Tebu-thiuron water fltrd 0.7u GF ug/L (82670)	Terba-cil, water, fltrd 0.7u GF ug/L (82665)	Terbu-fos, water, fltrd 0.7u GF ug/L (82675)	Thio-bencarb water fltrd 0.7u GF ug/L (82681)	Tri-allate, water, fltrd 0.7u GF ug/L (82678)	Tri-flur-alin, water, fltrd 0.7u GF ug/L (82661)	Sus-pended sedi-ment concen-tration mg/L (80154)	Sus-pended sedi-ment dis-charge, tons/d (80155)	Sampler type, code (84164)
NOV									
04...	E.01	<.034	<.02	<.010	<.002	<.009	13	.27	3070
JAN									
06...	E.01	<.034	<.02	<.010	<.002	<.009	30	1.1	3070
MAR									
02...	E.01	<.034	<.02	<.010	<.002	<.009	22	.83	3070
APR									
08...	E.01	<.034	<.02	<.010	<.002	<.009	46	1.0	3070
MAY									
04...	<.02	<.034	<.02	<.010	<.002	<.009	28	.76	3070
JUN									
02...	<.02	<.034	<.02	<.010	<.002	<.009	21	.46	3070
JUL									
01...	*<.02*	*<.034*	*<.02*	*<.010*	*<.002*	*<.009*	*.0*	--	--
01...	<.02	<.034	<.02	<.010	<.002	<.009	14	.20	3070
01...	*<.02*	*<.034*	*<.02*	*<.010*	*<.002*	*<.009*	*16*	--	*3070*
SEP									
01...	<.02	<.034	<.02	<.010	<.002	<.009	5	.01	3070

Remark codes used in this table:
< -- Less than.
E -- Estimated.
M-- Presence verified but not quantified.

Sample Type: 3070 - Grab sample

01636500 SHENANDOAH RIVER AT MILLVILLE, WV

LOCATION.--Lat 39°16'55", long 77°47'22", NAD 27, Jefferson County, Hydrologic Unit 02070007, on left bank 0.4 mi downstream from Cattail Run, 1.0 mi upstream from Millville, 5.0 mi upstream from Harpers Ferry, and at mile 4.7.

DRAINAGE AREA.--3,022 mi^2.

PERIOD OF RECORD.--April 1895 to March 1909, August 1928 to current year.

REVISED RECORDS.--WSP 951: 1936(M). WSP 1432: Drainage area at former site, 1895-99, 1901-02, 1905, 1907-08, 1932(M), 1935(M). WDR WV-97-1: Drainage area.

GAGE.--Water-stage recorder with satellite telemeter. Datum of gage is 293.00 ft above NGVD 29. Apr. 15, 1895, to Mar. 31, 1909, nonrecording gage at site 0.8 mi downstream at datum 0.32 ft higher.

REMARKS.--Records good except those for periods of estimated daily discharges (doubtful or no gage-height record), which are poor. Some regulation by upstream hydroelectric plants, including that of Potomac Light and Power Company, 0.5 mi upstream from station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of 1870 reached practically same stage as flood of Mar. 18, 1936, 26.36 ft, discharge, 151,000 ft^3/s.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 15,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov 21	0500	26,300	10.87	Sep 10	1400	17,600	8.91
Dec 12	0830	31,100	11.83	Sep 19	0830	15,100	8.24
Feb 8	0200	18,700	9.17	Sep 30	0630	*44,500	*14.15
Apr 15	0630	20,400	9.59				

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e5,000	2,410	e4,800	4,700	2,410	3,450	2,710	4,200	2,670	1,310	1,060	720
2	e4,600	2,270	4,660	4,430	2,670	3,360	3,460	3,930	2,430	1,270	997	795
3	e4,200	2,220	4,320	4,210	2,470	3,220	4,730	5,260	2,290	1,230	959	709
4	e3,800	2,130	3,990	4,020	2,490	3,160	4,530	4,960	2,130	1,260	990	683
5	e3,550	2,100	3,890	3,850	2,650	3,130	4,060	4,760	3,540	1,510	1,050	681
6	e3,350	2,270	3,910	3,740	3,410	3,470	3,640	4,340	3,580	2,250	1,070	669
7	e3,150	2,320	3,820	3,560	10,000	4,270	3,340	3,970	3,390	2,970	961	640
8	e3,000	3,390	3,640	3,390	16,700	4,280	3,100	4,380	3,330	2,100	906	755
9	e2,850	4,090	3,440	3,210	11,200	4,200	2,990	3,930	2,690	1,650	1,020	1,850
10	e2,700	3,440	3,400	3,090	8,080	4,060	2,890	3,560	2,350	1,430	897	15,800
11	e2,550	3,010	16,200	2,910	7,400	3,830	2,770	3,190	2,140	1,370	945	9,920
12	e2,500	2,810	28,200	2,840	7,310	3,590	2,720	2,890	2,500	1,300	1,080	6,050
13	e2,450	3,160	17,400	2,850	6,720	3,370	6,580	2,730	2,850	1,310	987	4,330
14	e2,450	4,330	11,900	2,830	6,220	3,150	16,300	2,580	2,780	1,330	1,020	3,270
15	e2,900	6,100	9,670	2,770	5,940	3,000	19,000	2,400	2,730	1,690	956	2,630
16	e3,500	5,030	8,330	2,690	5,470	2,850	13,400	2,420	2,640	1,630	1,110	2,180
17	e3,300	4,380	7,420	2,570	4,960	2,930	9,600	2,980	2,690	1,450	1,200	1,810
18	e2,900	3,960	8,240	2,550	4,560	3,140	7,530	3,190	2,880	1,320	1,030	7,520
19	e2,650	4,140	8,940	2,450	4,240	3,650	6,250	3,550	2,610	1,370	952	13,800
20	e2,500	11,200	7,720	2,510	4,220	3,730	5,380	3,660	2,220	1,360	965	9,980
21	e2,450	22,300	6,630	2,540	4,580	3,860	4,910	3,600	2,110	1,240	890	6,620
22	e2,350	13,300	5,890	2,350	5,460	3,910	4,490	3,830	1,920	1,250	852	4,830
23	e2,300	9,330	5,420	2,350	5,730	3,820	4,160	3,390	1,830	1,260	908	3,800
24	e2,250	7,310	5,740	2,240	5,220	3,620	3,980	3,010	1,760	1,250	853	3,060
25	2,140	6,710	7,360	2,180	4,860	3,360	3,750	2,850	1,700	1,100	834	2,510
26	2,070	5,980	8,450	1,840	4,520	3,190	3,680	2,630	1,670	1,160	820	2,190
27	2,160	5,220	7,670	1,880	4,180	3,020	6,300	2,380	1,600	1,250	782	1,950
28	2,350	e4,700	6,670	1,980	3,860	2,910	6,300	2,340	1,530	1,210	743	2,370
29	2,580	e4,610	5,960	2,360	3,650	2,790	5,260	2,430	1,470	1,110	759	24,300
30	2,760	e5,000	5,410	2,700	---	2,680	4,640	2,890	1,450	1,110	719	36,400
31	2,540	---	4,950	2,430	---	2,630	---	2,900	---	1,070	678	---
TOTAL	89,850	159,220	234,040	90,020	161,180	105,630	172,450	105,130	71,480	44,120	28,993	172,822
MEAN	2,898	5,307	7,550	2,904	5,558	3,407	5,748	3,391	2,383	1,423	935	5,761
MAX	5,000	22,300	28,200	4,700	16,700	4,280	19,000	5,260	3,580	2,970	1,200	36,400
MIN	2,070	2,100	3,400	1,840	2,410	2,630	2,710	2,340	1,450	1,070	678	640
CFSM	0.96	1.76	2.50	0.96	1.84	1.13	1.90	1.12	0.79	0.47	0.31	1.91
IN.	1.11	1.96	2.88	1.11	1.98	1.30	2.12	1.29	0.88	0.54	0.36	2.13

e Estimated

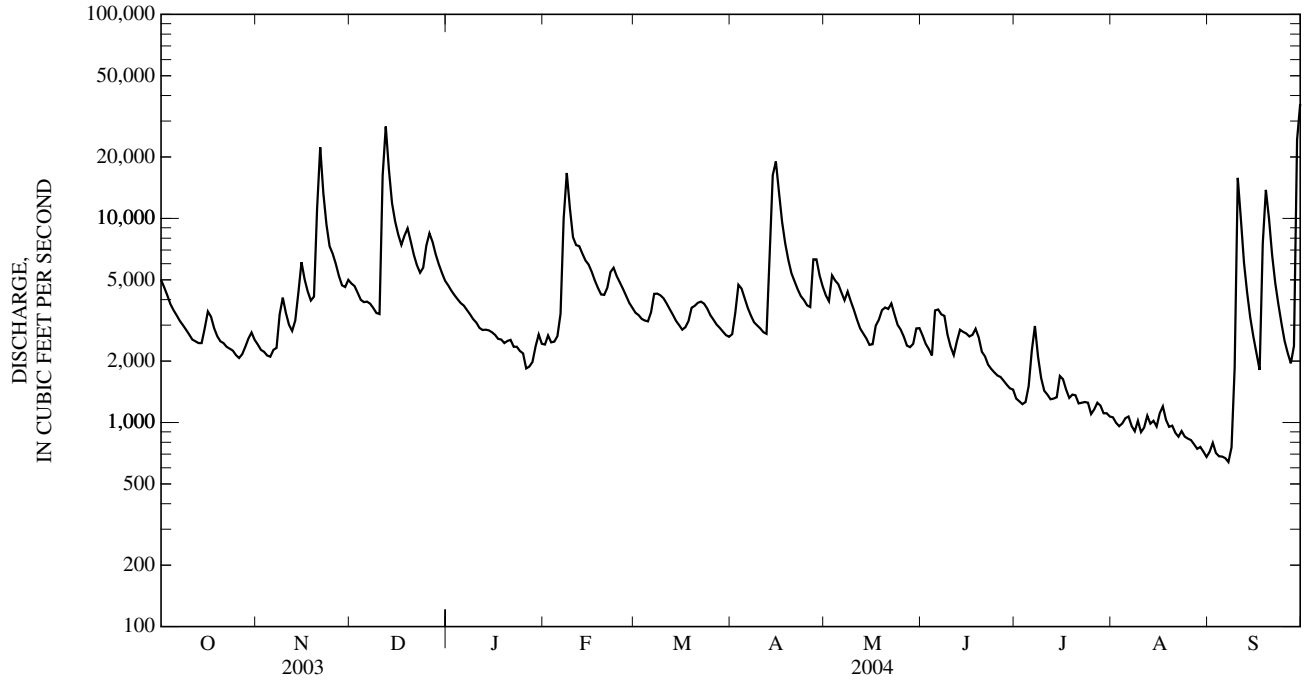
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1895 - 1909, 1928 - 2004, BY WATER YEAR (WY)

MEAN	1,934	1,896	2,528	3,212	3,916	5,039	4,399	3,358	2,445	1,453	1,616	1,594
MAX	16,250	13,350	8,164	13,470	18,100	17,540	12,840	8,701	10,380	4,809	10,390	14,780
(WY)	(1943)	(1986)	(1973)	(1996)	(1998)	(1936)	(1901)	(1901)	(1972)	(1972)	(1955)	(1996)
MIN	343	388	410	475	471	929	992	1,001	643	402	388	411
(WY)	(1931)	(1932)	(1966)	(2002)	(2002)	(1931)	(1981)	(1969)	(1999)	(1966)	(1930)	(1963)

01636500 SHENANDOAH RIVER AT MILLVILLE, WV—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1895 - 1909, 1928 - 2004	
ANNUAL TOTAL	2,237,230		1,434,935			
ANNUAL MEAN	6,129		3,921		2,776	
HIGHEST ANNUAL MEAN					5,618	1996
LOWEST ANNUAL MEAN					927	2002
HIGHEST DAILY MEAN	60,600	Sep 20	36,400	Sep 30	192,000	Oct 16, 1942
LOWEST DAILY MEAN	1,350	Feb 18	640	Sep 7	194	Jul 24, 1930
ANNUAL SEVEN-DAY MINIMUM	1,400	Feb 12	700	Sep 1	240	Sep 7, 1966
MAXIMUM PEAK FLOW			44,500	Sep 30	230,000	Oct 16, 1942
MAXIMUM PEAK STAGE			14.15	Sep 30	(a)32.40	Oct 16, 1942
INSTANTANEOUS LOW FLOW			473	Sep 9	59	Oct 4, 1930
ANNUAL RUNOFF (CFSM)	2.03		1.30		0.919	
ANNUAL RUNOFF (INCHES)	27.54		17.66		12.48	
10 PERCENT EXCEEDS	12,600		6,900		5,630	
50 PERCENT EXCEEDS	4,490		3,000		1,620	
90 PERCENT EXCEEDS	1,840		1,070		610	

a From floodmarks.



01637500 CATOCTIN CREEK NEAR MIDDLETOWN, MD

LOCATION.--Lat 39°25'38.1", long 77°33'22.2", Frederick County, Hydrologic Unit 02070008, on right bank 300 ft downstream from bridge on State Highway 17, 1.3 mi south of Middletown, 2.2 mi downstream from Little Catoctin Creek, and 14.8 mi upstream from mouth.

DRAINAGE AREA.--66.9 mi^2.

PERIOD OF RECORD.--August 1947 to current year.

REVISED RECORDS.--WSP 1432: 1947-48. WDR MD-DE-77-1: 1960(M), 1965(M), 1970(M), 1972(P), 1975(P).

GAGE.--Water-stage recorder and concrete control . Elevation of gage is 385 ft above National Geodetic Vertical Datum of 1929' from topographic map.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are poor. U.S. Geological Survey gage-height telemeter at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec 11	0545	*4,540	*8.28	Jun 5	1130	1,780	5.16
Feb 6	1245	2,550	6.14	Sep 28	1930	1,400	4.62

Minimum discharge, 2.8 ft^3/s, Sept. 6.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	140	143	205	119	e27	102	190	151	90	38	117	4.4
2	124	126	176	118	79	118	276	193	66	37	45	4.4
3	108	114	152	113	157	125	245	366	64	33	38	3.9
4	120	103	137	109	190	112	220	207	55	35	27	3.8
5	110	100	142	113	102	106	182	180	683	38	22	3.4
6	90	103	136	105	1,120	227	159	159	310	36	21	3.1
7	80	104	121	85	637	187	145	143	220	42	19	3.8
8	74	85	110	e70	264	197	133	135	174	61	15	6.9
9	69	76	104	e62	179	163	133	113	141	34	14	24
10	63	71	140	57	205	146	110	102	141	29	12	19
11	59	71	2,190	e54	189	134	103	92	188	27	13	10
12	57	200	550	e50	151	120	162	83	233	46	14	7.0
13	53	147	374	e48	146	106	492	74	146	51	23	6.1
14	100	121	332	e46	127	98	472	71	162	40	19	6.1
15	252	111	296	e44	110	93	326	92	352	30	15	10
16	107	103	249	42	95	92	261	136	177	24	12	8.8
17	89	96	280	e41	86	91	222	77	149	22	11	28
18	85	90	249	e39	82	87	191	72	123	22	10	312
19	74	345	217	e38	118	127	169	202	104	22	9.9	52
20	67	466	193	e37	153	97	148	124	90	20	9.3	28
21	63	282	167	e36	191	99	136	100	81	18	9.3	20
22	62	236	159	e35	159	84	120	89	77	16	11	17
23	57	199	164	e34	135	77	129	75	73	26	10	15
24	52	201	260	e33	136	75	155	66	65	32	8.0	13
25	48	266	227	e32	120	76	121	160	58	21	6.9	12
26	47	185	196	e31	106	72	423	245	56	19	6.3	12
27	184	171	179	e30	98	72	304	121	49	27	5.9	11
28	177	260	164	e29	94	70	223	104	46	51	5.7	479
29	265	354	157	e29	97	63	190	85	47	25	5.2	228
30	201	235	147	e28	---	61	170	74	42	19	4.9	90
31	167	---	130	e27	---	69	---	76	---	18	4.7	---
TOTAL	3,244	5,164	8,303	1,734	5,353	3,346	6,310	3,967	4,262	959	544.1	1,441.7
MEAN	105	172	268	55.9	185	108	210	128	142	30.9	17.6	48.1
MAX	265	466	2,190	119	1,120	227	492	366	683	61	117	479
MIN	47	71	104	27	27	61	103	66	42	16	4.7	3.1
CFSM	1.56	2.57	4.00	0.84	2.76	1.61	3.14	1.91	2.12	0.46	0.26	0.72
IN.	1.80	2.87	4.62	0.96	2.98	1.86	3.51	2.21	2.37	0.53	0.30	0.80

e Estimated.

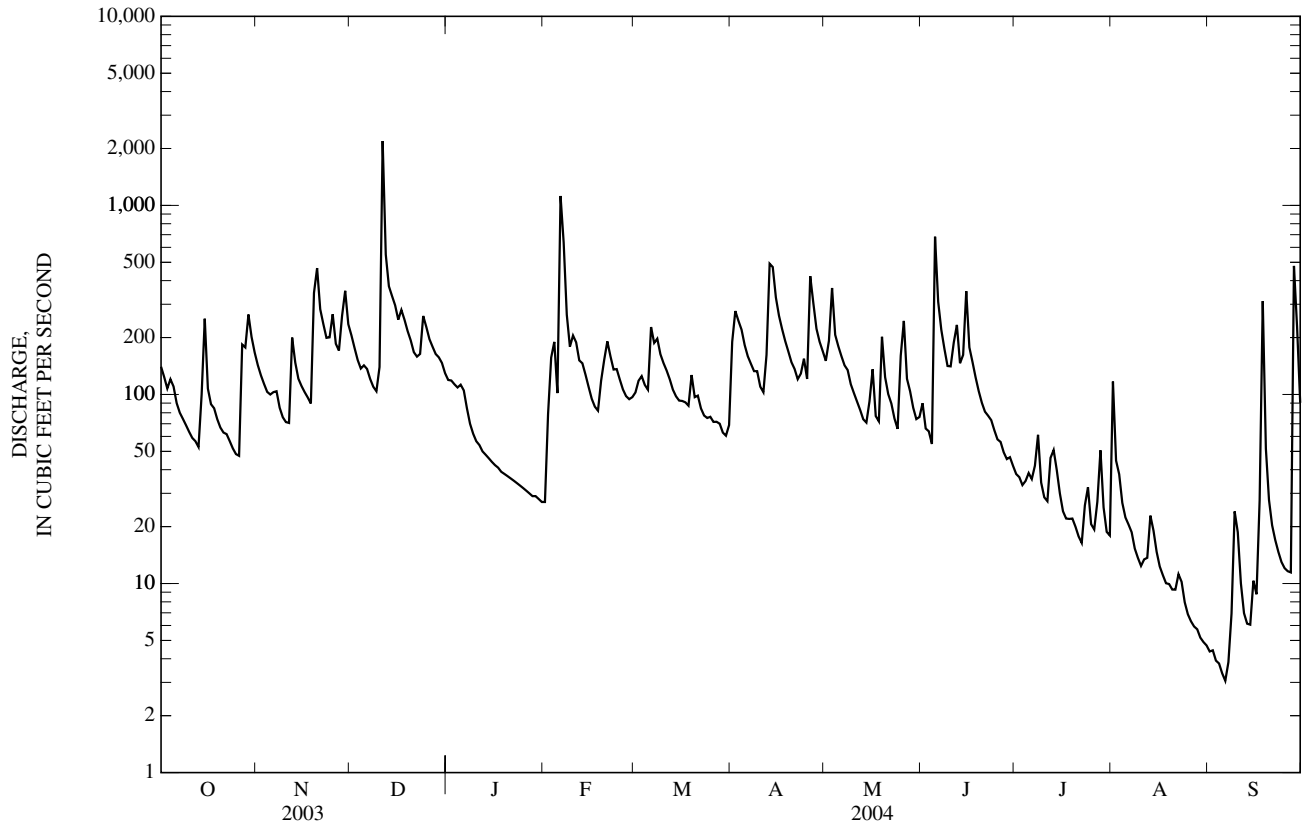
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1947 - 2004, BY WATER YEAR (WY)

MEAN	36.7	50.7	87.5	101	122	154	138	101	62.9	33.1	22.0	30.6
MAX	399	172	318	333	373	407	360	391	439	214	208	284
(WY)	(1977)	(2004)	(1993)	(1998)	(1998)	(1994)	(1993)	(1988)	(1972)	(1949)	(1955)	(1975)
MIN	2.62	3.61	3.80	4.25	8.08	30.6	30.2	29.2	11.5	4.86	2.04	1.68
(WY)	(1964)	(1966)	(1966)	(1966)	(2002)	(2002)	(2002)	(1963)	(1999)	(1966)	(1966)	(1965)

01637500 CATOCTIN CREEK NEAR MIDDLETOWN, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1947 - 2004	
ANNUAL TOTAL	60,982		44,627.8			
ANNUAL MEAN	167		122		78.2	
HIGHEST ANNUAL MEAN					164	1996
LOWEST ANNUAL MEAN					13.5	2002
HIGHEST DAILY MEAN	2,520	May 16	2,190	Dec 11	4,880	Oct 9, 1976
LOWEST DAILY MEAN	14	(a)	3.1	Sep 6	0.00	(b)
ANNUAL SEVEN-DAY MINIMUM	17	Aug 4	3.8	Sep 1	0.00	Aug 27, 1966
MAXIMUM PEAK FLOW			4,540	Dec 11	(c)12,000	Oct 9, 1976
MAXIMUM PEAK STAGE			8.28	Dec 11	14.13	Oct 9, 1976
INSTANTANEOUS LOW FLOW			2.8	Sep 6	0.00	(b)
ANNUAL RUNOFF (CFSM)	2.50		1.82		1.17	
ANNUAL RUNOFF (INCHES)	33.91		24.82		15.88	
10 PERCENT EXCEEDS	305		235		180	
50 PERCENT EXCEEDS	116		94		39	
90 PERCENT EXCEEDS	28		14		5.4	

a Feb. 17, Aug. 17, 25.
b Aug. 27 to Sept. 12, 1966.
c From rating curve extended above 2,600 ft^3/s on basis of slope-area measurement of peak flow.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01638500 POTOMAC RIVER AT POINT OF ROCKS, MD

LOCATION.--Lat 39°16'24.9", long 77°32'35.2", Frederick County, Hydrologic Unit 02070008, on left bank at downstream side of bridge on U.S. Highway 15 at Point of Rocks, 0.3 mi downstream from Catoctin Creek (Virginia), 6 mi upstream from Monocacy River, and at mile 159.5.
DRAINAGE AREA.--9,651 mi^2.
PERIOD OF RECORD.--February 1895 to current year.
REVISED RECORDS.--WSP 192: 1895-1905. WSP 1432: 1899, 1901-2, 1904-5, 1912, 1914(M), 1915, 1917(M), 1918, 1919(M), 1920, 1921-23(M), 1924, 1925-28(M), 1930(M).
GAGE.--Water-stage recorder. Datum of gage is 200.63 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 28, 1929, nonrecording gage at same site. Prior to Sept. 2, 1902, at datum about 0.45 ft higher.
REMARKS.--Records good, except those for estimated daily discharges (erroneous or missing record, ice effect), which are fair. Low flow affected slightly from 1913 to July 1981 by Stony River Reservoir; since December 1950 by Savage River Reservoir (see station 01597500); and since July 1981 by Jennings Randolph Lake. Low flow affected extensively at times by run-of-the-river hydroelectric plants. National Weather Service gage-height telemeter at station. U.S. Geological Survey satellite collection platform at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.
EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 2, 1889, reached a stage of 40.2 ft, from floodmarks, discharge, about 460,000 ft^3/s from rating curve extended as explained in footnotes.
EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 35,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov 21	1145	83,200	15.40	Apr 15	0815	81,700	15.21
Dec 12	1515	*118,000	*19.58	Apr 27	2200	51,900	11.15
Dec 26	0300	38,500	9.08	Sep 10	1230	56,900	11.87
Feb 8	0800	57,300	11.93	Sep 19	0445	84,700	15.59
Apr 3	1100	39,500	9.24	Sep 30	0845	98,100	17.25

Minimum discharge, 1,960 ft^3/s, Sept. 4.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17,400	10,800	17,600	15,600	e5,500	14,900	10,200	19,500	11,100	4,800	3,720	2,300
2	14,700	9,670	15,900	e14,400	e5,400	15,700	16,100	17,200	9,730	4,580	12,200	2,400
3	12,300	8,840	e14,800	e13,700	5,670	19,200	37,500	19,900	8,970	4,410	10,000	2,400
4	10,900	8,400	e14,000	e13,000	6,500	24,800	32,900	21,500	8,170	4,040	6,540	2,030
5	9,990	7,890	13,200	13,400	6,380	23,700	26,100	20,800	14,900	3,910	5,080	2,070
6	9,230	8,000	12,900	15,100	10,600	25,600	21,700	17,900	14,800	4,160	4,420	2,030
7	8,960	8,490	12,400	16,700	21,000	30,000	18,000	16,000	12,900	6,450	3,900	2,000
8	8,390	9,050	11,700	15,600	51,100	31,600	15,400	14,900	11,400	e6,270	3,470	2,080
9	7,610	10,500	11,000	14,000	43,000	e27,400	14,700	14,000	9,780	4,880	3,240	3,610
10	7,050	9,950	10,600	12,900	29,400	e22,900	14,100	12,800	8,450	4,250	3,150	48,400
11	6,520	8,980	35,300	11,300	25,100	19,900	13,300	11,500	7,840	3,890	2,970	30,000
12	6,240	8,890	105,000	10,400	24,000	17,700	12,100	10,500	8,650	3,720	3,200	17,900
13	5,990	14,000	69,600	10,500	23,100	15,800	e23,000	9,530	11,000	3,980	2,980	13,000
14	6,130	24,700	41,400	10,400	20,100	14,100	62,000	8,900	15,500	5,930	3,540	10,200
15	7,820	25,100	32,300	9,780	19,100	12,500	77,800	9,000	15,000	5,850	3,500	8,460
16	8,430	20,800	27,400	9,040	18,000	11,500	53,300	9,810	13,500	5,340	3,380	6,600
17	9,850	17,300	24,000	8,120	16,000	11,100	36,600	10,600	11,600	4,330	3,640	5,710
18	9,420	15,200	22,900	7,310	14,800	11,100	28,300	10,800	10,900	3,690	3,800	26,100
19	8,580	16,100	23,300	e7,500	13,700	12,100	23,500	12,300	10,400	4,120	3,120	78,300
20	8,010	27,900	21,800	e7,350	12,900	14,400	20,200	19,600	9,320	4,420	2,750	41,300
21	7,600	75,200	19,100	7,210	15,600	17,600	17,800	19,100	8,580	3,550	2,690	23,900
22	7,210	49,700	16,800	6,880	24,200	19,600	16,300	17,000	7,980	3,580	3,860	17,100
23	6,740	33,000	15,400	e6,200	30,100	22,000	15,600	18,000	7,330	3,460	4,010	14,500
24	6,460	25,700	17,200	5,940	24,800	19,700	14,800	15,600	6,910	3,510	3,460	10,900
25	6,240	22,600	31,000	5,630	21,800	17,000	13,700	13,500	6,330	3,450	3,100	9,150
26	5,950	20,600	36,900	4,690	19,500	15,000	14,100	12,100	6,010	3,480	2,810	8,360
27	6,310	18,200	30,200	4,730	17,500	13,500	37,100	11,300	5,790	3,480	2,660	7,190
28	8,050	16,300	24,900	e5,100	15,700	12,400	43,900	10,200	5,630	3,440	2,530	11,300
29	15,000	17,200	21,500	e5,300	14,900	11,400	30,800	9,640	5,510	3,690	2,460	46,300
30	14,500	18,100	19,100	e5,600	---	10,400	23,500	10,200	5,090	3,860	2,420	85,600
31	12,500	---	17,200	e5,700	---	9,880	---	12,200	---	3,840	2,280	---
TOTAL	280,080	567,160	786,400	299,080	555,450	544,480	784,400	435,880	289,070	132,360	120,880	541,190
MEAN	9,035	18,910	25,370	9,648	19,150	17,560	26,150	14,060	9,636	4,270	3,899	18,040
MAX	17,400	75,200	105,000	16,700	51,100	31,600	77,800	21,500	15,500	6,450	12,200	85,600
MIN	5,950	7,890	10,600	4,690	5,400	9,880	10,200	8,900	5,090	3,440	2,280	2,000
CFSM	0.94	1.96	2.63	1.00	1.98	1.82	2.71	1.46	1.00	0.44	0.40	1.87
IN.	1.08	2.19	3.03	1.15	2.14	2.10	3.02	1.68	1.11	0.51	0.47	2.09

e Estimated

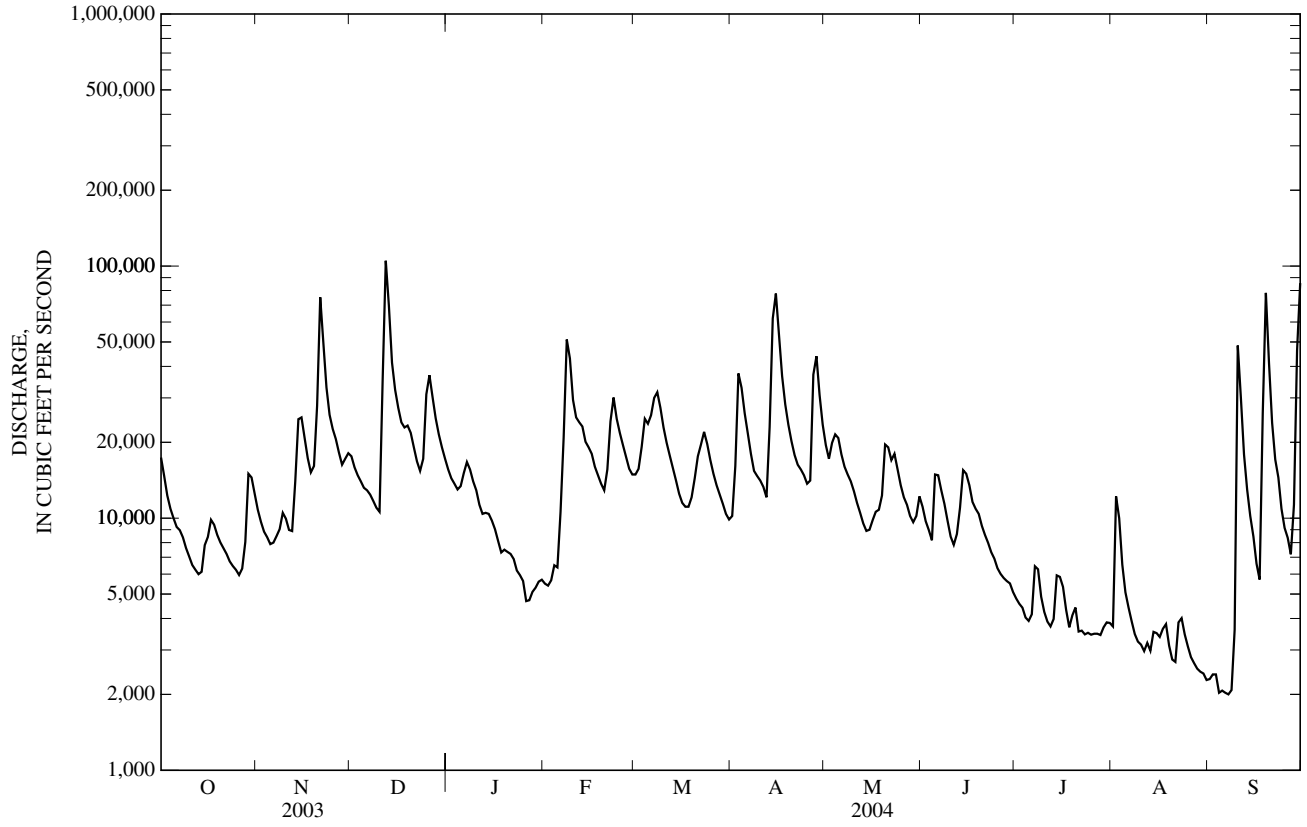
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1895 - 2004, BY WATER YEAR (WY)

MEAN	5,025	5,771	8,684	11,400	14,350	19,750	16,570	12,380	8,150	4,503	4,275	4,070
MAX	37,030	39,000	32,610	42,160	47,870	68,360	43,840	41,970	40,400	16,000	23,580	38,300
(WY)	(1943)	(1986)	(1973)	(1996)	(1998)	(1936)	(1993)	(1924)	(1972)	(1949)	(1955)	(1996)
MIN	706	840	1,253	1,703	1,982	5,400	4,368	3,276	1,932	1,056	771	834
(WY)	(1931)	(1931)	(1966)	(1981)	(2002)	(1931)	(1915)	(1930)	(1969)	(1966)	(1930)	(1930)

01638500 POTOMAC RIVER AT POINT OF ROCKS, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1895 - 2004	
ANNUAL TOTAL	7,245,440		5,336,430			
ANNUAL MEAN	19,850		14,580		9,562	
HIGHEST ANNUAL MEAN					18,750	1996
LOWEST ANNUAL MEAN					4,015	2002
HIGHEST DAILY MEAN	112,000	Sep 21	105,000	Dec 12	434,000	Mar 19, 1936
LOWEST DAILY MEAN	2,040	Feb 18	2,000	Sep 7	540	Sep 10, 1914
ANNUAL SEVEN-DAY MINIMUM	3,190	Feb 13	2,140	Sep 2	593	Sep 6, 1966
MAXIMUM PEAK FLOW			118,000	Dec 12	(a)480,000	Mar 19, 1936
MAXIMUM PEAK STAGE			19.58	Dec 12	41.03	Mar 19, 1936
INSTANTANEOUS LOW FLOW			1,960	Sep 4	530	(b)
ANNUAL RUNOFF (CFSM)	2.06		1.51		0.991	
ANNUAL RUNOFF (INCHES)	27.93		20.57		13.46	
10 PERCENT EXCEEDS	42,300		26,500		21,000	
50 PERCENT EXCEEDS	14,800		11,400		5,410	
90 PERCENT EXCEEDS	4,910		3,600		1,680	

a From rating curve extended above 300,000 ft^3/s, on the basis of adjustment of figure of peak flow at station near Washington for inflow and storage, and slope-area measurement of peak flow.
b Sept. 11, 12, 1966.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01639000 MONOCACY RIVER AT BRIDGEPORT, MD

LOCATION.--Lat 39°40'43.8", long 77°14'04.2", Frederick County, Hydrologic Unit 02070009, on right bank 60 ft downstream from bridge on State Highway 140 at Bridgeport, 0.9 mi upstream from Cattail Branch, 3.4 mi northwest of Taneytown, 4.8 mi downstream from confluence of Rock and Marsh Creeks at Pennsylvania-Maryland State line, and 52 mi upstream from mouth.

DRAINAGE AREA.--173 mi^2.

PERIOD OF RECORD.--May 1942 to current year.

REVISED RECORDS.--WSP 1382: 1944(M).

GAGE.--Water-stage recorder. Concrete control since Sept. 15, 1947. Datum of gage is 340.83 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to May 3, 1946, nonrecording gage and crest-stage gages at site 0.3 mi downstream at datum 0.98 ft lower.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are poor. Occasional regulation at low flow from Lake Herrtage and other unknown sources upstream from station. U.S. Geological Survey gage-height telemeter and satellite collection platform at station. Several measurements of water temperature were made during the year. Water-quality records for some periods have been collected at this location.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 24, 1933, reached a stage of about 25 ft, present site and datum, from floodmarks, discharge, 23,000 ft^3/s. Stage exceeded that of June 1889, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,800 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec 11	1215	*11,500	*16.69	Apr 13	0430	5,190	10.92
Feb 6	2115	5,870	11.64	Sep 29	0130	10,400	15.82

Minimum discharge, 11 ft^3/s, Sept. 6-8.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	123	244	264	149	e35	345	853	167	103	38	829	25
2	111	194	221	139	51	387	963	203	100	35	307	19
3	87	161	180	152	66	441	709	1,660	73	33	122	15
4	86	135	160	174	426	374	440	390	59	30	73	13
5	120	125	176	576	412	359	313	246	1,590	34	52	12
6	84	349	200	456	1,880	905	223	191	1,320	36	43	11
7	67	338	192	206	2,900	535	185	152	399	31	32	11
8	58	202	173	e140	994	457	159	149	240	179	27	12
9	54	138	151	e107	468	313	193	117	167	67	23	27
10	49	114	162	e94	368	248	150	103	126	38	19	53
11	47	106	7,120	e80	496	216	125	89	229	38	17	28
12	43	652	1,020	e72	353	188	290	79	658	58	17	18
13	40	490	535	e83	268	150	2,940	68	216	75	284	15
14	59	273	441	e61	289	129	1,580	63	274	76	130	14
15	1,360	214	653	e53	208	124	575	69	1,180	56	61	14
16	275	184	578	e47	139	120	363	205	300	36	42	16
17	165	168	730	e43	135	151	287	106	736	28	31	22
18	192	150	670	e41	123	216	238	75	566	27	26	2,190
19	147	573	356	e38	334	442	197	304	218	28	23	443
20	107	1,950	296	e36	729	343	164	177	139	27	257	162
21	90	469	245	e35	847	242	140	215	106	22	730	98
22	94	329	221	e33	713	174	127	350	89	19	401	70
23	89	269	317	e32	533	133	260	168	110	22	126	51
24	69	235	648	e31	413	121	553	100	80	45	71	41
25	59	384	586	e30	326	114	190	76	64	37	50	34
26	56	228	318	e29	340	108	2,200	439	88	24	38	31
27	787	179	256	e28	267	103	1,090	189	73	47	32	29
28	881	347	216	e27	263	106	402	159	52	276	27	2,590
29	1,890	1,240	191	e26	322	91	266	97	50	82	25	3,980
30	646	356	194	e26	---	82	207	68	48	44	21	490
31	330	---	180	e25	---	83	---	62	---	33	18	---
TOTAL	8,265	10,796	17,650	3,069	14,698	7,800	16,382	6,536	9,453	1,621	3,954	10,534
MEAN	267	360	569	99.0	507	252	546	211	315	52.3	128	351
MAX	1,890	1,950	7,120	576	2,900	905	2,940	1,660	1,590	276	829	3,980
MIN	40	106	151	25	35	82	125	62	48	19	17	11
CFSM	1.54	2.08	3.29	0.57	2.93	1.45	3.16	1.22	1.82	0.30	0.74	2.03
IN.	1.78	2.32	3.80	0.66	3.16	1.68	3.52	1.41	2.03	0.35	0.85	2.27

e Estimated

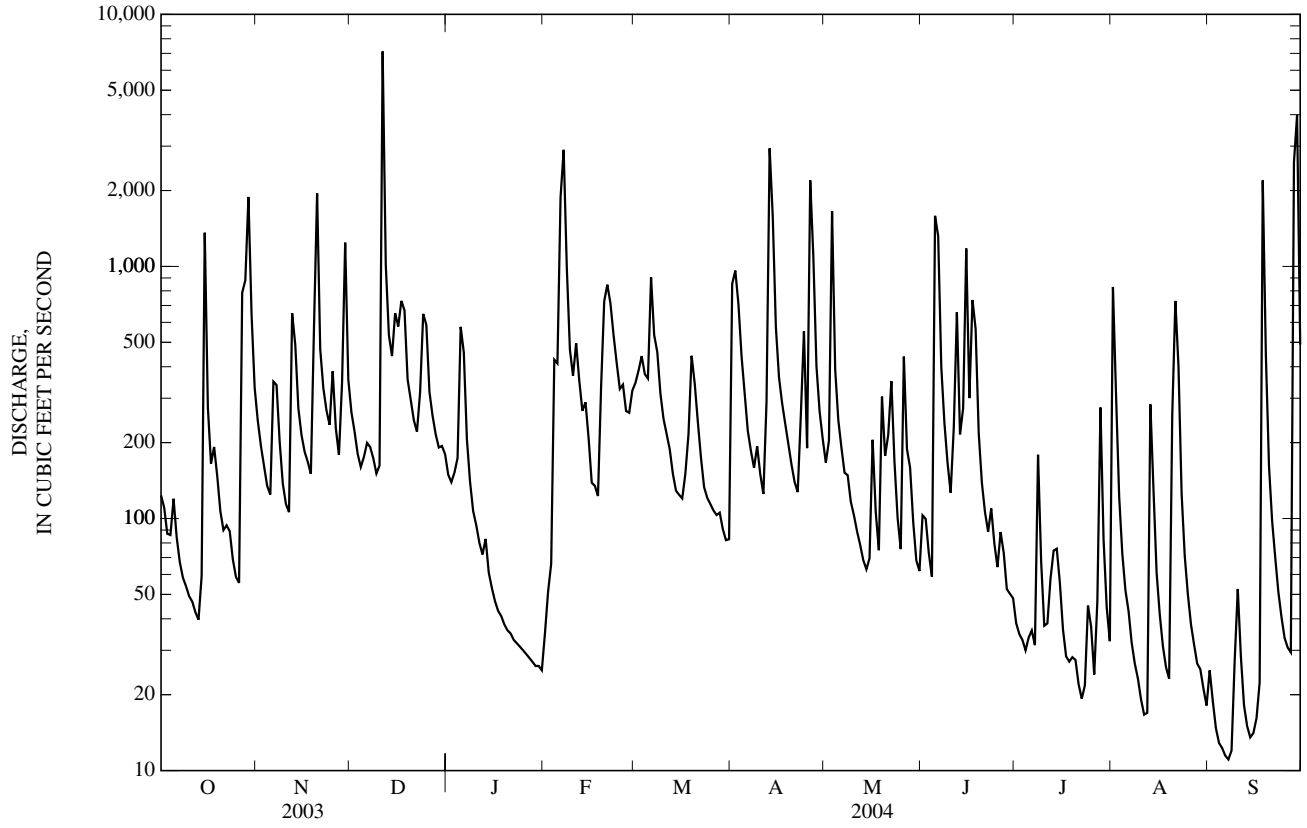
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 2004, BY WATER YEAR (WY)

MEAN	98.5	180	272	296	374	455	299	212	140	78.2	58.3	95.6
MAX	906	513	780	1,214	1,029	1,606	1,029	964	1,065	598	613	1,027
(WY)	(1977)	(1986)	(1997)	(1996)	(1961)	(1994)	(1983)	(1989)	(1972)	(1949)	(1942)	(1975)
MIN	3.24	10.4	12.3	13.8	29.8	94.7	58.1	41.2	10.5	2.68	2.40	2.34
(WY)	(1964)	(1954)	(1999)	(1981)	(2002)	(1949)	(1995)	(1969)	(1966)	(1966)	(1944)	(1943)

01639000 MONOCACY RIVER AT BRIDGEPORT, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1942 - 2004	
ANNUAL TOTAL	144,695		110,758			
ANNUAL MEAN	396		303		211	
HIGHEST ANNUAL MEAN					447	1996
LOWEST ANNUAL MEAN					53.8	2002
HIGHEST DAILY MEAN	7,120	Dec 11	7,120	Dec 11	16,700	Jun 22, 1972
LOWEST DAILY MEAN	14	(a)	11	(b)	0.00	(c)
ANNUAL SEVEN-DAY MINIMUM	17	Aug 22	13	Sep 2	0.04	Jul 22, 1966
MAXIMUM PEAK FLOW			11,500	Dec 11	(d)24,400	Jun 19, 1996
MAXIMUM PEAK STAGE			16.69	Dec 11	25.42	Jun 19, 1996
INSTANTANEOUS LOW FLOW			11	(f)	0.00	(g)
ANNUAL RUNOFF (CFSM)	2.29		1.75		1.22	
ANNUAL RUNOFF (INCHES)	31.11		23.82		16.57	
10 PERCENT EXCEEDS	866		652		450	
50 PERCENT EXCEEDS	178		150		65	
90 PERCENT EXCEEDS	34		28		8.0	

a Aug. 26, 27.
b Sept. 6-7
c July 25-28, 1966.
d From rating curve extended above 14,000 ft^3/s on basis of slope-conveyance study.
f Sept. 6-8.
g July 24-29, 1966.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01639500 BIG PIPE CREEK AT BRUCEVILLE, MD

LOCATION.--Lat 39°36'44.5", long 77°14'14.8", Carroll County, Hydrologic Unit 02070009, on left bank 300 ft downstream from bridge on State Highway 194, 800 ft downstream from Bruceville, 3.5 mi upstream from Detour and confluence with Little Pipe Creek.

DRAINAGE AREA.--102 mi^2.

PERIOD OF RECORD.--October 1947 to current year. Prior to December 1947, monthly discharge only, published in WSP 1302.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 336.88 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges (ice effect and equipment malfunction), which are poor. Occasional diversion for irrigation upstream from station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,600 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 27	1815	1,600	5.13	Apr 13	0015	1,750	5.41
Oct 29	0900	1,720	5.34	Jun 14	2145	1,750	5.40
Nov 19	2115	1,820	5.54	Sep 28	1615	2,230	6.36
Dec 11	0530	*5,560	*11.00				

Minimum discharge, 33 ft^3/s, Sept. 3, 4, 6.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	148	220	214	158	e80	132	463	118	100	69	330	38
2	137	190	184	161	e100	145	393	170	88	68	336	37
3	122	172	164	161	e90	145	331	416	93	64	435	35
4	133	159	155	157	e250	134	251	169	79	62	103	35
5	130	161	170	176	e150	129	203	142	442	67	103	35
6	113	186	181	166	e1,000	415	167	129	416	65	81	34
7	106	193	165	136	e1,750	238	155	121	169	100	71	35
8	103	153	151	128	e850	223	144	119	131	251	65	38
9	100	137	148	130	e400	171	159	108	112	78	60	51
10	97	130	174	119	e330	150	134	103	101	65	57	44
11	93	126	3,530	116	e450	141	126	97	214	63	59	38
12	91	334	610	133	e350	132	320	93	232	100	69	37
13	88	264	359	126	e250	119	928	87	127	77	230	37
14	155	182	370	131	e280	113	561	83	341	97	95	36
15	571	160	521	117	e180	112	294	86	560	82	80	37
16	153	149	360	92	e140	124	229	139	174	64	69	37
17	128	143	640	112	e110	153	199	92	213	59	64	44
18	135	135	437	127	e96	135	179	90	250	76	61	404
19	117	598	304	e110	e300	198	163	169	150	73	58	105
20	107	819	277	e100	e530	144	149	111	124	61	69	62
21	106	288	246	e90	e500	137	141	137	112	55	74	54
22	106	238	236	e86	e300	119	134	126	105	54	75	49
23	102	202	241	e84	e200	110	131	96	107	124	58	45
24	93	189	287	e90	e180	107	151	86	95	134	53	43
25	88	231	272	e78	e170	106	122	93	88	66	51	42
26	88	175	218	e74	140	103	298	174	99	63	49	42
27	711	163	199	e76	132	109	248	103	82	68	46	42
28	469	365	185	e78	128	106	154	103	76	142	44	836
29	1,090	539	180	e76	130	96	135	86	81	72	42	890
30	362	256	179	e72	---	93	124	78	73	60	40	170
31	262	---	163	e74	---	94	---	83	---	58	40	---
TOTAL	6,304	7,257	11,520	3,534	9,566	4,433	7,186	3,807	5,034	2,537	3,067	3,432
MEAN	203	242	372	114	330	143	240	123	168	81.8	98.9	114
MAX	1,090	819	3,530	176	1,750	415	928	416	560	251	435	890
MIN	88	126	148	72	80	93	122	78	73	54	40	34
CFSM	1.99	2.37	3.64	1.12	3.23	1.40	2.35	1.20	1.65	0.80	0.97	1.12
IN.	2.30	2.65	4.20	1.29	3.49	1.62	2.62	1.39	1.84	0.93	1.12	1.25

e Estimated

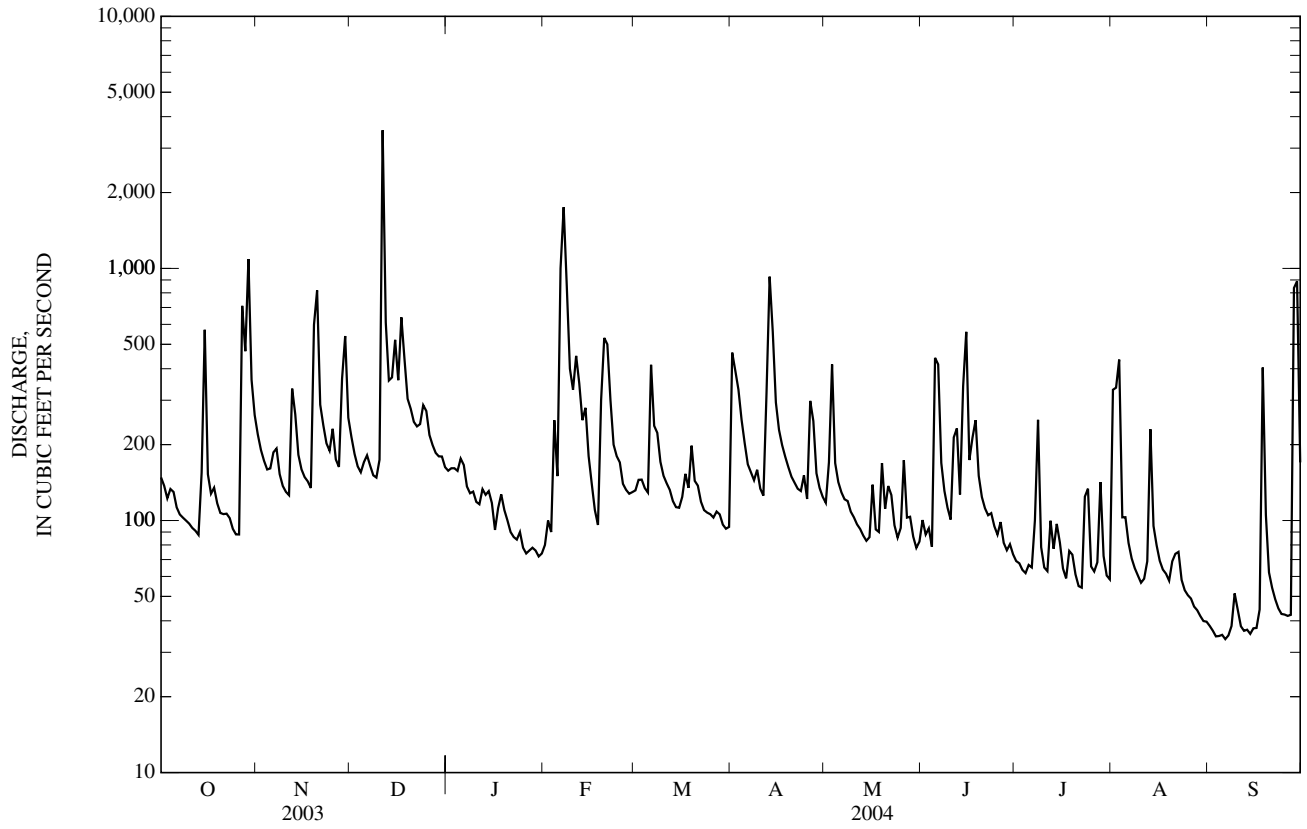
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 2004, BY WATER YEAR (WY)

MEAN	63.6	88.4	130	149	176	198	164	120	103	71.1	55.0	71.0
MAX	390	289	453	492	387	613	514	383	891	295	212	730
(WY)	(1980)	(1948)	(1997)	(1996)	(1979)	(1994)	(1993)	(1989)	(1972)	(1949)	(1955)	(1975)
MIN	14.9	16.7	18.9	22.5	25.9	46.2	34.9	34.2	16.2	7.07	4.39	13.0
(WY)	(1964)	(1966)	(1966)	(1966)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(1966)	(1963)

01639500 BIG PIPE CREEK AT BRUCEVILLE, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1948 - 2004	
ANNUAL TOTAL	85,783		67,677			
ANNUAL MEAN	235		185		115	
HIGHEST ANNUAL MEAN					227	1972
LOWEST ANNUAL MEAN					24.1	2002
HIGHEST DAILY MEAN	3,620	Sep 23	3,530	Dec 11	14,400	Jun 22, 1972
LOWEST DAILY MEAN	(e)24	Feb 17	34	Sep 6	0.08	Aug 22, 2002
ANNUAL SEVEN-DAY MINIMUM	31	Feb 12	36	Sep 1	0.51	Aug 11, 2002
MAXIMUM PEAK FLOW			5,560	Dec 11	(a)28,000	Sep 26, 1975
MAXIMUM PEAK STAGE			11.00	Dec 11	18.98	Sep 26, 1975
INSTANTANEOUS LOW FLOW			33	(b)	0.06	Aug 22, 2002
ANNUAL RUNOFF (CFSM)	2.30		1.81		1.13	
ANNUAL RUNOFF (INCHES)	31.29		24.68		15.38	
10 PERCENT EXCEEDS	458		359		219	
50 PERCENT EXCEEDS	148		128		67	
90 PERCENT EXCEEDS	68		58		23	

e Estimated.
a From rating curve extended above 3,900 ft^3/s on the basis of contracted-opening measurement at gage height of 17.86 ft.
b Sept. 3, 4, 6.



01643000 MONOCACY RIVER AT JUG BRIDGE NEAR FREDERICK, MD

LOCATION.--Lat 39°24'10.2", long 77°21'57.9", Frederick County, Hydrologic Unit 02070009, on right bank 500 ft downstream from Interstate 70 highway bridge, 0.4 mi downstream from Linganore Creek, 2.0 mi east of Frederick, and 16.9 mi upstream from mouth.

DRAINAGE AREA.--817 mi^2.

PERIOD OF RECORD.--October 1929 to current year. Monthly discharge only for October, November 1929, published in WSP 1302.

REVISED RECORDS.--WSP 711: 1930.

GAGE.--Water-stage recorder. Nonrecording gage at site 0.2 mile downstream. Datum of gage is 231.92 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are poor. Occasional regulation at low and medium flows since September 1972 by Linganore Reservoir, total capacity, 883,200,000 gal, 2.8 mi upstream from station. National Weather Service gage-height telemeter at station. U.S. Geological Survey satellite collection platform at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in June 1889 reached a stage of 30 ft, from floodmarks, discharge, 56,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 8,800 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov 20	1130	9,980	11.92	Apr 13	1430	10,000	11.96
Dec 12	0300	*27,400	*20.92	Apr 27	0315	9,360	11.40
Feb 7	1215	16,200	16.35	Sep 29	1330	19,100	17.65

Minimum discharge, 148 ft^3/s, Sept. 6, 7.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,190	1,670	1,790	1,190	e340	1,240	1,470	1,180	667	390	948	187
2	1,110	1,440	1,530	1,150	532	1,300	4,630	1,210	658	367	2,330	179
3	984	1,280	1,350	1,160	612	1,550	3,430	4,930	583	340	1,670	173
4	974	1,170	1,230	1,130	1,300	1,390	2,460	2,250	536	359	689	163
5	1,020	1,120	1,280	1,310	1,490	1,370	1,980	1,520	3,010	385	574	158
6	910	1,360	1,400	1,800	4,630	2,450	1,540	1,310	6,120	393	478	153
7	805	1,580	1,320	1,230	14,300	3,070	1,350	1,150	2,130	362	385	154
8	743	1,320	1,210	936	5,380	2,140	1,230	1,080	1,430	785	331	204
9	697	1,050	1,170	e800	2,400	1,790	1,220	976	1,130	608	300	244
10	657	934	1,190	e700	1,950	1,440	1,160	879	963	379	278	285
11	623	893	16,600	e640	2,740	1,300	1,020	799	1,070	326	259	260
12	599	1,670	17,300	e840	2,130	1,200	1,170	733	2,170	455	298	212
13	571	2,610	3,590	e700	1,740	1,080	7,790	678	1,390	537	741	186
14	630	1,570	2,870	e580	1,870	967	6,940	627	1,020	722	969	182
15	3,790	1,240	3,620	e500	1,460	922	3,300	641	5,600	597	495	192
16	1,800	1,130	3,310	e470	1,160	919	2,290	906	1,920	409	380	198
17	1,100	1,060	3,240	e450	977	1,050	1,870	898	1,340	329	322	258
18	998	994	4,040	e430	967	1,080	1,630	706	2,180	315	290	2,800
19	976	1,680	2,460	e410	1,150	1,410	1,440	1,110	1,200	338	272	3,020
20	828	7,730	2,070	e390	2,400	1,590	1,290	1,230	903	307	265	796
21	751	2,980	1,790	e380	2,670	1,230	1,190	877	753	275	571	530
22	723	2,090	1,650	e370	2,470	1,070	1,110	1,150	691	296	1,170	431
23	698	1,740	1,670	e350	1,910	913	1,060	976	647	404	544	369
24	652	1,560	2,030	e340	1,620	847	1,860	705	635	845	352	329
25	594	1,920	2,780	e330	1,510	820	1,220	658	554	474	285	303
26	571	1,660	1,870	e320	1,370	793	2,550	1,590	523	352	249	275
27	1,580	1,350	1,610	e310	1,220	768	5,950	1,140	528	387	227	246
28	4,560	1,500	1,470	e300	1,150	783	2,150	848	457	837	211	3,730
29	5,290	4,930	1,370	e290	1,190	720	1,560	726	429	679	200	17,100
30	4,500	2,400	1,340	e285	---	671	1,320	590	418	407	186	3,400
31	2,120	---	1,290	e280	---	675	---	567	---	326	183	---
TOTAL	43,044	55,631	91,440	20,371	64,638	38,548	69,180	34,640	41,655	13,985	16,452	36,717
MEAN	1,389	1,854	2,950	657	2,229	1,243	2,306	1,117	1,388	451	531	1,224
MAX	5,290	7,730	17,300	1,800	14,300	3,070	7,790	4,930	6,120	845	2,330	17,100
MIN	571	893	1,170	280	340	671	1,020	567	418	275	183	153
CFSM	1.70	2.27	3.61	0.80	2.73	1.52	2.82	1.37	1.70	0.55	0.65	1.50
IN.	1.96	2.53	4.16	0.93	2.94	1.76	3.15	1.58	1.90	0.64	0.75	1.67

e Estimated

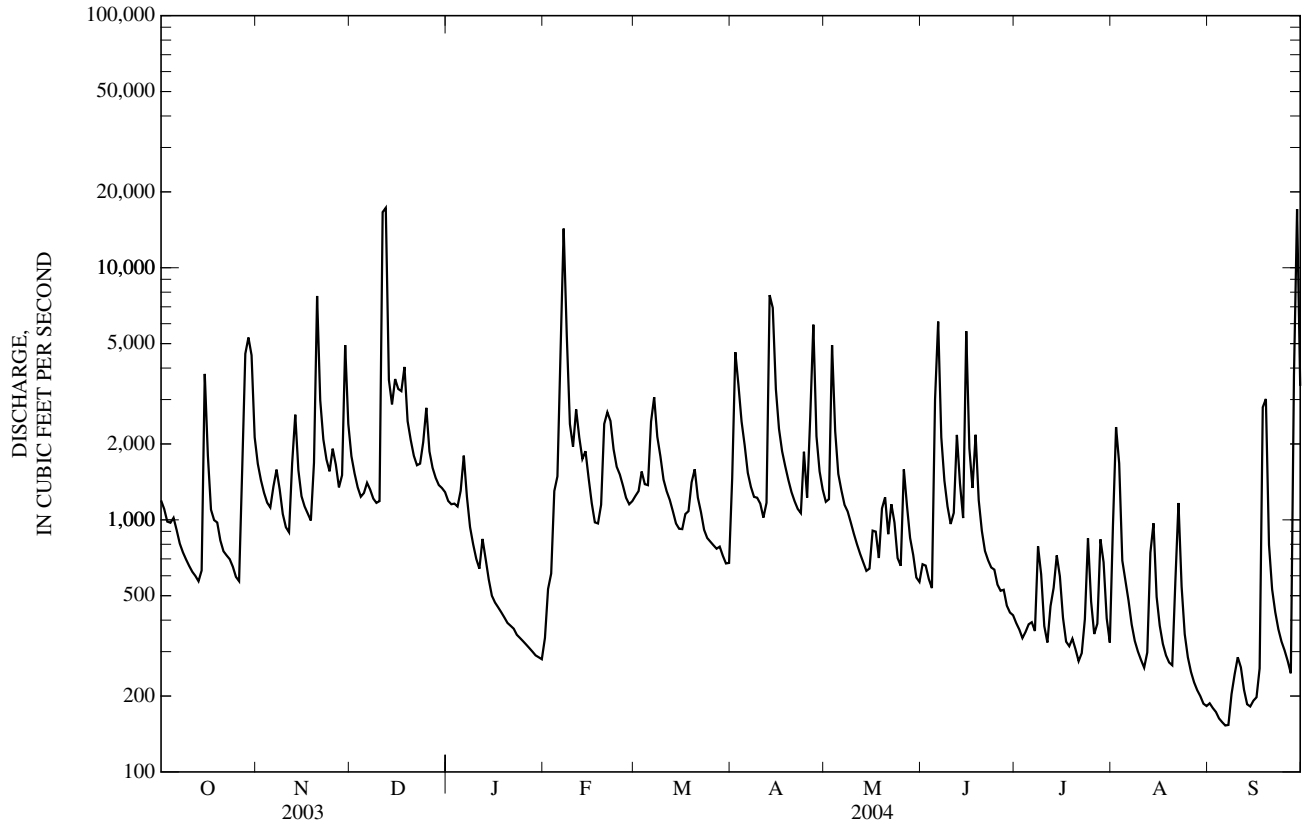
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 2004, BY WATER YEAR (WY)

MEAN	521	730	1,063	1,210	1,461	1,827	1,522	1,021	745	452	403	522
MAX	3,943	2,504	3,606	4,159	4,062	5,851	4,533	3,773	6,826	2,571	3,233	5,165
(WY)	(1977)	(1933)	(1997)	(1996)	(1984)	(1993)	(1983)	(1989)	(1972)	(1949)	(1933)	(1975)
MIN	46.8	65.1	108	123	155	589	375	296	152	64.5	36.4	59.9
(WY)	(1931)	(1931)	(1966)	(1981)	(2002)	(1981)	(2002)	(1963)	(1999)	(1966)	(1966)	(1963)

01643000 MONOCACY RIVER AT JUG BRIDGE NEAR FREDERICK, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1930 - 2004	
ANNUAL TOTAL	719,795		526,301			
ANNUAL MEAN	1,972		1,438		954	
HIGHEST ANNUAL MEAN					1,834	1972
LOWEST ANNUAL MEAN					212	2002
HIGHEST DAILY MEAN	18,400	Sep 23	17,300	Dec 12	74,000	Jun 23, 1972
LOWEST DAILY MEAN	290	Feb 16	153	Sep 6	19	(a)
ANNUAL SEVEN-DAY MINIMUM	332	Aug 24	167	Sep 1	19	Sep 7, 1966
MAXIMUM PEAK FLOW			27,400	Dec 12	81,600	Jun 23, 1972
MAXIMUM PEAK STAGE			20.92	Dec 12	(b)35.90	Jun 23, 1972
INSTANTANEOUS LOW FLOW			148	(c)	17	(d)
ANNUAL RUNOFF (CFSM)	2.41		1.76		1.17	
ANNUAL RUNOFF (INCHES)	32.77		23.96		15.86	
10 PERCENT EXCEEDS	3,970		2,690		2,010	
50 PERCENT EXCEEDS	1,280		1,020		478	
90 PERCENT EXCEEDS	432		297		120	

a Sept. 7-13, 1966.
b From floodmarks.
c Sept. 6, 7.
d Sept. 11, 13, 1966.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01643500 BENNETT CREEK AT PARK MILLS, MD

LOCATION.--Lat 39°17'38.9", long 77°24'25.5", Frederick County, Hydrologic Unit 02070009, on left bank 75 ft downstream from highway bridge, 0.2 mi south of Park Mills, 1.8 mi upstream from mouth, and 3.7 mi southwest of Urbana.

DRAINAGE AREA.--62.8 mi^2.

PERIOD OF RECORD.--July 1948 to September 1958. Annual maximum, water years 1960-66. August 1966 to current year.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 240 ft above National Geodetic Vertical Datum of 1929, from topographic maps.

REMARKS.--Records good except those for estimated daily discharges (ice effect, recorder malfunction), which are fair. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 15	0115	1,390	4.71
Oct 27	1845	1,240	4.50
Nov 19	2000	2,710	6.43
Dec 11	0600	*7,060	*11.04
May 18	0200	2,200	5.75

Minimum discharge, 4.1 ft^3/s, Aug. 10, 11.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	120	149	153	113	e49	75	272	83	62	33	25	e4.8
2	113	134	137	115	52	81	330	100	53	33	14	e4.6
3	104	124	125	113	81	77	288	157	50	31	15	e5.4
4	116	117	118	108	104	79	201	96	49	42	8.5	e6.0
5	104	137	134	115	76	76	148	85	218	45	12	e5.0
6	96	147	140	108	87	351	124	80	104	37	7.0	e4.0
7	92	130	131	91	244	182	114	77	74	35	5.7	e40
8	89	112	124	88	200	154	104	82	65	48	4.8	e90
9	86	104	118	88	141	119	99	72	58	32	4.5	e40
10	83	100	132	84	217	104	89	69	54	30	4.4	e30
11	82	99	2,780	89	217	95	86	66	75	31	12	e24
12	81	132	386	82	170	89	190	63	123	101	16	e22
13	78	117	260	82	174	80	460	59	68	43	47	e20
14	137	100	285	79	143	76	306	56	61	46	11	e18
15	356	97	314	77	120	75	196	54	139	35	e8.0	e22
16	109	94	241	75	100	83	154	64	98	31	e6.5	e28
17	96	92	405	71	90	84	136	73	88	30	e5.5	e36
18	94	89	283	e76	91	75	123	502	74	33	e4.5	e140
19	88	834	230	e71	114	102	113	144	60	31	e10	e70
20	83	446	200	e67	125	79	104	98	52	29	e8.0	e40
21	82	214	174	55	133	77	102	85	49	27	e30	e26
22	82	170	164	e61	116	71	95	89	48	77	e12	e22
23	80	146	158	e59	101	69	100	72	48	107	e8.0	e26
24	75	154	205	e58	102	69	114	68	46	55	e7.4	e24
25	73	194	168	e56	96	69	87	71	43	16	e9.0	e22
26	74	140	143	e55	85	68	180	92	43	13	e8.0	e20
27	543	129	135	e53	81	69	161	67	39	15	e7.0	e20
28	256	267	126	e52	78	67	109	63	37	22	e6.6	e50
29	508	284	123	e51	76	64	96	56	36	12	e6.0	e100
30	226	172	120	e50	---	63	87	54	34	10	e5.6	e60
31	173	---	115	e49	---	64	---	58	---	6.9	e5.2	---
TOTAL	4,379	5,224	8,327	2,391	3,463	2,886	4,768	2,855	2,048	1,136.9	334.2	1,019.8
MEAN	141	174	269	77.1	119	93.1	159	92.1	68.3	36.7	10.8	34.0
MAX	543	834	2,780	115	244	351	460	502	218	107	47	140
MIN	73	89	115	49	49	63	86	54	34	6.9	4.4	4.0
CFSM	2.25	2.77	4.28	1.23	1.90	1.48	2.53	1.47	1.09	0.58	0.17	0.54
IN.	2.59	3.09	4.93	1.42	2.05	1.71	2.82	1.69	1.21	0.67	0.20	0.60

e Estimated

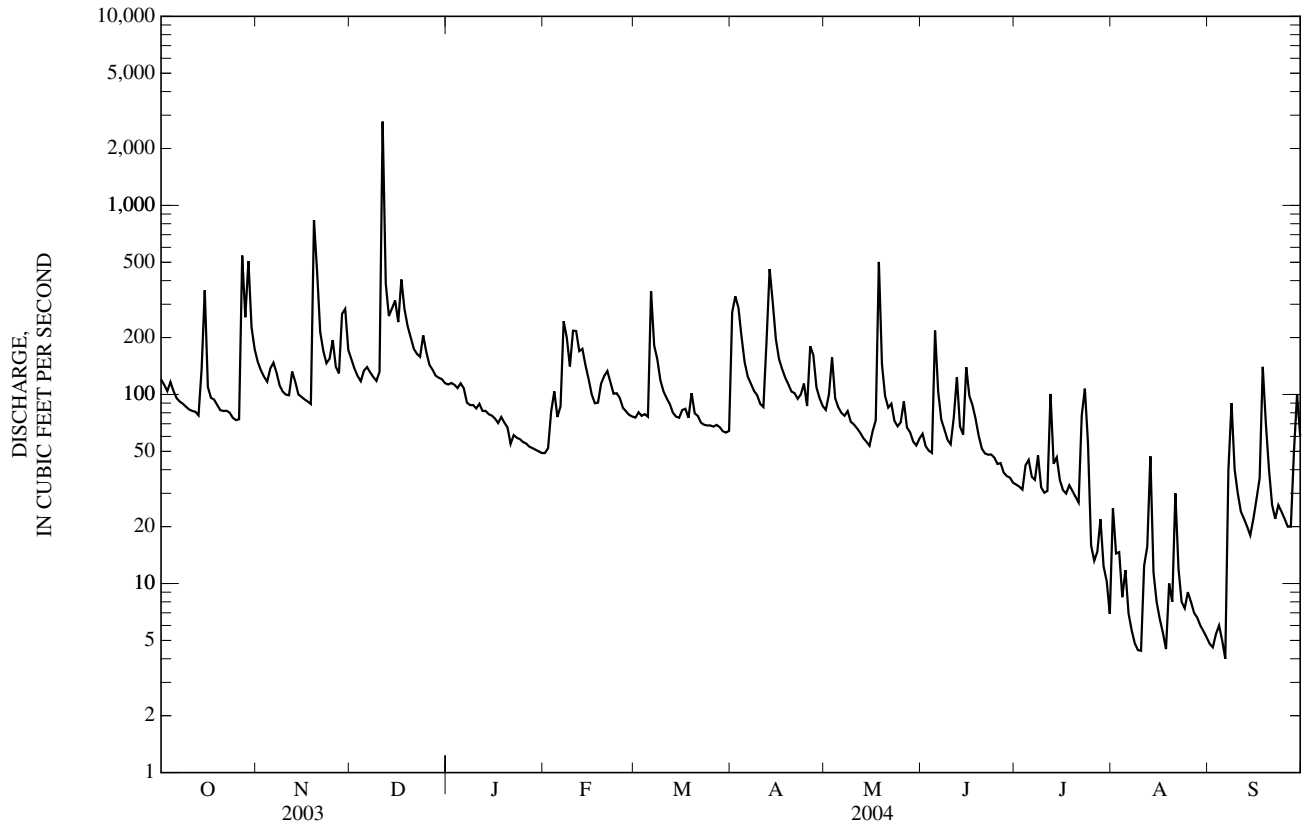
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 1958, 1966 - 2004, BY WATER YEAR (WY)

MEAN	40.3	51.0	80.9	88.1	98.9	118	105	84.6	70.4	41.9	33.9	44.0
MAX	245	174	295	289	229	369	286	302	498	178	148	311
(WY)	(1980)	(2004)	(1997)	(1996)	(1979)	(1993)	(1993)	(1988)	(1972)	(1987)	(1955)	(2003)
MIN	8.21	12.5	14.6	15.5	17.4	36.9	26.5	25.8	13.9	4.65	4.32	6.67
(WY)	(1987)	(1982)	(1999)	(1981)	(2002)	(2002)	(2002)	(1969)	(1999)	(1999)	(2002)	(2002)

01643500 BENNETT CREEK AT PARK MILLS, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1948 - 1958, 1966 - 2004	
ANNUAL TOTAL	64,103		38,831.9			
ANNUAL MEAN	176		106		71.3	
HIGHEST ANNUAL MEAN					141	2003
LOWEST ANNUAL MEAN					19.1	2002
HIGHEST DAILY MEAN	3,860	Sep 23	2,780	Dec 11	5,500	Jun 22, 1972
LOWEST DAILY MEAN	34	Feb 16	(e)4.0	Sep 6	0.40	Sep 8, 1966
ANNUAL SEVEN-DAY MINIMUM	38	Feb 10	5.0	Aug 31	0.88	Aug 17, 2002
MAXIMUM PEAK FLOW			7,060	Dec 11	(a)32,200	Jun 21, 1972
MAXIMUM PEAK STAGE			11.04	Dec 11	(b)22.10	Jun 21, 1972
INSTANTANEOUS LOW FLOW			UNKNOWN		0.30	Sep 8, 1966
ANNUAL RUNOFF (CFSM)	2.80		1.69		1.14	
ANNUAL RUNOFF (INCHES)	37.97		23.00		15.42	
10 PERCENT EXCEEDS	308		191		135	
50 PERCENT EXCEEDS	114		82		43	
90 PERCENT EXCEEDS	54		15		14	

e Estimated
a From rating curve extended above 2,700 ft^3/s on basis of contracted-opening measurement at gage heights of 11.15, 14.33, and 22.1 ft.
b From floodmarks.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01644600 GREAT SENECA CREEK NEAR QUINCE ORCHARD, MD

LOCATION.--Lat 39°07'58.3", long 77°16'05.2", Montgomery County, Hydrologic Unit 02060008, on left bank 10 ft downstream from bridge on Riffle Ford Road, 1.35 mi northwest of Quince Orchard, 1.75 mi southeast of the intersection of Maryland Route 118 and Riffle Ford Road, and 4.5 mi upstream from the confluence with Little Seneca Creek.

DRAINAGE AREA.--50.7 mi^2.

PERIOD OF RECORD.--July 1997 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 265 ft above National Geodetic Vertical Datum of 1929, from topographic maps.

REMARKS.--No estimated daily discharges. Records good. Records include pumpage from a Washington Suburban Sanitary Commission wastewater facility located immediately upstream from station. Several measurements of water temperature were made during the year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,100 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 27	0945	1,980	9.54	Dec 11	0915	*3,730	*12.05
Nov 5	2230	1,260	8.13	Feb 6	2215	2,150	9.83
Nov 20	0000	2,250	10.00				

Minimum discharge, 24 ft^3/s, Sept. 5.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	81	113	121	106	79	83	275	88	100	53	77	40
2	79	101	107	120	77	89	311	109	86	52	111	38
3	75	94	100	111	211	85	236	207	78	51	88	38
4	89	90	98	108	216	87	145	106	74	119	89	39
5	82	382	135	139	125	84	108	93	246	137	107	38
6	76	353	162	126	957	389	95	88	118	96	65	39
7	74	166	127	103	806	158	92	99	93	104	53	40
8	71	110	110	97	250	140	89	118	83	132	49	57
9	70	98	107	98	144	102	87	102	78	71	47	67
10	69	94	162	90	188	94	85	286	82	61	44	46
11	68	91	2,000	94	198	91	84	99	117	58	105	43
12	69	147	333	93	146	88	236	86	184	75	121	43
13	67	114	211	94	135	84	554	80	93	74	186	41
14	115	93	273	92	126	83	278	77	83	64	81	39
15	390	92	335	91	109	82	149	77	85	57	75	45
16	92	89	217	83	99	92	114	102	86	52	60	48
17	80	87	450	87	92	92	103	96	99	51	61	73
18	77	84	265	121	92	83	98	218	96	55	173	289
19	75	720	190	108	95	102	95	137	77	52	66	86
20	71	773	167	89	103	85	90	94	69	48	56	56
21	70	194	148	83	107	82	103	94	66	46	53	48
22	72	140	142	83	99	76	94	106	65	110	53	45
23	70	121	135	80	93	76	102	84	68	182	49	43
24	66	119	255	81	98	74	117	78	65	152	47	42
25	65	147	182	77	96	76	92	133	62	72	46	42
26	73	109	139	82	88	74	210	224	63	64	46	43
27	1,450	103	123	87	86	85	174	99	61	74	44	42
28	314	197	121	86	85	80	104	102	58	85	44	171
29	522	372	117	84	84	73	93	84	57	64	45	170
30	182	145	116	83	---	71	89	77	54	55	42	70
31	127	---	110	78	---	73	---	85	---	52	41	---
TOTAL	4,881	5,538	7,258	2,954	5,084	3,033	4,502	3,528	2,646	2,418	2,224	1,921
MEAN	157	185	234	95.3	175	97.8	150	114	88.2	78.0	71.7	64.0
MAX	1,450	773	2,000	139	957	389	554	286	246	182	186	289
MIN	65	84	98	77	77	71	84	77	54	46	41	38
(†)	-15.4	-15.9	-16.6	-16.1	-16.5	-16.2	-18.3	-21.5	-21.5	-20.6	-20.1	-19.7
MEAN‡	142	169	218	79.2	159	81.7	132	92.3	66.7	57.4	51.6	44.3
CFSM‡	2.80	3.33	4.29	1.56	3.13	1.61	2.60	1.82	1.32	1.13	1.02	0.87
IN‡	3.23	3.71	4.95	1.80	3.38	1.86	2.90	2.10	1.47	1.31	1.17	0.98

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2004, BY WATER YEAR (WY)

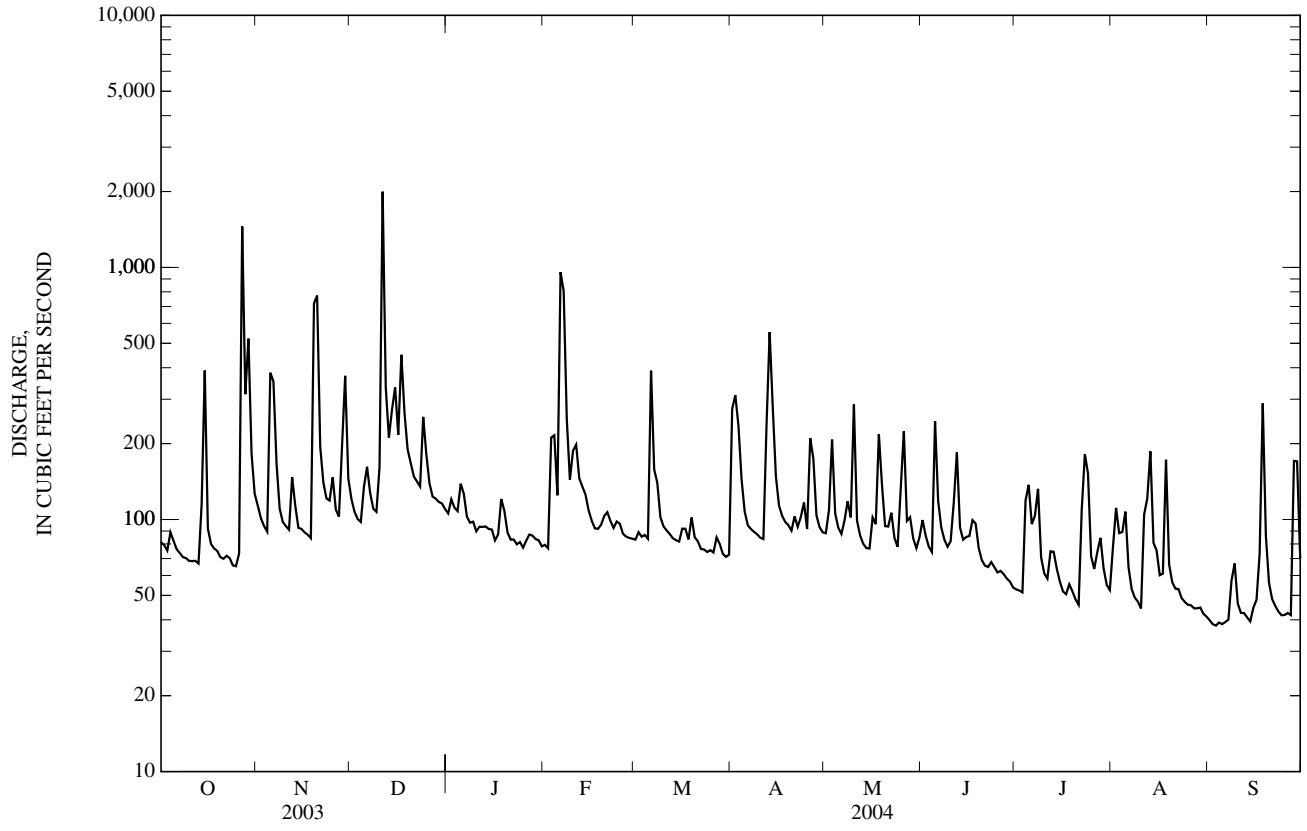
MEAN	58.5	76.7	83.1	80.7	101	114	94.5	85.7	98.8	51.6	56.5	83.3
MAX	157	185	234	116	175	187	150	121	278	112	88.5	225
(WY)	(2004)	(2004)	(2004)	(1998)	(2004)	(2003)	(2004)	(1998)	(2003)	(2003)	(2000)	(2003)
MIN	30.4	28.8	28.2	39.0	31.5	52.9	49.0	39.2	31.6	21.1	28.0	20.6
(WY)	(1998)	(1999)	(1999)	(2002)	(2002)	(2002)	(2002)	(1999)	(1999)	(1999)	(2002)	(1998)

†Pumpage in cubic feet per second, from Washington Suburban Sanitary Commission.
‡Adjusted for pumpage.

01644600 GREAT SENECA CREEK NEAR QUINCE ORCHARD, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1997 - 2004	
ANNUAL TOTAL	58,475		45,987			
ANNUAL MEAN	160		126		83.1	
ANNUAL MEAN‡	149		107		72.6	
HIGHEST ANNUAL MEAN					132	2003
LOWEST ANNUAL MEAN					41.3	2002
HIGHEST DAILY MEAN	2,000	Dec 11	2,000	Dec 11	2,000	Dec 11, 2003
LOWEST DAILY MEAN	37	Feb 16	38	(a)	10	Aug 21, 2002
ANNUAL SEVEN-DAY MINIMUM	47	Jan 23	39	Sep 1	11	Aug 17, 2002
MAXIMUM PEAK FLOW			3,730	Dec 11	3,730	Dec 11, 2003
MAXIMUM PEAK STAGE			12.05	Dec 11	12.05	Dec 11, 2003
INSTANTANEOUS LOW FLOW			24	Sep 5	4.7	Aug 21, 2002
ANNUAL RUNOFF (CFSM)	3.16		2.48		1.64	
ANNUAL RUNOFF (CFSM)‡	2.94		2.12		1.43	
ANNUAL RUNOFF (INCHES)	42.90		33.74		22.27	
ANNUAL RUNOFF (INCHES)‡	39.86		28.86		19.44	
10 PERCENT EXCEEDS	313		208		145	
50 PERCENT EXCEEDS	98		90		53	
90 PERCENT EXCEEDS	57		51		24	

‡ Adjusted for inflow.
a Sept. 2, 3, 5.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01645000 SENECA CREEK AT DAWSONVILLE, MD

LOCATION.--Lat 39°07'41.1", long 77°20'08.8", Montgomery County, Hydrologic Unit 02070008, on right bank 60 ft downstream from bridge on State Highway 28, 150 ft downstream from mouth of Great Seneca Creek, 0.5 mi east of Dawsonville, and 5.8 mi upstream from mouth.

DRAINAGE AREA.--101 mi^2.

PERIOD OF RECORD.--September 1930 to current year.

REVISED RECORDS.--WSP 726: Drainage area. WSP 1232: 1930. WSP 1272: 1933. WSP 1432: 1934-35(M), 1941(M). WDR MD-DE-74-1: 1970(M), WDR MD-DE-DC-03-1: 2002(M).

GAGE.--Water-stage recorder. Concrete control since Mar. 3, 1934. Datum of gage is 214.02 ft above National Geodetic Vertical Datum of 1929. Sept. 26 to Nov. 9, 1930, chain gage, and Nov. 10, 1930 to Apr. 6, 1934, water-stage recorder, at highway bridge 60 ft upstream at same datum.

REMARKS.--No estimated daily discharges. Records good. Small diversion at times for irrigation upstream from station. National Weather Service gage-height telemeter at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,300 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 27	1600	3,010	8.08
Nov 5	2315	1,330	5.64
Nov 20	0400	2,990	8.06
Dec 11	0500	5,340	9.79
Dec 11	1230	*6,810	*10.40
Feb 6	2315	3,140	8.22
Apr 13	0215	1,310	5.58
Jun 15	2000	1,550	6.17
Aug 17	2300	1,490	6.03

Minimum discharge, 33 ft^3/s, Sept. 6.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	115	205	205	167	115	137	424	156	154	66	80	51
2	116	178	178	181	114	148	595	164	141	64	101	50
3	96	158	162	174	214	144	499	330	139	61	168	49
4	113	150	154	169	298	146	338	191	91	114	101	55
5	125	490	189	192	199	140	261	153	397	186	168	44
6	121	605	239	198	1,310	557	225	152	314	186	107	43
7	125	315	209	162	1,530	301	175	151	220	107	95	104
8	113	221	181	151	506	262	170	208	126	200	97	274
9	101	181	170	152	283	203	162	162	117	147	63	92
10	97	161	214	141	298	178	149	402	116	102	54	58
11	85	151	4,020	133	348	168	147	211	162	67	65	58
12	84	184	773	144	268	161	298	132	319	107	145	49
13	83	204	402	145	246	149	946	108	167	122	245	47
14	109	161	415	141	233	139	614	111	128	95	163	46
15	488	147	568	140	201	138	320	119	275	85	131	53
16	148	143	400	127	177	147	184	156	248	61	99	61
17	123	139	708	123	165	166	167	139	183	58	171	75
18	114	132	531	156	162	144	164	340	157	62	335	435
19	107	962	386	162	167	177	169	279	126	65	186	139
20	103	1,500	312	135	180	154	192	242	111	79	88	74
21	101	371	255	122	189	148	199	167	102	76	79	55
22	101	255	237	122	177	129	159	161	84	81	71	53
23	101	215	224	117	165	119	199	122	98	258	62	57
24	96	206	320	117	168	117	209	111	103	332	60	53
25	93	246	322	113	171	119	126	119	85	174	81	50
26	94	192	232	123	154	117	236	458	97	164	62	50
27	1,750	173	211	130	147	134	325	227	93	149	57	50
28	649	235	195	132	141	131	215	215	86	117	56	231
29	834	544	190	128	138	116	161	140	84	88	56	300
30	376	238	184	121	---	112	162	99	81	93	55	145
31	241	---	172	115	---	113	---	108	---	64	54	---
TOTAL	7,002	9,062	12,958	4,433	8,464	5,114	8,190	5,833	4,604	3,630	3,355	2,901
MEAN	226	302	418	143	292	165	273	188	153	117	108	96.7
MAX	1,750	1,500	4,020	198	1,530	557	946	458	397	332	335	435
MIN	83	132	154	113	114	112	126	99	81	58	54	43
CFSM	2.24	2.99	4.14	1.42	2.89	1.63	2.70	1.86	1.52	1.16	1.07	0.96
IN.	2.58	3.34	4.77	1.63	3.12	1.88	3.02	2.15	1.70	1.34	1.24	1.07

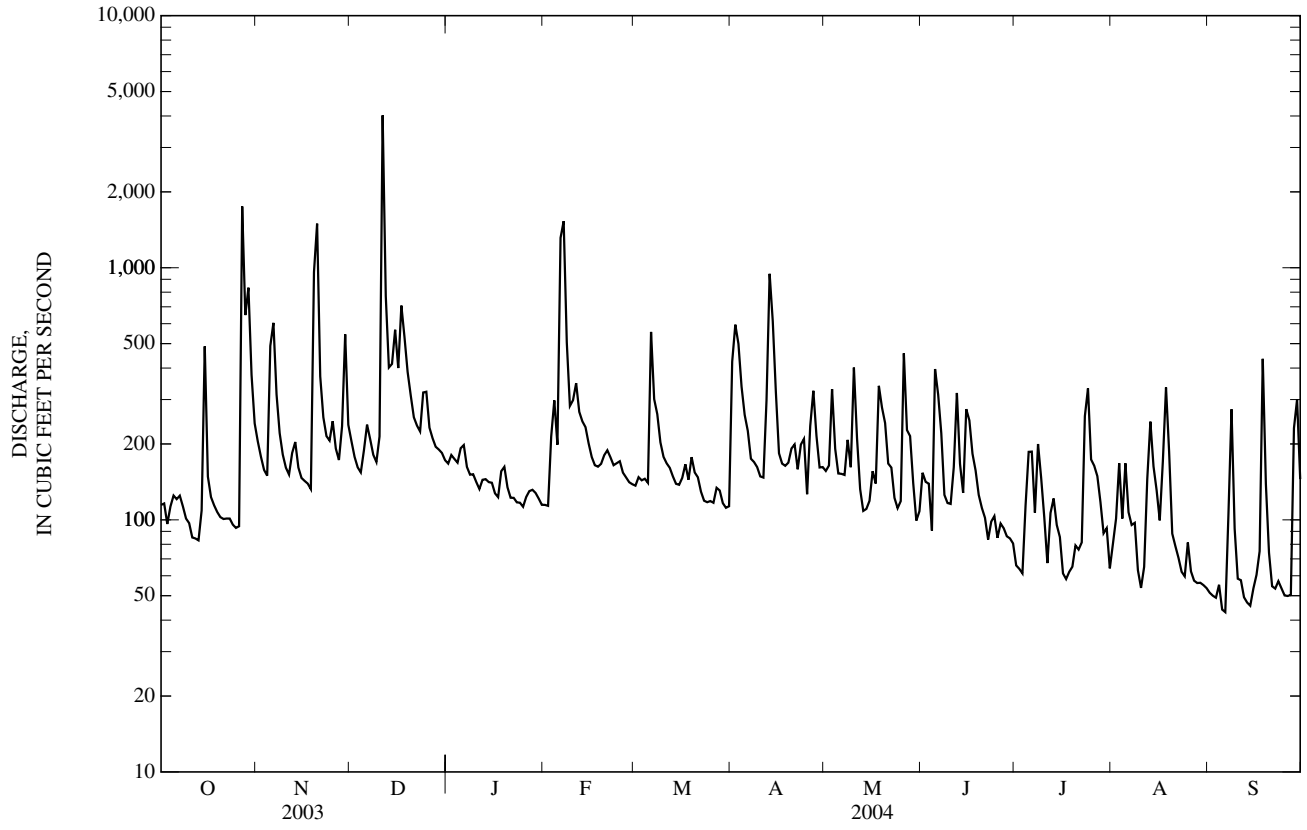
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 2004, BY WATER YEAR (WY)

MEAN	70.2	87.6	114	130	149	165	150	129	111	77.3	69.8	82.9
MAX	479	302	452	440	484	511	457	510	747	273	248	566
(WY)	(1980)	(2004)	(1997)	(1996)	(1979)	(1993)	(1993)	(1989)	(1972)	(1956)	(1971)	(1971)
MIN	7.10	12.6	20.6	30.2	26.7	44.3	55.9	30.3	35.3	13.4	8.35	10.1
(WY)	(1931)	(1932)	(1932)	(1966)	(1931)	(1931)	(1969)	(1931)	(1986)	(1955)	(1932)	(1931)

01645000 SENECA CREEK AT DAWSONVILLE, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1930 - 2004	
ANNUAL TOTAL	98,985		75,546			
ANNUAL MEAN	271		206		111	
HIGHEST ANNUAL MEAN					251	1972
LOWEST ANNUAL MEAN					32.8	1931
HIGHEST DAILY MEAN	4,020	Dec 11	4,020	Dec 11	9,900	Jun 22, 1972
LOWEST DAILY MEAN	51	Feb 16	43	Sep 6	1.8	(a)
ANNUAL SEVEN-DAY MINIMUM	77	Feb 11	49	Aug 31	2.2	Sep 27, 1930
MAXIMUM PEAK FLOW			6,810	Dec 11	(b)26,100	Jun 22, 1972
MAXIMUM PEAK STAGE			10.40	Dec 11	(c)16.40	Jun 22, 1972
INSTANTANEOUS LOW FLOW			33	Sep 6	1.7	(d)
ANNUAL RUNOFF (CFSM)	2.69		2.04		1.10	
ANNUAL RUNOFF (INCHES)	36.46		27.82		14.94	
10 PERCENT EXCEEDS	531		336		196	
50 PERCENT EXCEEDS	178		150		70	
90 PERCENT EXCEEDS	92		65		27	

a Sept. 29, 1930, Sept. 12, 1966.
b From rating curve extended above 3,000 ft^3/s on basis of contracted-opening and flow over-road measurement at gage height 12.17 ft at gage; and contracted-opening and flow-over-road measurement at gage height 16.32 ft at site 5.0 mi downstream, adjusted for flow from intervening area.
c From high-water mark in gage house.
d Sept. 28, 29, 1930.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01646500 POTOMAC RIVER NEAR WASHINGTON, DC

LOCATION.--Lat 38°56'59.2", long 77°07'39.5", Montgomery County, Hydrologic Unit 02070008, on left bank just upstream from Little Falls Dam, 1 mi upstream from District of Columbia boundary line, 1.2 mi upstream from Chain Bridge, 1.8 mi east of Langley, Fairfax County, and at mile 117.4.

DRAINAGE AREA.--11,560 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1930 to current year.

REVISED RECORDS.--WSP 726: Drainage area. WDR MD-DE-75-1: 1973-74(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 37.95 ft above National Geodetic Vertical Datum of 1929. Prior to June 7, 1930, nonrecording gage, and June 7, 1930, to Jan. 22, 1965, water-stage recorder at site 1 mi upstream on right bank at same datum.

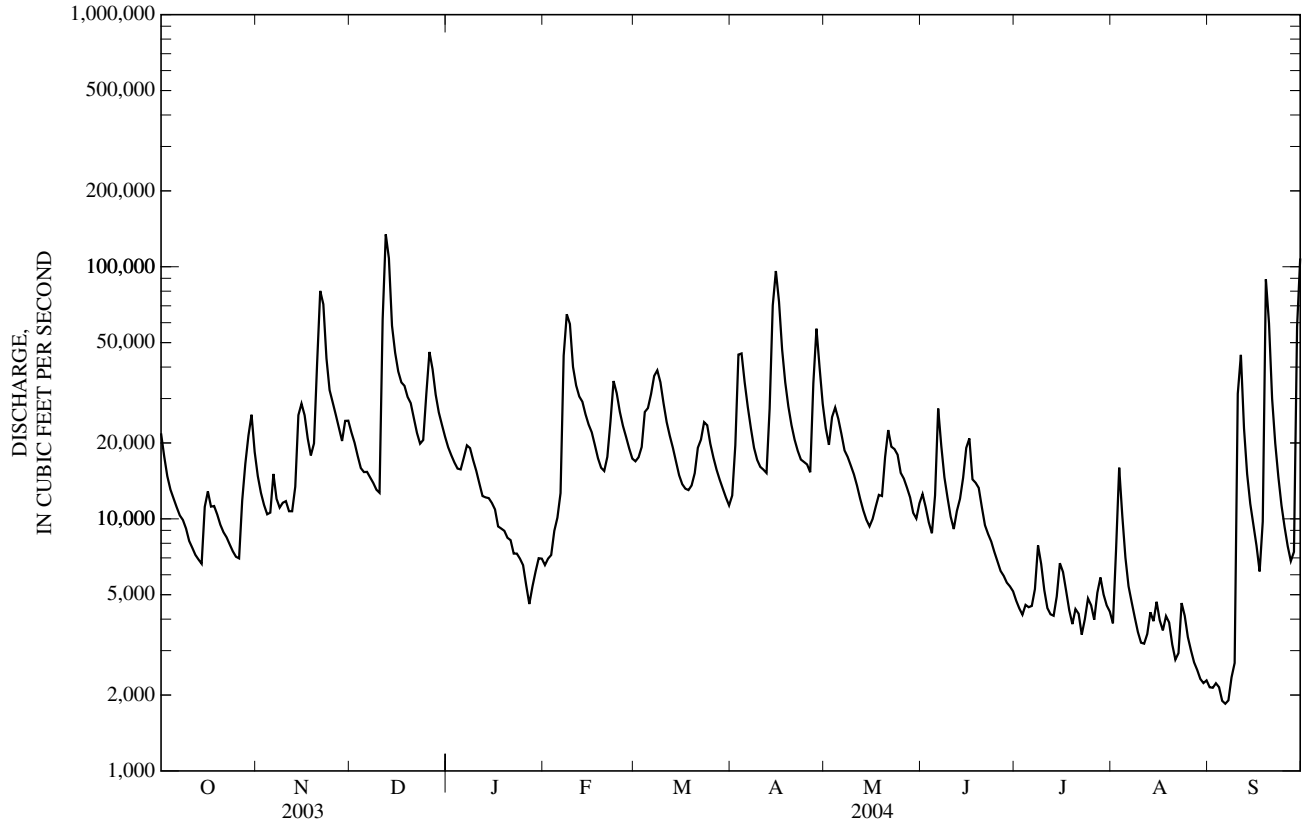
REMARKS.--Water-discharge records good except those for estimated daily discharges (ice effect and erroneous data), which are fair. Diversions at Great Falls through aqueducts, and since June 1959, from gage pool at Little Falls Dam, for municipal supply of Washington, D.C.; since October 1958, at Rockville Filtration Plant, for municipal supply of city of Rockville; since April 1961, at Potomac Filtration Plant for water supply of Washington Suburban Sanitary District; since October 1961, at Fairfax Water Treatment Plant for water supply of city of Fairfax (from Goose Creek); since April 1964, at Violets Lock to Chesapeake and Ohio Canal; and since October 1985, at Fairfax County Water Authority Treatment Plant for water supply of the county. Low flow affected slightly prior to July 1981 by Stony River Reservoir, since December 1950, by Savage River Reservoir (see station 01597500), and since July 1981, by Jennings Randolph Lake. National Weather Service gage-height telemeter at station. U.S. Geological Survey satellite collection platform at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 2, 1889, was of approximately the same magnitude as that of March 19, 1936.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 45,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov 21	2000	98,300	8.79	Apr 15	1415	103,000	8.95
Dec 12	2015	*154,000	*10.87	Apr 28	0415	62,000	7.29
Dec 26	1215	47,500	6.57	Sep 10	2030	61,800	7.28
Feb 8	1545	73,600	7.81	Sep 19	1300	102,000	8.91
Apr 3	1815	53,000	6.85	Sep 30	1230	119,000	9.53

Minimum discharge, 1,680 ft^3/s, Sept. 5, 6.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01646500 POTOMAC RIVER NEAR WASHINGTON, DC—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21,800	14,800	22,000	19,200	6,560	16,900	12,400	22,800	12,500	4,740	3,850	2,150
2	17,700	12,700	20,000	17,900	6,950	17,600	19,600	19,700	11,100	4,410	7,560	2,140
3	14,800	11,300	17,800	16,700	7,190	19,300	44,800	25,300	9,670	4,170	16,000	2,230
4	13,100	10,400	15,900	15,800	8,960	26,500	45,300	27,700	8,770	4,560	10,300	2,150
5	12,000	10,600	15,300	15,700	10,100	27,500	34,800	24,900	12,400	4,460	7,020	1,900
6	11,100	15,100	15,400	17,500	12,700	31,300	27,800	21,700	27,400	4,510	5,400	1,850
7	10,300	12,000	14,600	19,600	e44,400	36,900	22,800	18,700	19,500	5,260	4,670	1,900
8	9,890	11,100	13,900	19,100	64,800	38,800	19,100	17,600	14,600	7,840	4,060	2,350
9	9,150	11,600	13,100	17,100	59,300	34,800	17,100	16,300	12,100	6,630	3,560	2,680
10	8,170	11,800	12,700	15,500	40,000	28,800	16,100	15,000	10,200	5,220	3,230	31,300
11	7,680	10,700	61,800	e13,800	33,800	24,200	15,700	13,500	9,110	4,420	3,200	44,700
12	7,190	10,700	134,000	12,300	30,600	21,400	15,200	12,000	10,700	4,180	3,490	22,900
13	6,900	13,400	108,000	12,200	29,100	19,100	27,400	10,800	12,000	4,130	4,260	15,100
14	6,640	25,800	58,300	12,100	26,000	16,900	70,200	9,910	14,600	4,930	3,930	11,500
15	11,200	28,600	45,600	11,600	23,700	14,900	96,200	9,340	19,100	6,670	4,690	9,470
16	12,800	25,700	38,400	e10,900	22,100	13,700	72,800	9,990	20,800	6,160	3,950	7,820
17	11,200	20,800	34,800	e9,330	19,600	13,200	47,000	11,200	14,300	5,180	3,610	6,190
18	11,200	17,800	33,700	e9,150	17,400	13,000	34,800	12,400	13,900	4,340	4,110	9,760
19	10,400	19,900	30,500	e8,960	16,000	13,600	27,900	12,300	13,300	3,820	3,880	89,200
20	9,470	41,300	28,800	e8,410	15,500	15,200	23,600	17,600	11,100	4,390	3,170	59,700
21	8,850	80,200	25,100	e8,230	17,600	19,100	20,600	22,500	9,430	4,200	2,760	30,000
22	8,450	71,000	21,900	e7,280	24,300	20,600	18,600	19,300	8,700	3,470	2,930	19,900
23	7,910	43,300	19,900	e7,280	35,200	24,200	17,200	18,900	8,130	4,000	4,630	14,700
24	7,430	32,400	20,500	e6,950	31,500	23,500	16,800	18,000	7,390	4,830	4,120	11,300
25	7,080	29,000	31,300	e6,550	26,600	19,900	16,400	15,200	6,780	4,540	3,400	9,280
26	6,970	25,800	45,900	5,450	23,400	17,500	15,300	14,400	6,210	3,980	3,010	7,790
27	11,800	22,900	39,200	4,590	21,100	15,600	34,500	13,300	5,940	5,090	2,700	6,800
28	16,500	20,400	31,100	5,390	19,000	14,300	56,800	12,200	5,580	5,850	2,510	7,400
29	21,400	24,500	26,400	6,180	17,300	13,200	39,900	10,600	5,390	5,010	2,320	57,700
30	25,900	24,500	23,600	6,980	---	12,100	28,600	10,000	5,160	4,540	2,230	108,000
31	18,400	---	21,200	6,950	---	11,300	---	11,500	---	4,280	2,290	---
TOTAL	363,380	710,100	1,040,700	354,680	710,760	634,900	955,300	494,640	345,860	149,810	136,840	599,860
MEAN	11,720	23,670	33,570	11,440	24,510	20,480	31,840	15,960	11,530	4,833	4,414	20,000
MAX	25,900	80,200	134,000	19,600	64,800	38,800	96,200	27,700	27,400	7,840	16,000	108,000
MIN	6,640	10,400	12,700	4,590	6,560	11,300	12,400	9,340	5,160	3,470	2,230	1,850
(†)	641	588	578	611	620	583	602	662	656	739	700	670
MEAN‡	12,350	24,260	34,180	12,060	25,130	21,080	32,460	16,630	12,180	5,572,	5,114	20,680
CFSM‡	1.07	2.10	2.96	1.04	2.17	1.82	2.81	1.44	1.05	0.48	0.44	1.79
IN.‡	1.23	2.34	3.41	1.20	2.34	2.10	3.13	1.66	1.18	0.56	0.51	2.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 2004, BY WATER YEAR (WY)

MEAN	6,032	7,425	10,990	13,710	17,130	23,540	20,220	14,710	9,146	4,887	4,776	5,130
MAX	44,100	42,030	37,630	52,890	61,040	76,510	57,850	40,410	46,630	21,040	28,210	44,620
(WY)	(1943)	(1986)	(1997)	(1996)	(1998)	(1936)	(1993)	(1989)	(1972)	(1949)	(1955)	(1996)
MIN	583	700	1,038	1,682	1,882	6,225	5,810	3,921	1,536	599	538	679
(WY)	(1931)	(1931)	(1966)	(1981)	(2002)	(2002)	(1995)	(1969)	(1999)	(1999)	(1966)	(1930)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1930 - 2004	
ANNUAL TOTAL	9,320,040		6,496,830			
ANNUAL MEAN	25,530		17,750		11,500	
ANNUAL MEAN‡	26,150		18,390		11,974	
HIGHEST ANNUAL MEAN					23,760	1996
HIGHEST ANNUAL MEAN‡					24,370	1996
LOWEST ANNUAL MEAN					4,017	2002
LOWEST ANNUAL MEAN‡					4,664	2002
HIGHEST DAILY MEAN	150,000	Sep 21	‘		426,000	Mar 19, 1936
LOWEST DAILY MEAN	2,260	Feb 18	1,850	Sep 6	(a)121	Sep 9, 1966
LOWEST DAILY MEAN‡	2,800	Feb 18	2,530	Sep 6	(b)601	Sep 10, 1966
ANNUAL SEVEN-DAY MINIMUM	3,880	Feb 14	2,050	Sep 1	181	Sep 7, 1966
MAXIMUM PEAK FLOW			154,000	Dec 12	484,000	Mar 19, 1936
MAXIMUM PEAK STAGE			10.87	Dec 12	(c)28.10	Mar 19, 1936
INSTANTANEOUS LOW FLOW			1,680	Sep 5	66	Sep 9, 1966
ANNUAL RUNOFF (CFSM)	2.21		1.54		0.995	
ANNUAL RUNOFF (CFSM)‡	2.26		1.59		1.03	
ANNUAL RUNOFF (INCHES)	29.99		20.91		13.52	
ANNUAL RUNOFF (INCHES)‡	30.68		21.64		14.07	
10 PERCENT EXCEEDS	59,900		34,600		25,800	
50 PERCENT EXCEEDS	17,800		13,400		6,520	
90 PERCENT EXCEEDS	5,990		4,160		1,660	

e Estimated
† Diversions, in cubic feet per second, for municipal supply of Washington, D.C., Washington Suburban Sanitary District, city of Rockville, city of Fairfax (from Goose Creek), Fairfax County, and the Chesapeake and Ohio Canal (insignificant diversion to canal during current water year). Records provided by U.S. Army Corps of Engineers, Washington Suburban Sanitary Commission, city of Rockville, city of Fairfax, and Fairfax County Water Authority.
‡ Adjusted for diversion.
a Minimum daily discharge observed at gaging station, does not include diversion of 489 ft^3/s.
b Includes diversion of 449 ft^3/s for municipal use.
c At previous site, 1 mi upstream at same datum.

01646500 POTOMAC RIVER NEAR WASHINGTON, DC—Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1988 to current year.
WATER TEMPERATURE: October 1988 to current year.

INSTRUMENTATION.--Water-quality monitor October 1988 to current year.

REMARKS.--Missing record July 29 - Aug. 10, Sept. 3-7 due to instrument malfunction. Specific conductance record rated excellent except for the following periods : July 11-17 rated good; July 18,19 rated fair. Water temperature record rated excellent.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 1,820 microsiemens/cm, Feb. 6, 2004; minimum, 68 microsiemens/cm, Oct. 23, 1990.
WATER TEMPERATURE (water years 1989-93, 1995-99, 2001-04): Maximum, 33.5°C, July 11, 1993; minimum, 0.0°C, on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 1,820 microsiemens/cm (road salt influence), Feb. 6; minimum, 121 microsiemens/cm, Nov. 19.
WATER TEMPERATURE: Maximum, 30.0°C, July 7; minimum, 0.0°C, on several days.

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

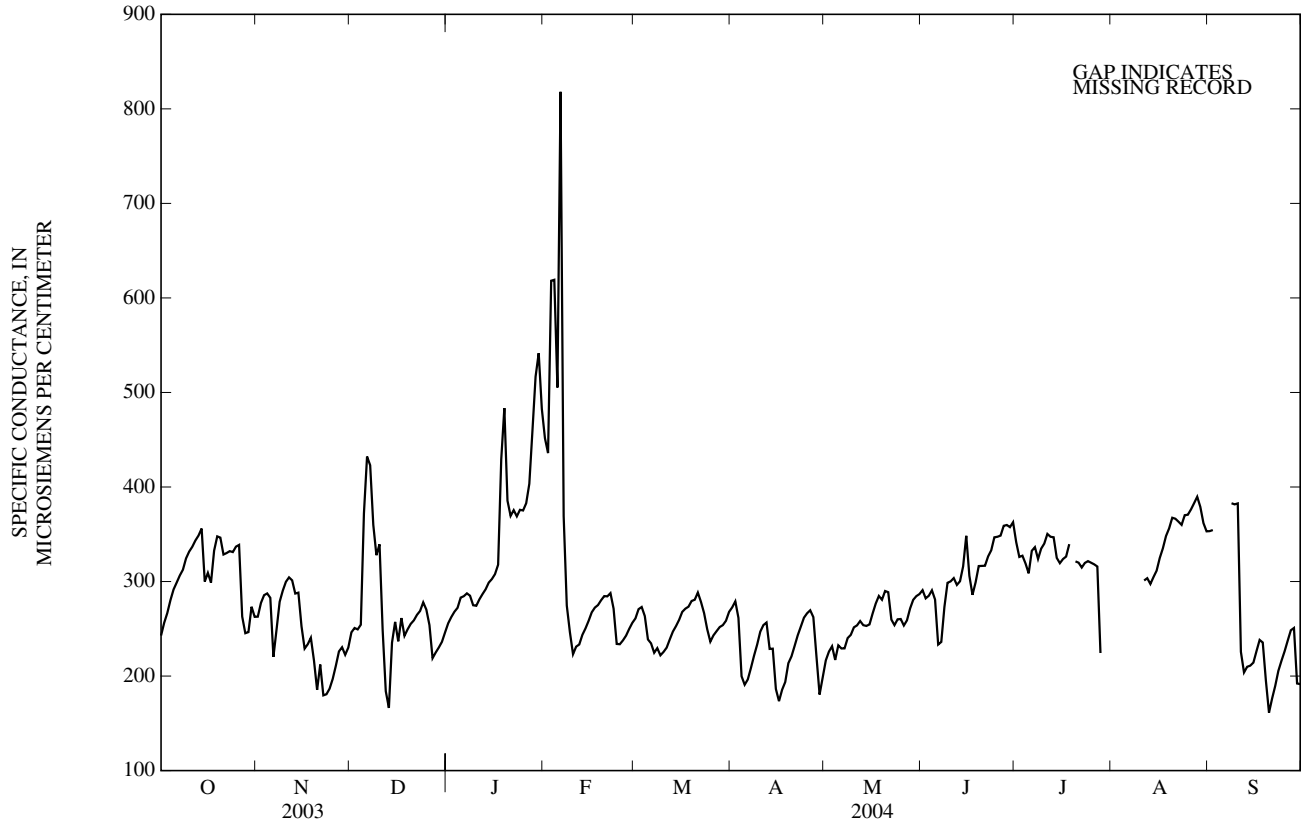
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	253	226	243	274	255	263	254	237	246	259	252	256
2	261	250	256	282	273	277	255	246	251	267	256	262
3	274	261	267	290	279	286	252	246	249	273	264	268
4	287	273	280	298	284	287	258	251	254	275	269	272
5	296	287	292	294	174	283	540	257	372	296	275	283
6	301	296	299	239	130	220	519	379	432	287	280	284
7	312	301	306	269	230	249	465	398	423	292	285	287
8	321	298	312	288	269	279	398	338	360	289	280	285
9	329	314	324	296	287	290	338	319	328	284	270	275
10	334	318	332	305	294	300	461	319	339	278	270	274
11	340	334	337	306	303	304	597	156	249	285	277	281
12	347	339	343	308	292	301	220	153	184	291	283	287
13	354	343	349	292	284	287	176	152	166	295	289	292
14	359	352	356	293	283	288	365	173	235	302	294	299
15	354	239	300	288	228	253	359	235	257	307	300	303
16	321	296	309	232	226	229	241	233	237	313	305	308
17	317	288	299	242	226	234	295	238	261	327	310	318
18	344	317	333	244	237	240	248	238	243	636	318	429
19	354	343	348	251	121	216	254	246	249	582	402	483
20	357	334	346	194	178	185	258	252	255	404	372	386
21	334	326	329	239	193	212	261	255	259	392	331	369
22	332	328	330	194	172	180	268	259	265	383	373	375
23	334	331	332	184	178	181	271	266	269	380	362	369
24	335	328	331	194	183	187	301	267	278	383	371	376
25	340	334	337	204	192	197	274	268	270	380	369	375
26	341	327	339	222	202	211	276	223	254	398	374	383
27	336	202	263	236	220	226	224	216	219	421	396	403
28	255	239	245	249	194	230	227	223	225	489	418	460
29	268	201	247	230	201	222	234	226	230	533	489	517
30	277	268	273	237	224	230	241	233	236	566	512	542
31	271	255	263	---	---	---	257	241	246	512	457	483
MONTH	359	201	307	308	121	245	597	152	269	636	252	348

01646500 POTOMAC RIVER NEAR WASHINGTON, DC—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	467	442	452	266	257	261	287	259	273	223	209	217
2	444	428	436	285	261	271	288	271	279	242	217	226
3	998	423	618	276	269	273	280	249	262	242	208	232
4	853	524	619	272	253	263	249	186	200	227	205	217
5	597	464	505	258	220	239	194	189	191	236	227	232
6	1,820	467	818	280	220	235	201	192	196	236	225	229
7	534	264	369	232	220	225	213	201	208	240	225	229
8	298	256	275	234	223	230	228	212	222	248	237	240
9	289	223	246	230	217	222	239	227	233	250	239	244
10	235	217	223	229	219	226	250	239	247	258	246	252
11	234	228	231	233	227	230	263	247	254	257	250	254
12	237	230	233	247	232	239	272	211	257	261	255	258
13	250	236	244	260	243	247	241	200	229	262	247	254
14	254	249	250	257	248	253	240	208	229	262	245	253
15	264	254	258	264	254	260	208	174	186	263	247	255
16	271	261	267	277	261	268	180	168	173	274	260	266
17	280	268	272	274	268	271	191	180	186	292	272	277
18	279	269	275	281	270	273	199	189	194	295	275	285
19	285	278	280	283	274	279	224	199	214	289	276	281
20	288	282	285	282	279	281	227	214	221	295	284	290
21	287	281	284	298	278	288	238	226	232	301	278	289
22	294	281	288	287	267	278	247	237	243	281	252	260
23	289	250	271	277	253	267	267	247	252	259	251	254
24	252	225	234	260	240	250	267	256	262	263	256	260
25	235	231	234	242	232	236	280	261	266	269	254	260
26	242	233	238	247	239	243	282	265	270	260	246	253
27	247	239	243	253	240	248	268	247	262	267	251	259
28	253	244	250	262	244	252	254	186	221	284	264	271
29	261	253	256	261	249	254	186	177	180	284	276	281
30	---	---	---	270	253	258	209	185	199	289	280	285
31	---	---	---	273	262	268	---	---	---	291	284	287
MONTH	1,820	217	326	298	217	254	288	168	228	301	205	256
		JUNE			JULY			AUGUST			SEPTEMBER	
1	295	286	291	360	306	342	---	---	---	355	351	353
2	289	278	282	333	306	326	---	---	---	358	352	354
3	294	280	285	330	325	327	---	---	---	---	---	---
4	301	286	291	334	274	319	---	---	---	---	---	---
5	307	258	281	326	274	309	---	---	---	---	---	---
6	276	191	233	341	322	332	---	---	---	---	---	---
7	259	210	236	344	331	336	---	---	---	---	---	---
8	288	258	273	333	317	324	---	---	---	384	381	383
9	306	286	299	342	317	335	---	---	---	388	374	382
10	307	294	300	357	313	340	---	---	---	452	272	383
11	312	297	304	361	324	350	306	295	301	272	197	226
12	312	289	296	360	329	347	308	297	304	225	197	204
13	311	292	300	368	331	347	304	292	297	213	202	210
14	340	301	316	347	307	325	308	302	305	212	210	211
15	363	330	348	332	298	319	317	304	312	221	211	214
16	332	292	306	341	302	324	329	317	325	231	221	226
17	325	257	286	343	312	326	341	329	335	244	231	238
18	317	266	299	358	321	340	356	341	348	252	225	236
19	319	313	316	---	---	---	364	351	356	271	136	195
20	322	312	317	325	319	321	369	364	367	176	135	161
21	322	312	317	326	314	320	369	365	366	185	170	176
22	333	321	327	323	303	315	367	358	363	198	185	190
23	341	326	333	326	315	320	367	357	360	212	197	206
24	360	339	347	324	319	322	372	367	370	221	212	216
25	358	339	347	336	308	320	372	369	371	230	221	226
26	353	345	349	328	310	318	380	372	376	249	230	237
27	363	353	359	329	181	316	389	378	383	252	246	248
28	371	355	360	258	166	224	393	386	390	258	195	251
29	367	345	358	---	---	---	387	369	379	242	148	192
30	370	352	363	---	---	---	371	356	362	222	162	191
31	---	---	---	---	---	---	356	351	353	---	---	---
MONTH	371	191	311	368	166	324	393	---	---	452	135	244
YEAR	1,820	121	287									

01646500 POTOMAC RIVER NEAR WASHINGTON, DC—Continued



DAILY MEAN SPECIFIC CONDUCTIVITY - 2004 WATER YEAR

01646500 POTOMAC RIVER NEAR WASHINGTON, DC—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

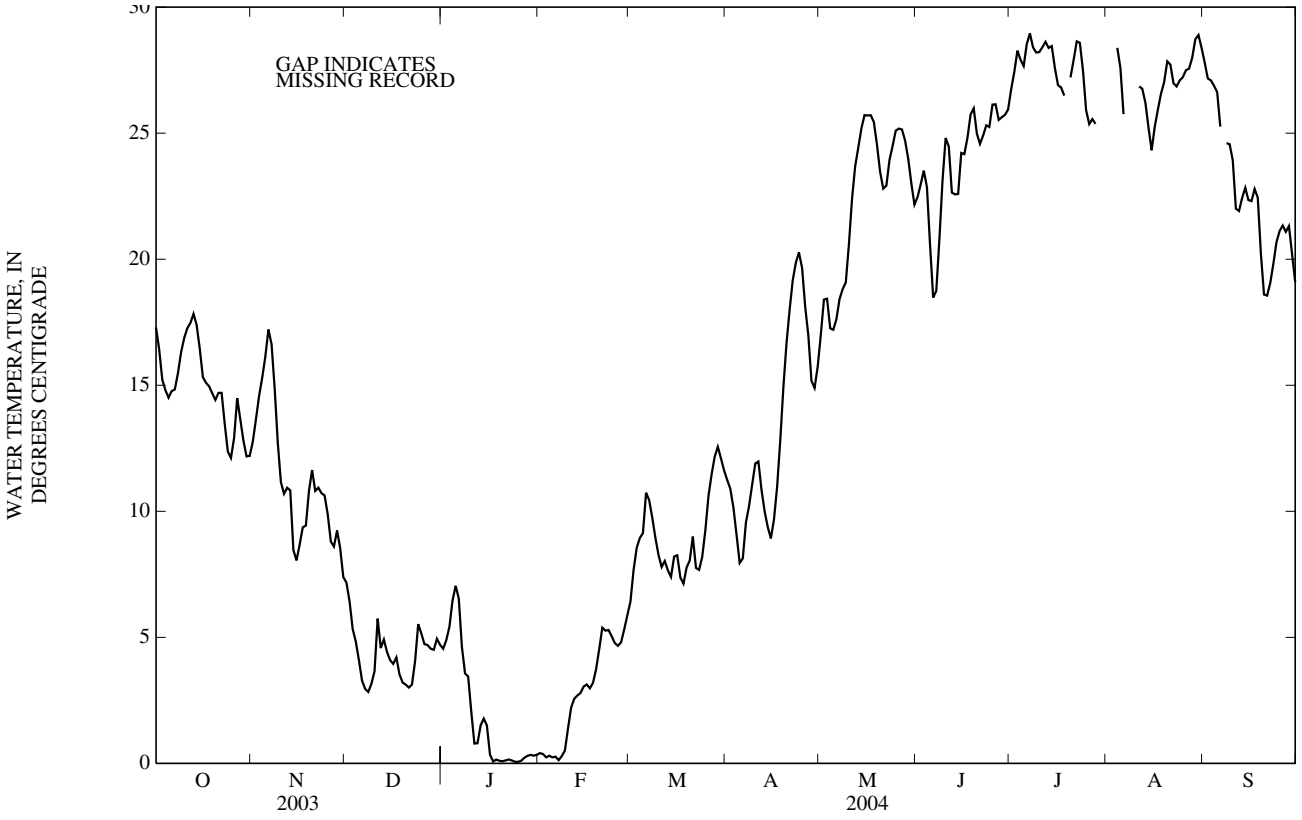
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	18.0	17.1	17.3	13.2	12.3	12.8	7.4	7.0	7.2	4.8	4.3	4.5
2	17.1	15.8	16.4	14.1	13.2	13.7	7.1	6.0	6.4	5.2	4.6	4.9
3	15.8	14.6	15.2	15.2	14.1	14.6	6.0	5.1	5.3	5.9	5.1	5.4
4	15.2	14.5	14.8	16.0	14.7	15.3	5.1	4.6	4.8	7.1	5.9	6.5
5	14.8	14.2	14.5	18.3	15.3	16.1	4.9	3.6	4.1	7.3	6.9	7.0
6	15.3	14.5	14.8	18.7	16.9	17.2	3.6	3.1	3.3	7.1	5.7	6.5
7	15.3	14.5	14.8	17.0	15.9	16.6	3.4	2.7	3.0	5.7	4.1	4.6
8	16.5	14.7	15.5	15.9	13.6	14.9	3.0	2.5	2.8	4.1	3.3	3.6
9	17.2	15.5	16.3	13.6	11.7	12.7	3.5	3.0	3.2	3.7	3.0	3.4
10	17.6	16.3	16.9	11.7	10.6	11.2	4.5	3.5	3.7	3.0	1.3	2.1
11	17.9	16.8	17.3	10.9	10.5	10.7	8.3	4.5	5.7	1.3	0.5	0.8
12	18.4	16.9	17.5	11.1	10.6	10.9	4.9	4.4	4.6	1.1	0.6	0.8
13	18.8	17.2	17.8	11.3	9.6	10.8	5.0	4.8	4.9	2.0	1.1	1.5
14	17.7	17.2	17.4	9.6	8.0	8.5	4.8	4.1	4.4	2.0	1.4	1.8
15	17.2	15.8	16.4	8.5	7.5	8.1	4.3	3.9	4.1	1.9	0.9	1.5
16	15.8	14.8	15.3	9.0	8.3	8.7	4.1	3.7	3.9	0.9	0.1	0.3
17	15.3	14.7	15.1	9.8	9.0	9.4	4.6	3.8	4.2	0.2	0.0	0.1
18	15.5	14.6	15.0	9.8	9.3	9.4	3.9	3.4	3.5	0.2	0.1	0.1
19	15.2	14.3	14.7	13.7	9.5	10.8	3.4	3.0	3.2	0.4	0.0	0.1
20	15.1	14.0	14.4	12.1	11.3	11.6	3.3	2.9	3.1	0.3	0.0	0.1
21	15.3	14.2	14.7	11.3	10.5	10.8	3.3	2.7	3.0	0.3	0.0	0.1
22	15.0	14.1	14.7	11.2	10.7	10.9	3.7	2.7	3.1	0.3	0.0	0.2
23	14.1	12.7	13.5	10.9	10.5	10.7	4.7	3.7	4.1	0.2	0.0	0.1
24	13.0	11.9	12.4	11.0	10.3	10.6	6.5	4.7	5.5	0.2	0.0	0.1
25	13.0	11.5	12.1	10.7	9.4	9.9	5.7	4.9	5.2	0.1	0.0	0.1
26	13.7	12.2	12.9	9.4	8.5	8.8	4.9	4.6	4.7	0.2	0.0	0.1
27	14.9	13.7	14.5	9.0	8.2	8.6	4.9	4.5	4.7	0.3	0.1	0.2
28	14.3	13.4	13.6	10.2	8.9	9.2	4.8	4.2	4.5	0.4	0.2	0.3
29	13.4	12.3	12.8	10.0	7.8	8.5	4.9	4.1	4.5	0.4	0.2	0.3
30	12.7	11.7	12.2	7.8	7.2	7.4	5.3	4.6	4.9	0.4	0.2	0.3
31	12.6	11.7	12.2	---	---	---	5.1	4.3	4.7	0.4	0.2	0.3
MONTH	18.8	11.5	14.9	18.7	7.2	11.3	8.3	2.5	4.3	7.3	0.0	1.9
		FEBRUARY			MARCH			APRIL			MAY	
1	0.5	0.3	0.4	7.0	5.8	6.4	11.7	10.9	11.2	18.3	16.1	17.0
2	0.4	0.3	0.4	8.4	7.0	7.7	11.1	10.6	10.9	19.4	17.8	18.4
3	0.4	0.1	0.2	9.4	7.8	8.6	10.6	9.8	10.1	19.5	17.8	18.4
4	0.5	0.2	0.3	9.4	8.6	8.9	9.8	8.3	9.1	17.8	16.5	17.3
5	0.3	0.1	0.2	10.0	8.5	9.1	8.4	7.3	8.0	17.9	16.5	17.2
6	0.5	0.1	0.3	11.8	10.0	10.7	9.1	7.1	8.1	18.7	16.6	17.6
7	0.3	0.0	0.1	10.9	9.8	10.4	10.9	8.4	9.6	19.1	17.7	18.4
8	0.7	0.1	0.3	10.4	9.1	9.7	10.9	9.9	10.2	19.2	18.4	18.8
9	0.9	0.1	0.5	9.2	8.6	8.9	11.8	10.3	11.1	20.1	18.2	19.1
10	2.1	0.9	1.4	8.9	7.8	8.3	12.6	11.3	11.9	21.5	19.7	20.6
11	2.7	1.7	2.2	8.4	7.0	7.8	12.7	11.3	12.0	23.4	21.0	22.4
12	2.8	2.3	2.6	8.4	7.3	8.0	11.3	9.6	10.8	24.2	23.2	23.7
13	3.2	2.2	2.7	8.3	7.0	7.7	10.2	9.6	10.0	25.1	23.5	24.4
14	3.1	2.5	2.8	7.9	7.1	7.4	9.8	8.9	9.4	26.0	23.8	25.2
15	3.6	2.5	3.0	9.0	7.6	8.2	9.4	8.4	8.9	26.9	24.5	25.7
16	3.6	2.6	3.1	8.9	7.6	8.3	10.4	9.1	9.7	26.6	25.0	25.7
17	3.3	2.6	3.0	7.6	7.2	7.4	12.1	9.9	11.0	26.3	25.2	25.7
18	3.6	2.7	3.2	7.7	6.7	7.1	14.2	11.6	12.8	25.8	25.1	25.4
19	4.4	3.1	3.7	8.0	7.6	7.8	16.4	13.7	14.9	25.2	23.8	24.5
20	5.3	3.9	4.5	9.3	7.3	8.1	18.0	15.7	16.7	23.9	23.0	23.5
21	5.7	4.9	5.4	9.4	8.5	9.0	19.0	17.1	18.0	23.3	22.3	22.8
22	5.7	4.7	5.3	8.5	7.1	7.8	19.9	18.5	19.2	23.9	22.0	22.9
23	5.7	4.7	5.3	8.5	6.7	7.7	20.4	19.2	19.9	24.8	23.1	23.9
24	5.4	4.8	5.0	9.1	7.2	8.2	21.0	19.5	20.3	24.9	23.8	24.5
25	5.3	4.1	4.8	10.5	8.4	9.2	20.7	18.8	19.7	25.6	24.6	25.1
26	5.1	4.3	4.7	11.5	9.8	10.6	18.8	17.3	18.1	25.7	24.7	25.2
27	5.4	4.2	4.8	11.7	11.1	11.5	17.5	15.9	17.0	25.5	24.8	25.1
28	6.1	4.5	5.3	13.0	11.7	12.2	15.9	14.7	15.2	25.4	24.3	24.7
29	6.3	5.2	5.9	13.2	12.1	12.6	15.7	14.0	14.9	24.5	23.4	24.0
30	---	---	---	12.8	11.6	12.1	17.0	14.6	15.7	23.5	22.1	23.0
31	---	---	---	11.7	11.5	11.6	---	---	---	22.3	21.9	22.2
MONTH	6.3	0.0	2.8	13.2	5.8	9.0	21.0	7.1	13.1	26.9	16.1	22.3

01646500 POTOMAC RIVER NEAR WASHINGTON, DC—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	23.2	21.9	22.5	28.1	25.6	26.7	---	---	---	28.4	27.2	27.8
2	23.5	22.5	23.0	28.7	26.1	27.4	---	---	---	27.7	26.7	27.2
3	24.3	23.1	23.5	29.7	26.9	28.3	---	---	---	27.8	26.5	27.1
4	23.2	21.9	22.9	28.7	26.7	27.9	29.2	27.7	28.4	27.3	26.5	26.9
5	21.9	19.5	20.6	28.9	26.6	27.7	28.0	26.7	27.6	27.0	26.1	26.6
6	19.5	17.7	18.5	29.8	27.5	28.5	26.7	25.1	25.8	26.1	24.8	25.3
7	20.2	18.0	18.7	30.0	27.9	29.0	---	---	---	---	---	---
8	22.1	20.1	20.8	29.2	27.8	28.4	---	---	---	25.0	24.5	24.6
9	24.0	22.1	23.1	29.1	27.6	28.2	---	---	---	24.8	24.3	24.6
10	25.7	24.0	24.8	29.3	27.3	28.2	---	---	---	24.6	22.7	23.9
11	25.1	22.8	24.5	29.5	27.3	28.4	27.8	25.6	26.9	22.7	21.6	22.0
12	23.7	21.8	22.6	29.2	27.9	28.6	27.5	25.8	26.8	22.6	21.3	21.9
13	23.4	21.8	22.6	29.3	27.5	28.4	26.9	25.3	26.2	22.8	21.8	22.4
14	23.7	21.9	22.6	29.3	27.7	28.5	26.3	24.5	25.2	23.0	22.6	22.8
15	25.2	23.6	24.2	28.1	27.0	27.6	25.1	23.4	24.3	22.6	21.9	22.3
16	24.8	23.6	24.2	27.8	26.3	26.9	26.4	23.9	25.3	22.9	21.9	22.3
17	25.5	24.1	24.8	27.8	26.1	26.8	26.9	24.6	25.9	23.3	22.3	22.8
18	26.2	25.3	25.7	27.0	26.0	26.5	27.7	25.2	26.6	23.1	21.6	22.4
19	26.3	25.6	26.0	---	---	---	28.1	26.0	27.0	21.6	18.7	20.2
20	25.6	24.4	25.0	28.7	25.7	27.2	29.0	26.5	27.8	19.0	18.2	18.6
21	25.1	24.1	24.6	29.2	26.6	27.9	28.4	27.3	27.7	19.2	17.8	18.6
22	25.8	24.1	24.9	29.8	27.5	28.6	27.7	26.0	27.0	19.9	18.2	19.1
23	25.6	24.9	25.3	29.3	27.7	28.6	28.3	25.3	26.9	20.3	19.1	19.8
24	26.5	24.4	25.2	28.3	27.2	27.5	28.2	25.9	27.1	21.1	20.3	20.7
25	27.0	25.5	26.1	27.2	25.4	25.9	28.2	26.2	27.2	21.9	20.7	21.1
26	26.7	25.8	26.1	25.9	25.0	25.4	28.5	26.3	27.5	21.8	20.8	21.3
27	26.4	24.8	25.5	26.5	24.0	25.6	28.5	26.7	27.6	21.5	20.7	21.1
28	26.6	24.7	25.6	26.4	24.0	25.4	29.2	27.1	28.0	21.6	20.7	21.3
29	27.0	24.7	25.7	---	---	---	29.6	27.7	28.7	21.0	19.6	20.2
30	27.1	24.8	25.9	---	---	---	29.3	28.5	28.9	19.6	18.6	19.1
31	---	---	---	---	---	---	28.9	27.8	28.4	---	---	---
MONTH	27.1	17.7	23.9	30.0	24.0	27.6	29.6	23.4	---	28.4	17.8	22.6
YEAR	30.0	0.0	14.7									

01646500 POTOMAC RIVER NEAR WASHINGTON, DC—Continued



DAILY MEAN WATER TEMPERATURE - 2004 WATER

01646580 POTOMAC RIVER AT CHAIN BRIDGE AT WASHINGTON, DC

LOCATION.--Lat 38°55'46", long 77°07'02", Arlington County, Va., Hydrologic Unit 02070010, under right downstream side of bridge on Virginia State Highway 123, and at river mile 115.9.

DRAINAGE AREA.--11,570 mi^2.

PERIOD OF RECORD.--Water years 1973 to current year. Prior to October 1977, published as "at Great Falls."

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: June 1978 to September 1981.
pH: June 1978 to September 1981.
WATER TEMPERATURE: June 1978 to September 1981.
DISSOLVED OXYGEN: June 1978 to September 1981.
SUSPENDED SEDIMENT DISCHARGE: October 1978 to September 1981.

INSTRUMENTATION.--Water-quality monitor June 1978 to September 1981.

REMARKS--Extreme high flows are sampled from the George Mason Memorial Bridge (14th Street) located 6 mi downstream from Chain Bridge. Discharges are determined upstream at the Potomac River near Washington, DC Little Falls Pumping Station gage (01646500).

EXTREMES FOR PERIOD OF DAILY RECORD--
SPECIFIC CONDUCTANCE (water years 1979, 1981): Maximum, 598 microsiemens/cm, Sept. 12, 1981; minimum, 116 microsiemens/cm, Jan. 25, 1979.
pH (water years 1979, 1981): Maximum, 9.3 units, Mar. 29, 1981; minimum, 6.7 units, June 2, 1981.
WATER TEMPERATURE (water years 1979, 1981): Maximum, 31.0°C, July 23, 24, 1978; minimum, 0.0°C on many days during winter periods.
DISSOLVED OXYGEN (water years 1979, 1981): Maximum, 16.4 mg/L, on many days in 1979; minimum, 5.6 mg/L, June 2, 1981.
SEDIMENT CONCENTRATION: Maximum daily mean, 812 mg/L, Sept. 6, 1979; minimum daily mean, 1 mg/L on many days during winter periods.
SEDIMENT LOAD: Maximum daily, 281,000 tons, Feb. 27, 1979; minimum daily, 3.2 tons, Jan. 5, 1981.

01646580 POTOMAC RIVER AT CHAIN BRIDGE AT WASHINGTON, DC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sample type	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Sampling method, code (82398)	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, air, deg C (00020)
OCT												
08...	0930	Environmental	1028	80020	9,810	40	765	10.6	106	8.1	316	20.0
08...	*0935*	*Replicate*	*1028*	*80020*	--	*70*	--	--	--	--	--	--
NOV												
05...	1045	Environmental	1028	80020	9,720	40	768	10.4	105	7.8	289	29.0
12...	1045	Environmental	1028	80020	10,500	40	757	11.8	107	8.1	313	15.0
12...	*1050*	*Replicate*	*1028*	*80020*	--	*70*	--	--	--	--	--	--
DEC												
08...	1030	Environmental	1028	80020	14,100	40	765	--	--	8.1	297	5.0
08...	*1031*	*Replicate*	*1028*	*80020*	--	*70*	--	--	--	--	--	--
JAN												
07...	1100	Environmental	1028	80020	19,800	40	774	17.1	130	8.2	282	4.0
29...	1115	Environmental	1028	80020	6,230	70	757	--	--	8.2	385	2.0
FEB												
17...	1030	Environmental	1028	80020	19,600	40	774	14.4	107	8.1	274	5.0
MAR												
02...	1330	Environmental	1028	80020	17,600	40	765	17.4	146	8.2	263	20.5
17...	1000	Environmental	1028	80020	13,100	40	758	14.4	121	8.3	261	5.5
APR												
05...	1000	Environmental	1028	80020	35,400	40	757	13.2	110	8.0	188	7.0
07...	0915	Environmental	1028	80020	23,400	40	760	13.4	115	7.9	203	9.5
23...	0900	Environmental	1028	80020	17,100	40	759	9.8	107	8.2	246	27.0
23...	*0905*	*Replicate*	*1028*	*80020*	--	*40*	--	--	--	--	--	--
MAY												
10...	1045	Environmental	1028	80020	15,200	40	762	9.7	107	8.2	244	29.5
10...	*1050*	*Replicate*	*1028*	*80020*	--	*70*	--	--	--	--	--	--
11...	1130	Environmental	1028	80020	13,800	40	770	10.8	122	8.2	247	31.5
11...	*1131*	*Replicate*	*1028*	*80020*	--	*40*	--	--	--	--	--	--
JUN												
02...	1000	Environmental	1028	80020	11,500	40	755	9.3	110	8.4	278	24.5
02...	*1005*	*Replicate*	*1028*	*80020*	--	*40*	--	--	--	--	--	--
03...	*1050*	*Blank*	*1028*	*80020*	--	*40*	--	--	--	--	--	--
03...	1130	Environmental	1028	80020	9,620	40	767	9.5	111	8.6	286	26.0
JUL												
08...	0945	Environmental	1028	80020	7,710	40	756	7.9	102	8.2	321	28.0
08...	*0947*	*Replicate*	*1028*	*80020*	--	*40*	--	--	--	--	--	--
08...	0950	Environmental	1028	80020	7,710	40	763	7.9	102	8.4	313	31.0
AUG												
04...	0920	Environmental	1028	80020	10,900	40	754	7.8	102	--	342	31.0
04...	*0925*	*Replicate*	*1028*	*80020*	--	*40*	--	--	--	--	--	--
SEP												
01...	1115	Environmental	1028	80020	2,120	40	771	8.0	101	8.3	354	38.0
14...	0800	Environmental	1028	80020	11,800	40	765	8.7	101	8.0	200	21.0
14...	*0805*	*Replicate*	*1028*	*80020*	--	*40*	--	--	--	--	--	--
17...	0800	Environmental	1028	80020	6,150	40	757	8.6	101	8.1	224	22.5
17...	*0805*	*Replicate*	*1028*	*80020*	--	*40*	--	--	--	--	--	--
21...	0845	Environmental	1028	80020	31,300	40	768	10.0	105	8.0	172	19.5
21...	*0850*	*Replicate*	*1028*	*80020*	--	*40*	--	--	--	--	--	--
30...	0830	Environmental	1028	80020	112,000	40	761	10.2	111	8.0	198	20.5
30...	*0831*	*Replicate*	*1028*	*80020*	--	*40*	--	--	--	--	--	--
30...	*0835*	*Replicate*	*1028*	*80020*	--	*40*	--	--	--	--	--	--
30...	*0836*	*Replicate*	*1028*	*80020*	--	*40*	--	--	--	--	--	--

Agency collecting sample: 1028 - U.S. Geological Survey
Agency analyzing sample: 80020 - USGS-National Water Quality Lab, Denver, CO
Sampler type: 3060 - Weighted-bottle sampler
Sampling method code: 40 - Multiple verticals
70 - Grab sample

01646580 POTOMAC RIVER AT CHAIN BRIDGE AT WASHINGTON, DC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Temperature, water, deg C (00010)	Hardness, water, 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)	Alkalinity, wat flt fxd end lab, mg/L as CaCO3 (29801)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Carbonate, wat flt incrm. titr., field, mg/L (00452)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)
OCT													
08...	15.5	140	41.0	8.90	2.58	7.44	113	--	--	--	12.3	<.2	8.45
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
NOV													
05...	16.0	--	--	--	--	--	--	96	116	--	12.8	--	--
12...	11.0	--	--	--	--	--	--	--	--	--	--	--	3.9
12...	--	--	--	--	--	--	--	--	--	--	--	--	--
DEC													
08...	--	--	--	--	--	--	--	--	--	--	--	--	7.5
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
07...	4.5	--	--	--	--	--	--	89	107	--	12.4	--	--
29...	.5	170	49.7	12.1	2.36	17.6	120	--	--	--	28.1	<.2	6.59
FEB													
17...	3.5	--	--	--	--	--	--	--	--	--	--	--	6.5
MAR													
02...	8.0	--	--	--	--	--	--	81	98	--	13.9	--	--
17...	7.5	--	--	--	--	--	--	--	--	--	--	--	4.3
APR													
05...	7.5	--	--	--	--	--	--	--	--	--	--	--	6.6
07...	8.5	--	--	--	--	--	--	55	67	--	10.4	--	--
23...	19.5	110	33.9	6.53	1.81	6.65	--	--	--	--	10.3	<.2	6.33
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
10...	20.3	--	--	--	--	--	--	--	--	--	--	--	5.9
10...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	22.0	--	--	--	--	--	--	E81	E95	E2	10.9	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
02...	23.0	--	--	--	--	--	--	--	--	--	--	--	5.7
02...	--	--	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--	--	--
03...	23.5	--	--	--	--	--	--	92	107	3	12.7	--	--
JUL													
08...	28.0	120	35.1	8.84	2.61	10.8	101	--	--	--	18.1	<.2	4.76
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
08...	28.5	--	--	--	--	--	--	98	117	1	19.2	--	--
AUG													
04...	28.4	--	--	--	--	--	--	--	--	--	--	--	5.7
04...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP													
01...	28.0	--	--	--	--	--	--	110	132	--	18.8	--	--
14...	23.0	--	--	--	--	--	--	--	--	--	--	--	6.9
14...	--	--	--	--	--	--	--	--	--	--	--	--	--
17...	23.0	--	--	--	--	--	--	--	--	--	--	--	7.5
17...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	18.0	--	--	--	--	--	--	--	--	--	--	--	8.1
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
30...	19.3	--	--	--	--	--	--	--	--	--	--	--	6.5
30...	--	--	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--	--	*6.5*
30...	--	--	--	--	--	--	--	--	--	--	--	--	--

01646580 POTOMAC RIVER AT CHAIN BRIDGE AT WASHINGTON, DC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Residue fixed non-filterable, mg/L (00540)	Residue total at 105 deg. C, suspended, mg/L (00530)	Residue volatile, suspended, mg/L (00535)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)
OCT													
08...	22.7	179	--	12	<10	.18	.19	<.04	--	2.08	<.008	--	.04
08...	--	--	--	--	--	--	--	--	--	--	--	*.03*	--
NOV													
05...	23.3	--	--	--	--	--	--	<.04	1.43	1.45	.015	.03	.016
12...	--	--	--	<10	<10	.21	.20	<.04	--	1.41	<.008	--	E.01
12...	--	--	--	--	--	--	--	--	--	--	--	--	--
DEC													
08...	--	--	--	<10	<10	.15	.16	<.04	--	1.87	<.008	--	E.01
08...	--	--	--	--	--	--	--	--	--	--	--	*<.02*	--
JAN													
07...	27.3	--	--	--	--	--	--	<.04	1.59	1.75	.161	.04	.013
29...	29.3	226	--	<10	<10	.11	--	--	--	2.58	--	.04	E.01
FEB													
17...	--	--	--	<10	<10	.21	--	--	--	1.64	--	.06	.02
MAR													
02...	23.1	--	--	--	--	--	--	<.04	1.49	1.50	.013	.03	E.005
17...	--	--	--	<10	<10	--	--	<.04	1.55	1.55	.007	.03	E.005
APR													
05...	--	--	38	60	22	--	--	E.02	1.25	1.26	.008	.29	.009
07...	18.0	--	--	--	--	--	--	<.04	1.26	1.34	.082	.06	<.006
23...	20.6	140	--	14	<10	--	--	<.04	1.48	1.49	.008	.10	.016
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
10...	--	--	--	28	<10	--	--	<.04	1.24	1.24	.006	.16	.008
10...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	18.4	--	--	--	--	--	--	<.04	--	1.11	<.008	.19	<.006
11...	--	--	--	--	--	--	--	--	--	--	--	*.19*	--
JUN													
02...	--	--	--	20	<10	--	--	<.04	1.28	1.29	.007	.20	.007
02...	--	--	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	*<.04*	--	*<.06*	*<.008*	*<.02*	*<.006*
03...	22.9	--	--	--	--	--	--	<.04	1.07	1.07	.009	.21	<.006
JUL													
08...	24.9	177	--	17	<10	--	--	<.04	1.01	1.02	.008	.13	E.004
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
08...	25.2	--	--	--	--	--	--	<.04	1.00	1.01	.008	.12	E.003
AUG													
04...	--	--	--	33	<10	--	--	.05	1.25	1.26	.009	.11	.040
04...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP													
01...	31.3	--	--	--	--	--	--	E.02	1.16	1.17	.009	.03	.025
14...	--	--	--	53	<10	--	--	.06	1.14	1.15	.012	.20	.040
14...	--	--	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	12	<10	--	--	E.03	1.30	1.31	.009	.15	.041
17...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	137	158	21	--	--	E.03	1.21	1.22	.007	.37	.044
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	237	273	37	--	--	<.04	1.13	1.14	.008	.96	.081
30...	--	--	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	*233*	*273*	*40*	*.44*	--	*<.04*	*1.14*	*1.15*	*.009*	*.93*	*.080*
30...	--	--	--	--	--	--	--	--	--	--	--	--	--

01646580 POTOMAC RIVER AT CHAIN BRIDGE AT WASHINGTON, DC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Phos-phorus, water, fltrd, mg/L (00666)	Phos-phorus, water, unfltrd mg/L (00665)	Total nitro-gen, wat flt by anal ysis, mg/L (62854)	Total nitro-gen, wat unf by anal ysis, mg/L (62855)	Total nitro-gen, water, fltrd, mg/L (00602)	Total nitro-gen, water, unfltrd mg/L (00600)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inor-ganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	Organic carbon, water, unfltrd mg/L (00680)	Iron, water, fltrd, ug/L (01046)	Mangan-ese, water, fltrd, ug/L (01056)
OCT													
08...	.035	.051	--	--	2.3	2.3	--	--	--	--	2.2	22	4.9
08...	*.04*	--	*2.15*	--	--	--	*.5*	*<.1*	--	*2.3*	--	--	--
NOV													
05...	--	.036	--	1.79	--	--	.2	<.1	.2	3.0	--	--	--
12...	.019	.028	--	--	1.6	1.6	--	--	--	--	3.4	--	--
12...	*.01*	--	*1.68*	--	--	--	--	--	--	--	--	--	--
DEC													
08...	.021	.034	--	--	2.0	2.0	--	--	--	--	--	--	--
08...	*.02*	--	*1.94*	--	--	--	*.3*	*<.1*	--	*2.4*	*2.3*	--	--
JAN													
07...	--	.032	--	2.06	--	--	.5	<.1	.5	2.1	--	--	--
29...	.02	--	2.49	--	2.7	--	.1	<.1	.1	1.7	--	31	13.3
FEB													
17...	.03	--	1.85	--	1.8	--	.5	<.1	.5	2.0	--	--	--
MAR													
02...	--	.023	--	1.74	--	--	.2	<.1	.2	2.1	--	--	--
17...	<.01	--	1.68	--	--	--	.3	<.1	.3	1.8	--	--	--
APR													
05...	<.01	--	1.51	--	--	--	2.9	.1	2.7	3.1	--	--	--
07...	--	.036	--	1.59	--	--	.4	<.1	.4	2.5	--	--	--
23...	.02	--	1.63	--	--	--	1.0	<.1	1.0	2.1	--	9	E.7
23...	*.022*	*.055*	--	--	--	--	--	--	--	--	--	--	--
MAY													
10...	.01	--	1.36	--	--	--	1.1	<.1	1.1	2.3	--	--	--
10...	*.019*	*.051*	--	--	--	--	--	--	--	--	--	--	--
11...	--	.049	--	1.52	--	--	1.1	<.1	1.1	2.1	--	--	--
11...	--	--	--	--	--	--	*1.1*	*<.1*	*1.1*	*2.0*	--	--	--
JUN													
02...	.02	--	1.48	--	--	--	1.3	<.1	1.2	2.5	--	--	--
02...	*.016*	*.071*	--	--	--	--	--	--	--	--	--	--	--
03...	--	*<.004*	--	*<.03*	--	--	*<.1*	*<.1*	*<.1*	*1.0*	--	--	--
03...	--	.058	--	1.53	--	--	1.3	<.1	1.2	3.1	--	--	--
JUL													
08...	.014	.048	1.20	--	--	--	1.1	<.1	1.1	2.8	--	13	1.1
08...	*.02*	--	--	--	--	--	--	--	--	--	--	--	--
08...	--	.047	--	1.43	--	--	.7	<.1	.7	3.1	--	--	--
AUG													
04...	.054	.097	1.54	--	--	--	1.5	<.1	1.5	2.9	--	--	--
04...	*.06*	--	--	--	--	--	--	--	--	--	--	--	--
SEP													
01...	--	.049	--	1.51	--	--	.4	<.1	.4	3.0	--	--	--
14...	.050	E.117	1.46	--	--	--	1.8	<.1	1.8	4.5	--	--	--
14...	*.05*	--	--	--	--	--	--	--	--	--	--	--	--
17...	.051	.075	1.56	--	--	--	.8	<.1	.7	3.1	--	--	--
17...	*.05*	--	--	--	--	--	--	--	--	--	--	--	--
21...	.054	.22	1.60	--	--	--	4.4	.2	4.2	5.1	--	--	--
21...	*.04*	--	--	--	--	--	--	--	--	--	--	--	--
30...	.097	.37	1.55	--	--	--	10.6	.3	10.3	5.5	--	--	--
30...	*.08*	--	--	--	--	--	--	--	--	--	--	--	--
30...	*.08*	*.40*	--	--	*1.6*	--	*10.4*	*.3*	*10.1*	*5.5*	--	--	--
30...	*.09*	--	--	--	--	--	--	--	--	--	--	--	--

01646580 POTOMAC RIVER AT CHAIN BRIDGE AT WASHINGTON, DC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	2,6-Diethylaniline water fltrd 0.7u GF ug/L (82660)	CIAT, water, fltrd, ug/L (04040)	Acetochlor, water, fltrd, ug/L (49260)	Alachlor, water, fltrd, ug/L (46342)	alpha-HCH, water, fltrd, ug/L (34253)	alpha-HCH-d6, surrog, wat flt 0.7u GF percent recovry (91065)	Atrazine, water, fltrd, ug/L (39632)	Azinphosmethyl, water, fltrd 0.7u GF ug/L (82686)	Benfluralin, water, fltrd 0.7u GF ug/L (82673)	Butylate, water, fltrd, ug/L (04028)	Carbaryl, water, fltrd 0.7u GF ug/L (82680)	Carbofuran, water, fltrd 0.7u GF ug/L (82674)	Chlorpyrifos water, fltrd, ug/L (38933)
OCT													
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
NOV													
05...	<.006	E.043	<.006	<.005	<.005	90.2	.038	<.050	<.010	<.004	<.041	<.020	<.005
12...	--	--	--	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--	--	--	--
DEC													
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
07...	<.006	E.035	<.006	<.005	<.005	92.0	.027	<.050	<.010	<.004	<.041	<.020	<.005
29...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB													
17...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
02...	<.006	E.027	<.006	<.005	<.005	96.4	.023	<.050	<.010	<.004	<.041	<.020	<.005
17...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR													
05...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	<.006	E.018	<.006	<.005	<.005	97.3	.018	<.050	<.010	<.004	<.041	<.020	<.005
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
10...	--	--	--	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	<.006	E.034	.009	<.005	<.005	94.8	.162	<.050	<.010	<.004	<.041	<.020	<.005
11...	*<.006*	*E.039*	*.009*	*<.005*	*<.005*	*98.7*	*.167*	*<.050*	*<.010*	*<.004*	*<.041*	*<.020*	*<.005*
JUN													
02...	--	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--	--	--
03...	<.006	E.043	<.006	<.005	<.005	98.9	.247	<.050	<.010	<.004	<.041	<.020	<.005
JUL													
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
08...	<.006	E.048	<.006	<.005	<.005	96.9	.108	<.050	<.010	<.004	E.009	<.020	<.005
AUG													
04...	--	--	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP													
01...	<.006	E.048	<.006	<.005	<.005	80.8	.057	<.050	<.010	<.004	<.041	<.020	<.005
14...	--	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--	--	--
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30...	--	--	--	--	--	--	--	--	--	--	--	--	--

01646580 POTOMAC RIVER AT CHAIN BRIDGE AT WASHINGTON, DC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	cis-Permethrin water fltrd 0.7u GF ug/L (82687)	Cyanazine, water, fltrd, ug/L (04041)	DCPA, water fltrd 0.7u GF ug/L (82682)	Desulfinyl fipronil, water, fltrd, ug/L (62170)	Diazinon, water, fltrd, ug/L (39572)	Diazinon-d10 surrog. wat flt 0.7u GF percent recovry (91063)	Dieldrin, water, fltrd, ug/L (39381)	Disulfoton, water, fltrd 0.7u GF ug/L (82677)	EPTC, water, fltrd 0.7u GF ug/L (82668)	Ethalfluralin, water, fltrd 0.7u GF ug/L (82663)	Ethoprop, water, fltrd 0.7u GF ug/L (82672)	Desulfinyl-fipronil amide, wat flt ug/L (62169)	Fipronil sulfide water, fltrd, ug/L (62167)
OCT													
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
NOV													
05...	<.006	<.018	<.003	<.012	<.005	104	<.009	<.02	<.004	<.009	<.005	<.029	<.013
12...	--	--	--	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--	--	--	--
DEC													
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
07...	<.006	<.018	<.003	<.012	<.005	114	<.009	<.02	<.004	<.009	<.005	<.029	<.013
29...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB													
17...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
02...	<.006	<.018	<.003	<.012	<.005	121	<.009	<.02	<.004	<.009	<.005	<.029	<.013
17...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR													
05...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	<.006	<.018	<.003	<.012	<.005	109	<.009	<.02	<.004	<.009	<.005	<.029	<.013
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
10...	--	--	--	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	<.006	<.018	<.003	<.012	<.005	111	<.009	<.02	<.004	<.009	<.005	<.029	<.013
11...	*<.006*	*<.018*	*<.003*	*<.012*	*<.005*	*117*	*<.009*	*<.02*	*<.006*	*<.009*	*<.005*	*<.029*	*<.013*
JUN													
02...	--	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--	--	--
03...	<.006	<.018	<.003	<.012	<.005	108	<.009	<.02	<.004	<.009	<.005	<.029	<.013
JUL													
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
08...	<.006	<.018	<.003	E.002	E.003	107	<.009	<.02	<.004	<.009	<.005	<.029	<.013
AUG													
04...	--	--	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP													
01...	<.006	<.018	<.003	<.012	<.005	94.0	<.009	<.02	<.004	<.009	<.005	<.029	<.013
14...	--	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--	--	--
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30...	--	--	--	--	--	--	--	--	--	--	--	--	--

01646580 POTOMAC RIVER AT CHAIN BRIDGE AT WASHINGTON, DC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Fipronil sulfone water, fltrd, ug/L (62168)	Fipronil, water, fltrd, ug/L (62166)	Fonofos water, fltrd, ug/L (04095)	Lindane water, fltrd, ug/L (39341)	Linuron water fltrd 0.7u GF ug/L (82666)	Malathion, water, fltrd, ug/L (39532)	Methyl parathion, water, fltrd 0.7u GF ug/L (82667)	Metolachlor, water, fltrd, ug/L (39415)	Metribuzin, water, fltrd, ug/L (82630)	Molinate, water, fltrd 0.7u GF ug/L (82671)	Napropamide, water, fltrd 0.7u GF ug/L (82684)	p,p-' DDE, water, fltrd, ug/L (34653)	Parathion, water, fltrd, ug/L (39542)
OCT													
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
NOV													
05...	<.024	<.016	<.003	<.004	<.035	<.027	<.015	.014	<.006	<.003	<.007	<.003	<.010
12...	--	--	--	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--	--	--	--
DEC													
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
07...	<.024	<.016	<.003	<.004	<.035	<.027	<.015	E.012	<.006	<.003	<.007	<.003	<.010
29...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB													
17...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
02...	<.024	<.016	<.003	<.004	<.035	<.027	<.015	E.011	<.006	<.003	<.007	<.003	<.010
17...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR													
05...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	<.024	<.016	<.003	<.004	<.035	<.027	<.015	E.011	<.006	<.003	<.007	<.003	<.010
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
10...	--	--	--	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	<.024	<.016	<.003	<.004	<.035	<.027	<.015	.039	<.006	<.003	<.007	<.003	<.010
11...	*<.024*	*<.016*	*<.003*	*<.004*	*<.035*	*<.027*	*<.015*	*.039*	*<.006*	*<.003*	*<.007*	*<.003*	*<.010*
JUN													
02...	--	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--	--	--
03...	<.024	<.016	<.003	<.004	<.035	<.027	<.015	.060	<.006	<.003	<.007	<.003	<.010
JUL													
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
08...	<.024	<.016	<.003	<.004	<.035	<.027	<.015	.023	<.006	<.003	<.007	<.003	<.010
AUG													
04...	--	--	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP													
01...	<.024	<.016	<.003	<.004	<.035	<.027	<.015	.014	<.006	<.003	<.007	<.003	<.010
14...	--	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--	--	--

01646580 POTOMAC RIVER AT CHAIN BRIDGE AT WASHINGTON, DC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Pebulate, water, fltrd 0.7u GF ug/L (82669)	Pendimethalin, water, fltrd 0.7u GF ug/L (82683)	Phorate water fltrd 0.7u GF ug/L (82664)	Prometon, water, fltrd, ug/L (04037)	Propyzamide, water, fltrd 0.7u GF ug/L (82676)	Propachlor, water, fltrd, ug/L (04024)	Propanil, water, fltrd 0.7u GF ug/L (82679)	Propargite, water, fltrd 0.7u GF ug/L (82685)	Simazine, water, fltrd, ug/L (04035)	Tebuthiuron water fltrd 0.7u GF ug/L (82670)	Terbacil, water, fltrd 0.7u GF ug/L (82665)	Terbufos, water, fltrd 0.7u GF ug/L (82675)	Thiobencarb water fltrd 0.7u GF ug/L (82681)
OCT													
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
NOV													
05...	<.004	<.022	<.011	.01	<.004	<.025	<.011	<.02	.013	<.02	<.034	<.02	<.010
12...	--	--	--	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--	--	--	--
DEC													
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
07...	<.004	<.022	<.011	.01	<.004	<.025	<.011	<.02	.011	<.02	<.034	<.02	<.010
29...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB													
17...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
02...	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	.012	<.02	<.034	<.02	<.010
17...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR													
05...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	<.004	<.022	<.011	.01	<.004	<.025	<.011	<.02	.010	<.02	<.034	<.02	<.010
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
10...	--	--	--	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	<.004	<.022	<.011	.01	<.004	<.025	<.011	<.02	.060	<.02	<.034	<.02	<.010
11...	*<.004*	*<.022*	*<.011*	*.01*	*<.004*	*<.025*	*<.011*	*<.02*	*.062*	*<.02*	*<.034*	*<.02*	*<.010*
JUN													
02...	--	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--	--	--
03...	<.004	<.022	<.011	.01	<.004	<.025	<.011	<.02	.076	<.02	<.034	<.02	<.010
JUL													
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
08...	<.004	<.022	<.011	.02	<.008	<.025	<.011	<.02	.033	<.02	<.034	<.02	<.010
AUG													
04...	--	--	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP													
01...	<.004	<.022	<.011	<.02	<.004	<.025	<.011	<.02	.018	<.02	<.034	<.02	<.010
14...	--	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--	--	--
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30...	--	--	--	--	--	--	--	--	--	--	--	--	--

01646580 POTOMAC RIVER AT CHAIN BRIDGE AT WASHINGTON, DC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Tri-allate, water, fltrd 0.7u GF ug/L (82678)	Tri-flur-alin, water, fltrd 0.7u GF ug/L (82661)	Sus-pended sedi-ment concen-tration mg/L (80154)	Sus-pended sedi-ment dis-charge, tons/d (80155)	Sampler type, code (84164)
OCT					
08...	--	--	--	--	3060
08...	--	--	--	--	*3060*
NOV					
05...	<.002	<.009	6	157	3060
12...	--	--	3	85	3060
12...	--	--	--	--	*3060*
DEC					
08...	--	--	5	190	3060
08...	--	--	--	--	*3060*
JAN					
07...	<.002	<.009	6	321	3060
29...	--	--	1	17	3060
FEB					
17...	--	--	10	529	3060
MAR					
02...	<.002	<.009	3	143	3060
17...	--	--	5	177	3060
APR					
05...	--	--	80	7,650	3060
07...	<.002	<.009	18	1,140	3060
23...	--	--	15	693	3060
23...	--	--	--	--	*3060*
MAY					
10...	--	--	20	821	3060
10...	--	--	--	--	*3060*
11...	<.002	<.009	17	633	3060
11...	*<.002*	*<.009*	--	--	*3060*
JUN					
02...	--	--	24	745	3060
02...	--	--	--	--	*3060*
03...	--	--	--	--	*3060*
03...	<.002	<.009	20	519	3060
JUL					
08...	--	--	19	396	3060
08...	--	--	--	--	*3060*
08...	<.002	<.009	19	396	3060
AUG					
04...	--	--	33	971	3060
04...	--	--	--	--	*3060*
SEP					
01...	<.002	<.009	8	46	3060
14...	--	--	60	1,910	3060
14...	--	--	--	--	*3060*
17...	--	--	17	282	3060
17...	--	--	--	--	*3060*
21...	--	--	173	14,600	3060
21...	--	--	--	--	*3060*
30...	--	--	392	119,000	3060
30...	--	--	--	--	*3060*
30...	--	--	*384*	--	*3060*
30...	--	--	--	--	*3060*

Remark codes used in this table:
< -- Less than
E -- Estimated value

Sampler type: 3060 - Weighted-bottle sampler

01648000 ROCK CREEK AT SHERRILL DRIVE, WASHINGTON, DC

LOCATION.--Lat 38°58'21.0", long 77°02'24.0", District of Columbia, Hydrologic Unit 02070010, on left bank 125 ft downstream from Sherrill Drive Bridge in Rock Creek Park in Washington, and 7.5 mi upstream from mouth.

DRAINAGE AREA.--62.2 mi^2.

PERIOD OF RECORD.--October 1929 to current year.

REVISED RECORDS.--WSP 1432: 1933(M).

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 148.87 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges (ice effect, missing record, backwater from construction), which are fair. Flow affected by two upstream reservoirs which control flow from about 25 mi^2, Needwood Lake on Rock Creek since Sept. 1966 and Bernard Frank Lake on North Branch Rock Creek since February 1968. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov 6	0115	1,220	5.77	Feb 6	1845	1,300	5.99
Nov 19	2130	1,620	6.97	Jul 27	2300	*2,600	*9.07
Dec 11	1045	2,060	7.98				

Minimum discharge, Unknown.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	49	107	92	64	40	45	252	51	96	38	199	14
2	41	85	75	90	41	73	225	52	42	44	63	11
3	36	65	62	70	e180	54	183	145	32	21	41	10
4	35	53	57	66	140	56	134	85	32	164	160	10
5	36	184	195	113	99	51	103	62	352	74	152	10
6	34	387	156	96	609	374	83	58	108	44	50	10
7	31	161	99	70	397	139	70	51	53	54	35	10
8	31	92	82	63	270	123	62	94	44	80	27	26
9	30	71	75	59	208	91	59	63	38	48	24	42
10	29	59	102	55	189	75	52	83	36	33	21	e20
11	28	52	1,190	68	180	65	49	84	67	27	94	e16
12	28	152	300	54	156	58	216	66	140	83	151	e14
13	27	121	255	53	139	52	462	52	57	33	165	e13
14	113	70	332	53	123	49	263	45	46	53	82	e12
15	245	61	321	54	108	48	168	42	54	26	69	e25
16	72	52	239	56	91	78	134	67	64	22	40	e20
17	50	48	444	57	77	66	114	42	76	20	28	e50
18	40	45	241	95	68	54	95	74	69	31	24	e150
19	34	561	188	81	63	58	89	e130	51	21	25	e60
20	31	429	163	58	62	51	69	e70	35	19	25	e25
21	29	192	142	68	64	49	62	e60	30	18	24	e20
22	30	156	128	50	64	45	59	101	27	86	24	e16
23	31	132	114	52	62	44	73	52	26	121	24	e14
24	27	116	249	48	60	44	115	44	26	83	22	e13
25	26	127	145	40	65	49	62	59	61	44	20	e13
26	35	79	113	39	57	44	121	78	40	34	19	e13
27	589	65	96	51	50	59	157	54	24	428	18	e13
28	186	202	84	53	48	49	82	228	22	837	18	e250
29	436	225	76	49	47	44	63	59	22	113	18	e100
30	158	114	74	48	---	43	55	40	21	73	17	e50
31	125	---	67	42	---	42	---	44	---	52	16	---
TOTAL	2,692	4,263	5,956	1,915	3,757	2,172	3,731	2,235	1,791	2,824	1,695	1,050
MEAN	86.8	142	192	61.8	130	70.1	124	72.1	59.7	91.1	54.7	35.0
MAX	589	561	1,190	113	609	374	462	228	352	837	199	250
MIN	26	45	57	39	40	42	49	40	21	18	16	10
CFSM	1.40	2.28	3.09	0.99	2.08	1.13	2.00	1.16	0.96	1.46	0.88	0.56
IN.	1.61	2.55	3.56	1.15	2.25	1.30	2.23	1.34	1.07	1.69	1.01	0.63

e Estimated

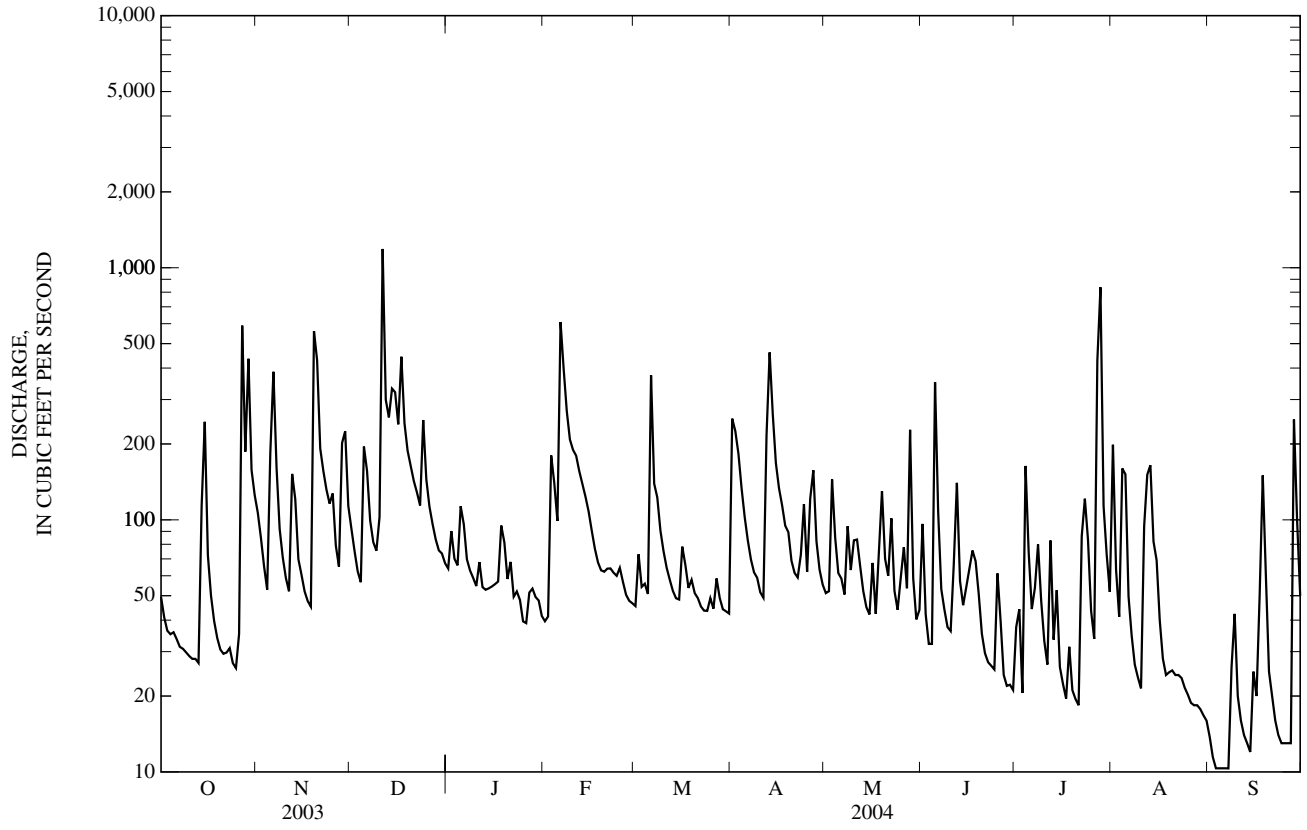
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 2004, BY WATER YEAR (WY)

MEAN	40.9	53.3	63.0	72.2	83.2	91.8	84.5	74.6	62.3	49.9	47.5	47.8
MAX	196	165	192	201	210	221	215	232	456	192	174	348
(WY)	(1980)	(1953)	(2004)	(1978)	(1979)	(1993)	(1973)	(1989)	(1972)	(1945)	(1955)	(1979)
MIN	2.63	4.57	8.75	11.8	11.9	23.4	29.2	24.3	18.3	7.09	1.72	2.04
(WY)	(1931)	(1932)	(1931)	(1931)	(1931)	(1931)	(1969)	(1955)	(1986)	(1930)	(1930)	(1930)

01648000 ROCK CREEK AT SHERRILL DRIVE, WASHINGTON, DC—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1930 - 2004	
ANNUAL TOTAL	46,651		34,081			
ANNUAL MEAN	128		93.1		64.1	
HIGHEST ANNUAL MEAN					142	1972
LOWEST ANNUAL MEAN					16.1	1931
HIGHEST DAILY MEAN	1,190	Sep 23	1,190	Dec 11	5,000	Jun 22, 1972
LOWEST DAILY MEAN	24	Feb 17	10	(a)	0.50	(b)
ANNUAL SEVEN-DAY MINIMUM	29	Oct 7	11	Sep 1	0.50	Oct 1, 1930
MAXIMUM PEAK FLOW			2,600	Jul 27	(c)12,500	Jun 22, 1972
MAXIMUM PEAK STAGE			9.07	Jul 27	(d)16.20	Jun 22, 1972
INSTANTANEOUS LOW FLOW			UNKNOWN		0.50	(b)
ANNUAL RUNOFF (CFSM)	2.05		1.50		1.03	
ANNUAL RUNOFF (INCHES)	27.90		20.38		14.01	
10 PERCENT EXCEEDS	247		188		125	
50 PERCENT EXCEEDS	82		59		38	
90 PERCENT EXCEEDS	34		22		12	

a Sept. 3-7.
b Oct. 1-7, 1930.
c From rating curve extended above 5,640 ft^3/s on basis of contracted-opening measurement at gage heights of 13.19 and 16.2 ft.
d From floodmarks.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01649500 NORTHEAST BRANCH ANACOSTIA RIVER AT RIVERDALE, MD

LOCATION.--Lat 38°57'36.9", long 76°55'33.5", Prince Georges County, Hydrologic Unit 02070010, on right bank at downstream side of bridge on Riverdale Road, 1.8 mi downstream from Indian Creek, and 1.8 mi upstream from confluence with Northwest Branch.

DRAINAGE AREA.--72.8 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1938 to current year.

REVISED RECORDS.--WDR MD-DE-75-1: 1972(M).

GAGE.--Water-stage recorders, crest-stage gage, and concrete control. Datum of gage is 12.68 ft above National Geodetic Vertical Datum of 1929 (Washington Suburban Sanitary Commission bench mark). Prior to June 12, 1942, nonrecording gage; June 12, 1942 to Mar. 22, 1966, and Apr. 12, 1967 to Sept. 3, 1969, water-stage recorder, all at bridge at datum 14.00 ft above mean sea level. Mar. 23, 1966 to Apr. 11, 1967, nonrecording gage 600 ft downstream from bridge at datum 9.25 ft above mean sea level.

REMARKS.--Water-discharge records good except those for estimated daily discharge (missing record), which are poor. Some regulation at low flow by sand and gravel plants upstream from station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 23 or 24, 1933, reached a stage of about 15.5 ft at datum 14.00 ft above sea level, from floodmarks, discharge, 10,500 ft^3/s, from rating curve extended above 3,000 ft^3/s on basis of velocity-area study.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 14	2245	2,100	5.15	Jun 17	1645	3,270	6.30
Oct 27	0815	2,510	5.58	Jun 18	2045	2,880	5.93
Oct 27	1415	2,440	5.51	Jul 4	1415	*8,000	*11.19
Oct 29	0745	2,330	5.39	Jul 28	0130	6,500	10.04
Nov 19	1830	3,200	6.24	Jul 28	1015	3,130	6.61
Dec 11	0700	3,880	6.85	Sep 28	1830	4,630	7.49
Feb 6	1821	3,090	6.13				

Minimum discharge, 20 ft^3/s, Sep. 3.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	75	75	68	e68	48	386	50	57	205	152	25
2	40	63	61	99	e46	85	364	86	40	70	100	22
3	e37	57	55	78	e313	58	232	251	35	32	72	21
4	39	54	52	72	222	67	139	119	33	1,960	265	20
5	37	355	284	141	e96	57	91	73	214	364	207	21
6	36	586	277	117	1,170	684	73	57	95	146	85	21
7	35	374	147	72	805	193	68	74	52	118	65	22
8	36	138	102	e64	e218	137	64	85	43	e54	57	27
9	35	87	95	67	e128	94	64	51	38	e46	52	100
10	36	72	151	57	e145	81	57	143	e28	e40	49	31
11	35	68	1,620	61	146	71	57	61	e94	e40	112	25
12	35	208	264	61	111	64	416	47	e140	e37	504	24
13	37	191	149	63	97	57	557	43	e45	e40	266	22
14	266	90	181	59	88	55	228	40	e37	e66	143	25
15	385	69	265	57	79	55	126	38	e38	38	e100	38
16	60	61	198	54	67	122	88	49	e42	36	e47	28
17	43	58	670	59	60	100	75	49	292	47	e38	108
18	40	57	280	138	61	71	69	96	354	93	48	346
19	38	1,010	154	91	65	76	64	118	134	39	43	62
20	36	757	115	61	65	62	60	48	44	34	38	35
21	36	152	96	60	64	59	57	45	34	32	37	28
22	36	89	90	59	56	52	55	57	38	107	36	25
23	36	71	85	56	52	50	117	39	34	416	32	24
24	34	73	310	50	60	49	113	35	29	149	30	22
25	34	95	174	62	60	59	59	34	158	56	30	22
26	77	60	107	60	53	52	162	45	74	70	29	25
27	1,540	53	88	76	51	72	132	48	e33	916	29	21
28	415	294	81	77	48	58	69	119	e28	2,280	27	783
29	1,030	321	78	73	48	50	57	41	e26	211	25	291
30	229	106	84	60	---	48	52	35	e21	98	25	71
31	105	---	74	e80	---	50	---	49	---	70	24	---
TOTAL	4,920	5,744	6,462	2,252	4,542	2,836	4,151	2,125	2,330	7,910	2,767	2,335
MEAN	159	191	208	72.6	157	91.5	138	68.5	77.7	255	89.3	77.8
MAX	1,540	1,010	1,620	141	1,170	684	557	251	354	2,280	504	783
MIN	34	53	52	50	46	48	52	34	21	32	24	20
CFSM	2.18	2.63	2.86	1.00	2.15	1.26	1.90	0.94	1.07	3.50	1.23	1.07
IN.	2.51	2.94	3.30	1.15	2.32	1.45	2.12	1.09	1.19	4.04	1.41	1.19

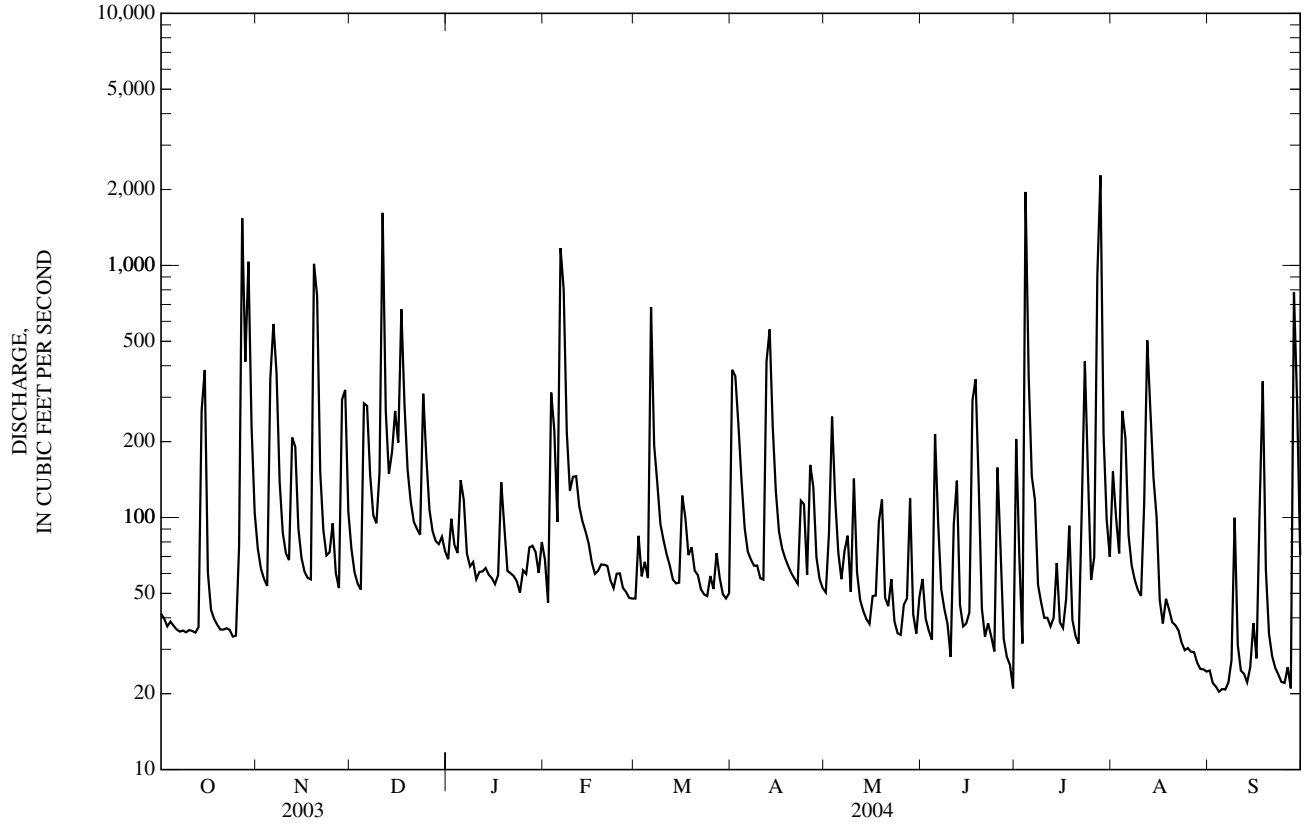
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 2004, BY WATER YEAR (WY)

MEAN	55.6	76.1	95.0	104	115	134	109	95.3	73.2	64.9	63.6	65.5
MAX	234	205	275	325	265	339	322	329	353	335	243	449
(WY)	(1943)	(1973)	(1997)	(1979)	(1972)	(1994)	(1983)	(1989)	(1972)	(1945)	(1955)	(1975)
MIN	9.37	15.9	19.8	25.6	19.5	37.0	32.4	23.9	20.3	8.72	7.94	8.32
(WY)	(1942)	(1942)	(1966)	(1955)	(2002)	(1981)	(1985)	(1941)	(1965)	(1999)	(1962)	(1941)

01649500 NORTHEAST BRANCH ANACOSTIA RIVER AT RIVERDALE, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1938 - 2004	
ANNUAL TOTAL	70,263		48,374			
ANNUAL MEAN	193		132		87.5	
HIGHEST ANNUAL MEAN					175	2003
LOWEST ANNUAL MEAN					35.2	2002
HIGHEST DAILY MEAN	3,370	Sep 23	2,280	Jul 28	6,830	Sep 26, 1975
LOWEST DAILY MEAN	(e)30	(a)	20	Sep 4	1.4	Sep 12, 1966
ANNUAL SEVEN-DAY MINIMUM	34	Aug 19	22	Sep 1	1.7	Sep 7, 1966
MAXIMUM PEAK FLOW			8,000	Jul 4	(b)12,000	Jun 22, 1972
MAXIMUM PEAK STAGE			11.19	Jul 4	12.93	Oct 16, 1942
INSTANTANEOUS LOW FLOW			20	(c)	2.7	Aug 19, 1999
ANNUAL RUNOFF (CFSM)	2.64		1.82		1.20	
ANNUAL RUNOFF (INCHES)	35.90		24.72		16.33	
10 PERCENT EXCEEDS	387		269		169	
50 PERCENT EXCEEDS	87		62		44	
90 PERCENT EXCEEDS	38		32		16	

e Estimated
a Aug. 23-24.
b From rating curve extended above 3,800 ft^3/s on basis of average of contracted-opening and slope-area measurements at gage height 10.84 ft.
c Sep. 3-6, 14.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01649500 NORTHEAST BRANCH ANACOSTIA RIVER AT RIVERDALE, MD—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1959-63, 1969-87, 1992-95, July 2003 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: December 2003 to current year.
WATER TEMPERATURE: December 2003 to current year.
pH: December 2003 to current year.
TURBIDITY: December 2003 to current year.

INSTRUMENTATION.--Water-quality monitor and automatic sampler, December 2003 to current year.

REMARKS.--Missing record due to occasional instrument malfunction. Records good.

EXTREMES FOR PERIOD OF DAILY RECORD--
SPECIFIC CONDUCTANCE: Maximum, 7,000 microsiemens/cm, Feb. 6, 2004; minimum, 42 microsiemens/cm, July 27, 2004.
WATER TEMPERATURE: Maximum, 28.7°C, Aug. 28, 2004; minimum, 0.0°C, on several days.
pH: Maximum, 9.5 standard units, Aug. 11, 24, 25, 28, 2004; minimum, 6.6 standard units, July 4, 28, 2004.
TURBIDITY: Maximum, 1,000 FNU, July 27, 28; minimum, 0.0 FNU, on many days.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 7,000 microsiemens/cm, Feb. 6, 2004; minimum, 42 microsiemens/cm, July 27, 2004.
WATER TEMPERATURE: Maximum, 28.7° C, Aug. 28, 2004; minimum, 0.0°C, on several days.
pH: Maximum, 9.5 standard units, Aug. 11, 24, 25, 28, 2004; minimum, 6.6 standard units, July 4, 28, 2004.
TURBIDITY: Maximum, 1,000 FNU, July 27, 28, 2004; minimum, 0.0 FNU, on many days.

01649500 NORTHEAST BRANCH ANACOSTIA RIVER AT RIVERDALE, MD—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sample type	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Sampling method, code (82398)	Turbidity, IR LED light, det ang 90 deg, FNU (63680)	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)
OCT												
28...	*1125*	*Blank*	*1028*	*80020*	--	--	--	--	--	--	--	--
28...	1130	Environmental	1028	80020	351	10	--	752	10.2	97	7.0	157
28...	*1135*	*Replicate*	*1028*	*80020*	--	*10*	--	--	--	--	--	--
NOV												
18...	1000	Environmental	1028	80020	56	10	1.2	--	11.1	--	7.2	243
DEC												
11...	0900	Environmental	1028	80020	3,270	10	370	744	11.7	102	6.8	202
11...	*0901*	*Replicate*	*1028*	*82105*	--	*10*	--	--	--	--	--	--
15...	*1500*	*Blank*	*1028*	*80020*	--	*50*	--	--	--	--	--	--
16...	0945	Environmental	1028	80020	192	10	16	766	14.2	105	6.9	367
JAN												
13...	*1125*	*Blank*	*1028*	*80020*	--	--	--	--	--	--	--	--
13...	1130	Environmental	1028	80020	61	10	4.0	757	15.3	113	7.3	292
FEB												
06...	0915	Environmental	1028	80020	114	50	42	--	--	--	7.3	3,210
06...	0945	Environmental	1028	82105	139	50	67	--	--	--	7.3	2,950
06...	1015	Environmental	1028	80020	180	50	80	--	--	--	7.4	2,110
06...	*1140*	*Blank*	*1028*	*80020*	--	--	--	--	--	--	--	--
06...	1145	Environmental	1028	80020	535	50	160	--	--	--	7.3	1,400
06...	1315	Environmental	1028	80020	1,350	50	260	--	--	--	7.2	1,280
11...	1030	Environmental	1028	80020	139	10	21	--	14.6	--	6.6	415
11...	*1035*	*Replicate*	*1028*	*80020*	--	*10*	--	--	--	--	--	--
MAR												
24...	0930	Environmental	1028	80020	48	10	1.8	774	14.0	111	7.5	319
APR												
12...	1345	Environmental	1028	80020	166	50	80	--	--	--	7.6	197
12...	1545	Environmental	1028	80020	392	50	110	--	--	--	7.4	189
12...	1745	Environmental	1028	82105	876	50	160	--	--	--	7.3	185
12...	1945	Environmental	1028	80020	959	50	160	--	--	--	7.3	213
12...	2345	Environmental	1028	80020	1,400	50	240	--	--	--	7.2	198
12...	*2347*	*Replicate*	*1028*	*80020*	--	*50*	--	--	--	--	--	--
13...	0345	Environmental	1028	82105	839	50	--	--	--	--	--	--
13...	0800	Environmental	1028	80020	530	50	90	--	--	--	7.1	213
13...	1015	Environmental	1028	82105	441	50	71	--	--	--	7.1	214
13...	1215	Environmental	1028	82105	388	50	62	--	--	--	7.1	218
13...	1415	Environmental	1028	82105	347	50	51	--	--	--	7.1	220
13...	1615	Environmental	1028	80020	323	50	48	--	--	--	7.2	227
13...	2015	Environmental	1028	80020	418	50	62	--	--	--	7.2	227
13...	*2017*	*Replicate*	*1028*	*82105*	--	*50*	--	--	--	--	--	--
14...	0015	Environmental	1028	82105	359	50	48	--	11.4	--	7.2	229
20...	0900	Environmental	1028	80020	61	10	1.1	762	9.7	101	7.4	283
MAY												
25...	*0955*	*Blank*	*1028*	*80020*	--	--	--	--	--	--	--	--
25...	1000	Environmental	1028	80020	32	10	3.0	765	9.7	118	7.8	295
JUN												
23...	*0840*	*Blank*	*1028*	*80020*	--	--	--	--	--	--	--	--
23...	0845	Environmental	1028	80020	33	10	7.3	762	8.1	93	6.8	301
25...	1630	Environmental	1028	80020	160	50	--	--	8.2	--	7.6	91
25...	1730	Environmental	1028	80020	927	50	280	--	8.1	--	7.3	118
25...	1830	Environmental	1028	80020	693	50	220	--	8.0	--	7.2	126
25...	1930	Environmental	1028	80020	516	50	240	--	8.2	--	7.3	179
JUL												
13...	0830	Environmental	1028	80020	--	10	5.0	760	9.3	111	7.3	290
28...	1045	Environmental	1028	80020	2,730	50	570	--	--	--	6.8	70
28...	*1047*	*Replicate*	*1028*	*82105*	--	*50*	--	--	--	--	--	--
28...	1115	Environmental	1028	82105	2,550	50	460	--	--	--	6.8	71
28...	1230	Environmental	1028	80020	1,950	50	360	--	--	--	6.8	78
28...	*1232*	*Replicate*	*1028*	*82105*	--	--	--	--	--	--	--	--
28...	1245	Environmental	1028	9724	1,830	60	340	--	--	--	6.8	79
28...	1300	Environmental	1028	82105	1,750	50	330	--	--	--	6.8	81
28...	1430	Environmental	1028	80020	1,350	50	240	--	--	--	6.8	86
28...	*1432*	*Replicate*	*1028*	*82105*	--	--	--	--	--	--	--	--
AUG												
18...	1230	Environmental	1028	9724	48	70	3.4	--	10.3	--	8.5	267
SEP												
21...	1300	Environmental	1028	80020	28	20	2.7	769	11.0	118	6.5	268
28...	1315	Environmental	1028	80020	454	50	140	--	--	--	7.9	181
29...	0945	Environmental	1028	80020	304	50	62	--	--	--	7.1	172

Agency collecting sample: 1028 - U.S. Geological Survey

Agency analyzing sample: 80020 - USGS-National Water Quality Lab, Denver, CO
82105 - USGS-Kentucky Sediment Lab
9724 - Maryland Department of Health and Mental Hygiene Lab, Baltimore, MD

Sampling method: 10 - Equal-width increment
50 - Point-automatic sampler
60 - Weighted bottle
70 - Grab sample

01649500 NORTHEAST BRANCH ANACOSTIA RIVER AT RIVERDALE, MD—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Residue fixed non-filterable, mg/L (00540)	Residue total at 105 deg. C, suspended, mg/L (00530)	Residue volatile, suspended, mg/L (00535)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Organic nitrogen, water, fltrd, mg/L (00607)	Organic nitrogen, water, unfltrd mg/L (00605)
OCT													
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	--	12.4	--	35	--	.53	.76	E.007	.67	.672	.005	--	--
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
NOV													
18...	10.5	9.9	--	<10	--	.20	.27	.023	.99	.998	.005	.18	.25
DEC													
11...	11.0	8.3	463	532	69	.55	2.4	E.040	--	.509	E.008	--	--
11...	--	--	--	--	*63*	--	--	--	--	--	--	--	--
15...	--	--	--	*<10*	--	*<.10*	*<.10*	*<.010*	--	*<.016*	*<.002*	--	--
16...	8.0	3.2	12	14	2	.31	.37	.047	.90	.903	.004	.26	.33
JAN													
13...	--	--	--	--	--	*<.10*	*<.10*	*<.010*	--	*<.016*	*<.002*	--	--
13...	10.0	2.4	--	<10	2	.17	.26	.057	1.44	1.44	.005	.11	.21
FEB													
06...	--	1.5	--	--	9	.91	1.2	.451	1.18	1.20	.015	.46	.73
06...	--	1.4	--	--	21	--	--	--	--	--	--	--	--
06...	--	1.2	--	--	20	1.2	1.9	.402	.98	1.01	.024	.84	1.5
06...	--	--	--	--	--	*<.10*	*<.10*	*<.010*	--	*<.016*	*<.002*	--	--
06...	--	1.0	--	--	30	.99	2.0	.409	.93	.942	.015	.58	1.6
06...	--	.8	--	--	51	.78	2.0	.313	.79	.803	.016	.46	1.7
11...	--	2.4	9	13	4	.35	.50	.127	1.01	1.02	.007	.23	.37
11...	--	--	--	--	*4*	*.37*	*.60*	*.127*	*1.00*	*1.00*	*.007*	*.24*	*.48*
MAR													
24...	17.5	5.9	--	<10	1	.14	.18	<.010	1.25	1.26	.007	--	--
APR													
12...	--	10.0	--	--	25	.70	1.5	.199	.89	.904	.019	.50	1.3
12...	--	9.7	--	--	17	.53	1.7	.180	.72	.741	.016	.35	1.5
12...	--	9.2	--	--	27	--	--	--	--	--	--	--	--
12...	--	9.1	--	--	24	.60	1.6	.191	.68	.698	.013	.41	1.4
12...	--	8.6	--	--	31	.60	1.5	.152	.68	.684	.004	.44	1.3
12...	--	--	--	--	--	*.65*	*1.5*	*.158*	*.69*	*.697*	*.002*	*.49*	*1.3*
13...	--	--	--	--	17	--	--	--	--	--	--	--	--
13...	--	8.4	--	--	13	.62	.99	.167	.85	.858	.009	.46	.82
13...	--	8.6	--	--	8	--	--	--	--	--	--	--	--
13...	--	8.9	--	--	8	--	--	--	--	--	--	--	--
13...	--	9.1	--	--	8	--	--	--	--	--	--	--	--
13...	--	9.4	--	--	9	.47	.77	.093	.96	.976	.013	.38	.68
13...	--	9.6	--	--	8	.51	.81	.098	.88	.892	.013	.42	.71
13...	--	--	--	--	*8*	--	--	--	--	--	--	--	--
14...	--	9.4	--	--	6	--	--	--	--	--	--	--	--
20...	24.0	17.6	--	<10	1	.24	.25	E.007	.90	.908	.006	--	--
MAY													
25...	--	--	--	*<10*	*.0*	*<.10*	*E.06*	*<.010*	--	*<.016*	*E.001*	--	--
25...	30.0	25.4	--	<10	1	.24	.35	.030	.96	.986	.021	.21	.32
JUN													
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
23...	24.5	22.3	--	<10	1	.16	.28	E.009	1.01	1.02	.010	--	--
25...	--	24.9	--	--	--	.79	1.9	.349	.86	.892	.036	.44	1.5
25...	--	23.7	--	--	41	.53	2.2	.182	.69	.708	.021	.35	2.0
25...	--	23.3	--	--	--	.53	1.7	.166	.68	.700	.020	.36	1.5
25...	--	22.7	--	--	--	.48	1.3	.094	.81	.824	.017	.38	1.2
JUL													
13...	27.0	23.9	--	<10	1	.22	.30	E.005	.83	.838	.005	--	--
28...	--	22.5	--	--	58	.48	1.7	.036	.43	.437	.009	.44	1.7
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	--	22.6	--	--	--	--	--	--	--	--	--	--	--
28...	--	22.8	--	--	--	.51	1.3	.036	.47	.482	.009	.48	1.2
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	--	22.8	--	--	--	--	--	--	--	--	--	--	--
28...	--	22.9	--	--	--	--	--	--	--	--	--	--	--
28...	--	23.2	--	--	--	.55	1.1	.034	.49	.496	.008	.52	1.1
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
18...	--	24.4	--	--	--	--	--	--	--	--	--	--	--
SEP													
21...	--	19.1	--	<10	2	.25	.27	.017	.81	.817	.004	.23	.26
28...	--	22.0	--	--	31	.41	1.7	.066	.62	.632	.009	.34	1.7
29...	--	19.6	--	--	9	.57	.98	.042	.74	.748	.005	.52	.94

01649500 NORTHEAST BRANCH ANACOSTIA RIVER AT RIVERDALE, MD—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Ortho-phos-phate, water, fltrd, mg/L as P (00671)	Phos-phorus, water, fltrd, mg/L (00666)	Phos-phorus, water, unfltrd mg/L (00665)	Total nitro-gen, water, fltrd, mg/L (00602)	Total nitro-gen, water, unfltrd mg/L (00600)	Organic carbon, water, unfltrd mg/L (00680)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Entero-cocci, Ent Qnt method, water, MPN (99601)	Entero-cocci, mEI MF, water, col/ 100 mL (90909)	E coli, Defined Substr. Tech., water, MPN/ 100 mL (50468)	E coli, modif. m-TEC, water, col/ 100 mL (90902)	Alum-inum, water, fltrd, ug/L (01106)	Alum-inum, water, unfltrd recover-able, ug/L (01105)
OCT													
28...	--	--	--	--	--	--	--	--	--	--	--	*<2*	*25#*
28...	.024	.041	.126	1.2	1.4	13.2	4.5	--	15,000	--	2,600	67	480
28...	--	--	--	--	--	--	--	--	*11,700*	--	*E2,500*	--	--
NOV													
18...	<.006	.006	.025	1.2	1.3	4.2	--	--	--	--	--	12	60
DEC													
11...	E.024	.082	.67	1.1	3.0	23.9	6.2	--	60,800	--	4,600	378	5,830
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
15...	*<.006*	*<.004*	*<.004*	--	--	--	--	--	--	--	--	*<2*	*<2*
16...	E.005	.014	.049	1.2	1.3	4.9	3.8	--	815	--	E130	47	279
JAN													
13...	*<.006*	*<.004*	*<.004*	--	--	--	--	--	--	--	--	*<2*	*17*
13...	E.004	.008	.028	1.6	1.7	1.8	<2.0	--	E49	--	67	13	80
FEB													
06...	.022	.031	.120	2.1	2.4	--	--	--	--	--	--	20	225
06...	--	--	--	--	--	--	--	--	--	--	--	--	--
06...	.025	.047	.21	2.2	2.9	--	--	--	--	--	--	31	784
06...	*<.006*	*<.004*	*<.004*	--	--	--	--	--	--	--	--	*<2*	*<2*
06...	.035	.046	.31	1.9	3.0	--	--	--	--	--	--	20	1,390
06...	.023	.035	.45	1.6	2.8	--	--	--	--	--	--	19	2,870
11...	E.005	.010	.057	1.4	1.5	5.0	--	--	867	--	830	32	244
11...	*.006*	*.012*	*.057*	*1.4*	*1.6*	--	--	--	--	--	--	*30*	*228*
MAR													
24...	E.003	.010	.025	1.4	1.4	3.3	<2.0	--	E22	--	E530	19	62
APR													
12...	.035	.071	.28	1.6	2.4	--	--	--	--	--	--	17	710
12...	.016	.041	.28	1.3	2.4	--	--	--	--	--	--	15	893
12...	--	--	--	--	--	--	--	--	--	--	--	--	--
12...	.016	.032	.31	1.3	2.3	--	--	--	--	--	--	22	1,540
12...	.018	.034	.31	1.3	2.2	--	--	--	--	--	--	31	3,230
12...	*.020*	*.032*	*.31*	*1.3*	*2.1*	--	--	--	--	--	--	*34*	*3,570*
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	.027	.044	.170	1.5	1.8	11.9	--	--	E5,320	--	7,200	53	955
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	.019	.033	.112	1.5	1.7	--	--	--	--	--	--	40	540
13...	.016	.030	.131	1.4	1.7	--	--	--	--	--	--	37	626
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	.007	.015	.035	1.1	1.2	4.2	4.2	--	117	--	150	14	87
MAY													
25...	*<.006*	*<.004*	*<.004*	--	--	--	--	--	--	--	--	*<2*	*<2*
25...	.018	.030	.048	1.2	1.3	3.8	4.3	--	165	--	110	--	60
JUN													
23...	--	--	--	--	--	*<.4*	--	*<10*	*<1*	*<10*	*<1*	--	--
23...	.018	.030	.070	1.2	1.3	6.1	3.2	720	1,400	3,400	3,000	10	67
25...	.061	.092	.35	1.7	2.7	--	--	--	--	--	--	20	1,160
25...	.017	.033	.54	1.2	2.9	--	--	--	--	--	--	20	2,990
25...	.030	.045	.42	1.2	2.4	--	--	--	--	--	--	23	2,110
25...	.020	.036	.32	1.3	2.1	--	--	--	--	--	--	13	--
JUL													
13...	.017	.025	.062	1.1	1.1	3.7	5.2	30	210	250	160	9	52
28...	.017	.034	.39	.91	2.2	--	--	--	--	--	--	45	7,490
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	.019	.037	.28	.99	1.7	--	--	--	--	--	--	47	4,310
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	238,200	--	120,000	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	.020	.042	.25	1.0	1.6	--	--	--	--	--	--	44	2,390
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
18...	--	--	--	--	--	--	--	40	--	470	--	--	--
SEP													
21...	.012	.021	.038	1.1	1.1	3.9	<2.0	100	E290	370	E500	11	40
28...	.016	.029	.197	1.0	2.4	--	--	--	--	--	--	12	1,120
29...	.037	.054	.182	1.3	1.7	--	3.3	>24,190	E30,100	>24,000	E27,000	42	637

01649500 NORTHEAST BRANCH ANACOSTIA RIVER AT RIVERDALE, MD—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Arsenic water, fltrd, ug/L (01000)	Arsenic water unfltrd ug/L (01002)	Cadmium water, fltrd, ug/L (01025)	Cadmium water, unfltrd ug/L (01027)	Chrom-ium, water, fltrd, ug/L (01030)	Chrom-ium, water, unfltrd recover-able, ug/L (01034)	Cobalt water, fltrd, ug/L (01035)	Cobalt water, unfltrd recover-able, ug/L (01037)	Copper, water, fltrd, ug/L (01040)	Copper, water, unfltrd recover-able, ug/L (01042)	Iron, water, fltrd, ug/L (01046)	Iron, water, unfltrd recover-able, ug/L (01045)	Lead, water, fltrd, ug/L (01049)
OCT													
28...	*<.2*	*<2*	*<.04*	*<.04*	*<.8*	*<.8*	*<.014*	*<.016*	*<.4*	*<.6*	*<6*	*<9.0*	*<.08*
28...	.5	<2	E.03	.05	.9	6.0	1.16	1.83	3.2	5.1	324	1,140	.52
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
NOV													
18...	.2	<2	.04	.05	<.8	E.6	2.05	2.01	1.6	2.1	133	640	E.07
DEC													
11...	.8	2	E.03	.31	1.3	17.9	1.24	14.0	2.8	19.5	376	11,800	1.19
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
15...	*<.2*	*<2*	*<.04*	*<.04*	*<.8*	*<.8*	*<.014*	*<.016*	*<.4*	*E.3*	*<6*	*<9.0*	*<.08*
16...	E.2	<2	.05	.07	<.8	1.1	3.12	3.35	1.7	3.2	261	740	.36
JAN													
13...	*<.2*	*<2*	*<.04*	*<.04*	*<.8*	*<.8*	*<.014*	*<.016*	*<.4*	*E.4*	*<6*	*M*	*<.08*
13...	E.1	<2	E.04	.04	<.8	E.7	3.38	3.49	1.1	1.9	173	540	.15
FEB													
06...	<.4	E1	.29	.16	E.6	3.5	4.16	4.94	8.2	7.0	131	1,260	.98
06...	--	--	--	--	--	--	--	--	--	--	--	--	--
06...	.5	E2	.19	.39	1.2	3.9	2.81	4.57	7.7	16.5	88	1,930	1.10
06...	*<.2*	*<2*	*<.04*	*<.04*	*<.8*	*<.8*	*<.014*	*<.016*	*<.4*	*E.3*	*<6*	*<9.0*	*<.08*
06...	.6	3	.13	.40	1.2	7.3	2.27	6.93	7.5	21.6	86	3,540	.84
06...	.6	2	.12	.43	E.7	15.4	2.31	12.3	5.8	23.4	69	6,960	.43
11...	.3	E2	.07	.09	<.8	.9	4.14	4.35	1.8	2.1	197	820	.33
11...	*E.2*	*<2*	*.07*	*.07*	*<.8*	*.9*	*4.16*	*4.25*	*1.7*	*2.3*	*171*	*830*	*.28*
MAR													
24...	<.2	<2	.04	.04	<.8	E.7	2.79	2.64	1.4	1.6	168	540	.12
APR													
12...	.4	E2	.05	.20	1.2	4.3	1.24	4.76	5.0	13.7	96	3,050	.50
12...	.6	2	.04	.19	1.1	4.7	1.70	9.49	5.2	16.1	117	3,590	.48
12...	--	--	--	--	--	--	--	--	--	--	--	--	--
12...	.6	2	.04	.20	.9	12.5	1.44	8.53	4.2	12.9	133	4,900	.46
12...	.6	2	.04	.26	E.6	18.2	1.61	11.4	5.0	16.4	164	7,240	.43
12...	*.5*	*2*	*.06*	*.27*	*E.7*	*22.0*	*1.60*	*12.7*	*5.2*	*17.4*	*147*	*8,680*	*.60*
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	.5	E2	.06	.10	E.4	10.3	2.30	4.13	3.2	5.4	198	2,070	.50
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	.4	E2	.05	.09	<.8	4.9	2.36	3.33	3.5	5.1	194	1,270	.54
13...	.5	2	.05	.09	<.8	3.6	2.34	3.60	4.3	6.6	185	1,480	.55
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	.2	<2	E.03	.04	<.8	E.5	1.20	1.31	1.6	1.8	105	560	.13
MAY													
25...	*<.2*	*<2*	*<.04*	*<.04*	*<.8*	*<.8*	*<.014*	*<.016*	*<.4*	*<.6*	*<6*	*<9.0*	*<.08*
25...	--	<2	--	E.03	--	E.7	--	.743	--	1.9	--	30	--
JUN													
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
23...	.3	<2	.11	E.03	<.8	.9	.722	.860	2.3	2.7	55	610	.11
25...	.6	E1	.04	.31	9.4	8.6	.411	5.27	6.3	21.1	51	2,440	.56
25...	.7	E2	E.03	.36	1.5	11.5	.383	17.0	4.6	28.0	123	7,160	.37
25...	.7	3	E.04	.27	1.1	13.0	.383	13.2	6.5	25.2	143	5,440	.47
25...	.5	--	E.03	--	.9	--	.344	--	4.4	--	75	--	.26
JUL													
13...	.4	<2	<.04	.04	<.8	E.8	.777	.930	1.6	2.2	61	520	.08
28...	.9	E1	E.02	.32	1.0	20.0	.675	14.7	3.7	23.4	221	13,500	.49
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	.9	E1	E.02	.16	1.1	12.8	.822	7.68	4.0	14.1	249	6,680	.55
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	.8	E1	E.02	.12	1.2	11.1	.894	4.96	3.9	10.1	257	4,050	.56
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
18...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP													
21...	.3	<2	<.04	<.04	<.8	.8	.563	.588	1.9	1.5	249	580	.15
28...	.3	E1	.07	.27	E.6	6.4	.696	9.12	2.7	15.2	70	3,880	.18
29...	.5	<2	E.03	.08	E.7	10.0	1.01	2.65	4.2	6.2	261	1,630	.54

01649500 NORTHEAST BRANCH ANACOSTIA RIVER AT RIVERDALE, MD—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Lead, water, unfltrd recover -able, ug/L (01051)	Mangan- ese, water, fltrd, ug/L (01056)	Mangan- ese, water, unfltrd recover -able, ug/L (01055)	Mercury water, fltrd, ug/L (71890)	Mercury water, unfltrd recover -able, ug/L (71900)	Nickel, water, fltrd, ug/L (01065)	Nickel, water, unfltrd recover -able, ug/L (01067)	Zinc, water, fltrd, ug/L (01090)	Zinc, water, unfltrd recover -able, ug/L (01092)	Suspnd. sedi- ment, sieve diametr percent <.063mm (70331)	Sus- pended sedi- ment concen- tration mg/L (80154)	Sus- pended sedi- ment dis- charge, tons/d (80155)	Sampler type, code (84164)
OCT													
28...	*E.03*	*<.2*	*<.2*	*<.02*	*<.02*	*<.06*	*<.16*	*<.6*	*<2*	--	--	--	--
28...	3.94	59.9	82	<.02	.02	5.21	5.77	10.7	21	--	42	40	3045
28...	--	--	--	--	--	--	--	--	--	--	--	--	*3045*
NOV													
18...	.38	119	135	<.02	<.02	4.84	4.88	8.6	10	--	4	.61	3045
DEC													
11...	30.5	95.2	722	<.02	.07	2.96	21.3	8.1	102	--	1,220	10,800	3051
11...	--	--	--	--	--	--	--	--	--	--	*1,030*	--	*3051*
15...	*<.06*	*<.2*	*M*	*<.02*	*<.02*	*.11*	*E.11*	*E.6*	*<2*	--	*.0*	--	*8010*
16...	1.71	148	154	<.02	<.02	5.28	6.15	18.0	21	--	11	5.7	3045
JAN													
13...	*<.06*	*<.2*	*M*	*<.02*	*<.02*	*<.06*	*<.16*	*<.6*	*<2*	--	--	--	--
13...	.62	169	181	<.02	<.02	5.43	5.53	12.7	13	--	5	.82	3045
FEB													
06...	4.73	195	200	<.02	.02	6.51	9.78	47.2	68	95	43	13	8010
06...	--	--	--	--	--	--	--	--	--	93	87	33	8010
06...	19.2	128	192	<.02	.03	4.49	10.3	43.5	111	91	101	49	8010
06...	*<.06*	*<.2*	*M*	*<.02*	*<.02*	*<.06*	*E.11*	*<.6*	*<2*	--	--	--	--
06...	25.4	112	233	<.02	.04	3.94	12.5	28.6	119	91	225	325	8010
06...	31.7	118	423	<.02	.09	4.12	18.3	30.9	143	73	591	2,150	8010
11...	1.68	223	234	<.02	E.01	5.80	5.79	18.0	22	--	19	7.1	3045
11...	*1.66*	*226*	*232*	*<.02*	*E.01*	*5.75*	*6.06*	*18.8*	*22*	--	*16*	--	*3045*
MAR													
24...	.41	140	127	<.02	<.02	5.22	5.22	9.8	9	--	3	.39	3045
APR													
12...	14.5	42.2	133	<.02	.02	3.10	8.18	18.7	87	89	131	59	8010
12...	13.9	60.4	239	<.02	.03	3.71	10.5	18.2	93	86	139	147	8010
12...	--	--	--	--	--	--	--	--	--	72	291	688	8010
12...	16.8	68.6	376	<.02	.07	3.67	11.1	42.2	137	72	285	738	8010
12...	23.6	83.0	556	<.02	.09	4.21	15.9	54.9	190	56	508	1,920	8010
12...	*23.2*	*81.8*	*585*	--	*.10*	*4.52*	*17.5*	*63.8*	*171*	--	--	--	*8010*
13...	--	--	--	--	--	--	--	--	--	73	228	516	8010
13...	7.86	116	189	<.02	.03	5.05	7.23	22.6	47	61	158	226	8010
13...	--	--	--	--	--	--	--	--	--	73	94	112	8010
13...	--	--	--	--	--	--	--	--	--	75	71	74	8010
13...	--	--	--	--	--	--	--	--	--	84	49	46	8010
13...	5.37	106	140	<.02	.02	5.26	6.60	14.5	32	89	52	45	8010
13...	6.81	99.6	139	<.02	.02	5.22	7.13	14.1	35	85	66	74	8010
13...	--	--	--	--	--	--	--	--	--	*78*	*75*	--	*8010*
14...	--	--	--	--	--	--	--	--	--	83	48	47	8010
20...	.63	70.0	72	<.02	<.02	4.21	4.29	4.4	6	--	4	.66	3045
MAY													
25...	*<.06*	*<.2*	*<.2*	*<.02*	*<.02*	*<.06*	*<.16*	*<.6*	*<2*	--	--	--	--
25...	.48	--	55	<.02	<.02	--	3.10	--	3	--	4	.34	3045
JUN													
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
23...	.77	55.8	63	<.02	<.02	3.41	3.78	4.1	6	--	6	.54	3045
25...	25.3	18.4	78	E.01	.04	2.23	9.37	39.9	185	--	249	108	8010
25...	34.9	15.2	165	<.02	.08	3.14	19.4	40.4	219	64	732	1,830	8010
25...	22.7	18.6	184	<.02	.05	3.29	15.6	10.9	105	--	452	846	8010
25...	--	16.4	--	<.02	.04	3.25	--	6.1	--	--	331	461	8010
JUL													
13...	.36	50.3	58	<.02	<.02	3.42	3.63	2.2	4	--	3	--	3045
28...	32.9	35.1	633	<.02	.11	3.52	21.8	4.1	100	71	1,050	7,720	8010
28...	--	--	--	--	--	--	--	--	--	--	*1,480*	--	*8010*
28...	--	--	--	--	--	--	--	--	--	--	818	5,630	8010
28...	16.1	41.6	291	<.02	.05	3.97	13.3	6.2	61	--	532	2,800	8010
28...	--	--	--	--	--	--	--	--	--	--	*565*	--	--
28...	--	--	--	--	--	--	--	--	--	--	--	--	3060
28...	--	--	--	--	--	--	--	--	--	--	457	2,160	8010
28...	11.6	48.4	190	<.02	.04	4.17	9.31	6.5	45	--	311	1,130	8010
28...	--	--	--	--	--	--	--	--	--	--	*341*	--	--
AUG													
18...	--	--	--	--	--	--	--	--	--	--	--	--	3070
SEP													
21...	.63	44.3	46	--	--	2.79	2.94	2.9	5	--	5	.38	3045
28...	19.0	29.7	325	--	.02	2.80	10.5	6.2	92	80	202	248	8010
29...	6.59	58.5	124	--	.03	4.90	6.43	10.3	33	--	94	77	8010

Remark codes used in this table:
< -- Less than
E -- Estimated value

Sampler type: 3045 - US DH-81 with teflon bottle and nozzle 3051 - US DH-95 with teflon bottle and nozzle
8010 - Other-automatic sampler 3060 - Weighted-bottle sampler
3070 - Grab sample

01649500 NORTHEAST BRANCH ANACOSTIA RIVER AT RIVERDALE, MD—Continued

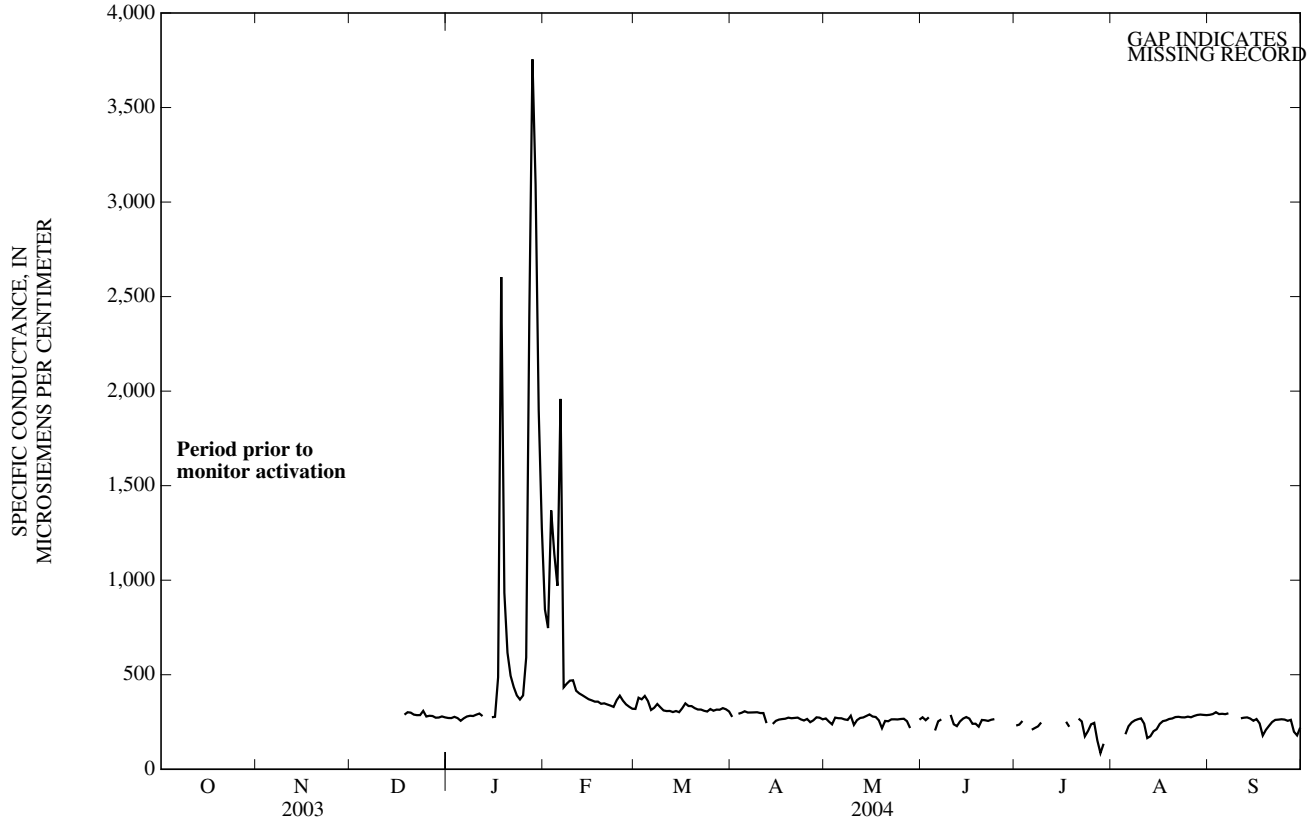
SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	---	---	---	---	---	---	---	---	---	276	266	271
2	---	---	---	---	---	---	---	---	---	312	212	271
3	---	---	---	---	---	---	---	---	---	313	265	277
4	---	---	---	---	---	---	---	---	---	277	266	271
5	---	---	---	---	---	---	---	---	---	282	159	256
6	---	---	---	---	---	---	---	---	---	277	261	269
7	---	---	---	---	---	---	---	---	---	290	269	279
8	---	---	---	---	---	---	---	---	---	296	274	283
9	---	---	---	---	---	---	---	---	---	293	272	282
10	---	---	---	---	---	---	---	---	---	301	277	289
11	---	---	---	---	---	---	---	---	---	320	279	295
12	---	---	---	---	---	---	---	---	---	288	273	281
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	293	266	275
16	---	---	---	---	---	---	---	---	---	304	267	278
17	---	---	---	---	---	---	---	---	---	3,020	272	487
18	---	---	---	---	---	---	316	259	289	5,830	1,430	2,600
19	---	---	---	---	---	---	313	293	302	1,430	684	934
20	---	---	---	---	---	---	311	291	299	684	527	617
21	---	---	---	---	---	---	297	281	289	531	431	494
22	---	---	---	---	---	---	295	281	286	470	398	435
23	---	---	---	---	---	---	541	278	286	423	366	391
24	---	---	---	---	---	---	541	204	309	403	354	369
25	---	---	---	---	---	---	286	272	279	578	354	391
26	---	---	---	---	---	---	289	277	283	1,530	352	591
27	---	---	---	---	---	---	290	275	282	4,420	1,030	2,400
28	---	---	---	---	---	---	280	268	273	6,060	2,590	3,750
29	---	---	---	---	---	---	280	269	274	3,860	2,280	3,090
30	---	---	---	---	---	---	350	272	279	2,280	1,610	1,900
31	---	---	---	---	---	---	286	268	274	1,610	951	1,280
MONTH	---	---	---	---	---	---	541	204	286	6,060	159	814
	FEBRUARY			MARCH			APRIL			MAY		
1	951	751	845	328	313	319	337	180	277	304	260	268
2	863	681	747	430	310	378	---	---	---	276	99	252
3	4,670	684	1,370	385	352	370	307	280	293	267	162	238
4	1,330	1,020	1,140	418	359	388	309	289	299	290	261	273
5	2,020	846	971	394	345	361	339	296	307	284	189	270
6	7,000	436	1,960	413	137	314	306	296	300	279	261	269
7	468	407	433	351	285	325	307	295	300	283	149	264
8	491	427	453	361	334	345	308	294	301	283	252	261
9	495	449	469	340	312	328	307	293	302	296	259	283
10	495	439	471	317	307	311	303	291	297	293	145	235
11	439	411	415	314	302	308	308	292	297	276	230	260
12	412	394	401	315	304	308	326	129	244	283	263	271
13	400	386	391	309	297	303	---	---	---	293	265	274
14	389	376	381	334	298	308	252	227	240	294	269	282
15	380	363	371	308	297	302	263	249	256	345	274	290
16	375	358	364	377	192	323	267	257	263	312	141	279
17	366	352	358	365	342	348	270	259	265	310	82	276
18	364	348	358	358	324	335	270	264	267	286	160	259
19	354	337	346	350	327	334	282	266	273	250	164	217
20	365	335	349	332	316	323	276	264	270	269	246	256
21	347	336	343	324	309	316	282	266	272	275	170	254
22	347	324	337	327	305	316	281	266	273	278	251	264
23	337	324	330	324	300	309	293	205	264	273	258	264
24	656	322	366	311	300	305	269	247	258	271	259	263
25	429	362	389	352	300	319	271	263	266	302	245	266
26	385	350	363	320	302	310	296	187	249	279	254	267
27	352	335	343	336	263	316	270	247	259	278	130	254
28	342	321	331	330	305	315	286	258	275	277	182	218
29	324	313	320	332	314	323	284	259	273	---	---	---
30	---	---	---	332	303	317	269	260	264	---	---	---
31	---	---	---	316	284	306	---	---	---	296	192	262
MONTH	7,000	313	542	430	137	325	339	129	275	345	82	262

01649500 NORTHEAST BRANCH ANACOSTIA RIVER AT RIVERDALE, MD—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	291	252	275	281	43	231	---	---	---	293	279	288
2	273	247	259	269	179	236	---	---	---	299	287	292
3	317	258	275	276	250	255	---	---	---	312	291	302
4	---	---	---	---	---	---	---	---	---	299	285	292
5	274	69	205	---	---	---	214	138	185	299	289	293
6	261	247	253	226	172	209	240	214	228	297	287	291
7	277	257	264	248	71	218	254	240	248	304	290	296
8	---	---	---	242	216	227	265	252	259	---	---	---
9	---	---	---	259	236	247	266	263	265	---	---	---
10	304	267	288	---	---	---	273	266	269	---	---	---
11	299	113	238	---	---	---	275	70	241	274	265	270
12	259	198	228	---	---	---	218	43	165	277	270	273
13	264	243	253	---	---	---	198	137	175	277	270	274
14	288	253	268	---	---	---	225	116	201	282	153	268
15	306	258	276	---	---	---	226	193	212	280	171	257
16	295	250	268	---	---	---	262	223	240	271	261	266
17	289	106	240	284	237	251	262	239	254	274	80	242
18	288	56	241	254	125	225	262	254	258	201	126	178
19	253	163	225	---	---	---	270	262	266	219	195	208
20	271	251	261	---	---	---	273	264	269	240	218	230
21	263	255	259	318	243	268	282	271	276	257	239	250
22	279	150	256	325	109	253	281	275	277	264	257	261
23	292	253	262	218	108	174	280	271	275	265	256	262
24	300	251	265	227	168	202	278	272	274	269	258	264
25	---	---	---	251	225	238	300	271	278	270	249	263
26	---	---	---	263	65	245	279	270	275	266	247	256
27	---	---	---	227	42	152	288	269	282	267	254	261
28	275	254	261	112	55	85	295	278	287	272	58	198
29	---	---	---	155	112	135	295	283	289	200	155	179
30	---	---	---	---	---	---	292	277	288	238	162	220
31	---	---	---	---	---	---	289	284	286	---	---	---
MONTH	317	56	255	325	42	214	300	43	253	312	58	257
YEAR	7,000	42	362									



DAILY MEAN SPECIFIC CONDUCTIVITY - 2004 WATER YEAR

01649500 NORTHEAST BRANCH ANACOSTIA RIVER AT RIVERDALE, MD—Continued

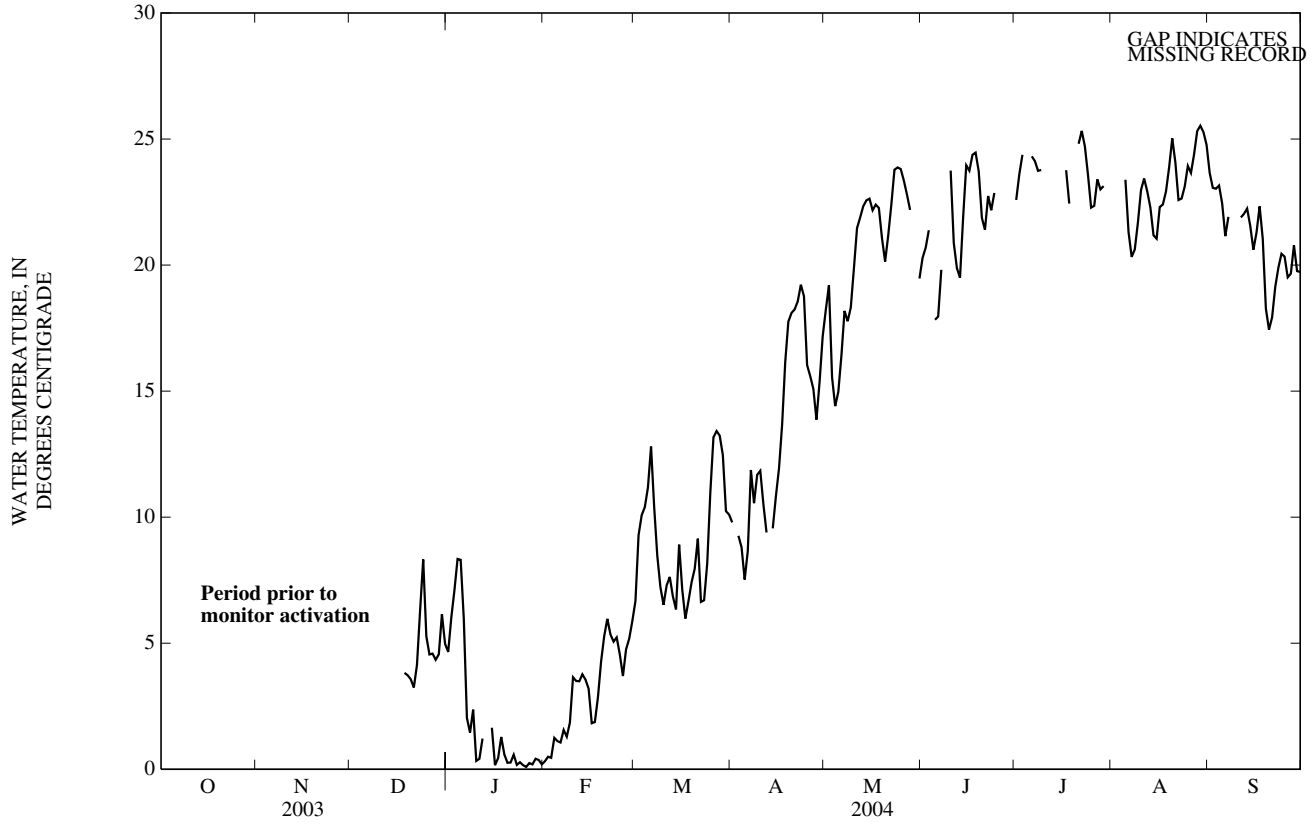
TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	---	---	---	---	---	---	6.0	3.6	4.7
2	---	---	---	---	---	---	---	---	---	6.9	5.0	6.0
3	---	---	---	---	---	---	---	---	---	8.0	6.4	7.1
4	---	---	---	---	---	---	---	---	---	9.7	7.2	8.3
5	---	---	---	---	---	---	---	---	---	8.7	7.5	8.3
6	---	---	---	---	---	---	---	---	---	7.5	3.2	6.0
7	---	---	---	---	---	---	---	---	---	3.2	1.2	2.0
8	---	---	---	---	---	---	---	---	---	2.2	0.5	1.5
9	---	---	---	---	---	---	---	---	---	3.4	0.9	2.4
10	---	---	---	---	---	---	---	---	---	1.2	0.0	0.3
11	---	---	---	---	---	---	---	---	---	1.0	0.1	0.4
12	---	---	---	---	---	---	---	---	---	1.9	0.5	1.2
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	2.8	0.1	1.6
16	---	---	---	---	---	---	---	---	---	0.8	0.0	0.2
17	---	---	---	---	---	---	---	---	---	1.0	0.0	0.4
18	---	---	---	---	---	---	4.2	3.3	3.8	1.9	0.6	1.3
19	---	---	---	---	---	---	4.4	3.1	3.7	2.0	0.0	0.6
20	---	---	---	---	---	---	4.4	2.9	3.6	0.9	0.0	0.3
21	---	---	---	---	---	---	4.4	2.3	3.2	1.0	0.0	0.3
22	---	---	---	---	---	---	5.3	2.8	4.1	1.5	0.0	0.6
23	---	---	---	---	---	---	7.5	5.3	6.3	0.8	0.0	0.2
24	---	---	---	---	---	---	9.8	6.8	8.3	0.8	0.0	0.3
25	---	---	---	---	---	---	6.8	4.3	5.3	0.4	0.0	0.2
26	---	---	---	---	---	---	5.6	4.0	4.6	0.1	0.0	0.1
27	---	---	---	---	---	---	6.0	3.7	4.6	0.6	0.0	0.2
28	---	---	---	---	---	---	5.9	3.2	4.3	0.8	0.0	0.2
29	---	---	---	---	---	---	6.2	3.3	4.6	1.1	0.0	0.4
30	---	---	---	---	---	---	7.6	4.9	6.2	1.1	0.0	0.4
31	---	---	---	---	---	---	6.4	4.0	5.0	0.5	0.0	0.2
MONTH	---	---	---	---	---	---	9.8	2.3	4.8	9.7	0.0	1.9
		FEBRUARY			MARCH			APRIL			MAY	
1	1.1	0.0	0.3	9.5	4.4	6.7	10.1	9.5	9.8	20.9	16.0	18.2
2	1.4	0.0	0.5	11.4	7.1	9.3	---	---	---	21.7	17.4	19.2
3	1.7	0.2	0.5	13.1	7.8	10.1	10.1	8.6	9.3	18.7	13.8	15.5
4	3.1	0.2	1.2	11.9	9.0	10.4	10.2	7.0	8.8	17.3	12.2	14.4
5	2.0	0.2	1.1	13.6	9.3	11.2	11.0	4.9	7.5	19.7	12.9	15.0
6	1.6	0.6	1.1	14.3	11.2	12.8	12.1	5.5	8.7	20.4	13.2	16.4
7	3.0	0.6	1.6	12.2	8.7	10.4	16.0	8.8	11.9	21.9	15.0	18.2
8	2.6	0.2	1.3	10.1	6.7	8.5	11.8	9.8	10.6	20.3	16.0	17.8
9	3.2	0.2	1.9	9.2	5.5	7.2	15.2	9.1	11.7	22.4	15.0	18.3
10	5.3	2.3	3.7	7.6	5.8	6.5	14.8	9.6	11.8	22.4	17.7	19.9
11	5.0	2.3	3.5	10.7	4.7	7.3	11.8	9.6	10.5	24.4	19.3	21.5
12	4.6	2.6	3.5	10.6	5.9	7.6	10.1	8.6	9.4	25.5	19.2	21.9
13	5.9	2.2	3.8	10.1	4.6	6.9	---	---	---	26.3	19.5	22.3
14	4.9	2.4	3.6	7.7	4.8	6.3	9.9	9.2	9.6	26.2	20.2	22.6
15	5.2	2.1	3.2	12.6	6.6	8.9	14.2	8.1	10.8	26.2	20.3	22.6
16	4.1	0.1	1.8	8.8	5.9	7.1	15.7	8.8	11.9	25.1	20.6	22.2
17	3.2	0.6	1.9	6.6	5.5	6.0	17.5	10.2	13.7	25.7	20.0	22.4
18	5.4	1.2	2.9	8.7	5.2	6.7	20.3	12.8	16.2	25.4	20.3	22.3
19	7.2	2.2	4.3	8.9	6.2	7.4	21.5	14.8	17.8	22.0	20.3	21.1
20	7.7	3.4	5.3	11.6	4.8	8.0	22.0	15.4	18.1	21.0	19.6	20.1
21	8.0	5.0	6.0	10.7	6.3	9.1	21.6	15.5	18.2	24.3	19.4	21.2
22	7.3	3.9	5.3	10.2	4.3	6.6	22.2	16.0	18.6	26.2	19.5	22.4
23	7.5	3.0	5.1	10.5	3.7	6.7	22.5	16.4	19.2	27.5	21.1	23.8
24	5.8	4.5	5.2	11.9	4.8	8.2	21.7	16.8	18.8	26.4	21.8	23.9
25	7.3	2.8	4.6	14.5	8.6	11.0	17.5	15.2	16.0	27.2	21.4	23.8
26	5.0	2.2	3.7	16.6	10.4	13.2	16.1	14.7	15.6	26.3	21.2	23.4
27	7.6	2.9	4.8	14.9	12.0	13.4	17.4	12.9	15.1	25.5	20.9	22.8
28	8.6	2.6	5.2	16.2	11.8	13.2	17.4	11.3	13.9	24.0	20.9	22.2
29	8.9	3.3	5.9	16.2	10.4	12.5	19.6	12.1	15.4	---	---	---
30	---	---	---	11.1	9.4	10.2	20.8	14.3	17.2	---	---	---
31	---	---	---	10.9	9.3	10.1	---	---	---	20.6	18.9	19.5
MONTH	8.9	0.0	3.2	16.6	3.7	9.0	22.5	4.9	13.4	27.5	12.2	20.5

01649500 NORTHEAST BRANCH ANACOSTIA RIVER AT RIVERDALE, MD—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	23.5	18.1	20.3	26.3	15.2	22.6	---	---	---	26.9	21.5	23.7
2	23.8	18.2	20.7	26.9	21.0	23.6	---	---	---	26.1	20.9	23.1
3	24.9	19.0	21.4	27.5	22.0	24.4	---	---	---	26.4	20.7	23.0
4	---	---	---	---	---	---	---	---	---	25.6	21.6	23.2
5	18.8	17.1	17.8	---	---	---	24.4	22.1	23.4	24.5	20.9	22.4
6	19.6	16.7	18.0	26.6	22.7	24.3	23.0	19.9	21.3	21.9	20.4	21.1
7	23.0	17.4	19.8	26.5	22.7	24.1	22.7	18.5	20.3	23.7	20.4	21.9
8	---	---	---	25.7	22.4	23.7	23.5	18.2	20.6	---	---	---
9	---	---	---	26.5	21.7	23.8	24.9	19.2	21.7	---	---	---
10	27.0	21.7	23.7	---	---	---	26.0	20.8	23.0	---	---	---
11	23.1	18.4	20.9	---	---	---	26.1	22.0	23.4	24.1	20.2	21.9
12	23.2	17.6	19.9	---	---	---	26.5	21.8	22.9	24.6	20.2	22.0
13	20.7	18.6	19.5	---	---	---	23.2	21.7	22.3	25.4	20.0	22.2
14	25.4	19.4	21.9	---	---	---	21.9	20.3	21.2	22.9	20.4	21.6
15	28.0	21.6	24.0	---	---	---	22.3	19.8	21.0	21.0	20.1	20.6
16	26.8	22.0	23.7	---	---	---	24.7	20.6	22.3	22.8	20.2	21.3
17	27.5	22.5	24.4	26.4	21.6	23.8	24.4	20.8	22.4	24.4	20.9	22.3
18	26.9	23.0	24.5	23.2	21.9	22.4	25.2	21.2	22.9	23.2	18.7	21.0
19	25.9	21.7	23.7	---	---	---	26.6	22.0	23.9	20.8	16.8	18.3
20	25.2	19.6	21.9	---	---	---	27.7	22.9	25.0	20.6	15.4	17.4
21	24.3	18.9	21.4	27.7	22.4	24.8	24.9	22.3	24.1	21.2	15.4	17.9
22	26.7	20.6	22.7	27.9	23.4	25.3	25.7	20.5	22.6	22.6	16.8	19.1
23	22.9	21.2	22.2	26.4	23.8	24.7	25.9	20.3	22.6	23.2	17.4	19.9
24	25.8	20.3	22.9	24.7	22.9	23.6	26.0	20.8	23.1	22.6	18.9	20.4
25	---	---	---	22.9	21.7	22.3	26.4	22.4	23.9	23.0	18.6	20.3
26	---	---	---	24.8	21.1	22.4	25.2	22.4	23.7	20.8	18.2	19.5
27	---	---	---	26.1	22.4	23.4	27.4	22.5	24.4	20.7	18.4	19.7
28	24.1	20.2	22.1	23.6	22.5	23.0	28.7	23.0	25.3	23.5	19.8	20.8
29	---	---	---	24.5	21.7	23.1	28.1	23.5	25.5	20.4	19.4	19.8
30	---	---	---	---	---	---	27.3	23.8	25.3	21.2	18.5	19.7
31	---	---	---	---	---	---	27.0	23.1	24.8	---	---	---
MONTH	28.0	16.7	21.7	27.9	15.2	23.6	28.7	18.2	23.1	26.9	15.4	20.9
YEAR	28.7	0.0	14.0									



DAILY MEAN WATER TEMPERATURE - 2004 WATER YEAR

01649500 NORTHEAST BRANCH ANACOSTIA RIVER AT RIVERDALE, MD—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

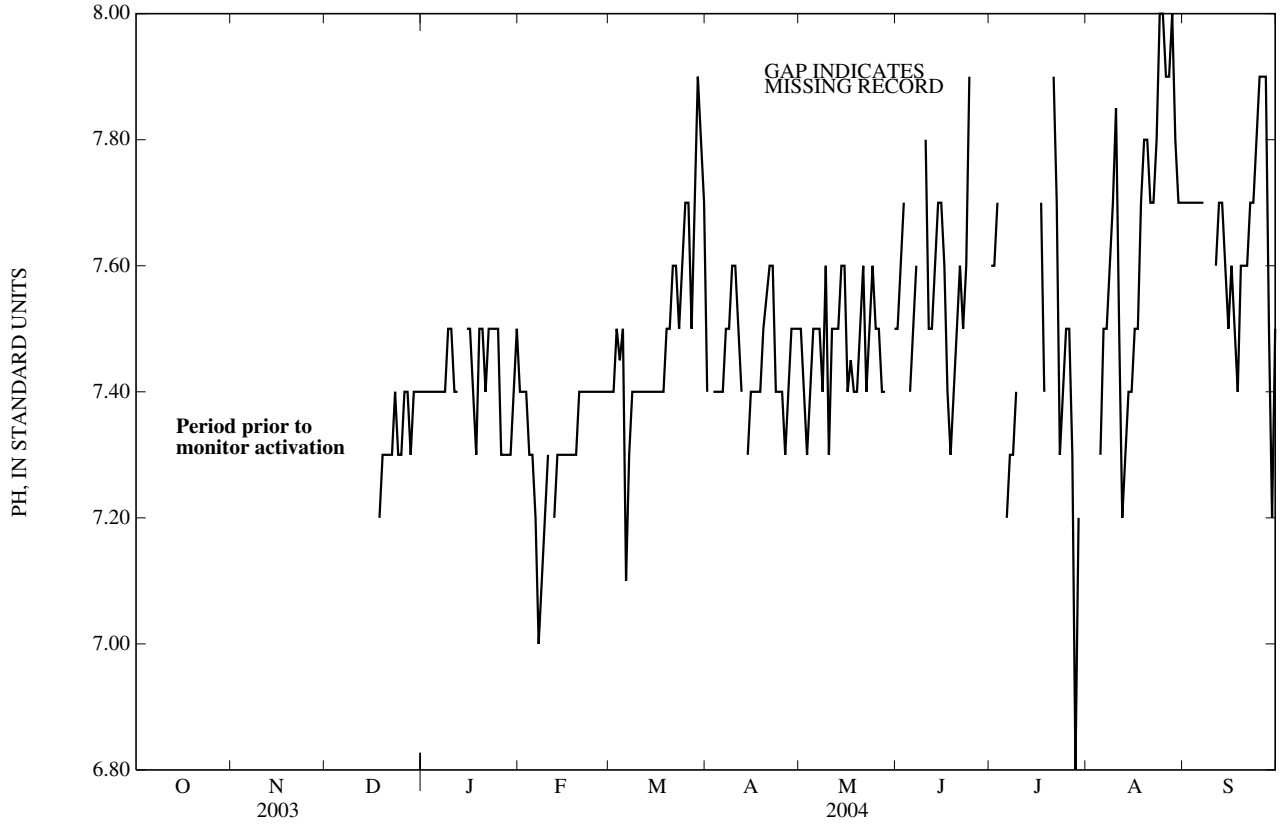
DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	---	---	---	---	---	---	7.5	7.0	7.4
2	---	---	---	---	---	---	---	---	---	7.5	7.0	7.4
3	---	---	---	---	---	---	---	---	---	7.5	7.0	7.4
4	---	---	---	---	---	---	---	---	---	7.5	7.0	7.4
5	---	---	---	---	---	---	---	---	---	7.5	7.0	7.4
6	---	---	---	---	---	---	---	---	---	7.6	7.0	7.4
7	---	---	---	---	---	---	---	---	---	7.6	7.0	7.4
8	---	---	---	---	---	---	---	---	---	7.5	7.0	7.4
9	---	---	---	---	---	---	---	---	---	7.5	7.0	7.5
10	---	---	---	---	---	---	---	---	---	7.5	7.0	7.5
11	---	---	---	---	---	---	---	---	---	7.5	7.0	7.4
12	---	---	---	---	---	---	---	---	---	7.5	7.0	7.4
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	7.6	7.0	7.5
16	---	---	---	---	---	---	---	---	---	7.5	7.0	7.5
17	---	---	---	---	---	---	---	---	---	7.5	7.0	7.4
18	---	---	---	---	---	---	7.2	7.0	7.2	7.4	7.3	7.3
19	---	---	---	---	---	---	7.3	7.0	7.3	7.6	7.4	7.5
20	---	---	---	---	---	---	7.3	7.0	7.3	7.6	7.4	7.5
21	---	---	---	---	---	---	7.3	7.3	7.3	7.6	7.4	7.4
22	---	---	---	---	---	---	7.4	7.0	7.3	7.6	7.4	7.5
23	---	---	---	---	---	---	7.4	7.3	7.4	7.6	7.4	7.5
24	---	---	---	---	---	---	7.4	7.0	7.3	7.6	7.4	7.5
25	---	---	---	---	---	---	7.4	7.0	7.3	7.5	7.4	7.5
26	---	---	---	---	---	---	7.4	7.0	7.4	7.4	7.3	7.3
27	---	---	---	---	---	---	7.4	7.0	7.4	7.6	7.3	7.3
28	---	---	---	---	---	---	7.4	7.0	7.3	7.4	7.2	7.3
29	---	---	---	---	---	---	7.4	7.0	7.4	7.4	7.2	7.3
30	---	---	---	---	---	---	7.5	7.0	7.4	7.5	7.3	7.4
31	---	---	---	---	---	---	7.5	7.0	7.4	7.5	7.4	7.5
MAX	---	---	---	---	---	---	7.5	7.3	7.4	7.6	7.4	7.5
MIN	---	---	---	---	---	---	7.2	7.0	7.2	7.4	7.0	7.3
		FEBRUARY			MARCH			APRIL			MAY	
1	7.5	7.4	7.4	8.0	7.0	7.4	7.6	7.3	7.4	8.5	7.3	7.5
2	7.5	7.3	7.4	7.9	7.0	7.4	---	---	---	8.5	7.2	7.4
3	7.7	7.2	7.4	8.5	7.0	7.5	7.5	7.3	7.4	7.4	7.2	7.3
4	7.3	7.2	7.3	8.5	7.0	7.5	7.6	7.3	7.4	7.8	7.3	7.4
5	7.4	7.2	7.3	8.9	7.0	7.5	7.8	7.3	7.4	8.7	7.3	7.5
6	7.4	6.9	7.2	7.6	7.0	7.1	7.9	7.3	7.4	8.2	7.3	7.5
7	7.1	6.9	7.0	7.4	7.0	7.3	8.3	7.3	7.5	8.6	7.2	7.5
8	7.2	7.0	7.1	7.5	7.0	7.4	8.0	7.3	7.5	8.2	7.2	7.4
9	7.2	7.0	7.2	7.6	7.0	7.4	8.5	7.3	7.6	8.5	7.3	7.6
10	7.3	7.0	7.3	7.6	7.0	7.4	8.6	7.3	7.6	7.6	7.2	7.3
11	---	---	---	7.7	7.0	7.4	7.8	7.3	7.5	8.3	7.2	7.5
12	7.3	7.0	7.2	7.7	7.0	7.4	7.6	7.2	7.4	8.4	7.3	7.5
13	7.3	7.0	7.3	7.7	7.0	7.4	---	---	---	8.5	7.3	7.5
14	7.3	7.0	7.3	7.7	7.0	7.4	7.3	7.2	7.3	8.6	7.3	7.6
15	7.4	7.0	7.3	8.0	7.0	7.4	7.6	7.3	7.4	8.6	7.4	7.6
16	7.4	7.0	7.3	7.5	7.0	7.4	7.7	7.3	7.4	8.2	7.2	7.4
17	7.4	7.0	7.3	7.6	7.0	7.4	7.9	7.3	7.4	8.4	7.2	7.5
18	7.5	7.0	7.3	7.9	7.0	7.4	8.2	7.3	7.4	8.0	7.1	7.4
19	7.4	7.0	7.3	8.0	7.0	7.5	8.5	7.3	7.5	7.5	7.1	7.4
20	7.5	7.0	7.4	8.1	7.0	7.5	8.8	7.4	7.5	7.8	7.4	7.5
21	7.6	7.0	7.4	8.4	7.0	7.6	8.9	7.3	7.6	7.9	7.4	7.6
22	7.6	7.0	7.4	8.3	7.0	7.6	8.9	7.3	7.6	7.8	7.3	7.4
23	7.6	7.0	7.4	8.3	7.0	7.5	9.0	7.2	7.4	8.1	7.3	7.5
24	7.5	7.0	7.4	8.6	7.0	7.6	7.9	7.2	7.4	8.2	7.4	7.6
25	7.6	7.0	7.4	8.8	7.5	7.7	8.0	7.3	7.4	8.5	7.4	7.5
26	7.6	7.0	7.4	9.1	7.4	7.7	7.4	7.2	7.3	8.2	7.3	7.5
27	7.7	7.0	7.4	8.5	7.4	7.5	7.7	7.3	7.4	8.3	7.4	7.4
28	7.7	7.0	7.4	9.1	7.4	7.7	8.1	7.3	7.5	7.7	7.2	7.4
29	7.8	7.0	7.4	9.2	7.5	7.9	8.3	7.4	7.5	---	---	---
30	---	---	---	8.8	7.5	7.8	8.5	7.3	7.5	---	---	---
31	---	---	---	8.7	7.5	7.7	---	---	---	7.7	7.4	7.5
MAX	7.8	7.4	7.4	9.2	7.5	7.9	9.0	7.4	7.6	8.7	7.4	7.6
MIN	7.1	6.9	7.0	7.4	7.0	7.1	7.3	7.2	7.3	7.4	7.1	7.3

01649500 NORTHEAST BRANCH ANACOSTIA RIVER AT RIVERDALE, MD—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	8.1	7.4	7.5	9.2	7.0	7.6	---	---	---	8.9	7.5	7.7
2	8.2	7.4	7.6	7.9	7.2	7.6	---	---	---	8.9	7.5	7.7
3	8.5	7.4	7.7	8.5	7.5	7.7	---	---	---	8.9	7.5	7.7
4	---	---	---	---	---	---	---	---	---	8.9	7.5	7.7
5	7.6	7.3	7.4	---	---	---	7.4	7.1	7.3	8.9	7.5	7.7
6	7.8	7.4	7.5	7.3	7.1	7.2	7.8	7.4	7.5	8.5	7.5	7.7
7	8.1	7.4	7.6	7.5	7.1	7.3	8.0	7.4	7.5	8.8	7.5	7.7
8	---	---	---	7.4	7.2	7.3	8.5	7.4	7.6	---	---	---
9	---	---	---	7.7	7.3	7.4	8.9	7.5	7.7	---	---	---
10	8.8	7.4	7.8	---	---	---	9.3	7.4	7.8	---	---	---
11	7.8	7.3	7.5	---	---	---	9.5	7.2	7.5	8.5	7.5	7.6
12	7.9	7.3	7.5	---	---	---	8.5	7.1	7.2	8.8	7.5	7.7
13	8.3	7.4	7.6	---	---	---	7.4	7.2	7.3	8.9	7.5	7.7
14	8.7	7.4	7.7	---	---	---	7.6	7.3	7.4	8.8	7.5	7.6
15	8.9	7.4	7.7	---	---	---	7.7	7.4	7.4	7.7	7.4	7.5
16	8.9	7.4	7.6	---	---	---	8.0	7.4	7.5	8.5	7.5	7.6
17	8.8	7.0	7.4	9.2	7.4	7.7	8.3	7.4	7.5	8.5	7.3	7.5
18	7.6	6.8	7.3	8.1	7.2	7.4	8.9	7.4	7.7	7.5	7.3	7.4
19	7.5	7.0	7.4	---	---	---	9.2	7.5	7.8	7.8	7.5	7.6
20	7.8	7.4	7.5	---	---	---	9.2	7.5	7.8	7.9	7.6	7.6
21	8.0	7.4	7.6	9.0	7.5	7.9	9.0	7.5	7.7	8.2	7.6	7.6
22	8.3	7.4	7.5	9.0	7.3	7.7	9.3	7.4	7.7	8.4	7.6	7.7
23	8.3	7.3	7.6	7.9	6.9	7.3	9.4	7.4	7.8	8.8	7.6	7.7
24	8.8	7.5	7.9	7.5	7.1	7.4	9.5	7.4	8.0	9.1	7.6	7.8
25	---	---	---	7.5	7.4	7.5	9.5	7.4	8.0	9.3	7.6	7.9
26	---	---	---	8.0	7.3	7.5	9.3	7.5	7.9	9.3	7.6	7.9
27	---	---	---	7.5	6.7	7.3	9.4	7.5	7.9	9.4	7.5	7.9
28	8.8	7.5	7.9	7.0	6.6	6.8	9.5	7.4	8.0	8.7	7.1	7.5
29	---	---	---	7.3	7.0	7.2	9.3	7.4	7.8	7.4	7.1	7.2
30	---	---	---	---	---	---	9.1	7.4	7.7	7.6	7.4	7.5
31	---	---	---	---	---	---	9.0	7.5	7.7	---	---	---
MAX	8.9	7.5	7.9	9.2	7.5	7.9	9.5	7.5	8.0	9.4	7.6	7.9
MIN	7.5	6.8	7.3	7.0	6.6	6.8	7.4	7.1	7.2	7.4	7.1	7.2

YEAR			
	MAX	MAXIMUM 9.5	MINIMUM 7.0
	MIN	MAXIMUM 7.6	MINIMUM 6.6
	MEDIAN	MAXIMUM 8.0	MINIMUM 6.8



DAILY MEDIAN pH - 2004 WATER YEAR

01649500 NORTHEAST BRANCH ANACOSTIA RIVER AT RIVERDALE, MD—Continued

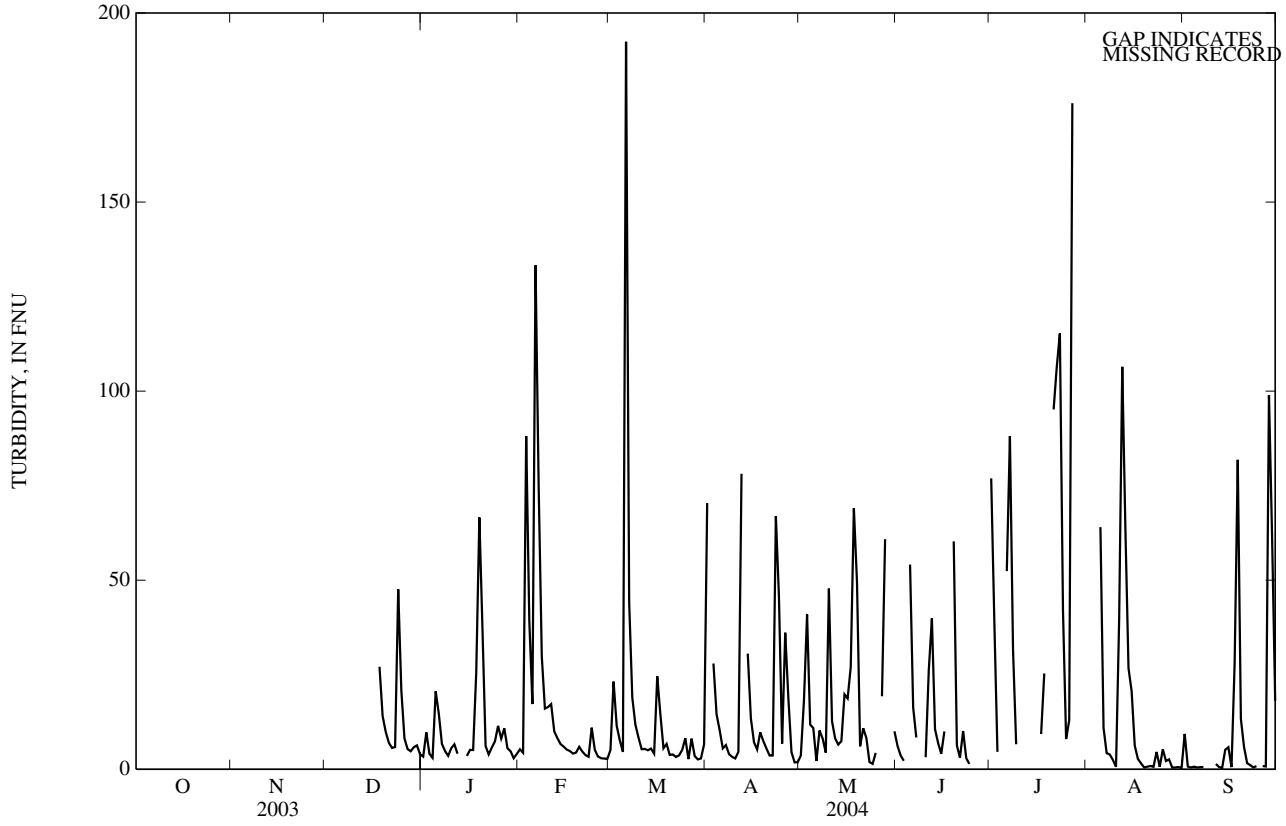
TURBIDITY, WATER, UNFILTERED, FORMAZIN NEPHELOMETRIC UNITS (FNU)
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	---	---	---	---	---	---	8.0	2.8	3.3
2	---	---	---	---	---	---	---	---	---	100	2.7	9.7
3	---	---	---	---	---	---	---	---	---	5.8	2.9	4.1
4	---	---	---	---	---	---	---	---	---	13	2.6	3.0
5	---	---	---	---	---	---	---	---	---	72	2.7	21
6	---	---	---	---	---	---	---	---	---	32	7.2	15
7	---	---	---	---	---	---	---	---	---	34	4.8	6.7
8	---	---	---	---	---	---	---	---	---	13	3.6	4.8
9	---	---	---	---	---	---	---	---	---	5.1	2.9	3.5
10	---	---	---	---	---	---	---	---	---	7.5	4.7	5.6
11	---	---	---	---	---	---	---	---	---	12	3.7	6.6
12	---	---	---	---	---	---	---	---	---	7.0	2.9	4.1
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	9.5	2.4	3.5
16	---	---	---	---	---	---	---	---	---	7.8	3.7	5.1
17	---	---	---	---	---	---	---	---	---	25	2.9	5.1
18	---	---	---	---	---	---	46	17	27	37	7.4	26
19	---	---	---	---	---	---	23	9.9	14	250	16	67
20	---	---	---	---	---	---	17	7.5	9.9	180	3.7	37
21	---	---	---	---	---	---	8.7	5.9	7.0	12	3.6	6.1
22	---	---	---	---	---	---	8.8	4.6	5.6	7.6	2.6	3.9
23	---	---	---	---	---	---	20	4.4	5.9	23	2.8	5.8
24	---	---	---	---	---	---	100	20	48	32	4.2	7.4
25	---	---	---	---	---	---	37	11	21	69	2.8	11
26	---	---	---	---	---	---	11	6.6	8.2	18	3.2	8.1
27	---	---	---	---	---	---	9.1	4.4	5.3	140	5.0	11
28	---	---	---	---	---	---	11	4.0	4.8	14	2.4	5.5
29	---	---	---	---	---	---	15	3.6	5.8	9.2	3.0	4.8
30	---	---	---	---	---	---	53	3.5	6.3	5.4	2.1	2.9
31	---	---	---	---	---	---	5.1	3.3	3.9	16	2.1	4.1
MONTH	---	---	---	---	---	---	100	3.3	12	250	2.1	10
		FEBRUARY			MARCH			APRIL			MAY	
1	14	2.7	5.3	21	2.4	5.1	130	5.8	70	19	0.9	3.6
2	7.9	2.5	4.4	130	4.5	23	---	---	---	230	0.7	18
3	310	6.2	88	200	4.4	12	46	16	28	100	21	41
4	99	26	39	43	3.8	7.6	37	10	15	21	6.4	12
5	43	9.6	17	12	3.4	4.6	28	7.0	10	150	2.4	11
6	360	22	130	590	3.8	190	7.4	4.2	5.5	5.0	1.0	2.2
7	160	47	75	87	23	44	19	3.8	6.4	75	0.7	10
8	50	19	30	32	12	19	11	2.7	4.0	24	3.0	8.1
9	19	13	16	26	7.1	12	5.3	2.4	3.3	10	1.7	4.4
10	36	13	16	19	5.6	8.3	4.3	1.8	2.9	130	7.5	48
11	35	12	17	6.6	4.5	5.3	14	2.6	4.6	20	8.3	13
12	13	8.0	10	13	4.5	5.4	240	3.4	78	37	2.1	8.2
13	20	6.7	8.2	8.8	3.9	5.0	---	---	---	26	2.2	6.5
14	10	5.8	6.7	10	4.1	5.5	49	18	31	28	2.9	7.4
15	7.8	4.9	6.0	7.6	3.1	4.1	19	9.2	13	200	2.5	20
16	8.2	4.3	5.2	110	3.3	25	9.6	5.4	7.2	220	2.2	19
17	12	3.5	4.8	65	6.8	15	15	4.3	5.2	240	1.2	27
18	5.6	3.5	4.1	19	3.6	5.6	81	3.5	9.8	500	3.4	69
19	7.1	3.4	4.4	31	3.9	6.7	57	5.0	7.4	380	12	50
20	10	4.2	5.9	4.4	3.3	3.8	57	2.8	5.5	13	3.4	6.1
21	5.6	4.0	4.7	6.1	3.2	3.9	5.8	2.4	3.6	100	1.8	11
22	4.5	3.1	3.8	5.7	2.6	3.2	6.5	2.2	3.6	34	2.4	8.3
23	4.1	2.6	3.3	7.1	2.7	3.7	350	2.6	67	3.3	0.9	1.9
24	110	3.2	11	15	2.3	5.1	240	10	46	6.1	0.5	1.4
25	6.9	3.8	5.1	120	2.7	8.2	11	4.9	6.8	57	0.3	4.3
26	4.5	2.8	3.4	6.8	1.8	2.7	160	6.4	36	---	---	---
27	3.9	2.4	2.9	52	1.7	8.1	46	8.4	19	220	0.4	19
28	3.7	2.4	2.8	11	1.8	3.5	11	1.8	4.5	260	5.5	61
29	3.4	2.4	2.7	13	1.6	2.6	2.7	0.8	1.8	---	---	---
30	---	---	---	8.4	1.6	2.9	3.6	0.3	1.8	---	---	---
31	---	---	---	95	1.5	6.6	---	---	---	120	2.2	10
MONTH	360	2.4	18	590	1.5	15	350	0.3	18	500	0.3	18

01649500 NORTHEAST BRANCH ANACOSTIA RIVER AT RIVERDALE, MD—Continued

TURBIDITY, WATER, UNFILTERED, FORMAZIN NEPHELOMETRIC UNITS (FNU)—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	15	3.2	6.1	510	0.0	77	---	---	---	48	0.0	9.4
2	17	1.4	3.6	160	8.4	39	---	---	---	3.3	0.0	0.7
3	4.2	1.0	2.2	11	2.2	4.6	---	---	---	1.6	0.0	0.5
4	---	---	---	---	---	---	---	---	---	8.9	0.0	0.7
5	130	5.6	54	---	---	---	280	18	64	2.4	0.0	0.5
6	38	7.5	16	230	15	52	19	6.3	11	1.5	0.0	0.6
7	62	3.3	8.4	580	11	88	7.2	2.6	4.2	2.0	0.0	0.6
8	---	---	---	86	9.8	32	10	2.1	3.9	---	---	---
9	---	---	---	20	4.2	6.6	6.0	0.7	2.5	---	---	---
10	6.1	1.6	3.2	---	---	---	4.0	0.0	0.7	---	---	---
11	130	4.5	26	---	---	---	180	0.0	40	2.9	0.5	1.4
12	130	12	40	---	---	---	470	9.4	110	1.4	0.0	0.6
13	26	5.7	11	---	---	---	200	24	64	1.9	0.0	0.3
14	29	3.3	6.9	---	---	---	67	14	27	120	0.0	5.2
15	11	1.6	4.1	---	---	---	48	11	21	28	1.3	5.8
16	58	2.7	10	---	---	---	11	3.9	6.3	1.8	0.0	0.6
17	---	---	---	70	0.3	9.3	4.8	1.6	2.7	280	0.0	28
18	---	---	---	86	5.2	25	4.9	0.9	1.6	330	24	82
19	340	11	60	---	---	---	1.9	0.0	0.5	25	6.9	13
20	12	3.2	6.3	---	---	---	1.2	0.0	0.7	30	2.5	6.0
21	5.4	2.1	3.1	210	43	95	1.6	0.1	0.9	6.1	0.6	1.6
22	110	0.9	10	430	50	110	1.9	0.2	0.6	18	0.0	1.1
23	8.3	1.0	2.9	610	27	120	44	0.0	4.6	14	0.0	0.5
24	3.1	0.1	1.4	120	12	42	1.1	0.1	0.6	13	0.0	0.8
25	---	---	---	18	3.6	8.0	15	0.0	5.3	---	---	---
26	---	---	---	88	1.9	13	5.9	0.0	2.2	4.1	0.0	0.9
27	---	---	---	1,000	15	180	15	0.0	2.6	1.1	0.0	0.7
28	82	3.6	14	---	---	---	3.2	0.0	0.4	360	0.4	99
29	---	---	---	140	32	77	2.0	0.0	0.5	150	27	62
30	---	---	---	---	---	---	3.6	0.0	0.6	57	7.9	18
31	---	---	---	---	---	---	2.6	0.0	0.3	---	---	---
MONTH	340	0.1	14	1,000	0.0	58	470	0.0	14	360	0.0	13
YEAR	1,000	0.0	18									



DAILY MEAN TURBIDITY - 2004 WATER YEAR

01650500 NORTHWEST BRANCH ANACOSTIA RIVER NEAR COLESVILLE, MD

LOCATION.--Lat 39°03'56.4", long 77°01'45.6", Montgomery County, Hydrologic Unit 02070010, on right bank 400 ft upstream from bridge on State Highway 183, 1.5 mi southwest of Colesville, 3 mi upstream from Burnt Mills, 10 mi upstream from Sligo Creek, and 12.5 mi upstream from confluence with Northeast Branch.

DRAINAGE AREA.--21.1 mi^2.

PERIOD OF RECORD.--October 1923 to September 1983, November 1997 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WSP 1432: 1942(M), 1925-26, 1929-30(M), 1933(M), 1939(P), 1940(M), 1943-46, 1948-49(P).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 264.75 ft above National Geodetic Vertical Datum of 1929. Prior to Apr. 22, 1932, nonrecording gages in same general vicinity at different datums. Apr. 22, 1932 to Apr. 11, 1934, nonrecording gages at present site and datum.

REMARKS.--Records good except those for estimated daily discharges (ice effect, equipment malfunction), which are poor. Diversions at low flow since 1962 for irrigation of golf courses upstream from station. Records include pumpage from the Patuxent River to augment water supply for Washington Suburban Sanitary District, Aug. 12, 1939 to Aug. 1960. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 600 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 29	0815	630	5.25	Jul 27	2145	1,480	8.25
Nov 5	2145	865	6.32	Jul 28	0915	901	6.45
Nov 19	2100	1,290	7.72	Aug 12	1845	927	6.54
Dec 11	0630	*2,640	*9.85				

Minimum discharge, 4.1 ft^3/s, July 21, 22.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	20	26	24	e18	19	147	19	21	14	93	5.4
2	13	18	23	32	e18	27	120	25	15	11	25	5.1
3	12	18	21	27	e152	21	69	53	15	7.9	14	5.1
4	13	17	21	25	72	22	40	26	14	27	41	5.1
5	12	161	65	46	35	20	27	21	66	30	26	5.2
6	11	154	60	33	e264	e207	24	19	30	15	12	6.0
7	11	69	38	24	e198	47	23	24	19	18	9.7	6.2
8	10	30	30	23	58	36	21	26	16	16	8.5	7.8
9	9.8	23	29	23	38	27	22	17	15	9.3	7.8	9.3
10	9.8	21	83	23	69	24	20	48	16	7.6	7.8	5.9
11	10	21	891	24	53	23	19	18	39	7.2	29	5.4
12	9.8	94	56	22	37	22	117	15	50	10	194	4.6
13	9.1	46	36	22	36	21	208	14	18	7.8	71	4.4
14	40	24	87	21	32	20	75	13	16	10	35	4.9
15	62	21	105	21	29	20	38	14	16	6.6	27	9.0
16	14	20	56	20	24	27	29	17	35	5.4	16	7.2
17	12	20	254	20	22	24	26	13	48	4.9	13	11
18	12	19	64	37	22	20	25	30	25	7.2	12	38
19	11	422	40	e25	24	22	24	27	16	5.7	10	8.7
20	11	121	33	e23	27	19	22	16	14	4.8	8.9	6.5
21	12	37	30	e21	27	19	22	19	13	4.4	8.9	6.0
22	12	28	29	e19	23	19	21	23	12	31	8.6	5.3
23	12	24	28	e18	21	17	35	14	12	30	7.8	4.8
24	11	25	129	17	23	17	32	13	12	16	7.7	5.0
25	11	31	46	e18	23	18	22	13	16	7.3	7.2	5.1
26	13	22	33	19	20	17	61	20	13	7.0	7.7	4.7
27	286	21	29	e20	20	21	42	23	11	199	6.7	4.9
28	51	112	27	e18	19	18	24	57	9.8	239	6.2	56
29	224	80	27	e17	19	17	21	15	9.6	24	5.8	26
30	37	30	27	e17	---	17	20	13	9.1	13	5.8	8.1
31	24	---	25	e17	---	17	---	17	---	10	6.0	---
TOTAL	999.5	1,749	2,448	716	1,423	865	1,396	682	621.5	806.1	739.1	286.7
MEAN	32.2	58.3	79.0	23.1	49.1	27.9	46.5	22.0	20.7	26.0	23.8	9.56
MAX	286	422	891	46	264	207	208	57	66	239	194	56
MIN	9.1	17	21	17	18	17	19	13	9.1	4.4	5.8	4.4
CFSM	1.53	2.76	3.74	1.09	2.33	1.32	2.21	1.04	0.98	1.23	1.13	0.45
IN.	1.76	3.08	4.32	1.26	2.51	1.53	2.46	1.20	1.10	1.42	1.30	0.51

e Estimated

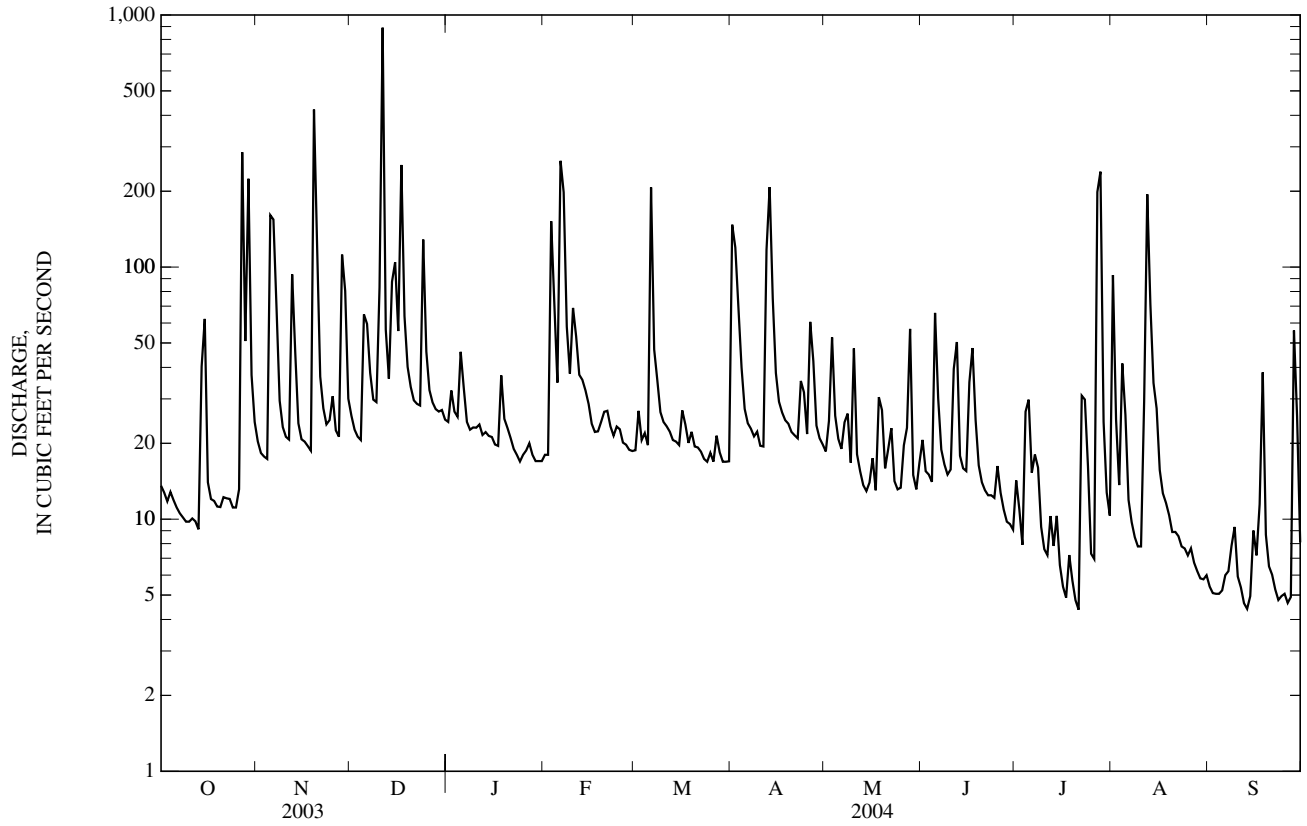
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1924 - 1983, 1988 - 2004, BY WATER YEAR (WY)

MEAN	14.6	19.3	22.7	26.4	33.5	32.7	30.0	24.3	20.9	15.4	16.4	17.7
MAX	56.3	58.3	79.0	81.0	97.0	68.0	78.5	62.5	141	73.7	60.9	118
(WY)	(1980)	(2004)	(2004)	(1979)	(1936)	(1953)	(1952)	(1978)	(1972)	(1975)	(1955)	(1979)
MIN	1.79	2.37	3.50	5.93	4.52	7.46	11.3	7.37	4.03	0.92	0.72	1.40
(WY)	(1932)	(1932)	(1932)	(1931)	(1931)	(1931)	(1969)	(1999)	(1999)	(1999)	(1930)	(1930)

01650500 NORTHWEST BRANCH ANACOSTIA RIVER NEAR COLESVILLE, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1924 - 1983, 1988 - 2004	
ANNUAL TOTAL	17,511.9		12,731.9			
ANNUAL MEAN	48.0		34.8		22.7	
HIGHEST ANNUAL MEAN					45.7	1972
LOWEST ANNUAL MEAN					8.45	1931
HIGHEST DAILY MEAN	891	Dec 11	891	Dec 11	2,370	Jun 22, 1972
LOWEST DAILY MEAN	6.3	(a)	4.4	(b)	0.00	(c)
ANNUAL SEVEN-DAY MINIMUM	9.0	Aug 19	5.1	Sep 21	0.00	Sep 5, 1966
MAXIMUM PEAK FLOW			2,640	Dec 11	(d)11,000	Jun 22, 1972
MAXIMUM PEAK STAGE			9.85	Dec 11	15.89	Jun 22, 1972
INSTANTANEOUS LOW FLOW			4.1	(f)	0.00	(g)
ANNUAL RUNOFF (CFSM)	2.27		1.65		1.08	
ANNUAL RUNOFF (INCHES)	30.87		22.45		14.61	
10 PERCENT EXCEEDS	91		63		37	
50 PERCENT EXCEEDS	23		21		14	
90 PERCENT EXCEEDS	12		7.3		4.7	

a Sept. 10, 11.
b July 21, Sept. 13.
c Aug. 30, 31, Sept. 1, 3, 5-11, 1966, July 27-31, Aug. 1-12, 19, 20, 1999, Aug. 21-23, 2002.
d From rating curve extended above 1,200 ft^3/s on basis of contracted-opening and flow-over-road measurement at gage height 10.99 ft and computation of flow over Burnt Mills Dam, 3 mi downstream, adjusted for flow from intervening area, at gage height 15.89 ft.
f July 21, 22.
g Aug. 29-31, Sept. 1-12, 1966, July 18, 19, 24-31, Aug. 1-14, 18-20, 1999, Aug. 20-24, 2002.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01651000 NORTHWEST BRANCH ANACOSTIA RIVER NEAR HYATTSVILLE, MD

LOCATION.--Lat 38°57'08.4", long 76°57'57.8", Prince Georges County, Hydrologic Unit 02070010, on right bank at downstream side of bridge on Queens Chapel Road (State Highway 500), 0.8 mi downstream from Sligo Branch, 1.0 mi west of Hyattsville, and 1.6 mi upstream from confluence with Northeast Branch.

DRAINAGE AREA.--49.4 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1938 to current year. Monthly discharge only for July 1938 published in WSP 1302.

REVISED RECORDS.--WSP 971: 1942(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 17.10 ft above National Geodetic Vertical Datum of 1929 (Washington Suburban Sanitary Commission bench mark). Prior to Oct. 22, 1938, nonrecording gage; Oct. 22, 1938 to Sept. 17, 1951, water-stage recorder; Sept. 17, 1951 to Aug. 29, 1952, nonrecording gage and crest-stage gage.

REMARKS.--Water-discharge records good except those for estimated daily discharges (fish ladder construction, ice effect, missing record), which are fair. Prior to June 1961, low flow regulated by storage at Burnt Mills Dam, 7.0 mi upstream from station. Inflow pumped from Patuxent River to augment water supply for Washington Suburban Sanitary District, August 1939 to August 1960. Small diversion since 1962 for irrigation of golf courses upstream from station. U.S. Geological Survey gage-height telemeter at station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,700 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 14	2115	2,550	4.49	Jul 4	1400	7,950	7.60
Oct 27	0700	1,740	4.01	Jul 27	2200	*9,310	*8.24
Nov 19	1600	2,720	4.56	Aug 4	2030	2,130	4.24
Dec 11	0530	3,830	5.32	Aug 12	1830	3,170	4.88
Feb 6	1845	2,220	4.29	Sep 28	1800	3,370	5.02
Jun 17	1645	2,730	4.57				

Minimum discharge, 9.5 ft^3/s, June 29.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	44	52	50	e35	35	202	46	44	110	92	13
2	29	36	44	74	39	63	183	63	26	43	62	12
3	28	33	38	56	184	40	128	126	23	19	35	12
4	27	32	37	52	145	47	79	57	22	1,010	204	12
5	27	202	187	98	76	38	58	45	141	74	75	12
6	27	351	142	76	967	421	50	39	59	49	32	12
7	27	144	81	51	342	102	48	52	36	31	25	13
8	25	67	62	46	122	76	47	61	28	38	23	20
9	23	49	55	46	e98	58	44	37	25	24	21	33
10	22	41	90	40	e111	50	41	71	22	20	20	14
11	22	39	1,570	43	e86	47	39	39	66	19	50	13
12	21	148	125	45	e74	44	229	33	97	21	605	12
13	20	105	84	45	e67	41	310	31	33	21	170	11
14	277	52	182	44	60	40	154	28	26	28	71	12
15	196	42	181	42	e54	40	80	29	28	21	60	19
16	e44	39	109	35	e46	75	63	42	32	16	35	17
17	e34	40	392	44	e42	56	55	27	222	16	30	34
18	e30	38	140	96	43	43	50	41	63	40	26	95
19	e28	777	90	62	42	48	48	71	49	20	24	25
20	e26	371	76	40	47	41	46	38	22	15	23	16
21	e25	89	66	45	49	40	43	34	20	14	22	14
22	e24	65	62	37	43	36	41	55	25	67	21	13
23	e22	52	63	35	40	35	73	28	19	63	19	12
24	e22	56	201	35	45	35	76	25	17	48	18	12
25	e22	74	103	35	45	41	44	27	117	25	17	11
26	66	44	71	e36	38	37	114	43	36	35	16	11
27	777	40	61	e38	36	50	91	36	19	1,120	17	11
28	177	149	57	e36	35	40	50	91	15	899	15	375
29	472	179	57	e35	35	36	42	31	14	63	14	75
30	109	65	58	e35	---	35	43	23	13	38	13	29
31	61	---	52	e35	---	36	---	33	---	31	14	---
TOTAL	2,740	3,463	4,588	1,487	3,046	1,826	2,571	1,402	1,359	4,038	1,869	970
MEAN	88.4	115	148	48.0	105	58.9	85.7	45.2	45.3	130	60.3	32.3
MAX	777	777	1,570	98	967	421	310	126	222	1,120	605	375
MIN	20	32	37	35	35	35	39	23	13	14	13	11
CFSM	1.79	2.34	3.00	0.97	2.13	1.19	1.73	0.92	0.92	2.64	1.22	0.65
IN.	2.06	2.61	3.45	1.12	2.29	1.38	1.94	1.06	1.02	3.04	1.41	0.73

e Estimated

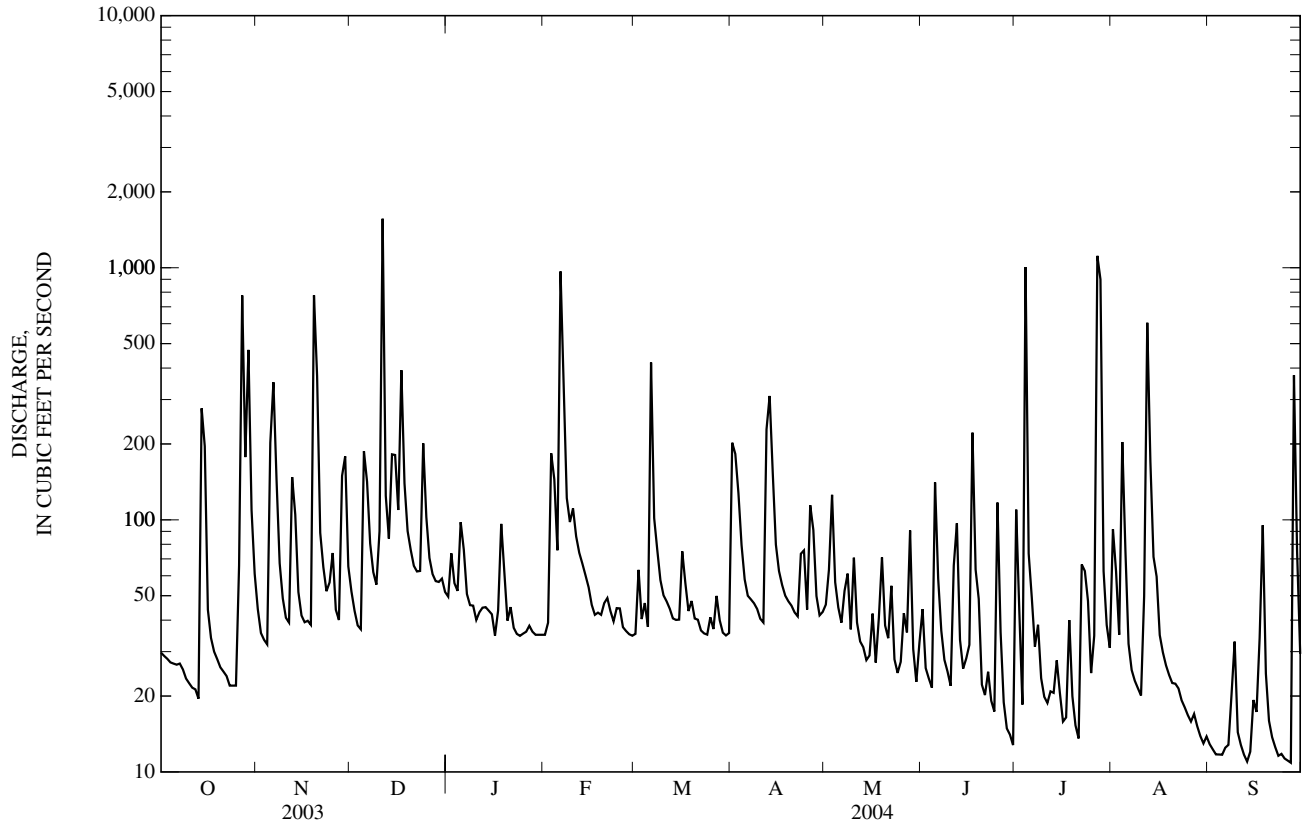
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 2004, BY WATER YEAR (WY)

MEAN	29.9	42.5	51.0	55.0	65.0	72.6	61.7	56.2	44.7	36.6	37.7	41.0
MAX	129	128	148	173	183	176	167	198	237	159	193	327
(WY)	(1980)	(1994)	(2004)	(1979)	(1979)	(1994)	(1952)	(1989)	(1972)	(1945)	(1955)	(1975)
MIN	2.44	4.30	11.4	8.04	12.1	23.5	15.3	9.91	10.1	4.07	3.61	2.58
(WY)	(1942)	(1942)	(1966)	(1955)	(2002)	(1981)	(1950)	(1941)	(1940)	(1944)	(1943)	(1941)

01651000 NORTHWEST BRANCH ANACOSTIA RIVER NEAR HYATTSVILLE, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1938 - 2004	
ANNUAL TOTAL	40,420		29,359			
ANNUAL MEAN	111		80.2		49.5	
HIGHEST ANNUAL MEAN					97.2	2003
LOWEST ANNUAL MEAN					20.8	1947
HIGHEST DAILY MEAN	1,940	Sep 23	1,570	Dec 11	5,050	Sep 26, 1975
LOWEST DAILY MEAN	(e)16	Feb 15	11	(a)	0.40	(b)
ANNUAL SEVEN-DAY MINIMUM	20	Jan 24	12	Sep 21	0.60	Sep 7, 1966
MAXIMUM PEAK FLOW			9,310	Jul 27	(c)18,000	Jun 22, 1972
MAXIMUM PEAK STAGE			8.24	Jul 27	14.47	Jun 22, 1972
INSTANTANEOUS LOW FLOW			9.5	Jun 29	0.20	Sep 11, 1966
ANNUAL RUNOFF (CFSM)	2.24		1.62		1.00	
ANNUAL RUNOFF (INCHES)	30.44		22.11		13.61	
10 PERCENT EXCEEDS	198		144		95	
50 PERCENT EXCEEDS	52		42		24	
90 PERCENT EXCEEDS	25		18		6.7	

e Estimated
a Sept. 13, 25-27.
b Sept. 8, 11, 1966.
c From rating curve extended above 4,000 ft^3/s on basis of the average of slope-area and step-backwater measurements of peak flow.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01651000 NORTHWEST BRANCH ANACOSTIA RIVER NEAR HYATTSVILLE, MD—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1960-63, 1969-87, 1992-95, July 2003 to current year.

PERIOD OF DAILY RECORD--
SPECIFIC CONDUCTANCE: February 2004 to current year.
WATER TEMPERATURE: February 2004 to current year.
pH: February 2004 to current year.
TURBIDITY: February 2004 to current year.

INSTRUMENTATION--Water-quality monitor and automatic sampler February 2004 to current year.

REMARKS--Missing record due to occasional instrument malfunction. Records good.

EXTREMES FOR PERIOD OF DAILY RECORD--
SPECIFIC CONDUCTANCE: Maximum, 4,270 microsiemens/cm, Feb. 6, 2004; minimum, 57 microsiemens/cm, July 27, 2004.
WATER TEMPERATURE: Maximum, 27.7° C, July 22, 2004; minimum, 0.5° C, Feb. 6,9, 2004.
pH: Maximum, 8.6 standard units, March 26, 2004; minimum, 6.7 standard units, July 28, 2004.
TURBIDITY: Maximum, 850 FNU, July 27, 28; minimum, 0.0 FNU, on many days.

EXTREMES FOR CURRENT YEAR--
SPECIFIC CONDUCTANCE: Maximum, 4,270 microsiemens/cm, Feb. 6, 2004; minimum, 57 microsiemens/cm, July 27, 2004.
WATER TEMPERATURE: Maximum, 27.7° C, July 22, 2004; minimum, 0.5° C, Feb. 6,9, 2004.
pH: Maximum, 8.6 standard units, March 26, 2004; minimum, 6.7 standard units, July 28, 2004.
TURBIDITY: Maximum, 850 FNU, Apr. 18,19,20, 2004; minimum, 0.0 FNU, on many days.

01651000 NORTHWEST BRANCH ANACOSTIA RIVER NEAR HYATTSVILLE, MD—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sample type	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Sampling method, code (82398)	Turbidity, IR LED light, det ang 90 deg, FNU (63680)	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)
OCT												
29...	1215	Environmental	1028	80020	1,000	10	170	753	11.2	104	7.4	127
29...	*1216*	*Replicate*	*1028*	*82105*	*33*	*10*	--	--	--	--	--	--
NOV												
18...	*0730*	*Blank*	*1028*	*80020*	--	--	--	--	--	--	--	--
18...	1315	Environmental	1028	80020	37	10	--	--	11.3	--	7.3	305
DEC												
11...	1300	Environmental	1028	80020	2,800	10	260	747	12.4	106	7.2	145
11...	*1301*	*Replicate*	*1028*	*82105*	*2,800*	*10*	--	--	--	--	--	--
16...	*1210*	*Blank*	*1028*	*80020*	--	--	--	--	--	--	--	--
16...	1215	Environmental	1028	80020	99	10	7.3	762	14.1	109	7.1	706
JAN												
13...	0915	Environmental	1028	80020	45	10	.6	757	15.5	110	6.6	358
FEB												
06...	1245	Environmental	1028	80020	1,380	50	220	--	15.6	--	7.5	2,450
06...	1345	Environmental	1028	80020	1,610	50	230	--	15.7	--	7.4	1,560
06...	*1346*	*Replicate*	*1028*	*82105*	--	*50*	--	--	--	--	--	--
06...	1445	Environmental	1028	80020	1,880	50	180	--	15.8	--	7.3	1,180
06...	1945	Environmental	1028	80020	2,100	50	240	--	16.0	--	7.1	643
06...	2345	Environmental	1028	80020	1,170	50	210	--	15.9	--	7.0	444
06...	*2346*	*Replicate*	*1028*	*82105*	--	*50*	--	--	--	--	--	--
11...	1315	Environmental	1028	80020	80	10	26	--	14.3	--	6.8	452
11...	*1320*	*Replicate*	*1028*	*80020*	--	*10*	--	--	--	--	--	--
MAR												
23...	*1040*	*Blank*	*1028*	*80020*	--	--	--	--	--	--	--	--
23...	1045	Environmental	1028	80020	37	10	1.1	772	15.3	122	7.4	373
APR												
12...	1445	Environmental	1028	80020	210	50	36	--	12.5	--	7.8	329
12...	1745	Environmental	1028	80020	318	50	100	--	12.6	--	7.7	276
12...	2045	Environmental	1028	82105	397	50	100	--	12.8	--	7.7	209
12...	2345	Environmental	1028	80020	814	50	200	--	13.1	--	7.6	185
13...	0545	Environmental	1028	82105	313	50	250	--	13.4	--	7.6	188
13...	0930	Environmental	1028	80020	198	50	250	--	13.2	--	7.5	197
13...	*0932*	*Replicate*	*1028*	*82105*	*198*	*50*	--	--	--	--	--	--
21...	0845	Environmental	1028	80020	43	10	--	762	9.8	104	7.6	340
MAY												
26...	*0840*	*Blank*	*1028*	*80020*	--	--	--	--	--	--	--	--
26...	0845	Environmental	1028	80020	49	10	8.9	757	8.6	102	7.2	287
JUN												
22...	0815	Environmental	1028	80020	19	10	7.7	760	8.4	95	7.3	329
JUL												
01...	1800	Environmental	1028	80020	75	50	100	--	10.5	--	8.0	364
01...	1900	Environmental	1028	80020	1,220	50	270	--	9.3	--	7.5	293
01...	2000	Environmental	1028	80020	624	50	630	--	8.5	--	7.1	194
01...	2100	Environmental	1028	80020	250	50	570	--	8.7	--	7.1	183
14...	0945	Environmental	1028	80020	47	10	6.3	758	9.2	113	7.5	354
28...	1145	Environmental	1028	9724	1,250	60	410	--	9.8	--	7.1	109
28...	1200	Environmental	1028	80020	1,280	50	410	--	9.8	--	7.1	109
28...	*1202*	*Replicate*	*1028*	*82105*	*1,280*	*50*	--	--	--	--	--	--
28...	1215	Environmental	1028	82105	1,280	50	--	--	--	--	--	--
28...	1230	Environmental	1028	82105	1,250	50	--	--	--	--	--	--
28...	1245	Environmental	1028	82105	1,180	50	--	--	--	--	--	--
28...	1445	Environmental	1028	80020	664	50	--	--	--	--	--	--
28...	*1447*	*Replicate*	*1028*	*82105*	--	*50*	--	--	--	--	--	--
28...	1645	Environmental	1028	82105	228	50	--	--	--	--	--	--
AUG												
17...	1015	Environmental	1028	9724	29	70	8.9	769	9.5	107	7.5	293
SEP												
22...	1230	Environmental	1028	80020	13	10	2.2	769	11.1	122	7.1	312
28...	1300	Environmental	1028	80020	99	50	27	--	--	--	7.6	330
29...	0900	Environmental	1028	80020	75	50	72	--	--	--	7.6	179

Agency collecting sample: 1028 - U.S. Geological Survey

Agency analyzing sample: 80020 - USGS-National Water Quality Lab, Denver, CO
82105 - USGS-Kentucky Sediment Lab
9724 - Maryland Department of Health and Mental Hygiene Lab, Baltimore, MD

Sampling method: 10 - Equal width increment
50 - Point-automatic sampler
60 - Weighted bottle
70 - Grab sample

01651000 NORTHWEST BRANCH ANACOSTIA RIVER NEAR HYATTSVILLE, MD—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Residue fixed non-filterable, mg/L (00540)	Residue total at 105 deg. C, suspended, mg/L (00530)	Residue volatile, suspended, mg/L (00535)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Organic nitrogen, water, fltrd, mg/L (00607)	Organic nitrogen, water, unfltrd mg/L (00605)
OCT													
29...	13.0	11.6	--	213	--	.59	1.3	E.006	.48	.487	.005	--	--
29...	--	--	--	--	--	--	--	--	--	--	--	--	--
NOV													
18...	--	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	9.9	--	<10	--	.17	.20	<.010	1.35	1.35	.008	--	--
DEC													
11...	8.0	7.8	298	344	46	.45	1.7	.057	.55	.549	.004	.40	1.6
11...	--	--	--	--	*59*	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	12.0	4.5	--	<10	2	.29	.32	.031	1.16	1.17	.010	.26	.29
JAN													
13...	8.0	1.0	--	<10	27	.14	.16	.013	1.97	1.99	.013	.12	.15
FEB													
06...	--	.9	--	--	58	2.7	4.3	.498	.82	.851	.029	2.2	3.8
06...	--	.8	--	--	50	1.7	3.0	.442	.75	.771	.025	1.3	2.5
06...	--	--	--	--	*5*	--	--	--	--	--	--	--	--
06...	--	.8	--	--	43	1.1	2.5	.365	.73	.746	.016	.78	2.2
06...	--	.8	--	--	52.4	.85	2.1	.289	.68	.696	.017	.56	1.8
06...	--	.9	345	380	35	.62	1.7	.198	.72	.728	.012	.43	1.5
06...	--	--	--	--	*45*	--	--	--	--	--	--	--	--
11...	6.5	4.3	--	17	--	.41	.68	.088	1.23	1.23	.009	.32	.59
11...	--	--	--	--	*5*	*.40*	*.68*	*.088*	*1.25*	*1.26*	*.009*	*.32*	*.60*
MAR													
23...	--	--	--	--	*.0*	*<.10*	*<.10*	*<.010*	--	*<.016*	*<.002*	--	--
23...	9.0	6.2	--	<10	M	.13	.21	.010	1.50	1.51	.013	.12	.20
APR													
12...	--	10.0	--	--	22	.55	2.0	.190	1.00	1.03	.028	.36	1.8
12...	--	9.6	--	--	20	.53	1.9	.203	.79	.813	.021	.32	1.7
12...	--	9.2	--	--	18	--	--	--	--	--	--	--	--
12...	--	8.8	--	--	38	.47	2.2	.124	.67	.679	.012	.34	2.1
13...	--	8.4	--	--	40	--	--	--	--	--	--	--	--
13...	--	8.5	--	--	36	.58	1.6	.090	.74	.753	.010	.49	1.5
13...	--	--	--	--	*26*	--	--	--	--	--	--	--	--
21...	21.0	18.1	--	<20	M	.14	.21	<.010	.98	.998	.013	--	--
MAY													
26...	--	--	--	--	--	--	--	--	--	--	--	--	--
26...	27.5	23.7	17	22	5	.55	.96	.080	.97	1.05	.080	.47	.88
JUN													
22...	26.0	20.7	--	<10	1	.25	.29	.047	1.15	1.18	.023	.21	.24
JUL													
01...	--	24.8	--	--	--	.16	.69	E.007	.94	.952	.007	--	--
01...	--	22.5	--	--	115	.43	3.6	.110	.83	.845	.018	.32	3.5
01...	--	21.9	--	--	--	.65	4.9	.299	.99	1.01	.020	.35	4.6
01...	--	21.9	--	--	--	.70	4.3	.285	1.05	1.06	.015	.41	4.0
14...	33.0	24.9	--	<10	1	.21	.23	.010	.92	.930	.007	.20	.22
28...	--	22.7	--	--	--	--	--	--	--	--	--	--	--
28...	--	22.7	--	--	76	.53	2.7	.064	.63	.637	.011	.47	2.6
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	.54	2.0	.095	.51	.525	.011	.45	1.9
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
17...	--	21.4	--	--	--	--	--	--	--	--	--	--	--
SEP													
22...	30.0	20.4	--	<10	2	.25	.34	.016	.93	.940	.007	.23	.32
28...	--	22.2	--	--	24	.58	1.6	.136	1.04	1.06	.027	.44	1.4
29...	--	19.8	--	--	7	.42	.74	.014	.68	.689	.007	.41	.72

01651000 NORTHWEST BRANCH ANACOSTIA RIVER NEAR HYATTSVILLE, MD—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Ortho-phos-phate, water, fltrd, mg/L as P (00671)	Phos-phorus, water, fltrd, mg/L (00666)	Phos-phorus, water, unfltrd mg/L (00665)	Total nitro-gen, water, fltrd, mg/L (00602)	Total nitro-gen, water, unfltrd mg/L (00600)	Organic carbon, water, unfltrd mg/L (00680)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Entero-cocci, Ent Qnt method, water, MPN (99601)	Entero-cocci, mEI MF, water, col/ 100 mL (90909)	E coli, Defined Substr. Tech., water, MPN/ 100 mL (50468)	E coli, modif. m-TEC, water, col/ 100 mL (90902)	Alum-inum, water, fltrd, ug/L (01106)	Alum-inum, water, unfltrd recover-able, ug/L (01105)
OCT													
29...	.037	.062	.36	1.1	1.8	16.3	8.9	--	40,000	--	5,500	42	3,120
29...	--	--	--	--	--	--	--	--	--	--	--	--	--
NOV													
18...	--	--	--	--	--	--	--	--	--	--	--	--	--
18...	<.006	.004	.016	1.5	1.6	5.6	<2.0	--	--	--	--	14	55
DEC													
11...	.016	.031	.48	1.0	2.2	18.8	4.5	--	40,000	--	3,100	28	5,910
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	*<2*	*E1*
16...	E.005	.013	.040	1.5	1.5	4.0	3.0	--	480	--	E71	13	196
JAN													
13...	<.006	E.002	.009	2.1	2.1	1.4	<2.0	--	E53	--	E8	13	55
FEB													
06...	.034	.048	.54	3.6	5.1	--	--	--	--	--	--	12	5,460
06...	.064	.078	.55	2.5	3.8	--	--	--	--	--	--	12	4,930
06...	--	--	--	--	--	--	--	--	--	--	--	--	--
06...	.052	.063	.51	1.9	3.3	--	--	--	--	--	--	25	4,930
06...	.026	.037	.52	1.5	2.8	--	--	--	--	--	--	23	9,060
06...	.012	.022	.43	1.4	2.4	--	--	--	--	--	--	17	6,590
06...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	.007	.015	.079	1.6	1.9	5.6	--	--	400	--	100	14	446
11...	*.007*	*.015*	*.078*	*1.7*	*1.9*	--	--	--	--	--	--	*15*	*435*
MAR													
23...	*<.006*	*<.004*	*<.004*	--	--	--	--	--	--	--	--	*<2*	*E2*
23...	<.006	E.004	.011	1.6	1.7	2.1	3.8	--	E8	--	E3	16	41
APR													
12...	<.006	.017	.28	1.6	3.0	--	--	--	--	--	--	11	1,190
12...	.012	.026	.30	1.3	2.7	--	--	--	--	--	--	11	1,600
12...	--	--	--	--	--	--	--	--	--	--	--	--	--
12...	.013	.028	.42	1.1	2.9	--	--	--	--	--	--	14	3,800
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	.006	.020	.30	1.3	2.3	16.1	--	--	11,300	--	2,700	21	3,660
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	<.006	.006	.017	1.1	1.2	3.4	2.9	--	E17	--	78	16	52
MAY													
26...	--	--	--	--	--	*<.4*	--	*<10*	*<1*	*<10*	*<1*	--	--
26...	.008	.024	.114	1.6	2.0	11.2	7.5	9,800	>2,000	8,200	>2,700	10	322
JUN													
22...	E.005	.043	.044	1.4	1.5	4.6	<2.0	460	1,270	730	600	15	129
JUL													
01...	<.006	.007	.119	1.1	1.6	--	--	--	--	--	--	13	886
01...	<.006	.011	.73	1.3	4.4	--	--	--	--	--	--	6	8,110
01...	E.003	.013	.93	1.7	5.9	--	--	--	--	--	--	12	13,000
01...	.007	.022	.76	1.8	5.3	--	--	--	--	--	--	8	10,900
14...	<.006	.009	.029	1.1	1.2	3.3	3.4	240	1,000	2,000	970	12	83
28...	--	--	--	--	--	--	--	920,800	--	290,000	--	--	--
28...	.015	.031	.47	1.2	3.4	--	--	--	--	--	--	34	11,500
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	.019	.040	.42	1.1	2.6	--	--	--	--	--	--	32	6,950
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
17...	--	--	--	--	--	--	--	160	--	450	--	--	--
SEP													
22...	.006	.014	.041	1.2	1.3	3.4	<2.0	130	E580	3,600	E770	16	67
28...	.050	.070	.197	1.6	2.6	--	--	--	--	--	--	9	1,350
29...	.031	.046	.144	1.1	1.4	--	3.9	15,530	E31,000	24,000	E14,000	11	710

01651000 NORTHWEST BRANCH ANACOSTIA RIVER NEAR HYATTSVILLE, MD—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Arsenic water, fltrd, ug/L (01000)	Arsenic water unfltrd ug/L (01002)	Cadmium water, fltrd, ug/L (01025)	Cadmium water, unfltrd ug/L (01027)	Chrom-ium, water, fltrd, ug/L (01030)	Chrom-ium, water, unfltrd recover -able, ug/L (01034)	Cobalt water, fltrd, ug/L (01035)	Cobalt water, unfltrd recover -able, ug/L (01037)	Copper, water, fltrd, ug/L (01040)	Copper, water, unfltrd recover -able, ug/L (01042)	Iron, water, fltrd, ug/L (01046)	Iron, water, unfltrd recover -able, ug/L (01045)	Lead, water, fltrd, ug/L (01049)
OCT													
29...	.9	E1	<.04	.10	E.6	7.6	.434	6.17	3.3	11.9	230	5,570	.35
29...	--	--	--	--	--	--	--	--	--	--	--	--	--
NOV													
18...	--	--	--	--	--	--	--	--	--	--	--	--	--
18...	<.2	<2	<.04	E.03	<.8	<.8	.937	.968	1.0	1.6	76	500	E.05
DEC													
11...	.6	E1	<.04	.16	E.5	14.5	.670	10.2	1.9	15.9	135	9,900	.17
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	*<.2*	*<2*	*<.04*	*<.04*	*<.8*	*<.8*	*<.014*	*<.016*	*<.4*	*E.5*	*<6*	*10*	*<.08*
16...	E.2	<2	E.04	.05	<.8	.8	.878	1.04	1.6	3.3	183	570	.11
JAN													
13...	<.2	<2	E.02	E.03	<.8	<.8	1.05	1.06	.7	1.6	167	360	E.06
FEB													
06...	.5	3	.10	.61	1.0	14.5	.576	9.15	6.1	37.2	63	11,600	.65
06...	.5	E2	.08	.43	1.0	12.5	.480	7.69	5.8	30.5	57	9,220	.57
06...	--	--	--	--	--	--	--	--	--	--	--	--	--
06...	.7	E1	.10	.38	.8	13.5	.754	7.81	5.7	27.5	74	9,060	.57
06...	.6	E1	.04	.25	.9	21.4	.529	12.4	5.6	28.8	59	17,300	.51
06...	.6	2	E.03	.14	E.6	15.1	.416	9.07	4.7	19.3	50	11,000	.36
06...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	.2	<2	E.04	.04	<.8	.8	.935	1.32	2.0	2.7	116	870	.12
11...	*.2*	*<2*	*E.03*	*.05*	*<.8*	*1.1*	*.920*	*1.34*	*2.0*	*2.8*	*129*	*870*	*.15*
MAR													
23...	*<.2*	*<2*	*<.04*	*<.04*	*<.8*	*<.8*	*<.014*	*<.016*	*<.4*	*<.6*	*E3*	*M*	*<.08*
23...	.3	<2	E.03	E.02	<.8	<.8	1.10	1.06	1.1	1.3	173	420	.08
APR													
12...	.4	E2	.05	.30	E.5	4.7	.502	4.49	4.2	17.4	97	3,470	.63
12...	.5	E2	E.04	.24	1.0	6.1	.312	3.94	4.8	18.7	72	3,670	.41
12...	--	--	--	--	--	--	--	--	--	--	--	--	--
12...	.5	2	E.02	.24	E.7	10.7	.392	6.96	3.5	20.0	93	7,150	.33
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	.4	E2	E.03	.12	<.8	8.8	.622	5.02	3.0	10.0	126	5,910	.19
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	.2	E1	E.02	E.02	<.8	<.8	.677	.757	1.2	2.4	155	410	E.07
MAY													
26...	--	--	--	--	--	--	--	--	--	--	--	--	--
26...	.5	<2	E.02	.05	<.8	1.3	.721	1.56	3.2	5.6	156	1,260	.21
JUN													
22...	.3	<2	<.04	E.03	<.8	E.4	.839	1.05	1.5	1.9	157	660	.11
JUL													
01...	.4	<2	<.04	.12	E.4	2.6	.255	2.74	1.9	7.8	135	2,090	.14
01...	2.7	6	.38	1.20	1.9	23.2	.345	19.5	3.5	52.9	36	15,400	.27
01...	1.0	3	E.04	1.11	<.8	29.1	.208	24.0	3.7	67.8	46	21,700	.36
01...	1.0	3	E.03	.91	E.5	23.9	.133	18.9	3.6	56.4	45	18,200	.28
14...	.3	<2	<.04	E.03	<.8	E.5	.466	.664	1.5	1.8	48	540	.10
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	.6	E2	E.02	.36	E.6	25.4	.183	17.5	3.3	34.4	124	16,700	.26
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	.7	E1	<.04	.16	2.7	17.5	.207	9.63	3.4	18.3	147	9,760	.27
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
17...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP													
22...	.3	<2	E.03	E.03	<.8	<.8	.799	.820	2.5	2.0	96	490	.08
28...	.4	E1	.13	.39	<.8	5.6	.541	7.00	4.8	19.0	69	4,060	.38
29...	.5	<2	E.02	.05	<.8	2.5	.274	1.53	3.9	6.7	86	1,450	.17

01651000 NORTHWEST BRANCH ANACOSTIA RIVER NEAR HYATTSVILLE, MD—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Lead, water, unfltrd recover -able, ug/L (01051)	Mangan- ese, water, fltrd, ug/L (01056)	Mangan- ese, water, unfltrd recover -able, ug/L (01055)	Mercury water, fltrd, ug/L (71890)	Mercury water, unfltrd recover -able, ug/L (71900)	Nickel, water, fltrd, ug/L (01065)	Nickel, water, unfltrd recover -able, ug/L (01067)	Zinc, water, fltrd, ug/L (01090)	Zinc, water, unfltrd recover -able, ug/L (01092)	Suspnd. sedi- ment, sieve diametr percent <.063mm (70331)	Sus- pended sedi- ment concen- tration mg/L (80154)	Sus- pended sedi- ment dis- charge, tons/d (80155)	Sampler type, code (84164)
OCT													
29...	11.4	42.5	427	E.01	.03	3.40	11.1	3.3	42	43	538	1,450	3051
29...	--	--	--	--	--	--	--	--	--	*60*	*382*	*34*	*3045*
NOV													
18...	--	--	--	*<.02*	*<.02*	--	--	--	--	--	--	--	--
18...	.19	98.6	112	<.02	<.02	2.78	3.08	4.3	5	--	4	.40	3045
DEC													
11...	20.3	90.3	497	<.02	.04	1.68	17.1	1.7	62	--	906	6,850	3051
11...	--	--	--	--	--	--	--	--	--	--	*1,120*	*8,460*	*3051*
16...	*.06*	*<.2*	*M*	*<.02*	*<.02*	*<.06*	*<.16*	*<.6*	*<2*	--	--	--	--
16...	.78	114	120	<.02	<.02	3.19	4.26	8.1	10	--	8	2.1	3045
JAN													
13...	.22	116	127	<.02	<.02	3.62	3.48	6.4	6	--	4	.48	3045
FEB													
06...	49.6	88.0	507	<.02	.07	2.53	29.3	11.1	153	69	648	2,410	8010
06...	39.6	73.2	448	<.02	.05	2.18	22.9	10.1	126	66	564	2,450	8010
06...	--	--	--	--	--	--	--	--	--	*66*	*549*	--	*8010*
06...	32.7	104	449	<.02	.05	2.77	21.0	21.6	109	62	596	3,030	8010
06...	30.5	82.6	665	<.02	.06	2.42	27.8	7.3	98	69	713	4,040	8010
06...	22.4	63.7	510	--	--	1.81	17.0	3.5	62	80	504	1,590	8010
06...	--	--	--	--	--	--	--	--	--	*66*	*731*	--	*8010*
11...	1.50	111	122	<.02	<.02	3.39	4.41	5.7	11	--	29	6.3	3045
11...	*1.48*	*109*	*122*	*<.02*	*<.02*	*3.29*	*4.32*	*4.8*	*11*	--	*28*	--	*3045*
MAR													
23...	*<.06*	*<.2*	*M*	*<.02*	*<.02*	*<.06*	*<.16*	*<.6*	*<2*	--	--	--	--
23...	.12	129	119	<.02	<.02	3.35	3.20	4.4	3	--	2	.20	3045
APR													
12...	19.4	50.0	281	<.02	.09	2.59	9.11	12.6	86	90	141	80	8010
12...	18.1	41.2	361	<.02	.04	2.14	11.1	10.6	86	84	149	128	8010
12...	--	--	--	--	--	--	--	--	--	83	144	154	8010
12...	23.2	59.5	584	<.02	.07	2.21	15.8	6.0	87	81	367	807	8010
13...	--	--	--	--	--	--	--	--	--	89	416	352	8010
13...	9.09	71.7	374	<.02	.03	3.09	10.5	6.1	47	92	378	202	8010
13...	--	--	--	--	--	--	--	--	--	*96*	*293*	*157*	*8010*
21...	.20	85.1	92	<.02	<.02	2.49	2.83	2.7	3	--	3	.35	3045
MAY													
26...	--	--	--	--	--	--	--	--	--	--	--	--	--
26...	2.76	155	216	<.02	<.02	4.12	5.05	4.4	14	--	64	8.5	3045
JUN													
22...	.83	117	147	<.02	<.02	2.68	2.92	3.2	7	--	8	.40	3045
JUL													
01...	8.49	12.9	196	<.02	E.02	1.40	6.04	3.5	40	--	19	3.8	8010
01...	99.1	45.4	1,100	<.02	.13	1.98	37.3	7.3	211	83	1,340	4,410	8010
01...	102	29.1	1,920	<.02	.14	2.27	49.5	11.4	280	--	1,270	2,140	8010
01...	81.4	11.6	1,740	<.02	.12	2.15	42.4	6.3	215	--	868	586	8010
14...	.61	61.5	73	<.02	<.02	2.17	2.35	1.6	4	--	7	.89	3045
28...	--	--	--	--	--	--	--	--	--	--	--	--	3060
28...	44.6	7.7	897	<.02	.07	2.42	30.0	1.7	122	--	953	3,290	8010
28...	--	--	--	--	--	--	--	--	--	--	*1,060*	*3,670*	*8010*
28...	--	--	--	--	--	--	--	--	--	--	967	3,340	8010
28...	--	--	--	--	--	--	--	--	--	--	982	3,310	8010
28...	--	--	--	--	--	--	--	--	--	--	962	3,060	8010
28...	20.5	7.9	560	<.02	.04	3.13	18.2	1.5	63	--	576	1,030	8010
28...	--	--	--	--	--	--	--	--	--	--	*608*	--	*8010*
28...	--	--	--	--	--	--	--	--	--	--	514	316	8010
AUG													
17...	--	--	--	--	--	--	--	--	--	--	--	--	3070
SEP													
22...	.50	105	106	--	--	2.45	2.87	2.9	5	--	4	.14	3045
28...	19.5	44.5	438	--	.07	3.70	12.6	16.7	85	91	155	41	8010
29...	4.44	23.6	118	--	E.02	2.85	5.01	3.1	16	--	55	11	8010

Remark codes used in this table:
< -- Less than
E -- Estimated value

Sampler type: 3045 - US DH-81 with Teflon bottle and nozzle
3051 - US DH-95 with Teflon bottle and nozzle
8010 - Other-automatic sampler
3060 - Weighted-bottle sampler
3070 - Grab sample

01651000 NORTHWEST BRANCH ANACOSTIA RIVER NEAR HYATTSVILLE, MD—Continued

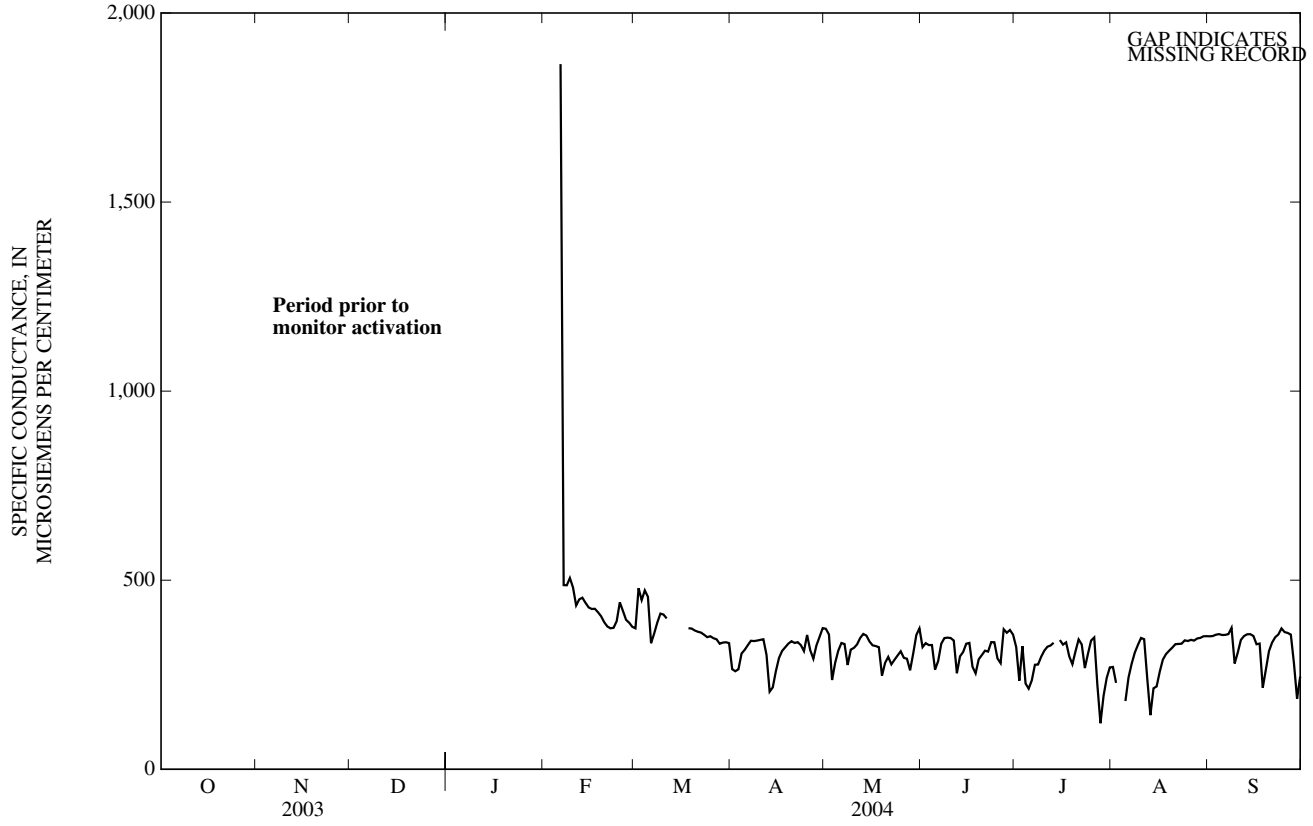
SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	454	361	373	350	215	265	388	358	372
2	---	---	---	581	414	479	278	242	259	383	216	357
3	---	---	---	532	411	447	291	250	264	258	209	236
4	---	---	---	553	425	473	316	291	306	305	250	282
5	---	---	---	536	416	456	323	308	316	330	305	314
6	4,270	441	1,860	484	232	333	333	321	328	339	328	334
7	564	424	487	384	322	359	344	333	340	342	286	331
8	511	459	487	409	377	388	342	336	339	306	259	276
9	514	500	506	415	409	412	345	337	340	330	306	316
10	502	441	481	415	403	409	345	338	342	338	305	321
11	475	397	433	404	396	399	348	339	344	341	322	330
12	472	421	449	---	---	---	349	185	302	353	340	347
13	466	445	454	---	---	---	228	185	205	360	353	358
14	456	425	440	---	---	---	242	196	216	362	341	354
15	452	420	428	---	---	---	279	240	259	343	328	338
16	429	420	424	---	---	---	311	279	294	340	315	328
17	432	419	424	---	---	---	321	308	313	334	315	326
18	436	396	415	379	369	373	329	317	323	328	295	323
19	411	396	405	376	370	372	338	328	332	297	233	248
20	400	382	389	370	364	367	347	329	339	292	255	282
21	400	367	378	368	361	364	339	330	334	304	283	297
22	381	367	373	365	359	362	347	332	336	336	265	277
23	379	370	374	363	347	356	350	271	328	295	276	289
24	482	372	392	355	344	349	346	284	312	309	292	301
25	510	414	441	369	345	352	358	346	355	346	308	312
26	436	402	419	352	342	347	359	268	315	346	276	295
27	409	389	395	362	329	344	318	269	292	317	244	292
28	395	378	387	342	327	332	347	317	328	280	241	262
29	383	370	377	341	324	335	368	341	350	333	280	306
30	---	---	---	343	331	336	385	368	373	371	333	355
31	---	---	---	338	328	334	---	---	---	378	361	372
MONTH	4,270	367	484	581	232	378	385	185	312	388	209	314

01651000 NORTHWEST BRANCH ANACOSTIA RIVER NEAR HYATTSVILLE, MD—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	366	300	323	364	174	323	299	215	271	356	348	352
2	356	306	333	286	177	234	259	211	228	356	349	352
3	334	320	328	346	286	326	---	---	---	362	351	356
4	335	323	328	347	62	227	---	---	---	361	354	357
5	334	235	264	252	150	213	215	142	180	357	353	355
6	315	258	286	266	205	235	268	215	243	361	353	355
7	352	313	332	286	265	276	295	268	279	364	353	357
8	357	333	347	286	271	277	319	295	308	409	260	374
9	356	342	348	302	286	297	338	319	329	304	251	280
10	355	340	347	325	302	313	355	338	347	340	295	309
11	368	265	340	332	317	324	360	288	344	355	328	342
12	282	232	254	332	320	327	298	85	240	356	348	352
13	311	281	299	345	322	334	186	102	143	360	353	357
14	317	306	310	---	---	---	240	186	214	363	353	357
15	346	317	332	356	327	342	236	209	219	392	321	353
16	343	317	334	335	326	330	275	236	258	334	327	331
17	317	209	271	355	329	336	305	275	290	354	170	332
18	298	238	254	383	261	298	308	301	305	243	185	216
19	298	260	291	292	265	278	317	308	314	293	237	264
20	308	298	302	333	292	312	324	316	322	324	293	313
21	320	308	314	355	333	343	341	322	331	346	324	335
22	328	246	311	370	211	330	341	324	331	359	340	349
23	347	312	336	314	210	268	338	324	332	367	349	356
24	340	334	336	327	281	306	349	336	341	383	365	372
25	348	160	293	361	326	340	340	337	339	373	356	363
26	334	200	281	366	289	349	345	339	342	372	351	360
27	394	334	370	304	57	224	348	332	340	373	344	356
28	368	352	361	155	63	122	354	339	346	380	89	280
29	381	355	368	224	155	195	350	344	347	219	147	187
30	359	352	356	258	224	241	355	349	352	260	219	245
31	---	---	---	283	258	269	356	348	352	---	---	---
MONTH	394	160	318	383	57	286	360	85	296	409	89	329
YEAR	4,270	57	335									



DAILY MEAN SPECIFIC CONDUCTIVITY - 2004 WATER YEAR

01651000 NORTHWEST BRANCH ANACOSTIA RIVER NEAR HYATTSVILLE, MD—Continued

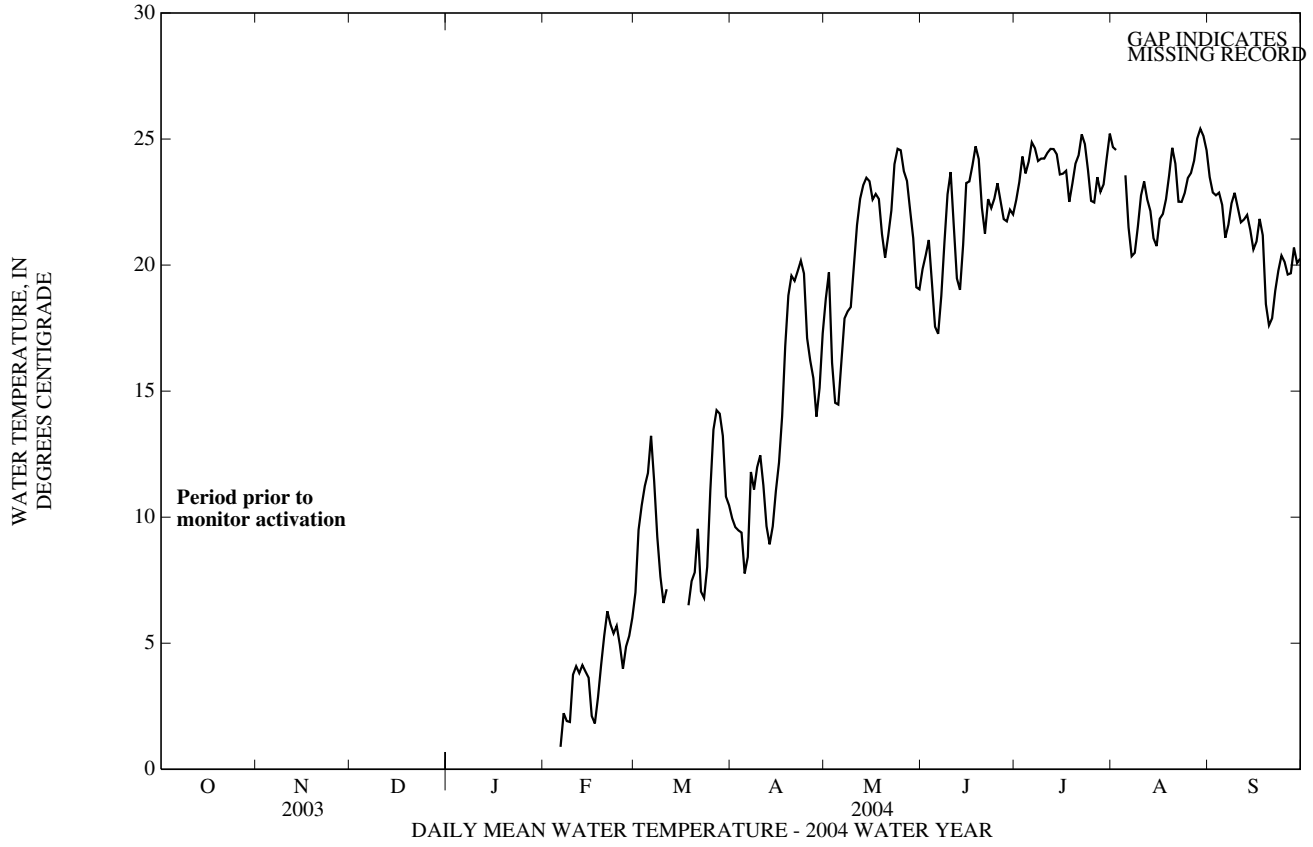
TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	8.6	5.3	7.0	10.5	9.6	10	20.4	16.7	18.7
2	---	---	---	11.3	8.0	9.5	10.1	9.3	9.6	21.4	18.4	19.7
3	---	---	---	12.0	8.6	10.5	10.3	8.9	9.5	19.4	14.1	16.1
4	---	---	---	12.0	10.4	11.2	10.9	7.8	9.4	16.8	12.6	14.5
5	---	---	---	13.3	10.3	11.7	10.3	5.4	7.8	16.2	12.6	14.5
6	1.4	0.5	0.9	14.3	11.8	13.2	11.1	5.4	8.4	18.7	13.4	16.2
7	3.6	0.9	2.2	12.9	10.1	11.4	14.9	8.8	11.8	20.2	15.5	17.9
8	2.8	1.1	1.9	10.6	7.9	9.2	13.0	10.4	11.1	19.6	17.0	18.2
9	3.3	0.5	1.9	9.1	6.1	7.6	14.8	9.5	12.0	21.0	15.6	18.3
10	5.2	2.5	3.8	7.5	5.9	6.6	14.7	10.3	12.5	22.0	17.9	20.0
11	5.1	3.2	4.1	9.4	4.9	7.1	13.3	10.1	11.3	23.9	19.5	21.6
12	4.8	3.0	3.8	---	---	---	10.1	8.7	9.6	24.8	20.5	22.6
13	5.4	2.8	4.1	---	---	---	9.6	8.4	8.9	25.2	21.1	23.2
14	4.9	2.8	3.9	---	---	---	10.1	9.3	9.6	25.6	21.5	23.5
15	4.6	2.6	3.6	---	---	---	14.0	8.4	11.0	25.3	21.6	23.3
16	3.2	0.7	2.1	---	---	---	15.3	9.2	12.2	24.1	21.2	22.6
17	2.7	0.7	1.8	---	---	---	17.2	10.6	14.0	24.9	21.0	22.8
18	4.3	1.4	2.8	8.0	5.1	6.5	19.9	13.5	16.8	24.2	21.1	22.6
19	5.9	2.3	4.1	8.6	6.6	7.5	21.3	16.1	18.8	22.1	20.6	21.2
20	6.8	3.5	5.3	10.2	5.2	7.8	21.8	17.6	19.6	20.9	19.9	20.3
21	7.4	5.3	6.3	10.3	7.8	9.5	21.5	17.1	19.4	23.2	19.6	21.2
22	6.8	4.5	5.8	8.8	5.1	7.0	21.7	17.6	19.8	24.6	19.9	22.2
23	6.6	3.8	5.4	9.0	4.3	6.8	22.3	18.1	20.2	26.5	21.8	24.0
24	6.2	5.2	5.7	10.2	5.4	8.0	21.7	18.1	19.7	26.3	22.9	24.6
25	6.3	3.5	4.9	13.4	9.0	11.1	18.6	16.4	17.1	26.8	22.7	24.6
26	4.8	2.9	4.0	15.7	11.1	13.5	16.6	15.3	16.2	25.6	22.1	23.7
27	6.4	3.5	4.9	15.2	13.3	14.2	17.1	13.8	15.5	24.8	21.8	23.3
28	7.1	3.4	5.3	15.8	12.9	14.1	16.4	11.7	14.0	23.3	21.2	22.2
29	7.5	4.1	6.0	15.4	11.4	13.2	17.9	12.2	15.1	23.1	19.5	21.1
30	---	---	---	12.6	10.2	10.8	19.7	14.8	17.3	20.1	18.6	19.1
31	---	---	---	11.0	9.9	10.5	---	---	---	19.7	18.6	19.0
MONTH	7.5	0.5	3.9	15.8	4.3	9.8	22.3	5.4	13.6	26.8	12.6	20.7

01651000 NORTHWEST BRANCH ANACOSTIA RIVER NEAR HYATTSVILLE, MD—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	21.6	18.1	19.8	25.5	21.1	22.6	25.5	24.1	24.7	25.4	21.9	23.5
2	22.6	18.3	20.4	25.7	21.1	23.3	25.4	23.9	24.6	24.9	21.2	22.9
3	22.9	19.2	21.0	26.4	22.4	24.3	---	---	---	25.0	21.0	22.8
4	20.7	18.3	19.3	24.6	23.0	23.6	---	---	---	24.7	21.6	22.9
5	18.3	16.9	17.6	26.0	22.6	24.1	24.2	22.5	23.6	23.7	21.2	22.4
6	18.4	16.4	17.3	26.8	23.2	24.9	22.5	20.4	21.5	21.6	20.5	21.1
7	20.9	17.0	18.8	25.9	23.4	24.6	21.9	18.8	20.3	22.9	20.5	21.6
8	23.2	18.7	20.9	25.8	22.7	24.1	22.3	18.7	20.5	23.3	21.9	22.5
9	25.0	20.7	22.8	26.3	22.5	24.2	23.4	19.6	21.5	23.9	21.9	22.9
10	25.3	22.2	23.7	26.2	22.5	24.2	24.8	21.1	22.8	24.3	20.6	22.3
11	23.7	18.9	21.6	25.9	23.0	24.5	25.1	22.2	23.3	22.9	20.6	21.7
12	21.4	17.9	19.5	25.6	23.8	24.6	24.2	21.7	22.6	23.7	20.5	21.8
13	19.7	18.4	19.0	26.0	23.8	24.6	23.0	21.7	22.1	23.8	20.3	22.0
14	23.2	19.0	20.8	25.7	23.6	24.4	21.7	20.4	21.1	22.2	20.6	21.4
15	25.3	21.6	23.3	25.1	22.2	23.6	21.8	19.6	20.8	21.1	20.3	20.6
16	24.5	22.2	23.3	25.6	21.7	23.6	23.5	20.4	21.8	21.8	20.2	20.9
17	25.9	22.3	24.0	25.7	21.9	23.7	23.2	20.5	22.0	23.1	21.0	21.8
18	26.4	23.4	24.7	23.5	21.9	22.5	24.2	21.2	22.6	22.9	19.1	21.2
19	25.9	22.8	24.2	25.5	21.4	23.2	25.4	22.0	23.6	19.8	17.3	18.5
20	24.5	20.4	22.3	25.9	22.3	24.0	26.4	22.9	24.7	19.4	16.1	17.6
21	23.0	19.4	21.2	26.4	22.4	24.4	24.8	22.5	24.0	20.0	16.0	17.9
22	25.1	20.7	22.6	27.7	23.2	25.2	24.4	20.9	22.5	21.2	17.1	19.0
23	23.1	21.3	22.3	25.9	23.8	24.8	24.7	20.7	22.5	22.0	17.8	19.8
24	25.0	20.4	22.6	24.7	23.0	23.8	24.7	21.1	22.9	22.0	19.2	20.4
25	25.2	22.2	23.2	23.4	22.0	22.5	25.1	22.4	23.5	21.9	18.8	20.1
26	24.2	21.5	22.5	24.0	21.4	22.5	25.4	22.5	23.7	20.7	18.7	19.6
27	23.9	19.9	21.8	24.5	22.8	23.5	25.9	22.8	24.1	20.6	18.6	19.7
28	22.7	20.6	21.7	23.2	22.6	22.9	27.3	23.3	25.0	22.4	19.8	20.7
29	24.5	20.2	22.2	24.7	21.9	23.2	27.3	23.7	25.4	20.5	19.6	20.1
30	23.7	20.2	22.0	26.2	22.6	24.2	26.5	24.0	25.1	21.0	19.1	20.3
31	---	---	---	27.1	23.6	25.2	26.1	23.4	24.6	---	---	---
MONTH	26.4	16.4	21.5	27.7	21.1	23.9	27.3	18.7	23.0	25.4	16.0	21.0
YEAR	27.7	0.5	17.7									



DAILY MEAN WATER TEMPERATURE - 2004 WATER YEAR

01651000 NORTHWEST BRANCH ANACOSTIA RIVER NEAR HYATTSVILLE, MD—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

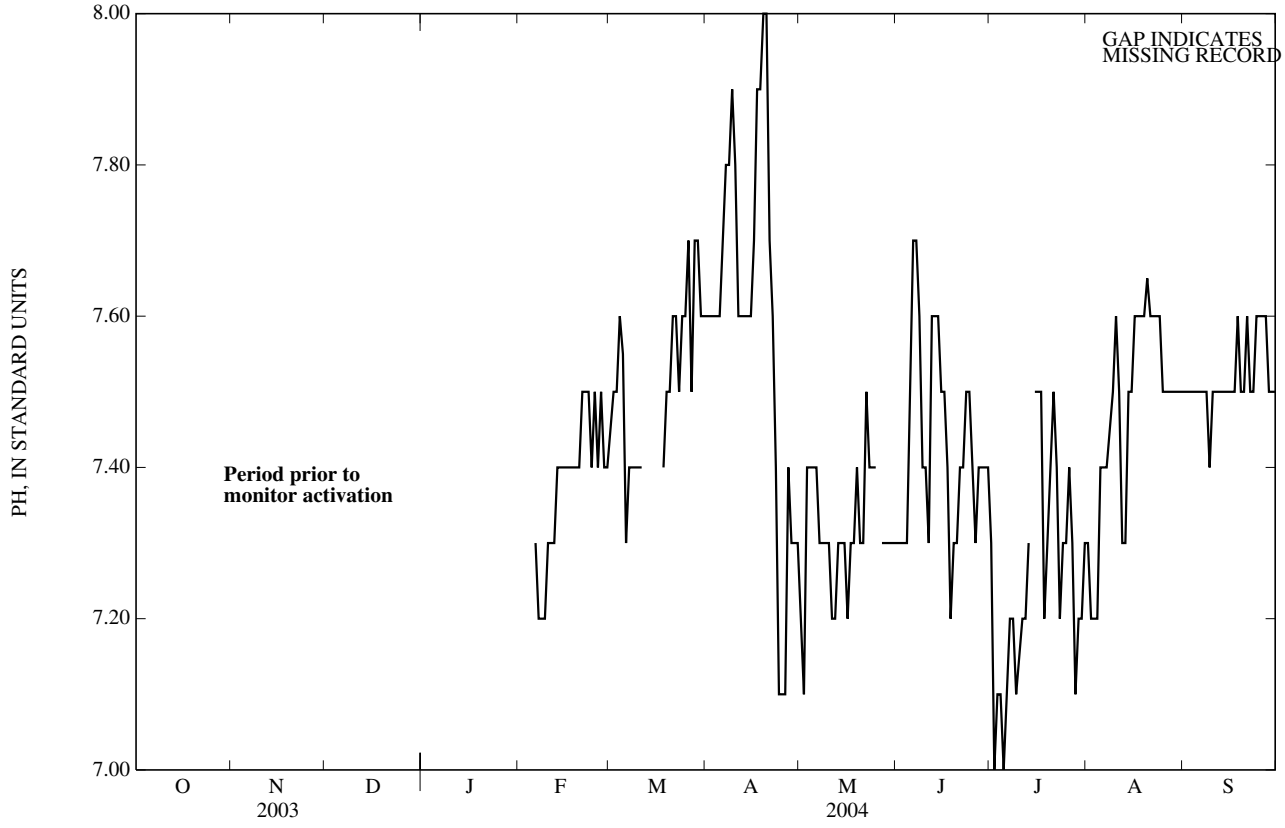
DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MAX	---	---	---	---	---	---	---	---	---	---	---	---
MIN	---	---	---	---	---	---	---	---	---	---	---	---
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	7.8	7.3	7.5	7.6	7.4	7.6	7.4	7.1	7.2
2	---	---	---	7.7	7.3	7.5	7.7	7.5	7.6	7.3	7.1	7.1
3	---	---	---	8.2	7.3	7.5	7.8	7.5	7.6	7.5	7.1	7.4
4	---	---	---	7.9	7.3	7.6	7.9	7.5	7.6	7.5	7.4	7.4
5	---	---	---	8.2	7.3	7.5	8.0	7.5	7.6	7.5	7.3	7.4
6	7.5	7.0	7.3	7.7	7.3	7.3	8.1	7.5	7.7	7.5	7.3	7.4
7	7.3	7.0	7.2	7.5	7.3	7.4	8.5	7.5	7.8	7.5	7.2	7.3
8	7.2	7.2	7.2	7.6	7.3	7.4	8.2	7.6	7.8	7.4	7.1	7.3
9	7.3	7.2	7.2	7.6	7.4	7.4	8.7	7.6	7.9	7.5	7.1	7.3
10	7.4	7.2	7.3	7.6	7.3	7.4	8.6	7.5	7.8	7.5	7.2	7.3
11	7.4	7.2	7.3	7.7	7.3	7.4	7.8	7.5	7.6	7.4	7.2	7.2
12	7.4	7.3	7.3	---	---	---	7.8	7.5	7.6	7.4	7.2	7.2
13	7.4	7.3	7.4	---	---	---	7.7	7.5	7.6	7.3	7.2	7.3
14	7.5	7.3	7.4	---	---	---	7.7	7.6	7.6	7.4	7.2	7.3
15	7.5	7.3	7.4	---	---	---	7.8	7.6	7.6	7.5	7.2	7.3
16	7.4	7.3	7.4	---	---	---	8.1	7.6	7.7	7.3	7.2	7.2
17	7.5	7.3	7.4	---	---	---	8.5	7.7	7.9	7.5	7.2	7.3
18	7.4	7.3	7.4	7.7	7.3	7.4	8.8	7.6	7.9	7.6	7.2	7.3
19	7.5	7.3	7.4	7.9	7.4	7.5	8.8	7.6	8.0	7.5	7.3	7.4
20	7.6	7.3	7.4	7.9	7.3	7.5	8.8	7.7	8.0	7.5	7.2	7.3
21	7.7	7.4	7.5	8.2	7.3	7.6	8.4	7.3	7.7	7.6	7.2	7.3
22	7.7	7.4	7.5	7.9	7.4	7.6	8.3	7.4	7.6	7.5	7.3	7.5
23	7.6	7.3	7.5	7.9	7.3	7.5	8.2	7.3	7.4	7.4	7.3	7.4
24	7.6	7.3	7.4	8.1	7.3	7.6	7.3	7.1	7.1	7.5	7.3	7.4
25	7.7	7.3	7.5	8.4	7.3	7.6	7.3	7.1	7.1	7.6	7.4	7.4
26	7.5	7.3	7.4	8.6	7.3	7.7	7.3	7.0	7.1	---	---	---
27	7.7	7.3	7.5	8.1	7.3	7.5	7.5	7.2	7.4	7.6	7.1	7.3
28	7.7	7.3	7.4	8.5	7.3	7.7	7.4	7.3	7.3	7.4	7.1	7.3
29	7.7	7.3	7.4	8.4	7.4	7.7	7.4	7.2	7.3	7.4	7.2	7.3
30	---	---	---	8.0	7.5	7.6	7.4	7.2	7.3	7.4	7.2	7.3
31	---	---	---	7.9	7.5	7.6	---	---	---	7.4	7.2	7.3
MAX	7.7	7.4	7.5	8.6	7.5	7.7	8.8	7.7	8.0	7.6	7.4	7.5
MIN	7.2	7.0	7.2	7.5	7.3	7.3	7.3	7.0	7.1	7.3	7.1	7.1

01651000 NORTHWEST BRANCH ANACOSTIA RIVER NEAR HYATTSVILLE, MD—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	7.4	7.2	7.3	8.1	7.0	7.3	7.5	7.2	7.3	7.9	7.4	7.5
2	7.5	7.2	7.3	7.1	6.9	7.0	7.3	7.1	7.2	7.9	7.4	7.5
3	7.5	7.2	7.3	7.2	7.0	7.1	7.3	7.1	7.2	7.9	7.4	7.5
4	7.4	7.2	7.3	7.2	6.7	7.1	7.6	7.1	7.2	7.9	7.4	7.5
5	7.7	7.3	7.5	7.2	6.9	7.0	7.4	7.3	7.4	7.8	7.4	7.5
6	7.8	7.6	7.7	7.2	7.0	7.1	7.4	7.3	7.4	7.7	7.4	7.5
7	7.8	7.6	7.7	7.2	7.1	7.2	7.5	7.3	7.4	7.7	7.4	7.5
8	7.7	7.5	7.6	7.3	7.1	7.2	7.6	7.4	7.5	7.6	7.4	7.5
9	7.6	7.3	7.4	7.3	7.1	7.1	7.6	7.4	7.5	7.5	7.4	7.4
10	7.5	7.3	7.4	7.4	7.0	7.2	7.8	7.4	7.6	7.6	7.3	7.5
11	7.5	7.1	7.3	7.5	7.0	7.2	7.9	7.4	7.5	7.7	7.4	7.5
12	7.6	7.4	7.6	7.6	7.0	7.2	7.5	7.1	7.3	7.7	7.4	7.5
13	7.7	7.5	7.6	7.7	7.1	7.3	7.4	7.2	7.3	7.8	7.4	7.5
14	7.7	7.5	7.6	---	---	---	7.6	7.4	7.5	7.7	7.4	7.5
15	7.6	7.5	7.5	8.1	7.3	7.5	7.5	7.5	7.5	7.5	7.4	7.5
16	7.5	7.4	7.5	8.1	7.1	7.5	7.7	7.5	7.6	7.7	7.5	7.5
17	7.5	7.1	7.4	8.3	7.1	7.5	7.7	7.4	7.6	7.7	7.5	7.5
18	7.4	7.2	7.2	7.6	7.1	7.2	7.9	7.4	7.6	7.7	7.5	7.6
19	7.3	7.2	7.3	7.8	7.1	7.3	8.2	7.5	7.6	7.5	7.5	7.5
20	7.4	7.3	7.3	8.0	7.1	7.4	8.5	7.4	7.7	7.6	7.5	7.5
21	7.5	7.3	7.4	8.2	7.2	7.5	8.1	7.4	7.6	7.7	7.5	7.6
22	7.7	7.3	7.4	8.4	7.2	7.4	8.3	7.4	7.6	7.6	7.5	7.5
23	7.6	7.4	7.5	7.3	7.1	7.2	8.2	7.4	7.6	7.8	7.5	7.5
24	7.8	7.4	7.5	7.5	7.2	7.3	8.1	7.4	7.6	8.0	7.5	7.6
25	8.1	7.1	7.4	7.4	7.2	7.3	8.1	7.4	7.5	8.0	7.5	7.6
26	7.4	7.1	7.3	7.7	7.2	7.4	8.1	7.4	7.5	8.0	7.5	7.6
27	7.5	7.3	7.4	7.4	6.8	7.3	8.1	7.4	7.5	7.9	7.5	7.6
28	7.6	7.2	7.4	7.3	6.8	7.1	8.3	7.4	7.5	7.7	7.5	7.5
29	7.8	7.3	7.4	7.2	7.2	7.2	8.2	7.4	7.5	7.6	7.5	7.5
30	7.8	7.2	7.4	7.3	7.2	7.2	8.1	7.4	7.5	7.6	7.4	7.5
31	---	---	---	7.4	7.2	7.3	8.0	7.4	7.5	---	---	---
MAX	8.1	7.6	7.7	8.4	7.3	7.5	8.5	7.5	7.7	8.0	7.5	7.6
MIN	7.3	7.1	7.2	7.1	6.7	7.0	7.3	7.1	7.2	7.5	7.3	7.4

YEAR			
	MAX	MAXIMUM 8.8	MINIMUM 7.1
	MIN	MAXIMUM 7.7	MINIMUM 6.7
	MEDIAN	MAXIMUM 8.0	MINIMUM 7.0



DAILY MEDIAN pH - 2004 WATER YEAR

01651000 NORTHWEST BRANCH ANACOSTIA RIVER NEAR HYATTSVILLE, MD—Continued

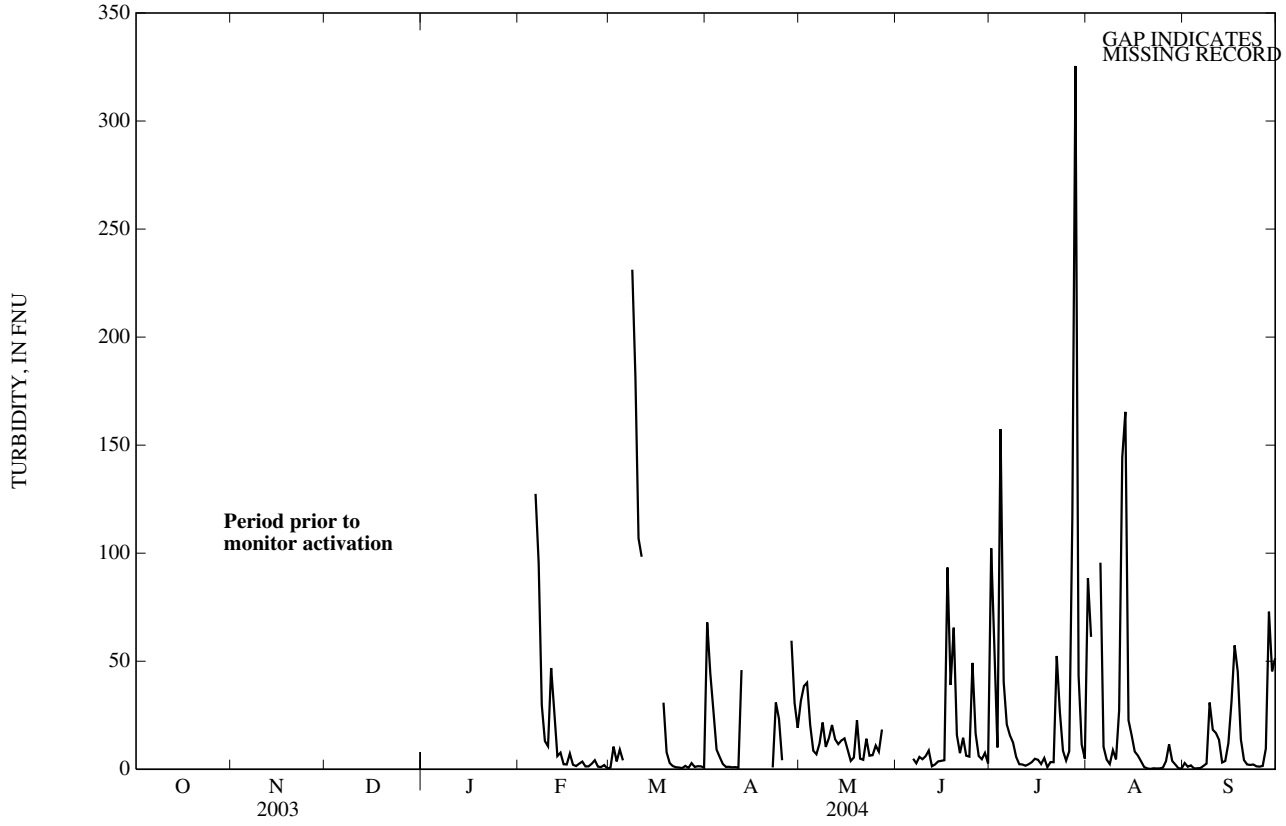
TURBIDITY, WATER, UNFILTERED, FORMAZIN NEPHELOMETRIC UNITS (FNU)
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	1.9	0.0	0.7	130	1.4	68	71	12	32
2	---	---	---	58	0.2	10	94	26	44	230	3.7	38
3	---	---	---	8.3	1.4	3.6	41	13	27	180	10	40
4	---	---	---	34	0.6	9.1	23	5.0	9.1	70	10	20
5	---	---	---	15	0.6	4.1	21	2.1	5.7	15	5.8	8.6
6	260	9.6	130	---	---	---	6.2	1.1	2.5	10	5.0	6.9
7	210	43	95	---	---	---	3.6	0.6	1.1	87	5.6	12
8	53	12	30	---	---	230	5.3	0.6	1.1	60	16	22
9	18	8.2	13	---	---	180	2.0	0.5	0.9	68	4.8	10
10	33	7.2	11	---	---	110	2.9	0.3	1.0	23	6.4	14
11	150	14	47	---	---	98	2.9	0.2	0.7	32	11	20
12	120	5.7	27	---	---	---	200	0.3	46	20	8.1	14
13	15	3.1	6.1	---	---	---	---	---	---	18	7.3	12
14	30	2.7	7.7	---	---	---	---	---	---	20	8.0	13
15	7.2	1.5	2.3	---	---	---	---	---	---	25	6.4	14
16	7.6	1.3	2.2	---	---	---	---	---	---	24	2.6	9.1
17	49	0.9	7.2	---	---	---	---	---	---	13	1.7	3.8
18	8.2	0.7	2.1	---	---	31	---	---	---	36	2.0	5.5
19	3.6	0.7	1.5	---	---	7.8	---	---	---	52	6.8	23
20	8.3	1.0	2.6	---	---	2.8	---	---	---	9.2	2.4	4.9
21	18	1.2	3.6	---	---	1.5	---	---	---	17	1.8	4.4
22	3.0	0.8	1.3	---	---	0.9	4.2	0.0	0.8	38	6.8	14
23	5.7	0.6	1.3	---	---	0.8	270	0.0	31	11	3.9	6.3
24	7.4	0.4	2.5	2.2	0.1	0.5	54	3.7	23	11	4.3	6.5
25	9.1	1.8	4.2	8.0	0.3	1.6	9.7	2.4	4.2	24	5.5	11
26	2.1	0.5	1.2	2.4	0.1	0.6	---	---	---	20	1.5	8.1
27	5.3	0.3	1.0	8.0	0.2	2.8	---	---	---	88	1.3	18
28	7.8	0.3	1.9	2.6	0.4	1.1	87	38	60	---	---	---
29	1.5	0.1	0.4	3.6	0.3	1.4	81	14	31	---	---	---
30	---	---	---	6.4	0.6	1.3	39	11	19	---	---	---
31	---	---	---	3.0	0.1	0.7	---	---	---	---	---	---
MONTH	260	0.1	17	58	0.0	30	270	0.0	20	230	1.3	14

01651000 NORTHWEST BRANCH ANACOSTIA RIVER NEAR HYATTSVILLE, MD—Continued

TURBIDITY, WATER, UNFILTERED, FORMAZIN NEPHELOMETRIC UNITS (FNU)—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	820	1.4	100	280	2.1	88	16	0.0	2.9
2	---	---	---	200	18	57	180	25	61	4.1	0.0	1.2
3	---	---	---	19	3.3	10	---	---	---	6.9	0.0	1.8
4	---	---	---	660	2.8	160	---	---	---	3.8	0.0	0.3
5	---	---	---	96	16	40	380	22	96	6.4	0.0	0.4
6	62	0.0	4.9	49	12	21	24	3.9	10	21	0.0	0.5
7	22	0.0	2.8	71	5.6	16	6.7	2.9	4.5	8.8	0.0	1.5
8	47	0.0	5.7	52	7.0	12	4.2	1.3	2.4	35	0.2	2.6
9	78	0.1	4.7	13	3.1	5.7	60	0.8	8.8	55	16	31
10	68	0.1	6.1	6.5	0.9	2.3	10	1.5	4.6	47	5.5	18
11	68	0.0	8.7	39	0.3	2.2	120	0.8	27	43	5.0	17
12	8.3	0.1	1.4	6.4	0.3	1.6	550	16	140	24	4.5	14
13	21	0.0	2.2	5.7	0.9	2.3	520	29	170	6.1	1.9	3.1
14	41	0.0	3.6	15	0.9	3.3	46	9.5	23	14	1.5	3.8
15	37	0.1	3.9	11	1.0	4.9	32	7.1	16	36	2.0	12
16	36	0.0	4.2	9.3	1.8	4.4	20	4.6	8.2	72	5.7	31
17	720	0.2	93	5.1	0.7	2.4	42	0.8	6.3	200	24	57
18	180	10	39	14	0.8	5.2	18	1.0	3.7	200	15	45
19	180	25	66	3.3	0.0	0.9	5.6	0.0	1.1	18	7.8	14
20	28	7.3	16	8.2	0.9	3.3	2.5	0.0	0.4	9.7	1.8	4.2
21	18	4.0	7.4	11	0.3	3.3	0.7	0.0	0.2	6.7	0.9	2.2
22	85	3.4	15	290	0.7	52	0.8	0.0	0.4	6.5	0.9	2.0
23	23	2.5	6.3	130	7.0	27	1.5	0.0	0.4	4.0	1.0	2.2
24	60	1.4	5.8	47	3.5	8.6	2.0	0.0	0.4	3.2	0.2	1.4
25	330	1.8	49	8.1	1.9	4.0	2.7	0.0	0.7	2.5	0.6	1.2
26	58	3.9	17	61	1.1	8.3	16	0.1	3.7	8.0	0.3	1.5
27	17	3.4	6.1	850	9.9	120	33	1.5	12	23	0.5	9.5
28	27	1.0	4.6	570	120	330	11	0.0	3.8	390	1.2	73
29	56	1.1	7.6	120	16	43	14	0.0	2.2	140	15	45
30	16	1.4	2.7	40	6.0	11	1.2	0.0	0.5	540	5.2	51
31	---	---	---	7.1	2.8	4.9	0.7	0.0	0.3	---	---	---
MONTH	720	0.0	15	850	0.0	34	550	0.0	24	540	0.0	15
YEAR	850	0.0	21									



DAILY MEAN TURBIDITY - 2004 WATER YEAR

01651750 ANACOSTIA RIVER AQUATIC GARDENS AT WASHINGTON, DC

LOCATION.--Lat 38°54'52.2", long 76°57'01.8", District of Columbia, Hydrologic Unit 02070010, on left bank, 77.5 ft upstream of the tidal inlet to Kenilworth marsh, 0.57 mi downstream from the New York Avenue bridge.

DRAINAGE AREA.--N/A.

PERIOD OF RECORD.--June 2004 to September 2004.

GAGE.--Water-stage recorder. Datum of gage is 0.0 ft NAVD 1988.

REMARKS.--Records good. This is a tidal height station. Discharge is not determined at this location. U.S. Geological Survey satellite collection platform at station.

EXTREMES FOR PERIOD OF RECORD.--3.77 ft., Sept. 28, 30, 2004.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 3.77 ft, Sept. 28, 30; minimum elevation, -1.86 ft, June 29, Aug. 31.

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

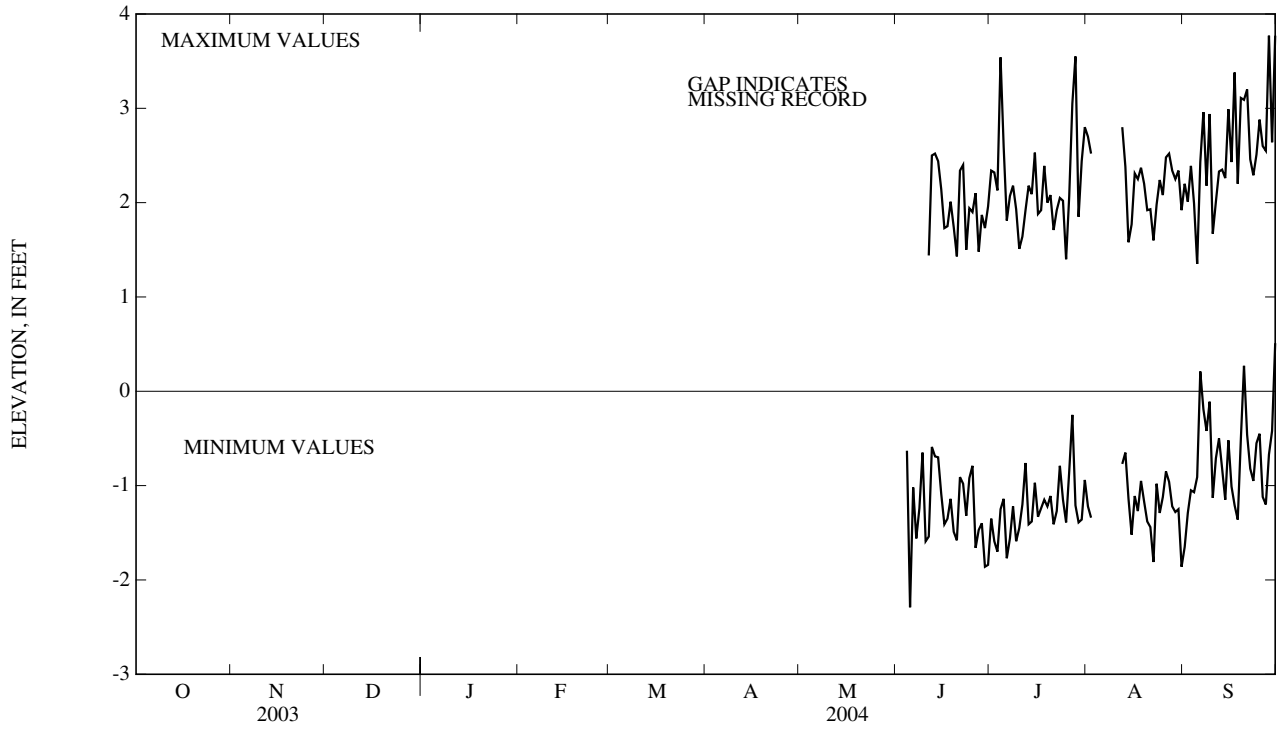
DAY	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW
	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---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

01651750 ANACOSTIA RIVER AQUATIC GARDENS AT WASHINGTON, DC—Continued

GAGE HEIGHT, FEET—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	APRIL HIGH	APRIL LOW	MAY HIGH	MAY LOW	JUNE HIGH	JUNE LOW	JULY HIGH	JULY LOW	AUGUST HIGH	AUGUST LOW	SEPTEMBER HIGH	SEPTEMBER LOW
1	---	---	---	---	---	---	2.34	-1.35	2.70	-1.22	2.20	-1.65
2	---	---	---	---	---	---	2.32	-1.59	2.52	-1.34	2.01	-1.29
3	---	---	---	---	---	---	2.13	-1.70	---	---	2.39	-1.05
4	---	---	---	---	---	---	3.54	-1.25	---	---	1.99	-1.07
5	---	---	---	---	---	---	2.59	-1.14	---	---	1.35	-0.91
6	---	---	---	---	---	---	1.81	-1.77	---	---	2.43	0.21
7	---	---	---	---	---	---	2.07	-1.56	---	---	2.96	-0.19
8	---	---	---	---	---	---	2.18	-1.22	---	---	2.18	-0.42
9	---	---	---	---	---	---	1.93	-1.59	---	---	2.94	-0.11
10	---	---	---	---	---	---	1.51	-1.45	---	---	1.67	-1.13
11	---	---	---	---	1.44	-1.54	1.64	-1.20	---	---	2.01	-0.71
12	---	---	---	---	2.50	-0.59	1.92	-0.76	2.80	-0.77	2.33	-0.50
13	---	---	---	---	2.52	-0.64	2.18	-1.41	2.38	-0.38	2.35	-0.82
14	---	---	---	---	2.44	-0.70	2.09	-0.47	1.58	-1.14	2.26	-1.15
15	---	---	---	---	2.14	-1.09	2.53	-0.90	1.77	-1.52	2.99	-0.52
16	---	---	---	---	1.73	-1.41	1.88	-1.33	2.31	-1.11	2.43	-1.01
17	---	---	---	---	1.75	-1.35	1.92	-1.24	2.25	-1.27	3.38	-1.21
18	---	---	---	---	2.01	-1.14	2.39	-1.15	2.37	-0.95	2.20	-1.36
19	---	---	---	---	1.74	-1.49	2.00	-1.22	2.20	-1.17	3.11	-0.50
20	---	---	---	---	1.43	-1.58	2.08	-1.11	1.92	-1.38	3.09	0.27
21	---	---	---	---	2.34	-0.91	1.71	-1.41	1.93	-1.44	3.20	-0.46
22	---	---	---	---	2.40	-0.98	1.92	-1.27	1.60	-1.81	2.46	-0.82
23	---	---	---	---	1.50	-1.32	2.05	-0.79	1.98	-0.98	2.29	-0.95
24	---	---	---	---	1.94	-0.92	2.02	-1.15	2.24	-1.29	2.51	-0.55
25	---	---	---	---	1.90	-0.79	1.40	-1.39	2.08	-1.12	2.88	-0.45
26	---	---	---	---	2.10	-1.66	2.07	-0.85	2.48	-0.85	2.60	-1.12
27	---	---	---	---	1.48	-1.47	3.05	-0.25	2.52	-0.96	2.55	-1.20
28	---	---	---	---	1.87	-1.40	3.55	---	2.34	-1.22	3.77	-0.67
29	---	---	---	---	1.73	-1.86	1.85	-1.39	2.25	-1.28	2.64	-0.42
30	---	---	---	---	1.96	-1.44	2.44	-1.36	2.34	-1.25	3.77	0.51
31	---	---	---	---	---	---	2.80	-0.94	1.92	-1.86	---	---
MAX	---	---	---	---	2.52	-0.59	3.55	-0.25	2.80	-0.38	3.77	0.51
MIN	---	---	---	---	1.43	-1.86	1.40	-1.77	1.58	-1.86	1.35	-1.65

YEAR HIGH HIGH MAXIMUM 3.77 MINIMUM 1.35
LOW LOW MAXIMUM 0.51 MINIMUM -1.86



DAILY MAXIMUM AND MINIMUM GAGE HEIGHTS - 2004 WATER YEAR

01651800 WATTS BRANCH AT WASHINGTON, D.C.

LOCATION.--Lat 38°54'04.0", long 76°56'31.9", District of Columbia, Hydrologic Unit 02070010, on right bank 5 ft downstream from footbridge, 200 ft upstream from Minnesota Ave., and 1.0 mi upstream from mouth.

DRAINAGE AREA.-- 3.28 mi^2.

PERIOD OF RECORD.--June 1992 to current year.

GAGE.--Water-stage recorder, crest-stage gage, and cobblestone control. Datum of gage is 16.52 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those above 30 ft^3/s, which are fair, and those for estimated daily discharges (ice effect, missing data), which are poor. U.S. Geological Survey gage-height telemeter at station. Several measurements of water temperature were made during the year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 350 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov 19	1520	475	4.54	Jul 27	2250	360	4.07
Dec 11	0505	680	5.26	Aug 4	1945	372	4.12
Feb 6	1415	351	4.03	Aug 12	1625	979	6.17
Jul 4	----	*(e)1,800	*(e)8.0	Aug 12	2110	390	4.20
Jul 4	1700	397	4.23	Aug 21	1350	406	4.27
Jul 27	0225	381	4.16	Sep 17	2145	514	4.68
Jul 27	0335	404	4.26	Sep 28	1700	582	4.92

e Estimated.

Minimum discharge, 0.89 ft^3/s, Oct. 13, 14.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	2.0	3.7	2.4	2.5	2.1	19	2.8	3.2	2.5	4.2	2.7
2	1.4	1.9	2.5	4.2	2.8	4.2	12	12	1.5	2.3	2.4	2.3
3	1.3	1.8	2.5	2.7	17	2.2	6.7	12	1.6	1.7	2.1	2.0
4	1.3	1.8	2.5	2.4	6.3	3.3	4.4	3.6	2.2	e150	14	1.8
5	1.3	24	22	6.8	3.5	2.2	3.3	2.8	24	9.4	3.4	1.8
6	1.2	16	10	2.8	86	40	3.1	2.7	2.8	4.6	2.1	1.7
7	1.3	6.6	4.6	2.3	16	6.7	2.9	5.5	1.9	5.4	1.8	1.7
8	1.2	3.6	3.7	e2.3	6.7	4.4	2.9	3.4	1.7	2.3	1.9	2.5
9	1.1	2.5	3.6	e2.1	5.5	3.3	2.9	2.7	1.6	2.0	2.1	7.6
10	1.0	2.3	6.6	e2.0	6.3	3.0	2.9	4.7	1.5	1.7	2.0	1.9
11	1.0	2.2	57	e2.3	4.8	2.8	3.1	2.8	12	1.6	15	1.6
12	1.0	9.9	5.6	2.5	4.1	2.7	34	2.8	3.8	1.6	85	1.5
13	0.98	5.1	3.9	2.6	3.8	2.5	14	2.7	1.7	1.7	9.2	1.5
14	21	2.9	27	2.4	3.4	2.4	7.5	2.7	1.6	1.6	13	1.7
15	4.2	2.6	11	2.3	3.3	2.4	4.5	2.9	1.6	1.6	5.2	5.8
16	1.3	2.5	5.8	1.9	2.9	9.0	3.7	4.0	1.7	1.6	4.0	1.9
17	1.1	2.5	37	2.0	2.9	3.5	3.4	12	19	2.1	3.6	27
18	1.1	2.3	7.4	10	2.9	3.1	3.3	2.6	17	4.7	4.2	21
19	1.1	55	5.0	3.4	2.9	4.1	3.1	2.1	3.4	1.9	3.1	2.8
20	1.1	10	4.1	2.4	2.8	2.7	3.0	2.0	1.8	1.6	2.9	2.3
21	1.1	4.1	3.9	2.5	2.8	2.6	3.0	4.8	1.5	1.5	15	2.1
22	1.0	3.1	3.7	2.4	2.6	2.4	3.0	3.5	15	12	3.4	2.6
23	1.0	2.7	3.2	e2.0	2.6	2.4	8.6	2.2	2.8	2.3	2.6	3.2
24	1.0	5.1	11	e1.9	3.1	2.2	3.2	1.6	3.0	1.7	2.4	2.2
25	1.0	3.7	3.8	e1.6	2.5	3.6	2.8	2.5	7.3	1.6	2.4	1.7
26	3.2	2.5	3.1	e2.4	2.2	2.5	7.9	2.5	2.6	7.4	2.3	1.7
27	28	2.4	2.9	e3.0	2.2	3.8	3.5	1.8	1.9	63	2.1	2.0
28	4.3	28	2.7	e2.9	2.2	2.4	3.5	2.0	1.6	11	2.1	60
29	31	7.6	2.8	e3.0	2.1	2.2	2.7	1.5	1.5	2.7	2.3	5.7
30	3.1	4.6	3.2	2.5	---	2.2	2.6	1.3	1.9	2.2	2.1	2.7
31	2.3	---	2.4	2.1	---	2.6	---	3.4	---	2.4	2.3	---
TOTAL	123.38	221.3	268.2	88.1	208.7	135.5	180.5	115.9	144.7	309.7	220.2	177.0
MEAN	3.98	7.38	8.65	2.84	7.20	4.37	6.02	3.74	4.82	9.99	7.10	5.90
MAX	31	55	57	10	86	40	34	12	24	150	85	60
MIN	0.98	1.8	2.4	1.6	2.1	2.1	2.6	1.3	1.5	1.5	1.8	1.5
CFSM	1.21	2.25	2.64	0.87	2.19	1.33	1.83	1.14	1.47	3.05	2.17	1.80
IN.	1.40	2.51	3.04	1.00	2.37	1.54	2.05	1.31	1.64	3.51	2.50	2.01

e Estimated

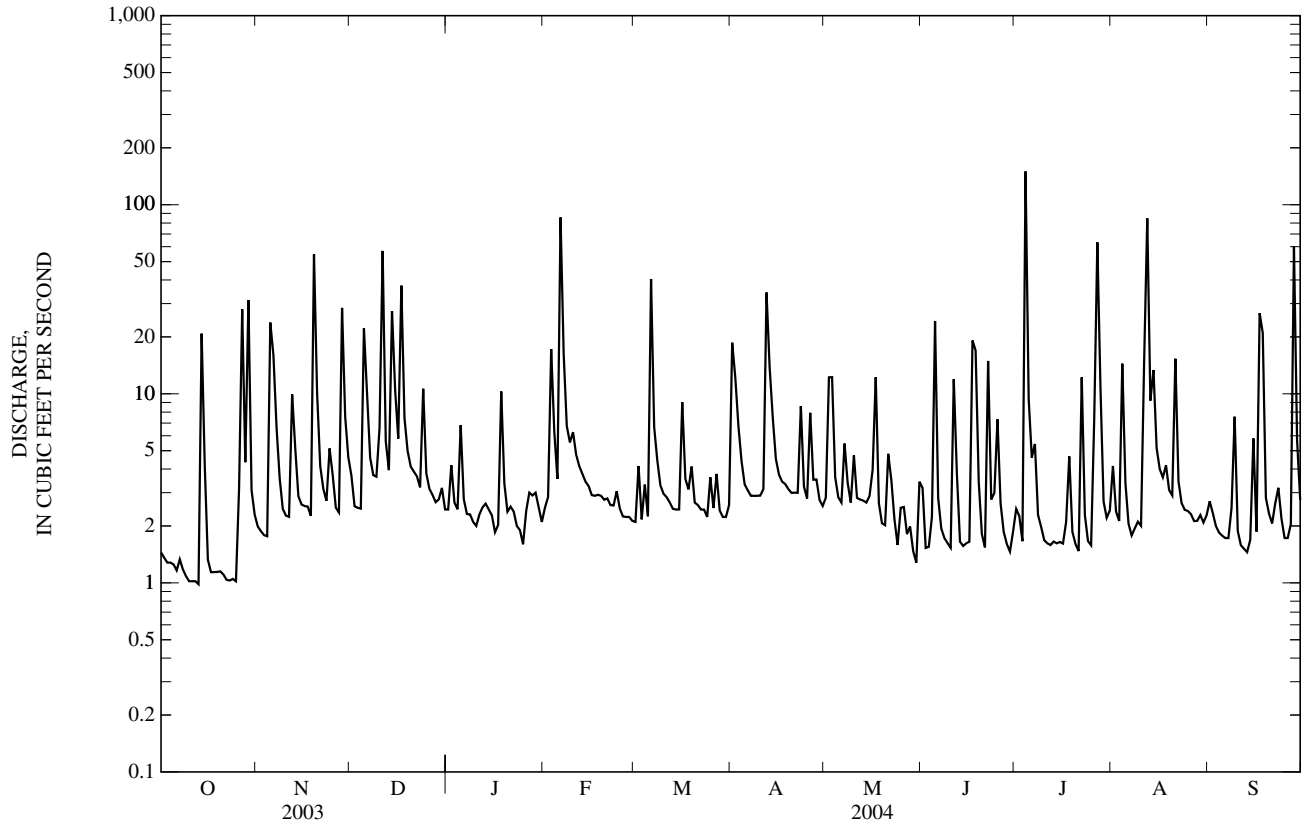
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 2004, BY WATER YEAR (WY)

MEAN	2.98	4.12	4.42	5.34	5.48	7.68	4.63	4.71	4.26	3.98	3.19	4.33
MAX	9.08	7.38	9.57	9.71	11.3	15.7	6.55	8.78	12.7	9.99	7.10	13.0
(WY)	(1996)	(2004)	(1997)	(1996)	(1998)	(1994)	(1996)	(2003)	(2003)	(2004)	(2004)	(1999)
MIN	0.73	1.32	1.37	1.25	0.74	2.74	2.36	1.59	1.81	1.35	1.23	1.37
(WY)	(1999)	(2002)	(2002)	(2002)	(2002)	(2002)	(1995)	(1999)	(2002)	(2002)	(1998)	(1998)

01651800 WATTS BRANCH AT WASHINGTON, D.C.—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1992 - 2004	
ANNUAL TOTAL	2,791.44		2,193.18			
ANNUAL MEAN	7.65		5.99		4.61	
HIGHEST ANNUAL MEAN					7.25	2003
LOWEST ANNUAL MEAN					1.76	2002
HIGHEST DAILY MEAN	(e)168	Sep 23	(e)150	Jul 4	204	Sep 16, 1999
LOWEST DAILY MEAN	0.89	Aug 24	0.98	Oct 13	(e)0.14	(a)
ANNUAL SEVEN-DAY MINIMUM	1.0	Oct 19	1.0	Oct 19	0.19	Oct 3, 2002
MAXIMUM PEAK FLOW			(b,e)1,800	Jul 4	(b,e)1,800	Jul 4, 2004
MAXIMUM PEAK STAGE			(e)8.0	Jul 4	(c)8.50	Sep 23, 2003
INSTANTANEOUS LOW FLOW			0.89	(d)	UNKNOWN	
ANNUAL RUNOFF (CFSM)	2.33		1.83		1.41	
ANNUAL RUNOFF (INCHES)	31.66		24.87		19.10	
10 PERCENT EXCEEDS	15		12		9.8	
50 PERCENT EXCEEDS	3.1		2.7		2.0	
90 PERCENT EXCEEDS	1.3		1.6		0.72	

e Estimated
a Sept. 7, 12, 20, 2002.
b From rating curve extended above 260 ft^3/s.
c From high water mark (affected from backwater).
d Oct. 13, 14.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01653600 PISCATAWAY CREEK AT PISCATAWAY, MD

LOCATION.--Lat 38°42'20.8", long 76°57'58.3", Prince Georges County, Hydrologic Unit 02070010, on left bank 75 ft downstream from bridge on State Highway 223, at Piscataway, 0.4 mi upstream from Tinker Creek, and 4.8 mi upstream from mouth.

DRAINAGE AREA.--39.5 mi^2.

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges, records good. U.S. Geological Survey gage-height telemeter at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 450 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec 11	1130	601	6.42	Apr 13	0515	492	6.06
Dec 15	0145	462	5.95	Jun 18	1230	*1,010	*7.32
Dec 17	2030	677	6.64	Jul 27	1130	495	6.07
Feb 7	0400	954	7.22	Aug 1	1745	539	6.22

Minimum discharge, 5.9 ft^3/s, Sept. 3-5.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	48	55	62	39	37	118	31	16	13	169	7.3
2	31	42	50	65	42	44	103	30	12	12	76	6.7
3	27	39	46	63	118	40	83	105	9.9	11	76	6.3
4	27	37	46	60	141	41	62	71	9.9	49	37	6.0
5	24	36	192	72	70	40	50	42	193	59	35	6.1
6	22	159	172	77	313	131	42	44	159	17	27	6.9
7	22	165	89	59	761	91	41	34	36	16	22	7.3
8	21	66	69	55	185	60	38	53	25	23	18	7.7
9	21	51	66	56	105	46	38	31	20	13	16	64
10	23	45	68	48	96	41	35	77	17	11	15	19
11	19	44	445	44	81	38	35	34	19	9.7	13	13
12	18	54	165	51	71	36	110	24	107	11	70	11
13	17	179	87	54	67	33	372	22	27	11	162	9.1
14	19	62	224	49	62	32	169	21	20	12	67	8.4
15	131	51	321	47	58	32	103	18	17	12	79	36
16	34	46	137	39	53	44	72	26	15	8.6	39	25
17	24	44	439	39	52	55	64	19	69	10	34	26
18	20	44	364	76	52	42	57	20	560	34	30	349
19	19	97	143	76	50	63	54	19	163	20	25	63
20	18	332	105	47	49	44	49	19	43	10	18	29
21	19	89	89	40	49	40	46	17	27	7.9	19	22
22	16	63	83	43	45	34	44	16	42	7.0	20	18
23	15	57	78	38	42	33	45	13	141	8.7	16	16
24	14	56	203	36	43	32	59	12	44	9.3	14	15
25	14	94	196	32	43	33	41	11	29	9.2	13	14
26	14	59	97	39	42	34	43	35	36	10	12	13
27	142	53	80	47	41	35	52	16	20	312	11	13
28	217	63	74	48	37	34	43	20	17	145	10	66
29	324	146	73	43	37	31	35	14	16	43	9.9	78
30	128	63	69	42	---	30	31	11	14	29	9.3	48
31	59	---	64	36	---	30	---	12	---	20	8.4	---
TOTAL	1,532	2,384	4,389	1,583	2,844	1,356	2,134	917	1,923.8	963.4	1,170.6	1,009.8
MEAN	49.4	79.5	142	51.1	98.1	43.7	71.1	29.6	64.1	31.1	37.8	33.7
MAX	324	332	445	77	761	131	372	105	560	312	169	349
MIN	14	36	46	32	37	30	31	11	9.9	7.0	8.4	6.0
CFSM	1.25	2.01	3.58	1.29	2.48	1.11	1.80	0.75	1.62	0.79	0.96	0.85
IN.	1.44	2.25	4.13	1.49	2.68	1.28	2.01	0.86	1.81	0.91	1.10	0.95

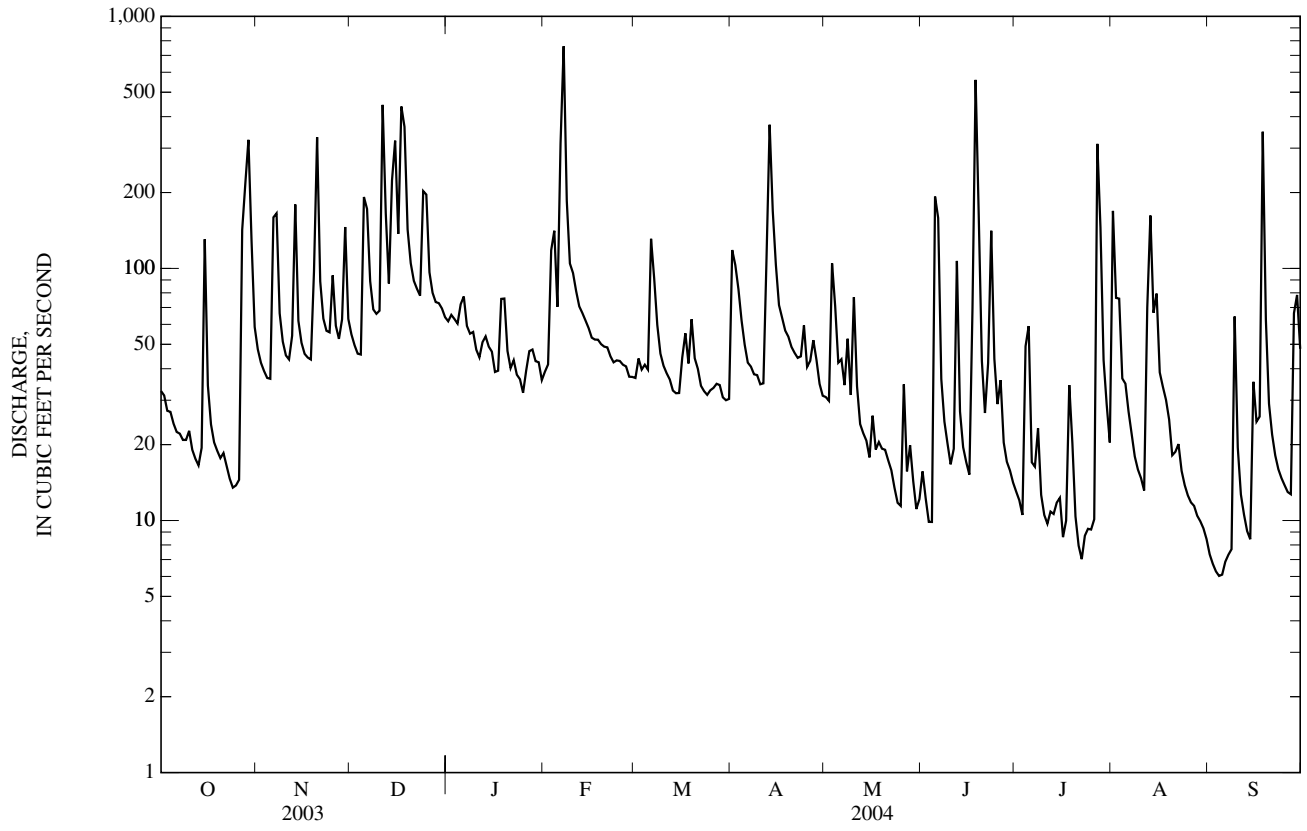
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 2004, BY WATER YEAR (WY)

MEAN	27.2	33.3	52.6	61.7	70.9	83.7	65.4	47.4	33.0	19.6	20.7	31.4
MAX	177	95.8	153	217	188	268	218	189	173	92.7	88.8	256
(WY)	(1980)	(1973)	(1973)	(1978)	(1972)	(1994)	(1983)	(1989)	(1972)	(1975)	(1971)	(1975)
MIN	1.31	1.27	5.26	5.96	7.59	17.5	18.1	9.28	1.42	0.14	0.01	0.00
(WY)	(1987)	(1992)	(1966)	(1981)	(2002)	(1981)	(1985)	(1999)	(1986)	(1966)	(1966)	(1977)

01653600 PISCATAWAY CREEK AT PISCATAWAY, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1966 - 2004	
ANNUAL TOTAL	31,969.3		22,206.6			
ANNUAL MEAN	87.6		60.7		45.4	
HIGHEST ANNUAL MEAN					85.9	1972
LOWEST ANNUAL MEAN					8.86	2002
HIGHEST DAILY MEAN	1,170	Feb 23	761	Feb 7	4,500	Sep 6, 1979
LOWEST DAILY MEAN	9.3	Aug 25	6.0	Sep 4	0.00	(a)
ANNUAL SEVEN-DAY MINIMUM	16	Oct 20	6.7	Sep 1	0.00	Jul 9, 1966
MAXIMUM PEAK FLOW			1,010	Jun 18	(b)8,540	Sep 6, 1979
MAXIMUM PEAK STAGE			7.32	Jun 18	11.21	Sep 6, 1979
INSTANTANEOUS LOW FLOW			5.9	(c)	0.00	(d)
ANNUAL RUNOFF (CFSM)	2.22		1.54		1.15	
ANNUAL RUNOFF (INCHES)	30.11		20.91		15.63	
10 PERCENT EXCEEDS	172		133		90	
50 PERCENT EXCEEDS	56		40		23	
90 PERCENT EXCEEDS	21		12		1.5	

a Many days.
b From rating curve extended above 1,700 ft^3/s on basis of contracted-opening measurement of peak flow at bridge 100 ft upstream.
c Sept. 3-5.
d No flow at times in 1966, 1970, 1977, 1980-83, 1985-89, 1991-95, 1997-99, 2002.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01654000 ACCOTINK CREEK NEAR ANNANDALE, VA

LOCATION.--Lat 38°48'46", long 77°13'42", NAD83, Fairfax County, Hydrologic Unit 02070010, on left bank 800 ft upstream from bridge on State Highway 620, 0.2 mi upstream from Long Branch, and 2.3 mi southwest of Annandale.

DRAINAGE AREA.--23.5 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1947 to current year (fragmentary prior to October 1947).

REVISED RECORDS.--WSP 1502: 1952. WSP 2103: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 191.24 ft NGVD of 1929 (levels by Stone and Webster Engineering Corporation). Prior to May 12, 1949, nonrecording gage at site 800 ft downstream at datum 0.33 ft lower. May 12, 1949, to June 4, 1970, water-stage recorder at site 800 ft downstream at datum 0.33 ft lower.

REMARKS.--Records good except those for periods with ice effect, Jan. 9, 10, 14-17 and Jan. 20 to Feb. 2, which are fair. Maximum discharge, 12,000 ft^3/s, from rating curve extended above 6,600 ft^3/s on basis of contracted-opening and flow-over-road measurement of peak flow. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

COOPERATION.--Records were provided by the Virginia Department of Environmental Quality - Water Division.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,400 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov 19	2130	2,140	9.08	Jul 28	0300	2,030	8.94
Dec 11	0545	*4,280	*11.31	Sep 18	0245	1,630	8.36
Jun 5	1430	2,500	9.53	Sep 28	2230	3,500	10.60

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	18	19	16	e7.9	15	131	14	64	7.9	51	4.5
2	10	16	16	44	e11	31	156	27	14	7.6	106	3.9
3	8.9	15	16	19	138	15	62	108	8.9	7.0	31	3.8
4	9.2	15	15	18	57	21	31	23	9.0	104	17	3.8
5	9.0	120	182	63	25	16	20	17	642	21	24	3.7
6	8.2	213	90	27	446	180	18	15	37	9.3	8.4	3.9
7	8.2	74	30	17	154	31	17	24	16	7.9	7.1	4.3
8	8.0	30	22	15	46	32	16	38	13	10	6.4	105
9	8.7	22	21	e15	30	19	16	15	11	6.4	6.1	36
10	7.7	20	58	e14	45	17	15	30	10	6.1	6.1	6.7
11	7.5	19	1,160	14	34	17	15	15	69	6.1	132	5.1
12	7.4	69	41	15	26	16	199	13	136	6.0	84	4.7
13	7.0	74	26	15	25	15	249	12	15	6.5	61	4.6
14	78	23	142	e13	23	15	73	11	13	33	37	4.2
15	160	20	112	e12	21	15	31	12	16	12	27	27
16	16	22	53	e12	19	50	23	22	30	5.9	11	20
17	12	18	250	e12	18	23	21	12	16	6.4	8.6	95
18	11	17	51	73	18	19	19	11	14	12	7.8	305
19	11	334	29	24	18	19	18	13	20	6.5	7.8	14
20	10	142	23	e13	18	15	17	11	9.1	16	6.8	8.1
21	11	27	21	e12	18	15	17	10	8.4	5.4	37	6.6
22	10	19	20	e12	17	14	16	30	98	7.7	13	6.3
23	8.9	17	19	e10	16	14	43	9.8	115	13	6.7	5.9
24	8.6	31	174	e10	17	13	31	9.3	15	11	6.1	5.5
25	8.7	56	36	e9.4	18	16	15	35	11	5.9	5.8	5.2
26	22	17	23	e9.0	15	14	109	41	11	6.7	5.7	5.0
27	420	15	20	e8.8	15	20	45	9.8	9.4	196	5.6	4.9
28	54	186	19	e8.5	15	14	17	22	8.5	322	5.4	591
29	219	78	19	e8.2	15	13	15	9.3	8.1	13	5.0	111
30	33	22	20	e8.1	---	13	15	8.2	7.9	8.9	5.0	14
31	21	---	17	e8.0	---	13	---	12	---	7.3	6.9	---
TOTAL	1,225.0	1,749	2,744	555.0	1,325.9	740	1,470	639.4	1,455.3	894.5	748.3	1,418.7
MEAN	39.5	58.3	88.5	17.9	45.7	23.9	49.0	20.6	48.5	28.9	24.1	47.3
MAX	420	334	1,160	73	446	180	249	108	642	322	132	591
MIN	7.0	15	15	8.0	7.9	13	15	8.2	7.9	5.4	5.0	3.7
CFSM	1.68	2.48	3.77	0.76	1.95	1.02	2.09	0.88	2.06	1.23	1.03	2.01
IN.	1.94	2.77	4.34	0.88	2.10	1.17	2.33	1.01	2.30	1.42	1.18	2.25

e Estimated

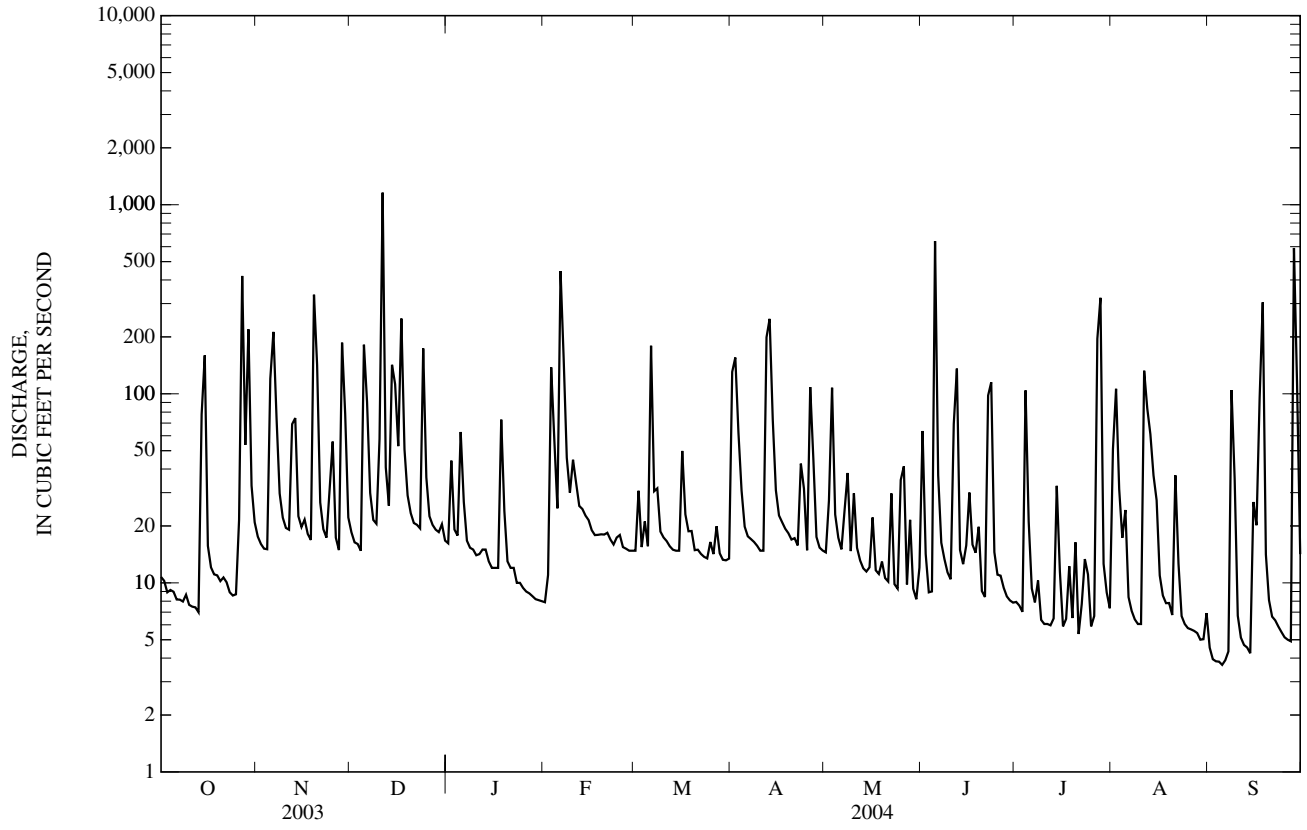
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 2004, BY WATER YEAR (WY)

MEAN	18.1	24.5	29.1	32.1	36.3	42.3	35.3	32.8	26.5	21.4	22.2	23.5
MAX	76.6	70.4	88.5	87.0	113	114	94.5	125	212	74.5	123	120
(WY)	(1980)	(1994)	(2004)	(1996)	(1998)	(1993)	(1983)	(1989)	(1972)	(1969)	(1967)	(1996)
MIN	2.03	3.25	5.48	4.53	3.76	10.6	8.40	8.46	2.83	1.81	1.94	0.45
(WY)	(1955)	(1955)	(1966)	(1981)	(2002)	(1981)	(1985)	(1986)	(1986)	(1955)	(1957)	(1954)

01654000 ACCOTINK CREEK NEAR ANNANDALE, VA—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1948 - 2004	
ANNUAL TOTAL	21,513.7		14,965.1			
ANNUAL MEAN	58.9		40.9		28.6	
HIGHEST ANNUAL MEAN					50.9	2003
LOWEST ANNUAL MEAN					10.8	2002
HIGHEST DAILY MEAN	1,340	Feb 22	1,160	Dec 11	e3,300	Jun 22, 1972
LOWEST DAILY MEAN	e3.8	Feb 14	3.7	Sep 5	0.00 (a)	Aug 5, 1999
ANNUAL SEVEN-DAY MINIMUM	e4.4	Feb 8	4.0	Sep 1	0.00 (b)	Aug 5, 1999
MAXIMUM PEAK FLOW			4,280	Dec 11	12,000	Jun 22, 1972
MAXIMUM PEAK STAGE			11.31	Dec 11	(c)15.96	Jun 22, 1972
INSTANTANEOUS LOW FLOW			3.6	(d)Sep 4	0.00	(f)
ANNUAL RUNOFF (CFSM)	2.51		1.74		1.22	
ANNUAL RUNOFF (INCHES)	34.06		23.69		16.55	
10 PERCENT EXCEEDS	120		100		52	
50 PERCENT EXCEEDS	20		16		12	
90 PERCENT EXCEEDS	7.0		6.5		3.2	

a Also Aug. 6-13, 1999 and Aug. 12, 18-23, 2002.
b Also Aug. 17, 2002.
c From high-water mark in gage house.
d Also Sept. 5, 6, 2004.
f No flow part or all of each day Aug. 5-14, 1999 and Aug. 12, 13, 18-24, 2002.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01654000 ACCOTINK CREEK NEAR ANNANDALE, VA—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1993 to August 1995, September 1997 to current year.
PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: January 2002 to September 2004 (discontinued).
WATER TEMPERATURE: January 2002 to September 2004 (discontinued).
INSTRUMENTATION.--Water-quality monitor January 2002 to September 2004.
REMARKS.--Missing record due to instrument malfunction (Oct. 1 - Nov. 10) and instrument removal (Sept. 27-30). Water-quality monitor records for specific conductance rated excellent except for the following periods : Mar. 7-10, Mar. 16 - Apr. 6, Apr. 14, 26, 27, May 2-4, 7-10, 25-28, June 1-3, 6, 11, 13, 22, 24, July 6, Aug. 4, 5, 12-14, Sept. 19, 20 rated good; Apr. 12, 13, June 23, July 4, 5, Aug. 2, 3, 11, Sept. 17 rated fair; June 5, 12, July 27, 28, Aug. 1, Sept. 18 rated poor. Water temperature records excellent.
EXTREMES FOR PERIOD OF DAILY RECORD--
SPECIFIC CONDUCTANCE: Maximum, 6,450 microsiemens/cm (road salt influence), Dec. 11, 2002, Feb. 9, 10, Mar. 1, 2003; minimum, 54 microsiemens/cm, Oct. 26, 2002, Sept. 18, 2004.
WATER TEMPERATURE: Maximum, 28.8˚C, Aug. 24, 2002; minimum, 0.0˚C, on many days during winter periods.
EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 6,040 microsiemens/cm (road salt influence), Jan. 30; minimum, 54 microsiemens/cm, Sept. 18.
WATER TEMPERATURE: Maximum, 26.3˚C, July 6; minimum, 0.0˚C, on many days.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sample type	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Sampling method, code (82398)	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, air, deg C (00020)
NOV												
04...	1200	Environmental	1028	80020	15	40	764	8.5	85	7.1	280	26.0
JAN												
06...	1245	Environmental	1028	80020	22	40	765	11.2	93	7.0	245	4.0
MAR												
03...	0945	Environmental	1028	80020	15	40	769	11.2	97	7.2	473	13.0
APR												
06...	1015	Environmental	1028	80020	18	40	763	13.8	114	7.3	349	9.0
MAY												
12...	*0800*	*Blank*	*1028*	*80020*	--	--	--	--	--	--	--	--
12...	*0845*	*Blank*	*1028*	*80020*	--	--	--	--	--	--	--	--
12...	0915	Environmental	1028	80020	13	40	767	6.7	74	7.0	291	24.0
JUN												
02...	1145	Environmental	1028	80020	12	40	761	7.5	83	6.9	200	25.0
02...	*1146*	*Replicate*	*1028*	*80020*	--	*40*	--	--	--	--	--	--
JUL												
07...	1015	Environmental	1028	80020	7.8	40	759	7.2	86	7.1	221	29.0
SEP												
02...	0930	Environmental	1028	80020	4.1	40	768	7.5	84	7.2	316	22.0

Date	Temperature, water, deg C (00010)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Chloride, water, fltrd, mg/L (00940)	Sulfate water, fltrd, mg/L (00945)	Ammonia water, fltrd, mg/L as N (00608)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, wat unf by analysis, mg/L (62855)
NOV													
04...	15.5	47	57	45.5	9.7	<.04	--	.70	E.006	.07	E.003	.024	.97
JAN													
06...	7.5	31	37	49.2	8.6	E.03	.85	.86	.013	.07	.007	.051	1.20
MAR													
03...	9.5	36	44	107	11.3	<.04	1.22	1.24	.025	.08	<.006	.024	1.62
APR													
06...	7.0	40	48	69.1	11.4	<.04	--	1.21	E.007	.04	<.006	.026	1.39
MAY													
12...	--	--	--	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	*<.20*	*<.2*	--	--	--	--	*.03*	--	--	--
12...	20.5	40	49	54.1	9.0	.07	.86	.92	.060	.05	<.006	.045	1.26
JUN													
02...	20.5	E30	E37	33.9	6.8	.05	.76	.81	.050	.12	.008	.073	1.22
02...	--	--	--	--	--	*.05*	*.76*	*.81*	*.050*	--	*.010*	*.072*	*1.18*
JUL													
07...	24.5	35	42	35.0	8.0	<.04	.72	.73	.010	.03	E.004	.039	.97
SEP													
02...	21.0	48	59	56.4	7.7	<.04	--	.60	<.008	<.02	<.006	.024	.75

Agency collecting sample: 1028 - U.S. Geological Survey
Agency analyzing sample: 80020 - USGS-National Water Quality Lab, Denver, CO
Sampling method: 40 - Multiple verticals

01654000 ACCOTINK CREEK NEAR ANNANDALE, VA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	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)	2,6-Diethylaniline water fltrd 0.7u GF ug/L (82660)	CIAT, water, fltrd, ug/L (04040)	Acetochlor, water, fltrd, ug/L (49260)	Alachlor, water, fltrd, ug/L (46342)	alpha-HCH, water, fltrd, ug/L (34253)	alpha-HCH-d6, surrog, wat flt 0.7u GF percent recovry (91065)	Atrazine, water, fltrd, ug/L (39632)	Azinphosmethyl, water, fltrd 0.7u GF ug/L (82686)	Benfluralin, water, fltrd 0.7u GF ug/L (82673)
NOV													
04...	.3	<.1	.3	3.7	<.006	<.006	<.006	<.005	<.005	92.0	E.005	<.050	<.010
JAN													
06...	.7	--	--	--	<.006	<.006	<.006	<.005	<.005	94.6	<.007	<.050	<.010
MAR													
03...	.6	<.1	.6	4.4	<.006	E.006	<.006	<.005	<.005	86.4	.007	<.050	<.010
APR													
06...	.4	<.1	.4	3.2	<.006	<.006	<.006	<.005	<.005	92.8	E.006	<.050	<.010
MAY													
12...	--	--	--	--	*<.006*	*<.006*	*<.006*	*<.005*	*<.005*	*85.9*	*<.007*	*<.050*	*<.010*
12...	*<.1*	*<.1*	*<.1*	*.5*	*<.006*	*<.006*	*<.006*	*<.005*	*<.005*	*87.7*	*<.007*	*<.050*	*<.010*
12...	.2	<.1	.2	3.6	<.006	E.021	<.006	<.005	<.005	84.8	.091	<.050	<.010
JUN													
02...	.7	<.1	.7	6.1	<.006	E.014	<.007	<.005	<.005	90.7	.078	E.035	E.005
02...	--	--	--	--	*<.006*	*<.014*	*<.006*	*<.005*	*<.005*	*91.5*	*.079*	*E.035*	*E.005*
JUL													
07...	.3	<.1	.3	4.1	<.006	E.004	<.006	<.005	<.005	82.5	.011	<.050	<.010
SEP													
02...	.2	<.1	.2	3.7	<.006	<.006	<.006	<.005	<.005	98.0	<.010	<.050	<.010

Date	Butylate, water, fltrd, ug/L (04028)	Carbaryl, water, fltrd 0.7u GF ug/L (82680)	Carbofuran, water, fltrd 0.7u GF ug/L (82674)	Chlorpyrifos water, fltrd, ug/L (38933)	cis-Permethrin water fltrd 0.7u GF ug/L (82687)	Cyanazine, water, fltrd, ug/L (04041)	DCPA, water fltrd 0.7u GF ug/L (82682)	Desulfinyl fipronil, water, fltrd, ug/L (62170)	Diazinon, water, fltrd, ug/L (39572)	Diazinon-d10 surrog. wat flt 0.7u GF percent recovry (91063)	Dieldrin, water, fltrd, ug/L (39381)	Disulfoton, water, fltrd 0.7u GF ug/L (82677)	EPTC, water, fltrd 0.7u GF ug/L (82668)
NOV													
04...	<.004	E.009	<.020	<.005	<.006	<.018	<.003	<.012	E.005	110	<.009	<.02	<.010
JAN													
06...	<.004	E.037	<.020	<.005	<.006	<.018	<.003	<.012	.012	127	<.009	<.02	<.004
MAR													
03...	<.004	<.041	<.020	<.020	<.006	<.018	<.003	E.005	<.005	119	<.009	<.02	<.004
APR													
06...	<.004	<.041	<.020	<.005	<.006	<.018	<.003	E.008	<.005	112	<.009	<.02	<.004
MAY													
12...	*<.004*	*<.041*	*<.020*	*<.005*	*<.006*	*<.018*	*<.003*	*<.012*	*<.005*	*106*	*<.009*	*<.02*	*<.004*
12...	*<.004*	*<.041*	*<.020*	*<.005*	*<.006*	*<.018*	*<.003*	*<.012*	*<.005*	*114*	*<.009*	*<.02*	*<.008*
12...	<.004	E.017	<.020	<.005	<.006	<.018	<.003	<.012	<.005	110	<.009	<.02	<.004
JUN													
02...	<.045	E.171	<.020	<.013	<.006	<.018	<.003	E.005	.022	116	<.009	<.02	<.005
02...	*<.044*	*E.169*	*<.020*	*<.014*	*<.006*	*<.018*	*<.003*	*E.005*	*<.022*	*112*	*<.009*	*<.02*	*<.008*
JUL													
07...	<.004	E.037	<.020	<.005	<.006	<.018	<.003	E.005	.007	106	<.009	<.02	<.004
SEP													
02...	<.004	E.011	<.020	<.005	<.006	<.018	<.003	<.012	<.005	109	<.009	<.02	<.004

01654000 ACCOTINK CREEK NEAR ANNANDALE, VA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Ethalfluralin, water, fltrd 0.7u GF ug/L (82663)	Ethoprop, water, fltrd 0.7u GF ug/L (82672)	Desulfinylfipronil 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 water, fltrd, ug/L (04095)	Lindane water, fltrd, ug/L (39341)	Linuron water fltrd 0.7u GF ug/L (82666)	Malathion, water, fltrd, ug/L (39532)	Methyl parathion, water, fltrd 0.7u GF ug/L (82667)	Metolachlor, water, fltrd, ug/L (39415)	Metribuzin, water, fltrd, ug/L (82630)
NOV													
04...	<.009	<.005	<.029	<.013	<.024	<.010	<.003	<.004	<.035	<.027	<.015	<.013	<.006
JAN													
06...	<.009	<.005	<.029	<.013	<.024	E.019	<.003	<.004	<.035	<.027	<.015	E.006	<.006
MAR													
03...	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035	<.027	<.015	<.013	<.006
APR													
06...	<.009	<.005	<.029	<.013	<.024	E.042	<.003	<.004	<.035	<.027	<.015	E.006	<.006
MAY													
12...	*<.009*	*<.005*	*<.029*	*<.013*	*<.024*	*<.016*	*<.003*	*<.004*	*<.035*	*<.027*	*<.015*	*<.013*	*<.006*
12...	*<.009*	*<.005*	*<.029*	*<.013*	*<.024*	*<.016*	*<.003*	*<.004*	*<.035*	*<.027*	*<.015*	*<.013*	*<.006*
12...	<.009	<.005	<.029	<.013	<.024	E.015	<.003	<.004	<.035	E.016	<.015	.020	<.006
JUN													
02...	<.009	<.005	<.029	E.004	<.024	E.029	<.003	<.004	<.035	<.027	<.015	.017	<.006
02...	*<.009*	*<.005*	*<.029*	*E.004*	*<.024*	*E.027*	*<.003*	*<.004*	*<.035*	*<.027*	*<.015*	*.018*	*<.006*
JUL													
07...	<.009	<.005	<.029	E.004	<.024	E.019	<.003	<.004	<.035	<.027	<.015	E.008	<.006
SEP													
02...	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035	<.027	<.015	<.013	<.006

Date	Molinate, water, fltrd 0.7u GF ug/L (82671)	Napropamide, water, fltrd 0.7u GF ug/L (82684)	p,p-' DDE, water, fltrd, ug/L (34653)	Parathion, water, fltrd, ug/L (39542)	Pebulate, water, fltrd 0.7u GF ug/L (82669)	Pendimethalin, water, fltrd 0.7u GF ug/L (82683)	Phorate water fltrd 0.7u GF ug/L (82664)	Prometon, water, fltrd, ug/L (04037)	Propyzamide, water, fltrd 0.7u GF ug/L (82676)	Propachlor, water, fltrd, ug/L (04024)	Propanil, water, fltrd 0.7u GF ug/L (82679)	Propargite, water, fltrd 0.7u GF ug/L (82685)	Simazine, water, fltrd, ug/L (04035)
NOV													
04...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	.01	<.004	<.025	<.011	<.02	.079
JAN													
06...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	.01	<.004	<.025	<.011	<.02	.058
MAR													
03...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	.01	.024	<.025	<.011	<.02	.024
APR													
06...	<.003	<.007	<.003	<.010	<.004	.026	<.011	.03	<.004	<.025	<.011	<.02	.100
MAY													
12...	*<.003*	*<.007*	*<.003*	*<.010*	*<.004*	*<.022*	*<.011*	*<.01*	*<.004*	*<.025*	*<.011*	*<.02*	*<.005*
12...	*<.003*	*<.007*	*<.003*	*<.010*	*<.004*	*<.022*	*<.011*	*<.01*	*<.004*	*<.025*	*<.011*	*<.02*	*<.005*
12...	<.003	<.007	<.003	<.010	<.004	E.011	<.011	.03	<.004	<.025	<.011	<.02	.699
JUN													
02...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	.06	<.004	<.025	<.011	<.02	.059
02...	*<.003*	*<.007*	*<.003*	*<.010*	*<.004*	*<.022*	*<.011*	*.06*	*<.004*	*<.025*	*<.011*	*<.02*	*.059*
JUL													
07...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	.08	<.020	<.025	<.011	<.02	.017
SEP													
02...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	E.03	<.004	<.025	<.011	<.02	.016

01654000 ACCOTINK CREEK NEAR ANNANDALE, VA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Tebu-thiuron water fltrd 0.7u GF ug/L (82670)	Terba-cil, water, fltrd 0.7u GF ug/L (82665)	Terbu-fos, water, fltrd 0.7u GF ug/L (82675)	Thio-bencarb water fltrd 0.7u GF ug/L (82681)	Tri-allate, water, fltrd 0.7u GF ug/L (82678)	Tri-flur-alin, water, fltrd 0.7u GF ug/L (82661)	Sus-pended sedi-ment concen-tration mg/L (80154)	Sus-pended sedi-ment dis-charge, tons/d (80155)	Sampler type, code (84164)
NOV									
04...	<.02	<.034	<.02	<.010	<.002	<.009	2	.08	3070
JAN									
06...	<.02	<.034	<.02	<.010	<.002	<.009	11	.65	3070
MAR									
03...	<.02	<.034	<.02	<.010	<.002	E.006	5	.20	3070
APR									
06...	<.02	<.034	<.02	<.010	<.002	E.006	4	.19	3070
MAY									
12...	*<.02*	*<.034*	*<.02*	*<.010*	*<.002*	*<.009*	--	--	--
12...	*<.02*	*<.034*	*<.02*	*<.010*	*<.002*	*<.009*	--	--	--
12...	.02	<.034	<.02	<.010	<.002	<.009	4	.14	3070
JUN									
02...	<.02	<.034	<.02	<.010	<.002	E.005	10	.32	3070
02...	*<.02*	*<.087*	*<.02*	*<.010*	*<.002*	*E.005*	*10*	--	*3070*
JUL									
07...	<.02	<.034	<.02	<.010	<.002	<.009	5	.11	3070
SEP									
02...	<.02	<.034	<.02	<.010	<.002	<.009	20	.22	3070

Remark codes used in this table:
< -- Less than
E -- Estimated value

Sampler type: 3070 - Grab sample

01654000 ACCOTINK CREEK NEAR ANNANDALE, VA—Continued

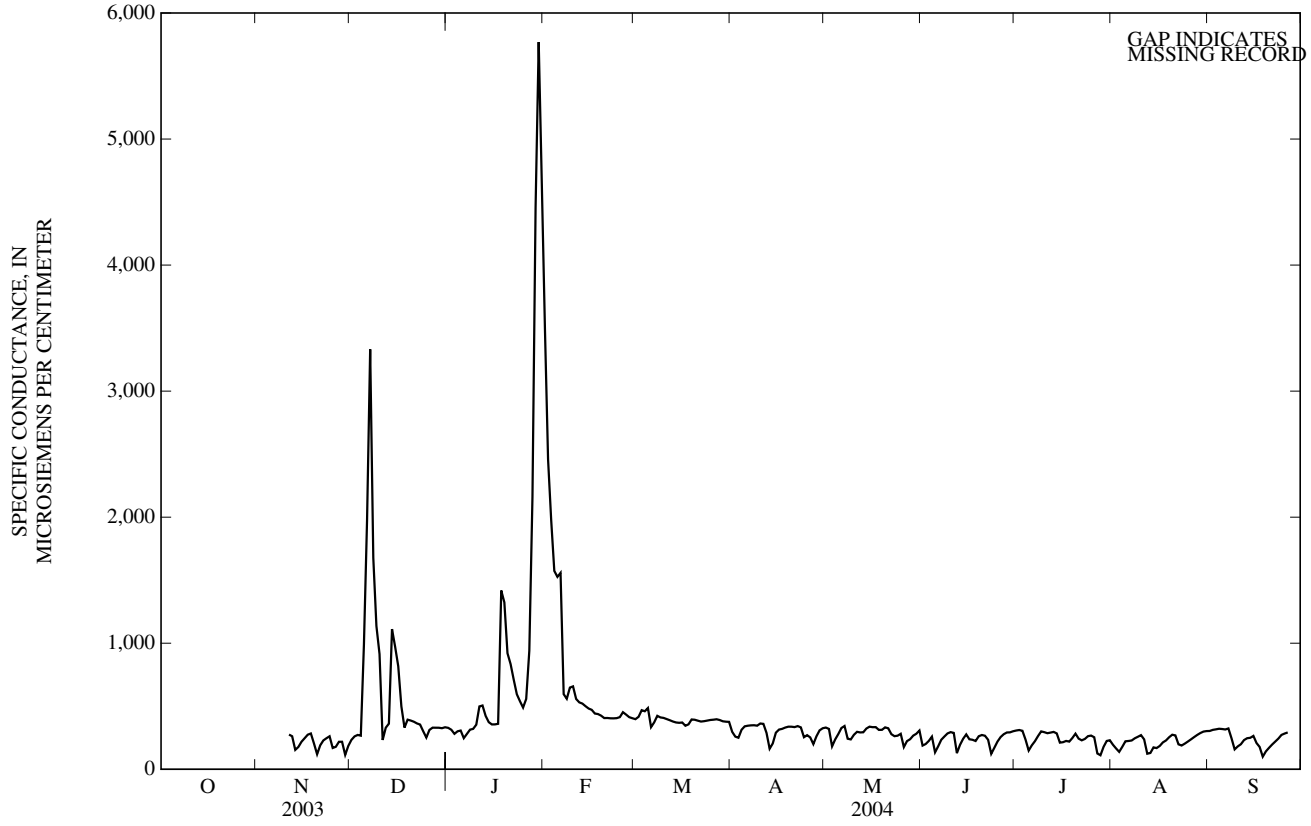
SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	---	---	---	250	213	233	332	327	329
2	---	---	---	---	---	---	269	250	261	368	296	314
3	---	---	---	---	---	---	277	269	272	296	275	281
4	---	---	---	---	---	---	277	259	267	321	280	301
5	---	---	---	---	---	---	2,250	268	990	365	253	307
6	---	---	---	---	---	---	3,760	549	1,980	259	240	247
7	---	---	---	---	---	---	3,930	2,270	3,330	305	259	281
8	---	---	---	---	---	---	2,270	1,380	1,680	319	305	314
9	---	---	---	---	---	---	1,480	917	1,140	326	318	320
10	---	---	---	---	---	---	1,170	820	914	476	326	354
11	---	---	---	281	270	275	827	116	233	528	472	498
12	---	---	---	305	166	262	357	286	330	538	455	506
13	---	---	---	173	148	154	380	314	362	455	395	423
14	---	---	---	196	160	177	2,390	352	1,110	401	358	374
15	---	---	---	240	196	218	1,230	864	972	359	352	356
16	---	---	---	267	188	246	1,000	673	817	361	352	356
17	---	---	---	281	267	274	706	284	499	365	352	361
18	---	---	---	286	281	284	374	293	331	2,970	351	1,420
19	---	---	---	289	63	204	400	374	393	2,050	1,010	1,320
20	---	---	---	163	71	119	395	379	387	1,010	856	920
21	---	---	---	212	163	190	381	373	377	860	784	834
22	---	---	---	243	212	229	373	358	364	784	636	711
23	---	---	---	259	221	246	359	352	355	636	552	595
24	---	---	---	290	202	262	408	205	302	572	500	540
25	---	---	---	236	157	169	288	215	252	500	468	489
26	---	---	---	200	162	178	328	288	312	712	455	558
27	---	---	---	240	200	218	331	328	330	1,810	597	941
28	---	---	---	285	69	218	330	329	330	3,090	1,810	2,160
29	---	---	---	154	72	114	332	319	329	5,970	3,090	4,460
30	---	---	---	213	154	185	335	317	326	6,040	5,530	5,770
31	---	---	---	---	---	---	334	330	333	5,540	4,010	4,640
MONTH	---	---	---	---	---	---	3,930	116	649	6,040	240	1,010
		FEBRUARY			MARCH			APRIL			MAY	
1	4,010	2,850	3,490	402	395	398	414	234	297	334	326	331
2	2,850	2,000	2,460	510	391	416	300	220	259	344	206	320
3	2,830	1,440	1,980	477	460	469	293	219	250	266	158	182
4	1,670	1,480	1,570	498	444	460	348	293	313	259	205	237
5	1,710	1,350	1,530	498	462	486	347	334	340	308	259	279
6	3,040	444	1,560	520	251	334	348	339	345	344	308	327
7	737	453	596	465	316	372	351	346	348	487	293	343
8	598	537	559	433	403	424	353	345	349	338	223	242
9	685	598	648	421	403	411	356	340	346	257	223	237
10	710	574	658	412	403	408	368	356	363	313	202	273
11	586	536	558	403	394	398	362	356	360	304	293	297
12	537	526	531	398	383	389	368	121	288	296	289	292
13	529	509	521	383	376	379	217	115	163	309	288	293
14	509	493	500	378	366	371	262	157	205	329	309	323
15	493	474	482	371	366	369	305	262	290	449	326	338
16	478	444	471	398	343	371	350	305	315	355	297	334
17	448	435	442	360	337	345	355	311	321	353	315	334
18	447	431	438	377	344	356	339	319	331	353	304	312
19	431	418	425	465	376	395	354	331	338	321	310	313
20	418	398	406	395	389	393	347	332	338	336	321	332
21	412	403	407	393	380	386	340	332	335	334	318	325
22	406	403	404	381	375	378	348	339	343	335	251	278
23	408	402	404	387	377	381	390	252	332	264	261	263
24	409	399	406	391	381	386	283	248	254	273	262	266
25	454	402	414	399	382	391	289	254	271	344	145	281
26	474	434	453	401	352	393	355	175	253	192	154	176
27	441	422	434	425	385	397	230	176	199	244	192	223
28	422	406	413	395	386	391	299	230	262	323	201	238
29	411	401	405	386	376	381	320	297	309	274	259	267
30	---	---	---	383	372	377	328	320	325	298	272	282
31	---	---	---	382	372	376	---	---	---	348	297	307
MONTH	4,010	398	813	520	251	393	414	115	301	487	145	285

01654000 ACCOTINK CREEK NEAR ANNANDALE, VA—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	299	161	188	310	306	307	239	74	195	310	300	304
2	213	193	200	313	309	311	229	96	165	317	309	312
3	241	212	225	311	300	305	162	109	138	320	314	317
4	299	241	259	407	110	235	221	150	178	323	317	321
5	282	66	134	172	116	148	236	156	222	325	313	319
6	215	136	182	205	172	190	234	220	224	320	312	316
7	241	215	234	242	205	223	238	220	228	343	316	324
8	278	241	260	283	242	264	254	225	246	337	100	245
9	291	277	284	311	282	300	263	254	258	177	127	158
10	300	288	295	305	290	294	284	263	271	189	176	181
11	374	127	288	290	284	286	389	84	237	210	189	199
12	166	89	128	297	288	291	194	98	123	254	210	231
13	218	166	193	298	295	296	153	93	129	252	242	246
14	261	218	242	305	160	284	222	153	173	257	245	250
15	299	261	277	240	205	211	176	163	168	312	240	265
16	297	223	238	219	210	215	196	174	185	271	189	208
17	348	201	234	290	216	225	228	196	213	207	75	177
18	279	193	224	244	200	219	239	224	229	126	54	100
19	277	226	262	260	229	248	266	239	254	156	126	142
20	276	268	272	300	254	282	283	265	274	184	156	170
21	269	264	266	265	232	243	309	194	269	209	184	196
22	286	124	234	280	207	230	212	184	198	233	209	220
23	158	100	123	260	211	240	198	183	189	260	233	243
24	197	143	171	273	241	263	212	197	203	280	260	272
25	239	197	220	274	256	267	231	212	220	291	279	283
26	266	238	255	260	232	254	248	230	237	296	291	292
27	286	265	278	274	80	125	265	248	255	---	---	---
28	294	286	292	147	61	111	283	265	272	---	---	---
29	297	290	293	232	147	178	296	283	287	---	---	---
30	306	296	301	236	219	224	334	295	299	---	---	---
31	---	---	---	239	219	230	311	295	303	---	---	---
MONTH	374	66	235	407	61	242	389	74	221	343	54	242
YEAR	6,040	54	427									



01654000 ACCOTINK CREEK NEAR ANNANDALE, VA—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	---	---	---	8.0	6.3	6.9	5.8	3.8	4.8
2	---	---	---	---	---	---	6.4	4.8	5.6	7.0	5.2	6.1
3	---	---	---	---	---	---	4.8	3.6	4.1	7.9	6.7	7.2
4	---	---	---	---	---	---	4.4	3.3	3.8	9.7	7.7	8.6
5	---	---	---	---	---	---	3.6	3.2	3.4	9.4	8.6	9.2
6	---	---	---	---	---	---	3.8	2.9	3.3	8.6	4.5	6.9
7	---	---	---	---	---	---	3.6	2.3	2.9	4.5	1.5	2.8
8	---	---	---	---	---	---	3.3	1.8	2.6	1.6	0.4	1.1
9	---	---	---	---	---	---	4.4	2.6	3.5	2.5	1.0	1.8
10	---	---	---	---	---	---	8.1	3.7	4.7	1.0	0.0	0.2
11	---	---	---	9.5	7.0	8.3	9.9	7.4	8.9	0.5	0.0	0.2
12	---	---	---	12.7	9.5	10.7	7.4	5.2	6.3	1.2	0.1	0.6
13	---	---	---	13.0	8.8	11.7	5.3	4.1	4.6	3.0	0.6	1.7
14	---	---	---	8.8	7.0	7.8	4.2	1.9	2.8	2.6	1.3	1.9
15	---	---	---	8.5	6.9	7.7	4.4	2.6	3.5	2.7	0.7	1.8
16	---	---	---	9.5	7.8	8.7	5.0	3.3	4.3	0.7	0.0	0.2
17	---	---	---	11.7	9.5	10.3	6.4	4.5	5.7	0.5	0.0	0.2
18	---	---	---	10.5	9.1	9.8	4.5	3.8	4.1	1.6	0.3	0.7
19	---	---	---	15.5	10.5	12.7	4.4	3.5	3.9	1.8	0.1	0.9
20	---	---	---	13.9	10.8	12.3	4.1	2.8	3.4	0.6	0.0	0.1
21	---	---	---	11.7	9.4	10.6	3.7	2.1	2.9	0.4	0.0	0.1
22	---	---	---	11.5	9.5	10.5	4.6	2.3	3.4	0.7	0.0	0.3
23	---	---	---	11.3	9.4	10.4	6.6	4.6	5.5	0.4	0.0	0.1
24	---	---	---	12.3	10.5	11.3	9.5	6.5	8.2	0.3	0.0	0.1
25	---	---	---	11.0	7.5	9.0	7.4	4.6	5.8	0.2	0.0	0.1
26	---	---	---	8.1	6.5	7.4	5.2	4.1	4.5	0.0	0.0	0.0
27	---	---	---	8.9	6.9	7.9	5.3	3.5	4.3	0.1	0.0	0.0
28	---	---	---	12.2	8.9	10.1	5.0	3.1	4.0	0.3	0.0	0.1
29	---	---	---	10.7	6.9	8.4	5.3	3.2	4.2	0.4	0.0	0.1
30	---	---	---	7.3	6.4	6.8	7.1	4.8	5.9	0.5	0.0	0.1
31	---	---	---	---	---	---	5.9	4.2	5.1	0.3	0.0	0.1
MONTH	---	---	---	---	6.4	---	9.9	1.8	4.6	9.7	0.0	1.9
		FEBRUARY			MARCH			APRIL			MAY	
1	0.5	0.0	0.1	8.9	5.0	6.9	10.5	9.8	10.1	18.7	16.5	17.6
2	0.5	0.0	0.1	11.2	8.0	9.5	9.9	9.0	9.3	19.9	17.6	18.6
3	0.1	0.0	0.0	12.6	9.0	10.7	10.3	8.7	9.4	19.3	13.8	16.1
4	0.6	0.0	0.1	12.1	10.8	11.4	10.4	8.1	9.2	15.4	12.2	13.8
5	0.7	0.0	0.3	14.0	10.6	12.2	10.3	5.8	7.9	15.8	12.5	14.0
6	1.0	0.3	0.7	14.3	12.6	13.7	10.8	6.0	8.4	17.5	13.2	15.3
7	3.5	0.9	2.3	13.4	10.6	11.9	14.5	8.9	11.4	19.4	15.0	17.1
8	2.8	1.0	1.8	11.1	8.0	9.7	12.9	10.8	11.4	19.2	17.3	18.1
9	2.9	0.5	1.7	9.1	6.4	7.7	14.8	9.7	11.9	19.9	15.8	17.8
10	5.1	2.5	3.7	7.8	5.9	6.7	14.4	10.6	12.4	21.7	18.0	19.8
11	5.2	3.4	4.1	9.2	4.7	6.8	12.9	10.2	11.4	22.5	19.5	21.0
12	4.6	3.1	3.8	9.9	6.2	7.7	10.2	8.7	9.5	23.6	20.1	21.7
13	5.6	2.8	4.0	9.1	5.2	7.0	9.7	8.5	8.9	23.7	20.4	21.9
14	4.7	3.1	3.9	7.5	5.3	6.5	10.0	9.4	9.7	23.9	20.7	22.2
15	4.7	2.7	3.6	11.5	6.9	8.9	13.4	8.3	10.6	24.2	21.0	22.4
16	3.5	0.9	2.1	9.7	6.6	7.9	14.6	9.3	11.9	23.0	20.9	21.9
17	2.6	0.8	1.7	6.6	5.6	6.2	16.9	11.0	13.9	23.2	20.7	21.9
18	4.3	1.2	2.6	7.6	5.2	6.4	19.6	14.0	16.7	23.6	20.6	22.0
19	5.7	1.9	3.6	8.7	6.8	7.5	21.2	16.3	18.7	22.1	20.8	21.2
20	6.8	3.4	5.0	10.5	5.4	7.9	22.0	17.9	19.7	21.0	20.0	20.4
21	7.7	5.7	6.5	11.4	7.9	9.6	21.6	17.6	19.6	22.5	19.8	20.9
22	6.9	4.9	5.8	9.4	5.5	7.2	22.2	18.2	20.1	23.5	20.2	21.7
23	6.7	3.6	5.1	9.3	4.2	6.6	22.4	18.4	20.2	25.0	21.6	23.1
24	5.7	4.8	5.3	10.1	5.0	7.6	21.7	18.7	20.1	25.1	22.4	23.6
25	6.5	3.4	4.7	13.1	8.6	10.7	19.2	16.5	17.4	25.4	20.8	23.6
26	4.6	3.0	3.9	15.6	10.9	13.1	16.5	15.6	16.0	23.3	21.4	22.3
27	6.7	3.2	4.7	14.5	13.1	13.8	16.7	14.0	15.5	23.6	21.2	22.3
28	7.4	3.1	5.1	15.7	12.5	13.8	15.5	11.8	13.6	22.6	21.3	22.0
29	7.7	3.7	5.7	14.9	11.3	12.7	17.2	12.3	14.6	21.8	19.2	20.3
30	---	---	---	11.8	9.9	10.5	18.7	14.7	16.6	19.3	18.3	18.6
31	---	---	---	11.2	9.7	10.4	---	---	---	19.6	18.5	18.9
MONTH	7.7	0.0	3.2	15.7	4.2	9.3	22.4	5.8	13.5	25.4	12.2	20.1

01654000 ACCOTINK CREEK NEAR ANNANDALE, VA—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	21.0	18.6	19.5	24.2	20.9	22.3	25.4	24.3	24.7	23.9	21.3	22.6
2	21.7	18.4	19.9	25.2	21.9	23.3	25.9	23.5	24.4	23.2	20.7	22.0
3	21.6	18.8	20.1	25.1	22.4	23.6	25.7	24.0	24.8	23.2	20.4	21.8
4	19.9	18.2	18.9	24.3	22.6	23.6	26.1	23.4	24.7	22.9	20.8	21.8
5	18.2	16.4	17.0	25.9	23.1	24.3	25.0	22.5	23.6	22.2	20.5	21.5
6	17.4	15.9	16.6	26.3	23.3	24.7	22.5	20.0	21.3	21.6	20.3	20.8
7	19.7	16.8	18.1	25.6	23.6	24.5	20.9	18.7	19.7	21.9	20.5	21.1
8	21.5	18.1	19.7	25.0	22.8	23.9	21.6	18.4	19.9	23.2	21.4	22.1
9	23.3	19.7	21.4	24.7	22.1	23.3	22.2	19.0	20.5	23.3	22.0	22.7
10	23.8	21.1	22.5	24.6	21.9	23.2	23.5	20.2	21.7	22.8	20.5	21.6
11	22.7	18.4	21.1	25.8	22.5	24.0	23.8	20.9	22.0	22.2	20.1	21.1
12	20.3	17.7	18.8	25.1	23.8	24.3	22.7	21.0	21.8	22.2	20.1	21.1
13	19.6	18.1	18.8	25.5	23.4	24.2	22.7	21.8	22.2	22.5	20.1	21.3
14	21.5	18.8	20.0	26.0	23.8	24.4	22.0	20.0	20.8	21.6	20.2	20.9
15	23.7	20.6	22.0	24.1	22.3	23.2	21.2	19.6	20.4	20.9	20.0	20.2
16	23.6	22.1	22.8	24.4	21.2	22.6	22.8	20.3	21.3	21.4	20.0	20.6
17	25.4	22.5	23.7	24.2	21.2	22.5	22.5	20.5	21.4	23.0	20.7	21.4
18	25.2	23.0	24.1	22.5	21.5	22.0	23.5	21.1	22.1	23.0	19.2	21.2
19	24.7	22.5	23.4	23.6	20.9	22.1	24.2	22.1	22.9	19.2	17.2	18.1
20	22.7	19.8	21.2	24.6	21.4	22.8	25.3	22.5	23.7	18.2	15.7	16.9
21	21.5	18.7	20.1	25.4	22.0	23.5	24.0	22.7	23.6	18.4	15.6	16.9
22	24.6	20.3	21.9	25.7	22.6	24.0	23.4	21.0	22.1	19.4	16.5	17.7
23	23.5	21.4	22.2	25.5	23.2	24.2	23.2	20.4	21.7	20.1	17.1	18.4
24	23.4	20.4	21.8	24.0	22.8	23.4	23.6	20.7	22.0	20.4	18.4	19.2
25	23.4	21.3	22.3	22.8	21.8	22.2	23.8	21.9	22.6	20.3	17.8	18.9
26	23.0	21.2	22.0	22.4	21.4	21.9	24.3	22.0	23.0	19.5	17.9	18.8
27	22.4	19.3	20.9	24.1	21.8	23.0	24.7	22.5	23.4	---	---	---
28	22.1	19.8	20.9	24.1	23.0	23.5	25.8	22.7	24.0	---	---	---
29	22.8	19.9	21.2	24.3	22.2	23.2	25.8	23.1	24.4	---	---	---
30	22.8	19.8	21.2	25.6	23.0	24.1	25.3	23.3	24.3	---	---	---
31	---	---	---	25.8	24.0	24.7	25.0	23.0	24.0	---	---	---
MONTH	25.4	15.9	20.8	26.3	20.9	23.4	26.1	18.4	22.5	23.9	15.6	20.4
YEAR	26.3	0.0	13.7									

01658000 MATTAWOMAN CREEK NEAR POMONKEY, MD

LOCATION.--Lat 38°35'46.1", long 77°03'21.7", Charles County, Hydrologic Unit 02070010, on bank at left downstream side of bridge on State Highway 227, 30 ft downstream from Old Womans Run, 1.2 mi southeast of Pomonkey, and 12.6 mi upstream from mouth.

DRAINAGE AREA.--57.7 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1949 to September 1972, January 2001 to current year.

REVISED RECORDS.--WDR MD-DE-02-1.

GAGE.--Water-stage recorder and concrete control. Datum of gage 40 feet above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Water-discharge records good except those for estimated daily discharges (missing record), which are fair. Low flow affected by groundwater diversions from municipal well fields Waldorf and St. Charles. U.S. Geological Survey gage-height telemeter at station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 400 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 29	1015	438	5.08
Nov 7	1145	708	5.50
Dec 12	0730	747	5.55
Dec 15	1930	678	5.46
Dec 18	0900	930	5.76
Dec 25	2030	449	5.10
Feb 7	1830	*1,420	*6.20
Apr 13	2200	739	5.54
Jun 18	2045	1,410	6.19
Sep 19	0330	567	5.30
Sep 29	2115	505	5.20

Minimum discharge, 0.01 ft^3/s, Sept. 5.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	90	84	60	29	32	111	23	23	6.3	26	0.65
2	22	61	64	62	27	35	240	23	18	5.1	64	0.34
3	19	51	54	63	63	36	210	110	8.7	3.7	179	0.11
4	18	46	52	58	168	35	145	143	5.0	5.7	242	0.03
5	16	46	162	65	142	34	93	67	83	30	60	0.02
6	14	327	315	97	320	62	64	42	201	18	45	0.03
7	13	656	235	69	1,140	83	53	33	83	8.7	26	0.12
8	12	438	141	55	870	59	47	82	40	6.0	16	0.25
9	12	165	108	55	322	47	44	44	25	4.4	10	34
10	11	95	99	44	187	38	39	30	19	2.9	7.5	36
11	11	75	461	51	140	33	35	23	63	1.6	6.1	12
12	9.7	79	678	44	114	30	98	17	180	1.0	18	6.0
13	8.4	289	284	50	95	26	552	14	82	0.85	191	3.5
14	11	268	252	48	82	24	640	11	38	0.53	140	2.0
15	113	127	559	44	71	24	324	8.8	24	2.1	153	31
16	78	85	486	32	59	32	163	7.6	23	1.6	69	73
17	35	72	557	36	53	55	110	7.0	e55	0.50	39	31
18	23	62	866	65	53	48	83	6.3	e850	4.6	28	257
19	18	76	477	115	51	57	67	8.6	829	17	27	421
20	14	295	195	62	51	53	56	8.3	118	6.7	17	68
21	14	308	133	61	48	45	49	8.0	53	2.8	14	31
22	13	151	107	45	43	35	44	6.5	44	1.7	16	21
23	11	96	91	37	40	30	38	5.0	82	9.0	13	14
24	9.1	78	158	32	40	29	37	4.2	62	9.0	8.3	9.5
25	8.7	104	359	38	39	28	33	3.3	39	5.1	5.9	7.5
26	9.6	91	292	27	36	29	35	3.3	32	4.6	5.1	7.3
27	70	70	138	36	35	31	49	7.1	23	194	3.8	6.6
28	277	71	100	40	32	31	37	7.2	16	208	2.9	77
29	377	183	84	37	31	27	28	7.9	11	71	2.2	370
30	403	129	76	38	---	26	25	6.2	8.3	33	1.4	207
31	204	---	66	32	---	26	---	6.2	---	20	1.0	---
TOTAL	1,878.5	4,684	7,733	1,598	4,381	1,180	3,549	773.5	3,138.0	685.48	1,437.2	1,726.95
MEAN	60.6	156	249	51.5	151	38.1	118	25.0	105	22.1	46.4	57.6
MAX	403	656	866	115	1,140	83	640	143	850	208	242	421
MIN	8.4	46	52	27	27	24	25	3.3	5.0	0.50	1.0	0.02
CFSM	1.11	2.85	4.55	0.94	2.76	0.69	2.16	0.46	1.91	0.40	0.85	1.05
IN.	1.28	3.18	5.25	1.08	2.97	0.80	2.41	0.53	2.13	0.47	0.98	1.17

e Estimated

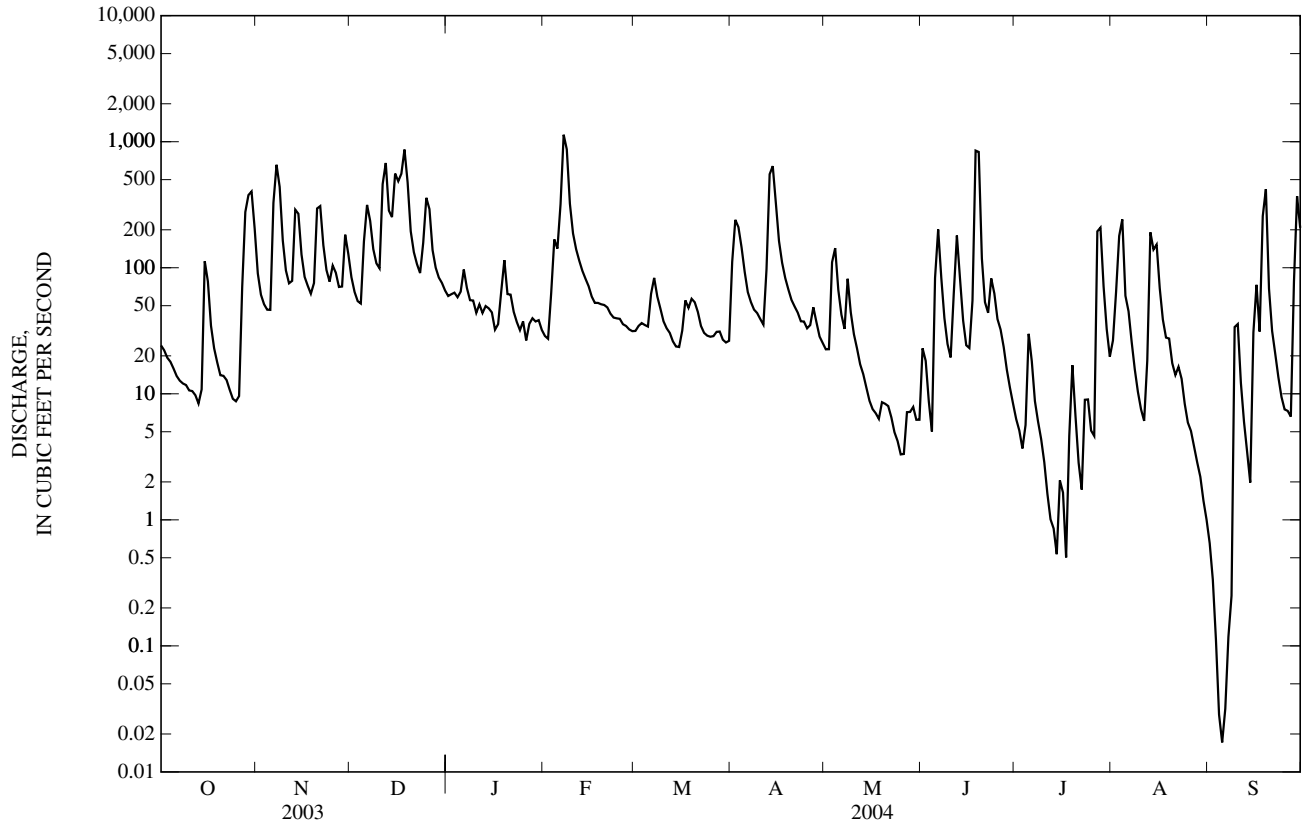
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 1972, 2001 - 2004, BY WATER YEAR (WY)

MEAN	21.2	38.8	69.3	72.5	110	121	86.3	46.1	41.2	14.1	28.3	21.7
MAX	142	156	249	151	276	305	203	179	325	60.6	411	145
(WY)	(1956)	(2004)	(2004)	(1952)	(1961)	(1958)	(1970)	(2003)	(1972)	(2003)	(1955)	(2003)
MIN	0.00	0.02	3.28	11.4	7.38	32.2	29.6	7.16	0.35	0.00	0.00	0.00
(WY)	(1955)	(1955)	(1966)	(1955)	(2002)	(2002)	(1950)	(1957)	(2002)	(1957)	(1954)	(1954)

01658000 MATTAWOMAN CREEK NEAR POMONKEY, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1950 - 1972, 2001 - 2004	
ANNUAL TOTAL	50,372.50		32,764.63			
ANNUAL MEAN	138		89.5		56.4	
HIGHEST ANNUAL MEAN					118	2003
LOWEST ANNUAL MEAN					9.34	2002
HIGHEST DAILY MEAN	1,830	Feb 23	1,140	Feb 7	5,610	Aug 13, 1955
LOWEST DAILY MEAN	0.70	Aug 25	0.02	Sep 5	0.00	(a)
ANNUAL SEVEN-DAY MINIMUM	3.8	Jul 22	0.13	Sep 2	0.00	Jun 29, 1950
MAXIMUM PEAK FLOW			1,420	Feb 7	(b)9,300	Aug 13, 1955
MAXIMUM PEAK STAGE			6.20	Feb 7	7.52	Aug 13, 1955
INSTANTANEOUS LOW FLOW			0.01	Sep 5	0.00	(c)
ANNUAL RUNOFF (CFSM)	2.52		1.63		1.03	
ANNUAL RUNOFF (INCHES)	34.19		22.24		13.98	
10 PERCENT EXCEEDS	357		236		129	
50 PERCENT EXCEEDS	75		39		23	
90 PERCENT EXCEEDS	11		5.1		0.00	

a Many days.
b From rating curve extended above 6,000 ft^3/s for the period 1950-1972.
c No flow at times in each year.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01658000 MATTAWOMAN CREEK NEAR POMONKEY, MD—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1961, 1964, 2001 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: March 2003 to current year.
WATER TEMPERATURE: March 2003 to current year.
pH: March 2003 to current year.
Turbidity: October 2003 to current year.

INSTRUMENTATION.--Water-quality monitor December 2003 to current year. Automatic sampler January 2001 to current year.

REMARKS.--Missing record due to periodic instrument malfunction. Records good.

EXTREMES FOR PERIOD OF DAILY RECORD--
SPECIFIC CONDUCTANCE: Maximum, 420 microsiemens/cm, Feb. 1, 2004; minimum, 42 microsiemens/cm, May 16, 2003.
WATER TEMPERATURE: Maximum, 26.4^?C, Aug. 15, 2003; minimum, 0.0^?C, on several days.
pH: Maximum, 7.1 standard units, May 2, 9-13, 2004; minimum, 5.2 standard units, May 16, 2003.
TURBIDITY: Maximum, 720 FNU, July 28, 2004; minimum, 0.0 FNU.

EXTREMES FOR MARCH 2003 to September 2003--
SPECIFIC CONDUCTANCE: Maximum, 16.8 microsiemens/cm, May 3, 2003; minimum, 42 microsiemens/cm, July 27, 2003.
WATER TEMPERATURE: Maximum, 26.4^?C, Aug. 15, 2003; minimum, 0.0^?C, on several days.
pH: Maximum, 6.7 standard units, Aug. 15,16, 2003; minimum, 5.2 standard units, May 16, 2003.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 420 microsiemens/cm, Feb. 1, 2004; minimum, 45 microsiemens/cm, July 27, 2004.
WATER TEMPERATURE: Maximum, 26.2^?C, July 13, 2004; minimum, 0.0^?C, on several days.
pH: Maximum, 7.1 standard units, on several days; minimum, 5.6 standard units, June 18,19, 2004.
TURBIDITY: Maximum, 720 FNU, Sept. 28, 2004; minimum, 0.0 FNU, on several days.

01658000 MATTAWOMAN CREEK NEAR POMONKEY, MD—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sample type	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Sampling method, code (82398)	Turbidity, water, unfltrd field, NTU (61028)	Turbidity, IR LED light, det ang 90 deg, FNU (63680)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)
OCT												
01...	1230	Environmental	1028	80020	24	70	6.2	6.2	757	9.0	90	6.8
14...	1900	Environmental	1028	80020	8.1	50	--	6.9	--	--	--	6.8
15...	0100	Environmental	1028	80020	77	50	--	130	--	--	--	6.5
15...	*0105*	*Replicate*	*1028*	*80020*	--	*50*	--	--	--	--	--	--
15...	1900	Environmental	1028	80020	139	50	--	27	--	--	--	6.5
16...	0700	Environmental	1028	80020	90	50	--	19	--	--	--	6.5
27...	1345	Environmental	1028	80020	51	50	--	16	--	--	--	6.7
27...	1945	Environmental	1028	80020	157	50	--	100	--	--	--	6.4
28...	0145	Environmental	1028	80020	215	50	--	34	--	--	--	6.4
28...	0745	Environmental	1028	80020	253	50	--	29	--	--	--	6.4
28...	1945	Environmental	1028	80020	323	50	--	23	--	--	--	6.2
NOV												
03...	1400	Environmental	1028	80020	51	10	--	4.2	766	8.9	90	6.5
DEC												
03...	1000	Environmental	1028	80020	53	10	7.2	7.2	671	13.6	116	6.6
JAN												
06...	*1155*	*Blank*	*1028*	*80020*	--	--	--	--	--	--	--	--
06...	1200	Environmental	1028	80020	102	10	8.2	8.2	762	12.3	101	6.5
FEB												
12...	1145	Environmental	1028	80020	113	10	--	7.1	763	14.1	104	6.4
MAR												
18...	1215	Environmental	1028	80020	48	10	6.4	6.4	761	13.2	106	6.5
APR												
12...	1300	Environmental	1028	80020	48	50	5.9	4.2	--	11.9	--	6.7
12...	1900	Environmental	1028	80020	155	50	81	57	--	11.5	--	6.4
13...	0100	Environmental	1028	80020	444	50	220	160	--	11.5	--	6.2
13...	*0102*	*Replicate*	*1028*	*80020*	--	*50*	--	--	--	--	--	--
13...	1900	Environmental	1028	80020	670	50	47	33	--	11.0	--	6.2
14...	0700	Environmental	1028	80020	693	50	25	18	--	10.9	--	6.1
15...	0700	Environmental	1028	80020	365	50	15	15	--	10.7	--	6.3
16...	0700	Environmental	1028	80020	174	50	13	13	--	10.6	--	6.4
MAY												
13...	1130	Environmental	1028	80020	15	70	8.3	--	767	9.5	108	6.6
JUN												
05...	1415	Environmental	1028	80020	84	50	39	39	--	--	--	6.8
05...	2015	Environmental	1028	80020	174	50	54	54	--	--	--	6.7
06...	0215	Environmental	1028	80020	220	50	37	37	--	--	--	6.6
06...	2015	Environmental	1028	80020	173	50	20	20	--	--	--	6.5
07...	0815	Environmental	1028	80020	91	50	6.6	16	--	--	--	6.5
08...	0900	Environmental	1028	80020	43	10	11	--	770	8.4	90	6.5
JUL												
15...	0815	Environmental	1028	80020	2.1	70	6.8	6.8	753	5.5	64	6.3
15...	*0930*	*Blank*	*1028*	*80020*	--	--	--	--	--	--	--	--
27...	0830	Environmental	1028	80020	220	50	--	--	--	--	--	5.9
27...	2030	Environmental	1028	80020	238	50	--	--	--	--	--	6.0
28...	0830	Environmental	1028	80020	245	50	--	--	--	--	--	6.3
28...	2030	Environmental	1028	80020	130	50	--	--	--	--	--	6.4
SEP												
18...	0730	Environmental	1028	80020	196	50	--	52	--	--	--	6.4
18...	1745	Environmental	1028	80020	323	50	--	--	--	--	--	6.1
19...	2345	Environmental	1028	80020	130	50	--	12	--	--	--	6.2
22...	0930	Environmental	1028	80020	22	20	--	4.7	767	9.2	94	6.3

Agency collecting sample: 1028 - U.S. Geological Survey
Agency analyzing sample: 80020 - USGS-National Water Quality Lab, Denver, CO

Sampling method: 70 - Grab sample
50 - Point-automatic sampler
10 - Equal-width increment

01658000 MATTAWOMAN CREEK NEAR POMONKEY, MD—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Specif. conduct-ance, wat unf uS/cm 25 degC (00095)	Temper-ature, air, deg C (00020)	Temper-ature, water, deg C (00010)	Residue vola-tile, sus-pended, mg/L (00535)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Organic nitro-gen, water, fltrd, mg/L (00607)	Organic nitro-gen, water, unfltrd mg/L (00605)	Ortho-phos-phate, water, fltrd, mg/L as P (00671)
OCT													
01...	114	--	15.1	--	.34	.46	.017	.17	.171	.002	.32	.44	.012
14...	123	--	15.7	--	.38	.60	<.010	.10	.105	.003	--	--	.006
15...	113	--	15.7	--	.34	1.7	<.010	.52	.527	.008	--	--	E.003
15...	--	--	--	--	*.33*	*1.6*	*<.010*	*.53*	*.542*	*.008*	--	--	*<.006*
15...	112	--	15.2	--	.19	.31	<.010	.30	.302	.003	--	--	E.005
16...	113	--	13.0	--	.35	.56	<.010	.07	.067	.002	--	--	.007
27...	118	--	15.0	--	.22	1.0	<.010	.16	.160	.002	--	--	.006
27...	94	--	14.3	--	.37	.84	<.010	.12	.118	.002	--	--	.014
28...	101	--	13.4	--	.37	.59	<.010	.08	.080	.002	--	--	.014
28...	102	--	12.4	--	.34	.60	<.010	.08	.081	.002	--	--	.016
28...	95	--	12.3	--	.40	.58	<.010	.04	.043	.002	--	--	.018
NOV													
03...	106	26.5	16.1	--	.33	.36	<.010	--	.055	E.001	--	--	.011
DEC													
03...	111	3.0	3.5	--	.24	.32	.032	.21	.217	.002	.21	.29	.012
JAN													
06...	--	--	--	*.0*	*<.10*	*<.10*	*<.010*	--	*<.016*	*<.002*	--	--	*<.006*
06...	108	10.0	7.0	1	.28	.33	.043	.26	.263	.002	.23	.28	.008
FEB													
12...	160	8.0	2.6	1	.17	.24	.048	.32	.325	.002	.12	.19	<.006
MAR													
18...	176	10.0	5.9	.2	.22	.29	.026	.23	.232	.003	.20	.27	<.006
APR													
12...	120	--	9.2	11	.27	.70	.035	.34	.339	.003	.23	.67	.007
12...	93	--	8.7	28	.36	.80	.044	.39	.393	.003	.32	.76	.008
13...	77	--	8.4	88	.47	3.7	.077	.39	.390	.004	.40	3.6	.009
13...	--	--	--	*86*	*.47*	*2.5*	*.074*	*.39*	*.390*	*.003*	*.39*	*2.4*	*.007*
13...	90	--	9.2	14	.32	2.0	.063	.48	.479	.003	.26	1.9	<.006
14...	95	--	9.0	7	.35	.60	.034	.33	.336	.003	.31	.57	.009
15...	101	--	8.1	8	.30	.44	.033	.31	.317	.003	.27	.41	.006
16...	107	--	9.3	3	.28	.44	.028	.33	.330	.003	.25	.41	.006
MAY													
13...	147	27.0	22.2	2	.48	.63	.091	.32	.340	.021	.39	.54	.012
JUN													
05...	112	--	17.5	10	.33	.89	.073	.35	.357	.007	.26	.82	.012
05...	122	--	17.4	9	.48	.69	.048	.47	.479	.007	.43	.64	.006
06...	126	--	17.1	7	.48	.83	.087	.31	.316	.007	.39	.74	.009
06...	120	--	18.1	5	.46	.90	.088	.32	.321	.006	.37	.81	.010
07...	118	--	18.0	4	.42	.58	.040	.31	.318	.004	.38	.54	.006
08...	132	25.5	19.0	3	.37	.51	.033	.24	.240	.003	.34	.47	.006
JUL													
15...	138	--	22.2	1	.36	.41	.035	.16	.162	.002	.33	.38	.010
15...	--	--	--	*1*	*<.10*	*E.07*	*<.010*	--	*<.016*	*<.002*	--	--	*<.006*
27...	62	--	21.8	--	.29	.57	.018	.11	.116	.003	.27	.56	.007
27...	88	--	23.7	4	.26	.44	.010	.14	.148	.003	.25	.43	.009
28...	94	--	22.9	--	.30	.45	.016	.14	.139	.002	.29	.43	.010
28...	108	--	23.7	--	.29	.44	.014	.13	.131	.002	.27	.42	.011
SEP													
18...	91	--	21.4	--	.38	.77	E.006	.20	.197	.002	--	--	.008
18...	85	--	20.4	--	.46	.78	E.009	.17	.175	.002	--	--	.012
19...	101	--	17.8	--	.41	.54	.015	.13	.130	.002	.39	.52	.008
22...	118	--	16.8	2	.30	.38	.014	.19	.194	.002	.29	.37	.006

01658000 MATTAWOMAN CREEK NEAR POMONKEY, MD—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Phos-phorus, water, fltrd, mg/L (00666)	Phos-phorus, water, unfltrd mg/L (00665)	Total nitro-gen, water, fltrd, mg/L (00602)	Total nitro-gen, water, unfltrd mg/L (00600)	Suspnd. sedi-ment, sieve diametr percent <.063mm (70331)	Sus-pended sedi-ment concen-tration mg/L (80154)	Sus-pended sedi-ment dis-charge, tons/d (80155)	Sampler type, code (84164)
OCT								
01...	.020	.062	.51	.63	--	6	.39	8010
14...	.017	.114	.48	.70	--	6	.13	8010
15...	.018	.53	.86	2.2	54	431	90	8010
15...	*.015*	*.50*	*.87*	*2.2*	*50*	*431*	--	*8010*
15...	.012	.045	.49	.61	70	31	12	8010
16...	.017	.084	.41	.63	82	14	3.4	8010
27...	.017	.28	.38	1.2	63	156	21	8010
27...	.033	.23	.49	.96	30	209	89	8010
28...	.030	.129	.45	.67	34	55	32	8010
28...	.032	.124	.42	.68	60	41	28	8010
28...	.036	.115	.44	.62	43	47	41	8010
NOV								
03...	.021	.055	.38	.42	--	6	.83	8010
DEC								
03...	.019	.047	.46	.54	--	7	1.0	3044
JAN								
06...	*<.004*	*E.002*	--	--	--	*.0*	--	--
06...	.013	.046	.54	.59	--	10	2.8	3045
FEB								
12...	.005	.025	.50	.56	--	6	1.8	3045
MAR								
18...	.011	.032	.46	.53	--	6	.78	3045
APR								
12...	.014	.096	.61	1.0	49	135	17	8010
12...	.021	.139	.75	1.2	67	380	159	8010
13...	.028	.98	.86	4.1	43	2,130	2,550	8010
13...	*.023*	*.83*	*.85*	*2.9*	*41*	*2,170*	--	*8010*
13...	.013	.33	.80	2.5	33	307	555	8010
14...	.020	.086	.68	.94	--	252	472	8010
15...	.014	.059	.62	.76	42	60	59	8010
16...	.016	.061	.61	.77	--	51	24	8010
MAY								
13...	.024	.078	.82	.97	--	7	.28	8010
JUN								
05...	.023	.149	.69	1.2	--	81	18	8010
05...	.017	.092	.96	1.2	--	78	37	8010
06...	.023	.129	.80	1.1	--	53	31	8010
06...	.023	.156	.78	1.2	--	29	14	8010
07...	.019	.084	.74	.90	--	27	6.6	8010
08...	.018	.064	.61	.74	--	15	1.8	3044
JUL								
15...	.023	.061	.52	.58	--	5	.03	8010
15...	*<.004*	*<.004*	--	--	--	*1*	--	--
27...	.019	.095	.40	.69	--	26	15	8010
27...	.021	.070	.41	.59	--	11	7.1	8010
28...	.023	.077	.44	.59	--	15	9.9	8010
28...	.024	.067	.42	.57	--	9	3.2	8010
SEP								
18...	.020	.173	.58	.96	--	--	--	8010
18...	.027	.135	.63	.96	--	63	55	8010
19...	.020	.076	.54	.67	--	25	8.8	8010
22...	.013	.053	.50	.58	--	5	.30	3045

Remark codes used in this table:
< -- Less than
E -- Estimated value

Sampler type: 8010 - Other-automatic sampler
3044 - US DH-81
3045 - US DH-81 with teflon bottle and nozzle

01658000 MATTAWOMAN CREEK NEAR POMONKEY, MD—Continued

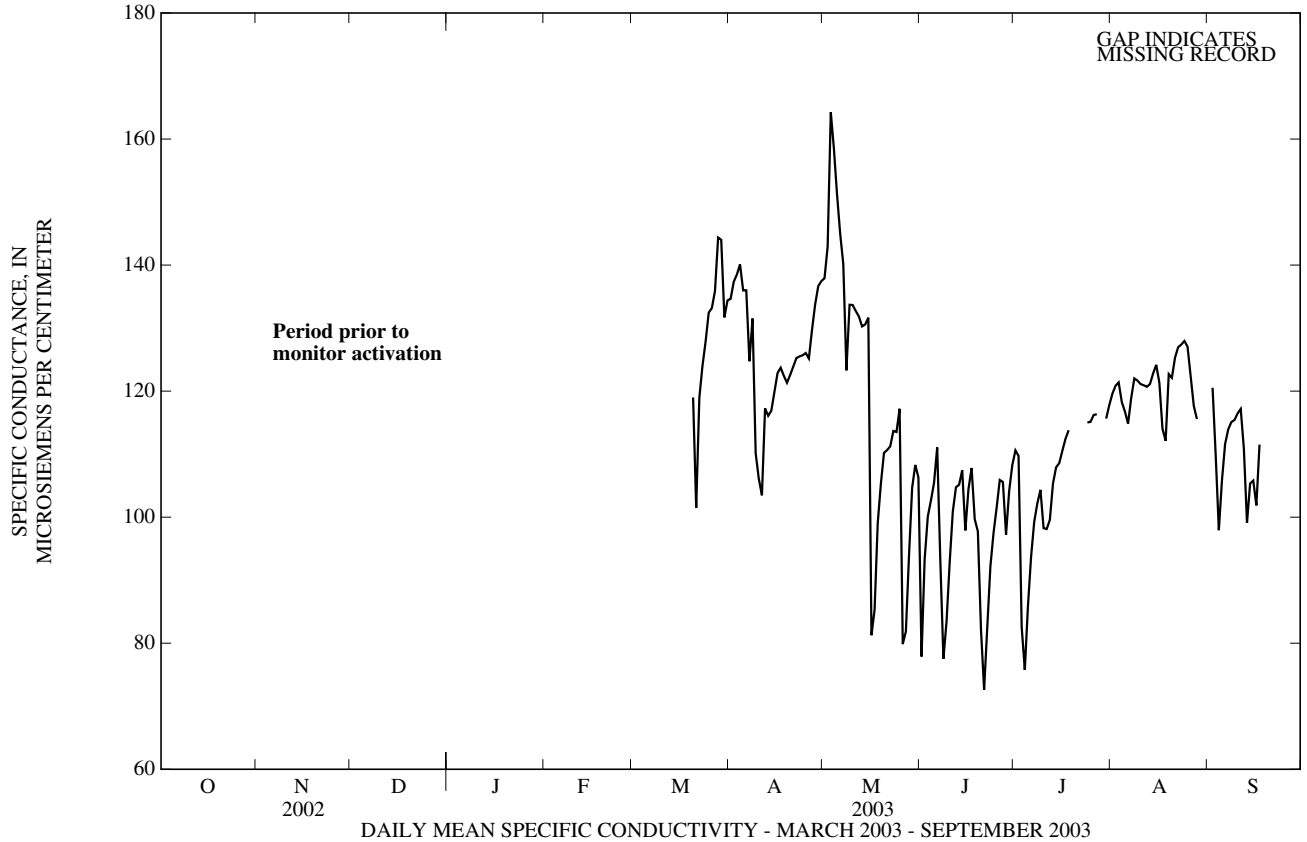
SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
MARCH 2003 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	---	---	---	142	130	135	140	135	138
2	---	---	---	---	---	---	150	130	137	156	139	143
3	---	---	---	---	---	---	143	134	139	168	156	164
4	---	---	---	---	---	---	146	134	140	164	155	158
5	---	---	---	---	---	---	139	133	136	157	145	151
6	---	---	---	---	---	---	138	133	136	147	144	145
7	---	---	---	---	---	---	137	113	125	147	114	140
8	---	---	---	---	---	---	141	122	132	129	118	123
9	---	---	---	---	---	---	135	97	110	137	129	134
10	---	---	---	---	---	---	109	102	106	138	129	134
11	---	---	---	---	---	---	107	101	103	136	130	133
12	---	---	---	---	---	---	126	105	117	134	130	132
13	---	---	---	---	---	---	124	113	116	133	129	130
14	---	---	---	---	---	---	119	114	117	132	129	131
15	---	---	---	---	---	---	123	117	120	134	130	132
16	---	---	---	---	---	---	124	121	123	133	42	81
17	---	---	---	---	---	---	125	122	124	99	73	85
18	---	---	---	---	---	---	124	121	122	102	96	99
19	---	---	---	---	---	---	123	120	121	110	101	105
20	---	---	---	164	59	119	124	121	123	113	107	110
21	---	---	---	119	73	101	126	122	124	114	106	111
22	---	---	---	124	113	119	126	123	125	116	108	111
23	---	---	---	128	121	124	127	124	126	117	110	114
24	---	---	---	134	123	128	127	124	126	119	110	114
25	---	---	---	136	129	132	127	124	126	122	111	117
26	---	---	---	139	128	133	128	123	125	111	66	80
27	---	---	---	143	126	136	133	126	130	86	81	82
28	---	---	---	148	137	144	137	131	134	100	86	94
29	---	---	---	149	138	144	138	135	137	109	100	105
30	---	---	---	143	119	132	140	136	137	113	105	108
31	---	---	---	142	123	134	---	---	---	115	55	106
MONTH	---	---	---	164	59	129	150	97	126	168	42	120

01658000 MATTAWOMAN CREEK NEAR POMONKEY, MD—Continued

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	90	52	78	113	109	111	120	119	120	---	---	---
2	97	90	93	114	98	110	123	120	121	124	107	121
3	103	97	100	100	72	83	123	119	121	126	68	110
4	105	101	103	80	74	76	121	116	118	101	89	98
5	109	102	105	90	80	86	118	113	117	111	100	106
6	113	108	111	96	89	94	117	111	115	114	110	112
7	115	70	93	103	96	99	122	117	119	115	112	114
8	79	76	78	104	100	102	123	121	122	116	114	115
9	92	77	84	111	91	104	123	121	122	117	115	115
10	98	90	93	103	93	98	126	116	121	117	116	116
11	103	98	101	103	92	98	123	119	121	118	116	117
12	107	103	105	103	94	100	122	120	121	117	89	111
13	109	103	105	107	102	105	122	120	121	101	91	99
14	110	102	107	110	106	108	124	122	123	109	101	105
15	102	96	98	114	108	109	125	123	124	111	92	106
16	107	101	104	113	108	111	126	113	121	107	91	102
17	109	104	108	114	111	112	135	107	114	114	107	112
18	104	97	100	114	113	114	116	108	112	---	---	---
19	99	97	98	---	---	---	127	116	123	---	---	---
20	98	71	82	116	114	115	124	120	122	---	---	---
21	75	71	73	---	---	---	127	124	125	---	---	---
22	90	74	82	---	---	---	128	126	127	---	---	---
23	94	89	92	---	---	---	129	126	127	---	---	---
24	101	94	97	117	114	115	129	126	128	---	---	---
25	104	99	101	117	115	115	130	124	127	---	---	---
26	107	103	106	118	115	116	126	113	122	---	---	---
27	116	94	106	119	116	116	128	111	118	---	---	---
28	102	93	97	---	---	---	121	113	116	---	---	---
29	107	100	104	---	---	---	---	---	---	---	---	---
30	110	106	108	119	114	116	---	---	---	---	---	---
31	---	---	---	120	117	118	---	---	---	---	---	---
MONTH	116	52	97	120	72	105	135	107	121	126	68	110
YEAR	168	42	115									



DAILY MEAN SPECIFIC CONDUCTIVITY - MARCH 2003 - SEPTEMBER 2003

01658000 MATTAWOMAN CREEK NEAR POMONKEY, MD—Continued

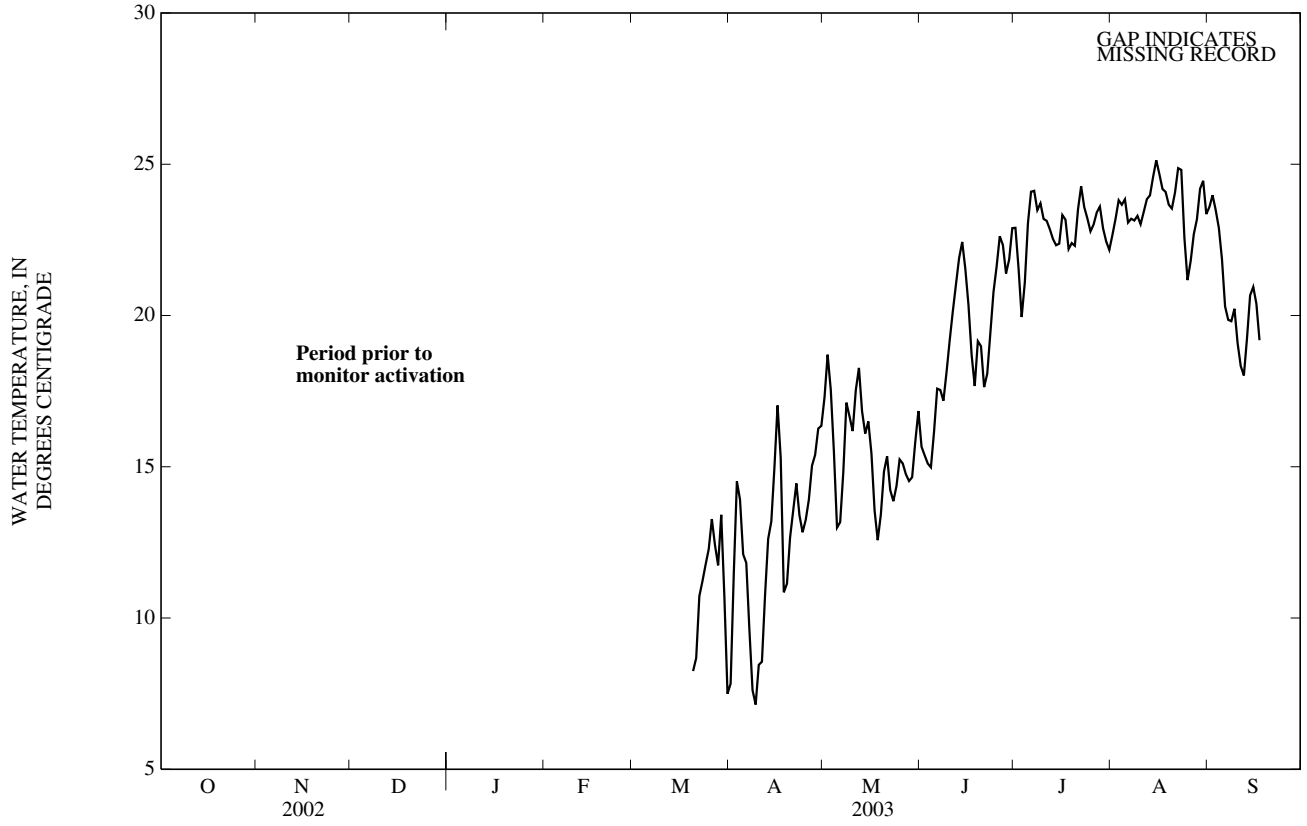
TEMPERATURE, WATER, DEGREES CELSIUS
MARCH 2003 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	9.3	6.4	7.8	18.8	15.7	17.3
2	---	---	---	---	---	---	14.0	8.8	11.5	20.2	17.2	18.7
3	---	---	---	---	---	---	16.6	12.2	14.5	18.9	16.4	17.5
4	---	---	---	---	---	---	15.4	12.6	13.9	16.4	14.5	15.5
5	---	---	---	---	---	---	12.8	11.4	12.1	14.5	12.6	13.0
6	---	---	---	---	---	---	13.6	10.2	11.8	13.8	12.6	13.2
7	---	---	---	---	---	---	11.6	8.1	9.6	16.8	13.0	14.8
8	---	---	---	---	---	---	8.1	7.4	7.6	17.7	16.6	17.1
9	---	---	---	---	---	---	7.5	6.7	7.1	17.5	16.3	16.7
10	---	---	---	---	---	---	10.3	7.0	8.5	16.8	15.7	16.2
11	---	---	---	---	---	---	9.6	8.3	8.6	19.5	16.4	17.5
12	---	---	---	---	---	---	13.3	8.3	10.8	19.6	17.4	18.3
13	---	---	---	---	---	---	14.3	10.5	12.6	17.4	16.1	16.8
14	---	---	---	---	---	---	15.0	10.9	13.2	17.2	14.9	16.1
15	---	---	---	---	---	---	17.1	12.6	15.0	17.5	15.4	16.5
16	---	---	---	---	---	---	18.7	15.3	17.0	16.8	14.5	15.4
17	---	---	---	---	---	---	17.6	12.2	15.3	14.5	12.9	13.5
18	---	---	---	---	---	---	12.2	10.1	10.8	12.9	12.3	12.6
19	---	---	---	---	---	---	12.7	10.0	11.1	15.5	11.8	13.4
20	---	---	---	9.4	7.5	8.2	14.6	10.7	12.7	16.4	13.3	14.8
21	---	---	---	9.6	7.8	8.7	14.7	12.3	13.6	16.4	14.5	15.3
22	---	---	---	12.7	8.7	10.7	15.4	13.4	14.4	14.5	14.1	14.2
23	---	---	---	12.4	9.6	11.2	15.0	12.1	13.4	14.2	13.8	13.9
24	---	---	---	13.2	10.0	11.8	14.7	10.7	12.8	15.3	13.7	14.4
25	---	---	---	13.9	10.2	12.3	14.4	11.7	13.2	15.4	15.0	15.2
26	---	---	---	15.0	12.1	13.3	14.4	13.3	13.9	15.7	14.6	15.1
27	---	---	---	14.0	10.5	12.4	16.8	13.4	15.0	15.3	14.3	14.8
28	---	---	---	12.8	10.8	11.7	17.4	13.2	15.4	15.3	13.9	14.5
29	---	---	---	15.0	11.9	13.4	17.5	14.9	16.3	15.1	14.1	14.7
30	---	---	---	14.1	7.5	10.7	17.9	14.6	16.4	17.7	14.2	15.8
31	---	---	---	8.7	5.8	7.5	---	---	---	17.6	16.0	16.8
MONTH	---	---	---	15.0	5.8	11.0	18.7	6.4	12.5	20.2	11.8	15.5

01658000 MATTAWOMAN CREEK NEAR POMONKEY, MD—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
MARCH 2003 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	16.0	15.3	15.7	23.5	22.3	22.9	23.0	22.3	22.7	24.4	22.7	23.6
2	16.4	14.1	15.4	22.5	19.6	21.6	23.9	22.5	23.2	24.4	23.5	24.0
3	16.0	14.7	15.1	20.1	19.6	19.9	24.8	23.3	23.8	23.9	23.0	23.5
4	15.1	14.9	15.0	22.8	19.7	21.1	24.2	23.2	23.7	23.1	22.6	22.9
5	17.7	14.8	16.2	24.4	21.7	23.0	24.6	22.8	23.8	22.6	21.1	21.9
6	18.5	16.4	17.6	24.9	22.9	24.1	24.2	21.8	23.1	21.1	19.6	20.3
7	18.2	16.5	17.5	25.2	23.2	24.1	23.5	22.9	23.2	20.8	18.8	19.9
8	17.4	16.9	17.2	24.4	22.6	23.5	23.9	22.3	23.1	20.5	18.8	19.8
9	19.6	16.9	18.1	25.1	22.6	23.7	23.6	22.9	23.3	20.9	19.7	20.2
10	20.6	17.8	19.2	23.5	22.8	23.2	23.5	22.4	23.0	19.8	18.3	19.1
11	20.9	19.2	20.1	23.9	22.2	23.1	24.1	22.8	23.4	19.3	17.1	18.3
12	21.8	20.2	21.0	23.6	21.8	22.9	24.8	22.9	23.8	18.4	17.8	18.0
13	22.6	21.2	21.9	23.4	21.6	22.5	24.6	23.3	24.0	20.4	18.1	19.2
14	23.2	21.4	22.4	23.3	21.4	22.3	25.7	23.4	24.6	21.0	20.3	20.7
15	22.2	21.1	21.5	23.5	21.2	22.4	26.4	24.1	25.1	21.3	20.5	20.9
16	21.4	19.9	20.4	24.5	22.2	23.3	26.3	23.6	24.7	21.1	19.9	20.4
17	19.9	17.5	18.7	24.1	22.1	23.2	24.8	23.5	24.2	19.9	18.3	19.2
18	18.7	16.9	17.7	22.9	20.9	22.2	24.7	23.6	24.1	---	---	---
19	20.3	18.4	19.1	23.1	21.6	22.4	24.5	22.7	23.7	---	---	---
20	20.1	18.4	19.0	23.4	21.0	22.3	24.3	22.5	23.5	---	---	---
21	18.4	17.4	17.6	24.7	22.2	23.5	25.0	23.0	24.1	---	---	---
22	19.3	17.2	18.1	25.3	23.4	24.3	26.2	23.7	24.9	---	---	---
23	21.0	18.0	19.4	24.1	23.0	23.6	26.2	23.5	24.8	---	---	---
24	21.7	19.4	20.8	23.8	22.5	23.2	23.9	21.4	22.6	---	---	---
25	22.5	20.4	21.6	24.2	21.4	22.8	22.3	19.9	21.2	---	---	---
26	23.7	21.5	22.6	24.5	21.5	23.0	22.6	21.0	21.8	---	---	---
27	24.0	21.2	22.3	24.2	22.6	23.4	23.5	21.8	22.7	---	---	---
28	21.9	20.6	21.4	24.2	22.8	23.6	23.9	22.3	23.2	---	---	---
29	22.7	20.8	21.9	23.6	22.1	22.9	25.2	23.2	24.2	---	---	---
30	23.9	21.9	22.9	22.9	22.0	22.4	25.5	23.6	24.5	---	---	---
31	---	---	---	22.7	21.6	22.2	24.2	23.0	23.4	---	---	---
MONTH	24.0	14.1	19.2	25.3	19.6	22.9	26.4	19.9	23.6	24.4	17.1	20.7
YEAR	26.4	5.8	18.4									



DAILY MEAN WATER TEMPERATURE - MARCH 2003 TO SEPTEMBER 2003

01658000 MATTAWOMAN CREEK NEAR POMONKEY, MD—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS
MARCH 2003 TO SEPTEMBER 2003

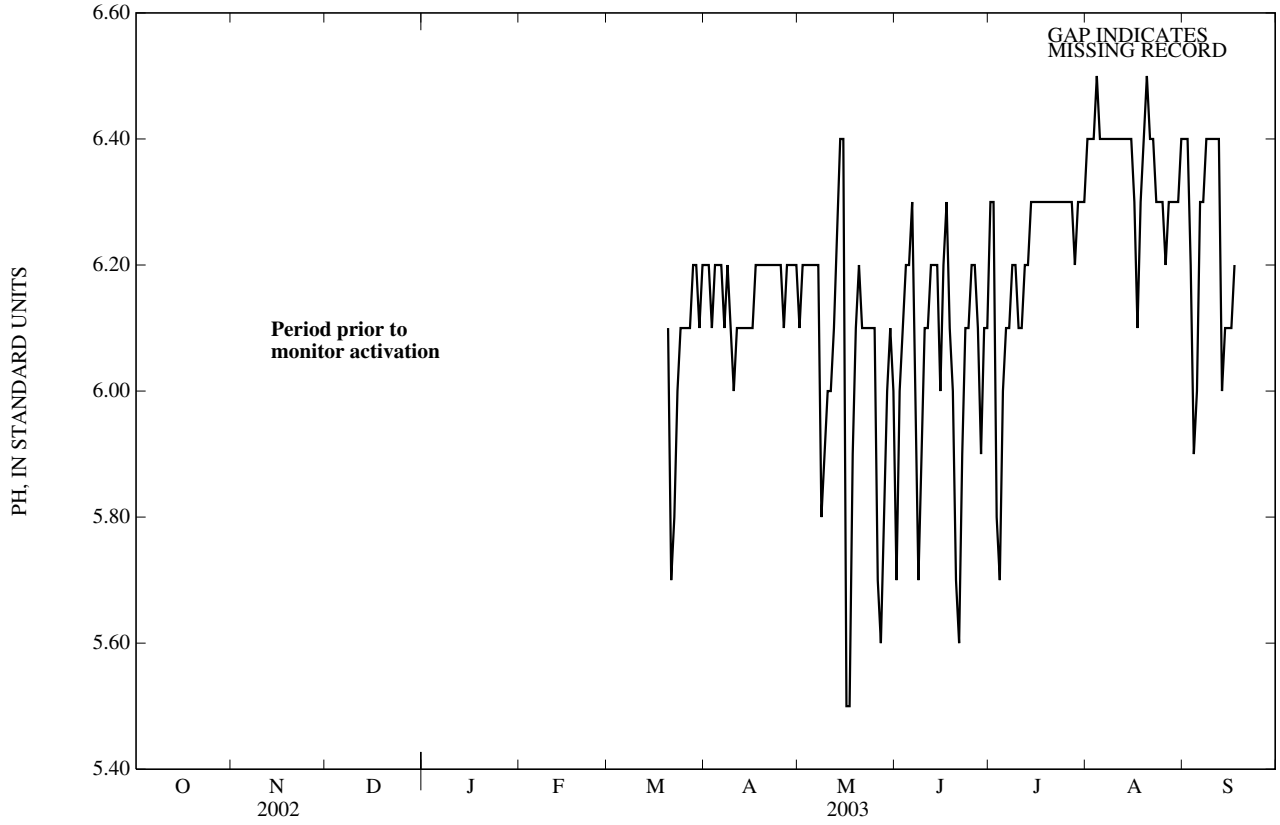
DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MAX	---	---	---	---	---	---	---	---	---	---	---	---
MIN	---	---	---	---	---	---	---	---	---	---	---	---
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	---	---	---	6.3	6.1	6.2	6.3	6.1	6.1
2	---	---	---	---	---	---	6.3	6.1	6.2	6.3	6.1	6.2
3	---	---	---	---	---	---	6.3	6.1	6.1	6.3	6.1	6.2
4	---	---	---	---	---	---	6.4	6.1	6.2	6.3	6.2	6.2
5	---	---	---	---	---	---	6.4	6.2	6.2	6.3	6.2	6.2
6	---	---	---	---	---	---	6.4	6.1	6.2	6.2	6.2	6.2
7	---	---	---	---	---	---	6.2	6.0	6.1	6.3	5.8	6.2
8	---	---	---	---	---	---	6.2	6.1	6.2	5.9	5.8	5.8
9	---	---	---	---	---	---	6.2	6.0	6.1	6.0	5.8	5.9
10	---	---	---	---	---	---	6.1	6.0	6.0	6.0	6.0	6.0
11	---	---	---	---	---	---	6.1	6.0	6.1	6.1	6.0	6.0
12	---	---	---	---	---	---	6.2	6.1	6.1	6.1	6.0	6.1
13	---	---	---	---	---	---	6.2	6.0	6.1	6.4	6.1	6.2
14	---	---	---	---	---	---	6.3	6.0	6.1	6.5	6.3	6.4
15	---	---	---	---	---	---	6.3	6.1	6.1	6.5	6.3	6.4
16	---	---	---	---	---	---	6.3	6.0	6.1	6.4	5.2	5.5
17	---	---	---	---	---	---	6.3	6.0	6.2	5.8	5.4	5.5
18	---	---	---	---	---	---	6.3	6.2	6.2	6.0	5.8	5.9
19	---	---	---	---	---	---	6.4	6.1	6.2	6.1	6.0	6.1
20	---	---	---	6.2	5.7	6.1	6.4	6.1	6.2	6.2	6.0	6.2
21	---	---	---	5.7	5.6	5.7	6.4	6.1	6.2	6.2	6.1	6.1
22	---	---	---	5.8	5.6	5.8	6.3	6.1	6.2	6.2	6.0	6.1
23	---	---	---	6.1	5.8	6.0	6.4	6.1	6.2	6.1	6.0	6.1
24	---	---	---	6.2	6.0	6.1	6.4	6.2	6.2	6.2	6.0	6.1
25	---	---	---	6.2	6.0	6.1	6.4	6.1	6.2	6.1	6.0	6.1
26	---	---	---	6.3	6.0	6.1	6.2	6.1	6.1	6.0	5.6	5.7
27	---	---	---	6.2	6.0	6.1	6.3	6.1	6.2	5.6	5.5	5.6
28	---	---	---	6.3	6.1	6.2	6.3	6.1	6.2	5.9	5.6	5.8
29	---	---	---	6.3	6.1	6.2	6.3	6.1	6.2	6.0	5.9	6.0
30	---	---	---	6.1	6.0	6.1	6.3	6.1	6.2	6.1	6.0	6.1
31	---	---	---	6.2	6.1	6.2	---	---	---	6.1	5.4	6.0
MAX	---	---	---	6.3	6.1	6.2	6.4	6.2	6.2	6.5	6.3	6.4
MIN	---	---	---	5.7	5.6	5.7	6.1	6.0	6.0	5.6	5.2	5.5

01658000 MATTAWOMAN CREEK NEAR POMONKEY, MD—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS—CONTINUED
MARCH 2003 TO SEPTEMBER 2003

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	5.8	5.4	5.7	6.4	6.1	6.3	6.5	6.3	6.4	6.6	6.4	6.4
2	6.1	5.8	6.0	6.4	6.0	6.3	6.5	6.4	6.4	6.5	6.1	6.4
3	6.2	6.0	6.1	6.0	5.6	5.8	6.6	6.4	6.4	6.3	5.5	6.2
4	6.2	6.1	6.2	5.8	5.6	5.7	6.6	6.4	6.5	5.9	5.8	5.9
5	6.3	6.1	6.2	6.0	5.7	6.0	6.6	6.3	6.4	6.1	5.9	6.0
6	6.4	6.2	6.3	6.2	6.0	6.1	6.6	6.3	6.4	6.3	6.1	6.3
7	6.3	5.8	6.0	6.3	6.0	6.1	6.5	6.4	6.4	6.4	6.3	6.3
8	5.8	5.7	5.7	6.3	6.0	6.2	6.5	6.4	6.4	6.4	6.3	6.4
9	6.0	5.7	5.9	6.3	5.9	6.2	6.5	6.4	6.4	6.4	6.3	6.4
10	6.2	5.9	6.1	6.2	6.0	6.1	6.5	6.4	6.4	6.4	6.3	6.4
11	6.2	6.0	6.1	6.3	6.1	6.1	6.6	6.4	6.4	6.4	6.3	6.4
12	6.3	6.1	6.2	6.3	6.1	6.2	6.6	6.3	6.4	6.4	5.9	6.4
13	6.3	6.1	6.2	6.4	6.2	6.2	6.6	6.3	6.4	6.1	6.0	6.0
14	6.3	6.0	6.2	6.4	6.2	6.3	6.6	6.3	6.4	6.1	6.0	6.1
15	6.1	5.9	6.0	6.4	6.2	6.3	6.7	6.3	6.4	6.2	5.8	6.1
16	6.2	6.0	6.2	6.4	6.2	6.3	6.7	6.2	6.3	6.1	5.9	6.1
17	6.3	6.2	6.3	6.4	6.2	6.3	6.4	6.0	6.1	6.3	6.1	6.2
18	6.2	6.0	6.1	6.4	6.2	6.3	6.4	6.0	6.3	---	---	---
19	6.1	6.0	6.0	6.4	6.3	6.3	6.5	6.3	6.4	---	---	---
20	6.1	5.5	5.7	6.4	6.3	6.3	6.5	6.4	6.5	---	---	---
21	5.7	5.5	5.6	6.4	6.3	6.3	6.6	6.3	6.4	---	---	---
22	6.0	5.7	5.9	6.4	6.2	6.3	6.6	6.3	6.4	---	---	---
23	6.2	6.0	6.1	6.4	6.2	6.3	6.6	6.3	6.3	---	---	---
24	6.2	6.1	6.1	6.5	6.3	6.3	6.5	6.3	6.3	---	---	---
25	6.3	6.1	6.2	6.5	6.3	6.3	6.5	6.2	6.3	---	---	---
26	6.3	6.1	6.2	6.5	6.3	6.3	6.3	6.1	6.2	---	---	---
27	6.2	5.8	6.1	6.4	6.2	6.3	6.4	6.2	6.3	---	---	---
28	6.0	5.8	5.9	6.3	6.1	6.2	6.4	6.2	6.3	---	---	---
29	6.2	5.9	6.1	6.4	6.2	6.3	6.4	6.2	6.3	---	---	---
30	6.2	6.0	6.1	6.4	6.3	6.3	6.5	6.2	6.3	---	---	---
31	---	---	---	6.4	6.3	6.3	6.5	6.2	6.4	---	---	---
MAX	6.4	6.2	6.3	6.5	6.3	6.3	6.7	6.4	6.5	6.6	6.4	6.4
MIN	5.7	5.4	5.6	5.8	5.6	5.7	6.3	6.0	6.1	5.9	5.5	5.9

YEAR					
	MAX	MAXIMUM 6.7	MINIMUM 5.6		
	MIN	MAXIMUM 6.4	MINIMUM 5.2		
	MEDIAN	MAXIMUM 6.5	MINIMUM 5.5		



DAILY MEDIAN pH - MARCH 2003 TO SEPTEMBER 2003

01658000 MATTAWOMAN CREEK NEAR POMONKEY, MD—Continued

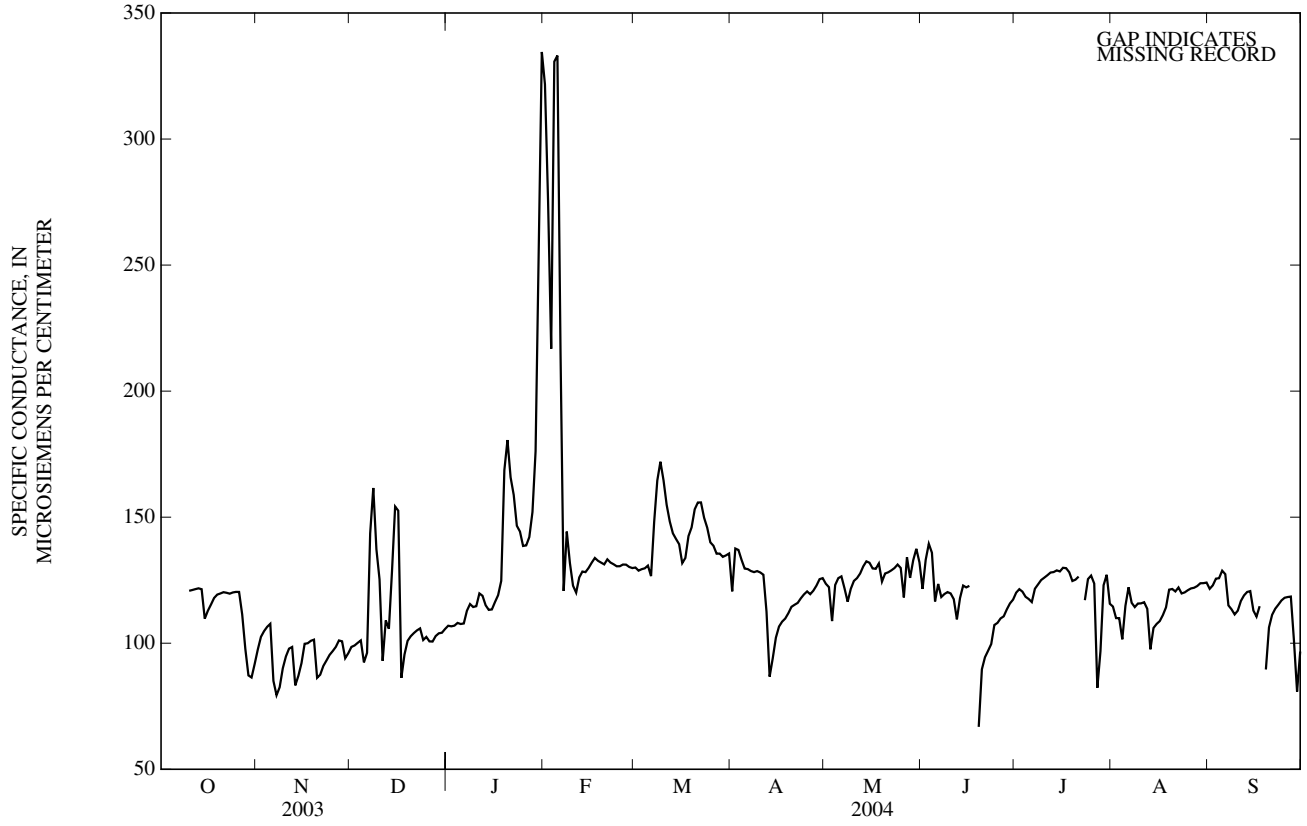
SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	100	94	97	99	97	99	107	106	107
2	---	---	---	105	100	103	100	97	99	108	106	107
3	---	---	---	106	104	105	101	99	100	108	106	107
4	---	---	---	108	104	107	102	100	101	109	107	108
5	---	---	---	109	102	108	101	85	92	110	105	108
6	---	---	---	106	73	85	114	86	96	111	106	108
7	---	---	---	80	76	79	170	114	144	115	110	113
8	---	---	---	87	80	83	176	144	162	117	114	116
9	---	---	---	93	87	90	152	126	137	116	112	114
10	123	119	121	97	92	95	133	119	125	118	113	115
11	122	120	121	99	96	98	121	73	93	123	116	120
12	123	121	121	100	91	99	114	100	109	122	116	119
13	123	121	122	93	79	83	110	103	106	118	113	115
14	123	110	121	90	84	87	194	96	129	114	112	113
15	115	102	110	95	90	92	173	137	154	115	113	113
16	114	111	113	101	95	100	174	128	153	118	114	116
17	117	114	115	100	99	100	129	65	86	121	117	119
18	119	117	118	102	100	101	102	84	96	151	116	125
19	120	119	119	103	95	101	102	100	101	203	136	169
20	120	119	120	95	84	86	103	102	103	202	147	181
21	121	120	120	89	85	88	105	103	104	190	122	166
22	120	120	120	93	89	91	106	104	105	173	142	159
23	120	119	120	94	92	93	107	105	106	157	123	147
24	121	120	120	97	94	95	111	92	101	151	138	144
25	121	120	120	98	95	97	103	99	102	151	123	139
26	121	120	120	100	97	99	102	99	101	148	129	139
27	120	91	111	102	100	101	102	99	101	151	139	142
28	102	94	98	102	98	101	104	101	103	160	146	152
29	96	80	87	98	93	94	104	103	104	195	159	176
30	87	86	86	98	94	96	105	104	104	321	193	255
31	95	87	92	---	---	---	106	105	106	420	168	335
MONTH	123	80	113	109	73	95	194	65	110	420	105	140
		FEBRUARY			MARCH			APRIL			MAY	
1	420	186	322	133	126	130	136	101	121	125	122	124
2	366	165	275	132	126	129	143	130	138	124	116	122
3	279	127	217	131	127	129	145	132	137	116	98	109
4	382	245	331	132	128	130	138	127	133	130	115	123
5	368	291	333	134	129	131	136	121	130	128	122	126
6	302	84	215	141	112	127	134	126	129	129	124	127
7	145	83	121	160	136	148	132	126	129	125	110	122
8	152	135	144	180	151	165	130	127	128	120	108	116
9	135	126	132	180	163	172	133	127	129	124	119	122
10	126	119	123	175	157	165	133	125	128	127	122	125
11	125	118	120	165	147	155	129	126	127	128	124	126
12	135	117	126	154	144	148	128	77	112	130	125	128
13	138	124	128	149	138	144	94	76	87	134	126	130
14	133	122	128	145	137	141	97	90	94	135	130	132
15	133	126	130	143	135	139	106	95	102	134	129	132
16	135	127	132	141	119	132	110	105	107	133	126	130
17	137	129	134	140	123	134	110	106	109	132	128	130
18	136	129	133	153	135	143	112	107	110	135	129	132
19	136	128	132	157	132	146	114	110	112	131	120	124
20	135	128	131	158	149	153	116	113	114	129	125	128
21	137	128	133	162	149	156	116	114	115	130	127	128
22	134	129	132	162	151	156	118	114	116	131	127	129
23	137	127	131	155	145	150	119	117	118	131	128	130
24	134	128	131	151	139	146	120	118	119	133	129	131
25	134	128	131	146	135	140	122	119	121	135	116	130
26	134	128	131	142	136	139	122	116	119	121	115	118
27	137	128	131	140	130	136	123	117	121	138	119	134
28	133	127	130	139	133	136	126	121	123	137	120	126
29	133	127	130	137	132	134	127	124	125	139	124	133
30	---	---	---	139	131	135	127	124	126	139	135	137
31	---	---	---	139	130	136	---	---	---	138	109	132
MONTH	420	83	162	180	112	143	145	76	119	139	98	127

01658000 MATTAWOMAN CREEK NEAR POMONKEY, MD—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	141	106	122	121	119	120	117	109	115	126	117	122
2	140	129	133	123	120	121	115	103	110	127	117	123
3	143	135	139	122	119	120	116	104	110	129	119	126
4	141	123	136	122	114	118	110	98	102	129	121	126
5	128	105	117	125	109	118	123	104	115	129	126	129
6	127	118	124	120	114	116	127	110	122	130	121	127
7	119	117	118	123	120	122	121	109	116	121	112	115
8	120	118	120	124	123	123	117	109	114	114	111	113
9	121	119	120	126	124	125	118	114	116	128	105	111
10	122	116	120	127	125	126	117	115	116	116	106	113
11	131	104	117	128	126	127	117	114	116	118	116	117
12	114	104	109	129	127	128	118	99	114	120	118	119
13	122	112	118	130	126	128	103	87	98	121	120	120
14	124	122	123	130	127	129	110	103	106	121	119	121
15	124	121	122	130	127	128	110	106	108	127	93	113
16	124	122	123	130	129	130	111	106	109	122	105	111
17	---	---	---	130	129	130	115	102	111	117	108	115
18	---	---	---	130	126	128	116	112	114	---	---	---
19	81	61	67	128	123	125	124	112	121	101	83	90
20	93	81	90	126	125	125	123	120	122	110	101	106
21	96	93	94	128	125	126	123	118	121	113	109	111
22	101	95	97	---	---	---	123	120	122	115	113	114
23	103	98	100	129	111	117	122	119	120	116	115	115
24	109	103	107	130	124	125	121	119	120	118	116	117
25	109	108	108	127	126	127	122	120	121	119	118	118
26	111	108	110	126	119	124	123	121	122	119	118	118
27	112	110	111	119	45	82	123	121	122	119	118	118
28	115	112	113	111	81	97	124	122	123	118	57	101
29	117	115	116	128	111	123	124	123	124	85	62	81
30	120	116	117	131	122	127	125	123	124	104	85	97
31	---	---	---	123	113	116	126	122	124	---	---	---
MONTH	143	61	114	131	45	122	127	87	116	130	57	114
YEAR	420	45	123									



DAILY MEAN SPECIFIC CONDUCTIVITY - 2004 WATER YEAR

01658000 MATTAWOMAN CREEK NEAR POMONKEY, MD—Continued

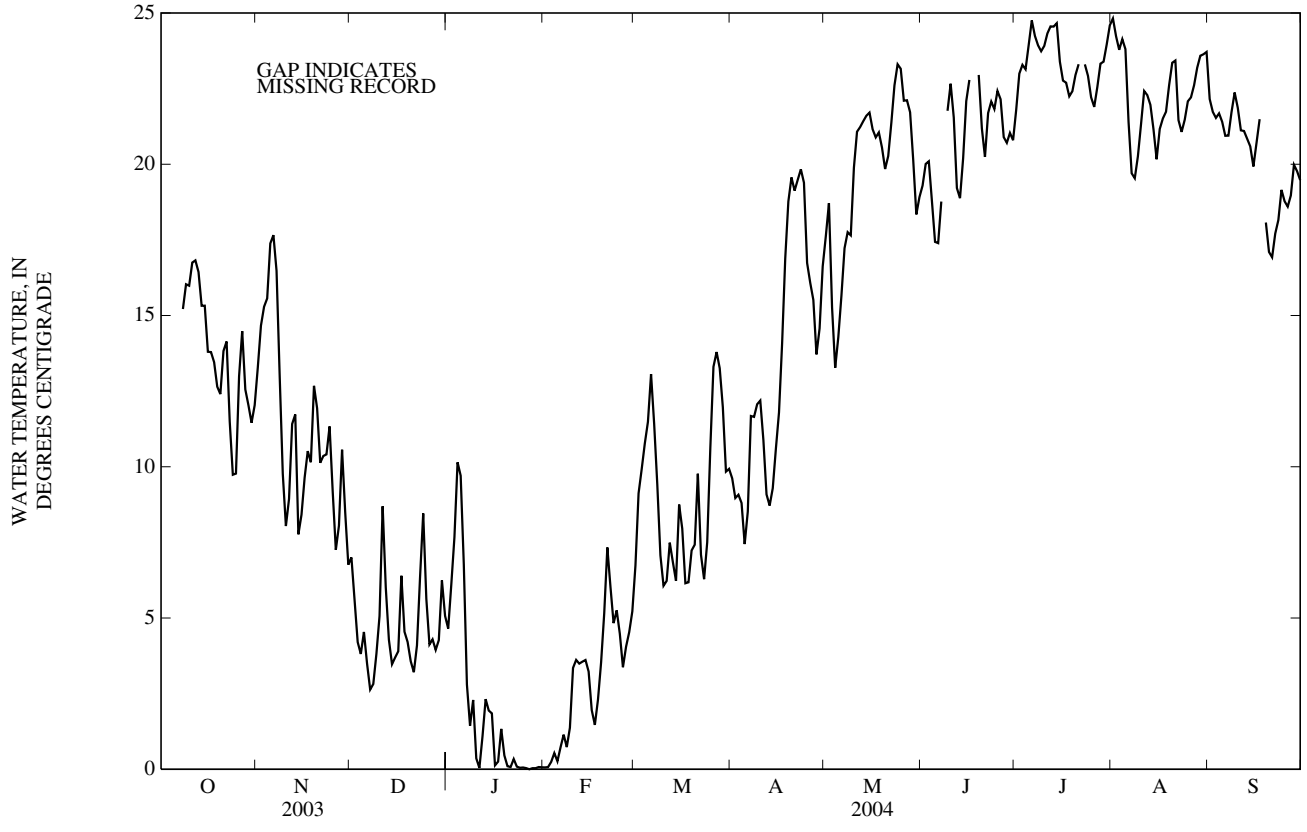
TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	14.1	12.2	13.3	7.9	6.5	7.0	5.5	3.7	4.7
2	---	---	---	15.6	13.7	14.7	6.5	4.7	5.6	7.1	5.0	6.1
3	---	---	---	16.3	14.4	15.3	4.7	3.5	4.2	9.2	6.4	7.7
4	---	---	---	16.6	14.4	15.6	4.4	3.3	3.8	11.3	9.0	10.1
5	---	---	---	18.6	16.0	17.4	5.1	3.5	4.5	10.7	8.4	9.7
6	---	---	---	18.1	17.2	17.7	4.8	2.8	3.5	8.4	4.7	6.8
7	---	---	---	17.2	14.8	16.5	3.1	2.0	2.6	4.7	1.6	2.8
8	16.3	14.1	15.2	14.8	11.3	13.0	3.6	2.0	2.8	2.2	0.5	1.4
9	16.9	15.1	16.0	11.3	8.6	9.8	5.0	2.8	3.8	2.9	1.5	2.3
10	16.6	15.1	16.0	8.8	7.0	8.0	7.2	4.1	5.1	1.5	0.0	0.4
11	17.4	16.1	16.8	10.2	7.8	8.9	9.7	7.2	8.7	0.3	0.0	0.0
12	17.5	15.8	16.8	13.3	10.2	11.4	7.2	5.0	6.0	2.2	0.2	1.1
13	17.1	15.8	16.4	13.3	9.0	11.7	5.0	3.7	4.3	3.5	1.3	2.3
14	15.9	14.7	15.3	9.0	6.9	7.8	4.4	2.6	3.5	2.5	1.3	1.9
15	15.7	14.6	15.3	9.3	7.5	8.4	4.5	3.0	3.7	2.4	0.8	1.8
16	14.6	12.9	13.8	10.3	9.1	9.6	5.4	2.6	3.9	0.8	0.0	0.1
17	14.4	13.2	13.8	11.5	9.8	10.5	7.4	4.9	6.4	0.8	0.0	0.3
18	14.0	12.6	13.5	10.8	9.6	10.1	5.1	4.0	4.5	2.2	0.6	1.3
19	13.5	11.7	12.6	14.0	10.8	12.7	4.6	3.8	4.2	1.0	0.1	0.5
20	13.3	11.2	12.4	13.4	10.7	11.9	4.0	3.0	3.6	0.3	0.0	0.1
21	14.9	12.6	13.8	11.0	8.8	10.1	3.8	2.4	3.2	0.2	0.0	0.1
22	14.8	12.8	14.1	11.1	9.4	10.4	5.6	2.9	4.1	0.8	0.0	0.3
23	12.8	10.3	11.5	11.2	9.5	10.4	7.5	5.5	6.4	0.5	0.0	0.1
24	10.4	8.7	9.7	12.5	10.4	11.3	9.3	7.3	8.5	0.2	0.0	0.0
25	11.3	8.3	9.8	11.2	7.7	9.2	7.3	4.3	5.6	0.1	0.0	0.1
26	14.4	11.3	13.0	7.7	6.5	7.3	4.7	3.4	4.1	0.1	0.0	0.0
27	15.0	13.7	14.5	9.3	7.0	8.1	5.0	3.5	4.3	0.0	0.0	0.0
28	13.7	12.1	12.6	11.9	9.2	10.6	4.7	3.0	3.9	0.1	0.0	0.0
29	12.5	11.7	12.0	10.7	7.1	8.5	5.3	3.2	4.3	0.1	0.0	0.0
30	12.3	10.4	11.5	7.2	6.3	6.8	7.3	5.0	6.2	0.2	0.0	0.1
31	13.0	10.9	12.0	---	---	---	6.0	4.3	5.1	0.1	0.0	0.1
MONTH	17.5	8.3	13.7	18.6	6.3	11.2	9.7	2.0	4.8	11.3	0.0	2.0
		FEBRUARY			MARCH			APRIL			MAY	
1	0.1	0.0	0.1	8.8	4.6	6.7	10.0	9.0	9.6	18.7	16.5	17.6
2	0.1	0.0	0.1	10.7	7.8	9.1	9.4	8.7	9.0	20.0	17.7	18.7
3	0.7	0.0	0.2	11.7	8.0	9.9	10.0	8.3	9.1	18.6	13.6	15.3
4	1.1	0.1	0.5	11.6	10.1	10.8	9.5	7.7	8.8	14.2	12.0	13.3
5	0.6	0.0	0.3	13.3	9.9	11.5	9.2	5.4	7.4	15.3	13.0	14.3
6	1.1	0.3	0.7	14.0	12.4	13.1	10.6	6.1	8.5	16.9	14.3	15.7
7	2.1	0.6	1.1	12.5	10.0	11.4	14.3	9.3	11.7	19.2	15.4	17.2
8	1.4	0.3	0.7	10.9	7.8	9.4	12.7	10.9	11.6	18.3	17.3	17.8
9	2.8	0.2	1.4	7.9	6.0	7.1	14.5	9.8	12.1	18.9	16.2	17.7
10	4.5	2.4	3.3	6.8	5.3	6.1	13.7	10.7	12.2	21.6	18.2	19.9
11	4.5	2.7	3.6	8.4	4.1	6.2	12.1	9.8	10.9	22.6	19.6	21.1
12	4.3	2.8	3.5	9.4	6.0	7.5	9.8	8.4	9.1	22.4	19.7	21.2
13	4.9	2.2	3.6	8.6	5.1	6.8	9.2	8.3	8.7	22.5	20.0	21.4
14	4.5	2.6	3.6	7.4	4.8	6.2	9.7	9.0	9.3	22.7	20.2	21.6
15	4.2	2.4	3.2	11.0	6.8	8.8	13.1	8.1	10.6	22.9	20.2	21.7
16	2.9	0.9	2.0	9.6	6.4	8.0	13.9	9.2	11.8	22.0	20.1	21.2
17	2.3	0.7	1.5	6.5	5.6	6.1	16.6	11.2	14.1	21.8	19.8	20.9
18	3.8	1.0	2.3	7.6	5.0	6.2	19.2	14.2	16.9	22.4	19.6	21.1
19	5.4	2.0	3.5	8.0	6.4	7.2	20.9	16.6	18.8	21.1	19.9	20.6
20	6.9	3.6	5.2	9.6	5.1	7.4	21.6	17.5	19.6	20.3	19.4	19.8
21	8.7	6.4	7.3	11.1	8.0	9.8	20.7	17.4	19.1	21.5	19.1	20.3
22	6.9	5.1	6.0	8.7	5.6	7.1	21.3	17.6	19.5	22.6	19.9	21.4
23	6.1	3.4	4.8	8.6	4.0	6.3	21.7	18.1	19.8	24.0	21.2	22.6
24	5.8	4.7	5.3	10.0	4.8	7.5	20.9	18.1	19.4	24.5	22.1	23.3
25	5.8	3.2	4.5	13.1	8.5	10.6	18.3	15.9	16.7	24.5	22.0	23.2
26	4.1	2.5	3.4	15.9	10.8	13.3	16.7	15.4	16.1	22.9	21.2	22.1
27	5.7	2.7	4.1	14.6	13.2	13.8	16.8	14.2	15.5	23.1	21.1	22.1
28	6.6	2.5	4.5	14.7	12.3	13.3	14.9	12.5	13.7	22.3	21.1	21.7
29	7.1	3.1	5.2	13.6	10.6	12.0	16.8	12.1	14.6	21.1	19.1	20.1
30	---	---	---	11.1	9.2	9.8	18.4	14.8	16.6	19.1	17.8	18.3
31	---	---	---	10.8	9.0	9.9	---	---	---	19.7	18.4	18.9
MONTH	8.7	0.0	2.9	15.9	4.0	9.0	21.7	5.4	13.4	24.5	12.0	19.7

01658000 MATTAWOMAN CREEK NEAR POMONKEY, MD—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	20.6	17.9	19.3	23.1	20.3	21.8	25.4	24.4	24.8	23.1	20.9	22.2
2	21.4	18.4	20.0	24.5	21.6	23.0	24.5	24.0	24.2	22.5	20.7	21.7
3	21.1	18.8	20.1	24.8	21.9	23.3	24.6	22.6	23.8	22.4	20.5	21.5
4	20.0	17.9	18.8	23.6	22.9	23.1	25.0	23.3	24.1	22.4	21.0	21.7
5	18.0	17.2	17.4	25.3	22.6	23.9	24.9	22.5	23.8	22.0	20.7	21.4
6	18.2	16.8	17.4	25.9	23.5	24.8	22.5	20.2	21.4	21.5	20.6	20.9
7	19.6	17.8	18.8	25.0	23.4	24.2	20.3	18.9	19.7	21.6	20.3	20.9
8	---	---	---	25.1	22.7	23.9	20.6	18.3	19.5	22.3	21.2	21.7
9	23.4	20.1	21.8	24.8	22.5	23.7	21.3	19.0	20.3	22.9	21.8	22.4
10	23.8	21.5	22.7	25.5	22.6	23.9	22.4	20.1	21.3	22.6	21.0	21.9
11	22.7	19.1	21.5	25.9	23.0	24.3	23.2	21.6	22.4	21.8	20.3	21.1
12	20.3	18.2	19.2	25.8	23.7	24.6	23.0	21.7	22.3	22.0	20.2	21.1
13	19.9	18.4	18.9	26.2	23.2	24.6	22.5	21.5	22.0	21.7	19.9	20.8
14	21.2	18.9	20.2	26.1	23.8	24.7	22.5	19.9	21.2	21.0	20.1	20.6
15	23.3	20.9	22.1	24.9	22.1	23.4	20.9	19.7	20.2	20.4	19.5	19.9
16	23.4	22.2	22.8	24.4	21.3	22.8	21.8	20.5	21.2	21.2	20.2	20.7
17	---	---	---	24.6	21.1	22.7	22.0	21.0	21.5	22.1	20.9	21.5
18	---	---	---	23.2	21.7	22.2	22.6	20.9	21.7	---	---	---
19	23.3	22.5	23.0	23.5	21.2	22.4	23.6	21.7	22.6	19.4	17.4	18.1
20	22.5	20.5	21.2	24.0	21.8	23.0	24.4	22.1	23.4	17.8	16.4	17.1
21	20.9	19.2	20.2	25.0	21.8	23.3	24.0	22.2	23.4	17.9	15.8	16.9
22	22.8	20.8	21.7	---	---	---	22.3	20.6	21.5	18.9	16.4	17.7
23	22.3	21.7	22.1	23.9	22.7	23.3	22.1	19.8	21.1	19.2	16.8	18.2
24	22.6	20.9	21.8	23.4	22.5	22.9	22.4	20.3	21.5	19.8	18.4	19.2
25	23.1	22.0	22.4	22.5	21.9	22.2	22.9	21.4	22.1	19.4	17.9	18.8
26	23.0	21.2	22.1	22.2	21.6	21.9	23.3	21.2	22.2	19.2	17.6	18.6
27	22.0	19.5	20.9	23.7	21.4	22.6	23.8	21.6	22.6	19.3	18.5	19.0
28	21.6	19.5	20.7	23.7	22.9	23.3	24.7	21.9	23.2	21.2	19.3	20.0
29	22.0	19.9	21.0	23.8	22.7	23.4	25.0	22.3	23.6	20.1	19.5	19.8
30	21.8	19.5	20.8	24.7	23.3	24.0	24.9	22.5	23.6	20.0	19.0	19.5
31	---	---	---	25.5	23.7	24.6	24.8	23.0	23.7	---	---	---
MONTH	23.8	16.8	20.7	26.2	20.3	23.4	25.4	18.3	22.3	23.1	15.8	20.2
YEAR	26.2	0.0	13.5									



DAILY MEAN WATER TEMPERATURE - 2004 WATER YEAR

01658000 MATTAWOMAN CREEK NEAR POMONKEY, MD—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

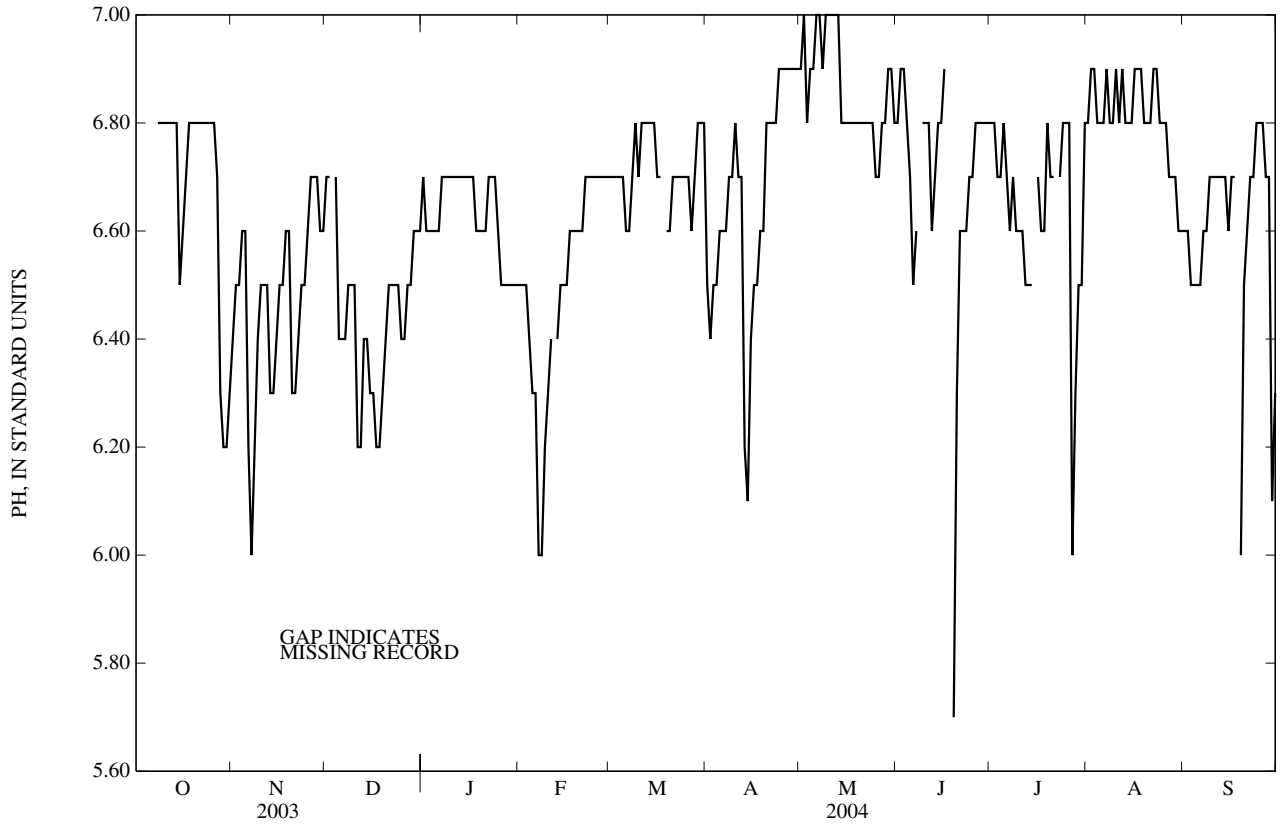
DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	6.4	6.3	6.4	6.7	6.6	6.7	6.7	6.6	6.7
2	---	---	---	6.5	6.4	6.5	6.8	6.7	6.7	6.7	6.6	6.6
3	---	---	---	6.8	6.5	6.5	---	---	---	6.7	6.6	6.6
4	---	---	---	6.6	6.5	6.6	6.7	6.7	6.7	6.7	6.6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

01658000 MATTAWOMAN CREEK NEAR POMONKEY, MD—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	6.9	6.7	6.8	6.9	6.7	6.8	7.0	6.5	6.8	6.6	6.6	6.6
2	6.9	6.8	6.9	6.9	6.7	6.8	7.0	6.6	6.9	6.6	6.5	6.6
3	6.9	6.8	6.9	6.9	6.7	6.7	7.0	6.6	6.9	6.6	6.5	6.5
4	6.9	6.8	6.8	6.7	6.7	6.7	7.0	6.6	6.8	6.6	6.4	6.5
5	6.8	6.6	6.7	6.8	6.7	6.8	6.9	6.7	6.8	6.6	6.5	6.5
6	6.6	6.5	6.5	6.7	6.6	6.7	6.9	6.7	6.8	6.6	6.5	6.5
7	6.6	6.5	6.6	6.7	6.6	6.6	6.9	6.9	6.9	6.6	6.5	6.6
8	---	---	---	6.8	6.6	6.7	7.0	6.6	6.8	6.7	6.5	6.6
9	6.9	6.8	6.8	6.8	6.6	6.6	6.9	6.7	6.8	6.8	6.6	6.7
10	6.9	6.8	6.8	6.8	6.6	6.6	7.0	6.8	6.9	6.8	6.6	6.7
11	6.9	6.7	6.8	6.7	6.5	6.6	6.9	6.5	6.8	6.8	6.7	6.7
12	6.7	6.6	6.6	6.7	6.5	6.5	6.9	6.3	6.9	6.8	6.7	6.7
13	6.8	6.6	6.7	6.7	6.4	6.5	6.9	6.7	6.8	6.8	6.7	6.7
14	6.9	6.8	6.8	6.6	6.4	6.5	6.9	6.4	6.8	6.8	6.6	6.7
15	6.9	6.8	6.8	---	---	---	7.0	6.6	6.8	6.8	6.6	6.6
16	6.9	6.8	6.9	6.9	6.6	6.7	7.0	6.8	6.9	6.8	6.6	6.7
17	---	---	---	6.8	6.6	6.6	7.0	6.8	6.9	6.7	6.6	6.7
18	---	---	---	6.7	6.5	6.6	7.0	6.8	6.9	---	---	---
19	6.0	5.6	5.7	6.9	6.7	6.8	6.9	6.7	6.8	6.3	5.9	6.0
20	6.4	6.0	6.3	6.9	6.7	6.7	6.9	6.8	6.8	6.6	6.3	6.5
21	6.6	6.4	6.6	6.9	6.6	6.7	6.9	6.8	6.8	6.7	6.6	6.6
22	6.7	6.6	6.6	---	---	---	6.9	6.8	6.9	6.8	6.7	6.7
23	6.6	6.6	6.6	6.8	6.5	6.7	6.9	6.8	6.9	6.8	6.7	6.7
24	6.7	6.6	6.7	6.9	6.7	6.8	6.9	6.8	6.8	6.8	6.7	6.8
25	6.8	6.7	6.7	6.8	6.7	6.8	6.9	6.8	6.8	6.8	6.7	6.8
26	6.8	6.7	6.8	6.8	6.7	6.8	6.8	6.7	6.8	6.8	6.7	6.8
27	6.8	6.8	6.8	6.7	5.9	6.0	6.8	6.7	6.7	6.8	6.7	6.7
28	6.8	6.8	6.8	6.5	5.9	6.3	6.8	6.7	6.7	6.7	6.0	6.7
29	6.9	6.8	6.8	6.7	6.5	6.5	6.8	6.6	6.7	6.2	6.0	6.1
30	6.8	6.8	6.8	6.6	6.5	6.5	6.7	6.6	6.6	6.4	6.1	6.3
31	---	---	---	6.9	6.5	6.8	6.7	6.6	6.6	---	---	---
MAX	6.9	6.8	6.9	6.9	6.7	6.8	7.0	6.9	6.9	6.8	6.7	6.8
MIN	6.0	5.6	5.7	6.5	5.9	6.0	6.7	6.3	6.6	6.2	5.9	6.0

YEAR			
	MAX	MAXIMUM 7.1	MINIMUM 6.0
	MIN	MAXIMUM 7.0	MINIMUM 5.6
	MEDIAN	MAXIMUM 7.0	MINIMUM 5.7



DAILY MEDIAN pH - 2004 WATER YEAR

01658000 MATTAWOMAN CREEK NEAR POMONKEY, MD—Continued

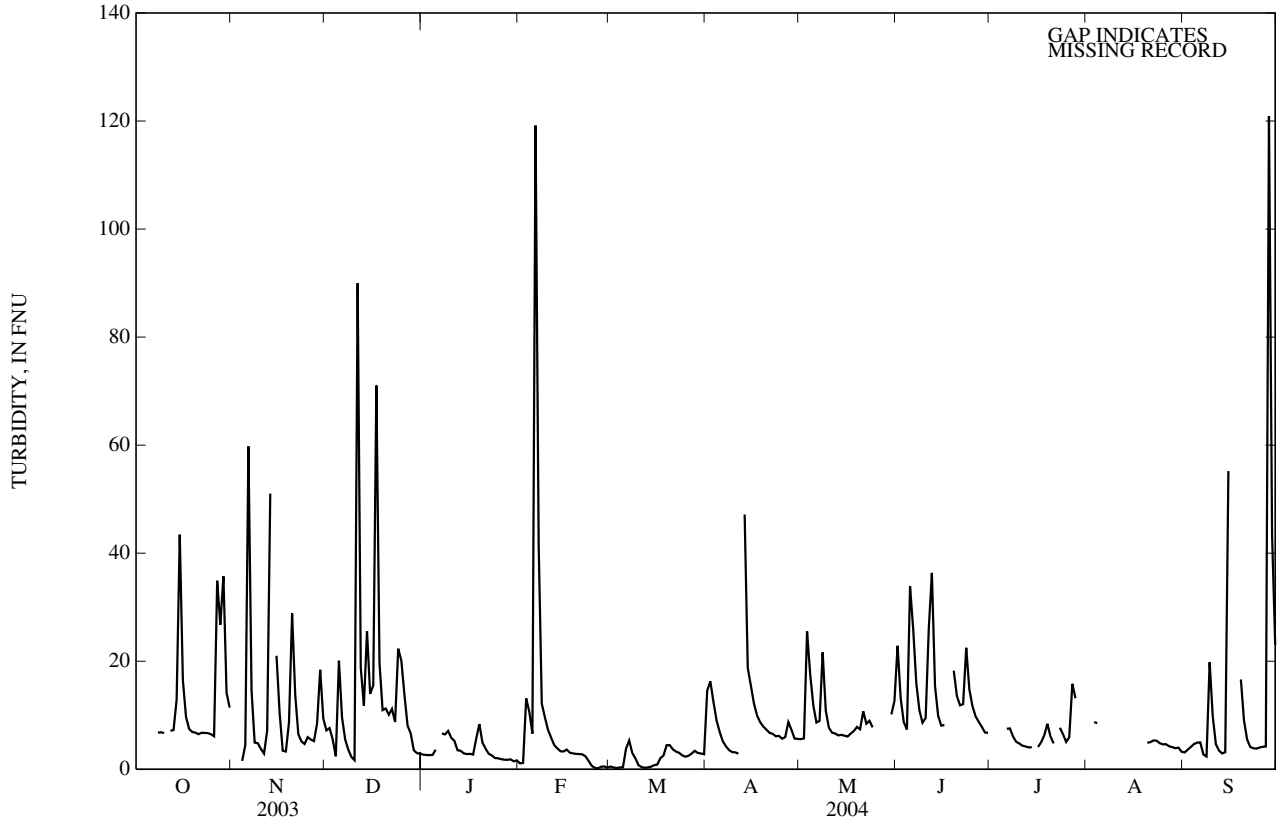
TURBIDITY, WATER, FORMAZIN NEPHELOMETRIC UNITS (FNU)
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	---	---	---	9.0	5.7	7.2	3.6	2.3	2.7
2	---	---	---	---	---	---	10	5.5	7.6	3.3	2.0	2.6
3	---	---	---	---	---	---	12	2.1	5.5	3.5	1.8	2.6
4	---	---	---	2.1	0.9	1.6	3.4	1.8	2.4	3.7	1.8	2.7
5	---	---	---	57	0.7	4.5	47	1.6	20	6.4	2.4	3.6
6	---	---	---	170	16	60	19	6.6	9.5	---	---	---
7	---	---	---	36	5.6	15	7.2	3.9	5.5	8.4	5.1	6.6
8	7.3	6.1	6.8	9.4	4.1	4.9	4.6	2.5	3.6	9.2	5.0	6.5
9	8.0	6.2	6.8	6.0	3.9	4.8	4.0	1.0	2.3	11	5.3	7.1
10	7.4	6.0	6.7	6.4	2.1	3.8	2.7	0.9	1.7	7.3	2.6	5.8
11	---	---	---	3.5	2.0	2.9	330	2.7	90	7.7	3.2	5.3
12	8.0	6.6	7.1	120	1.9	7.1	35	13	19	4.9	2.6	3.5
13	8.0	6.5	7.3	160	33	51	14	9.6	12	4.1	2.9	3.4
14	120	6.3	13	---	---	---	68	7.6	26	6.2	2.1	3.0
15	140	22	43	58	7.5	21	35	7.0	14	4.7	2.2	2.8
16	23	12	17	41	2.9	10	31	4.9	16	5.9	1.8	2.9
17	13	7.9	9.7	4.9	2.6	3.4	260	3.6	71	4.3	1.6	2.7
18	8.7	6.7	7.5	3.9	2.8	3.3	38	12	20	11	1.8	5.7
19	7.4	6.5	6.9	70	2.2	8.7	14	9.4	11	11	5.9	8.4
20	7.3	6.2	6.8	70	19	29	27	5.4	11	7.6	2.7	4.9
21	7.1	5.8	6.5	20	7.8	14	32	4.2	10	6.3	1.6	3.8
22	7.3	6.3	6.8	9.2	5.0	6.5	36	3.7	11	3.8	1.7	2.9
23	8.4	6.0	6.7	6.5	4.0	5.2	42	2.6	8.7	4.0	1.4	2.6
24	7.5	6.2	6.7	6.5	3.4	4.7	64	2.9	22	3.1	1.5	2.1
25	7.5	5.7	6.5	10	4.7	5.9	39	16	20	3.2	0.7	2.0
26	9.4	4.8	6.1	7.8	4.4	5.5	28	9.5	14	2.8	1.0	1.9
27	130	5.5	35	6.5	4.2	5.2	18	4.8	8.1	2.7	1.4	1.8
28	40	19	27	32	4.4	8.4	16	3.3	6.6	2.2	1.4	1.7
29	120	16	36	33	12	18	4.6	2.6	3.5	2.5	1.3	1.8
30	17	12	14	18	6.9	9.4	4.3	2.0	3.0	2.1	1.1	1.5
31	12	10	11	---	---	---	8.0	2.0	2.9	3.2	1.1	1.6
MONTH	140	4.8	13	170	0.7	12	330	0.9	15	11	0.7	3.5
		FEBRUARY			MARCH			APRIL			MAY	
1	1.9	0.7	1.1	1.3	0.0	0.5	24	2.8	15	8.8	4.5	5.6
2	3.1	0.7	1.2	2.0	0.0	0.3	23	12	16	13	4.5	5.7
3	45	0.7	13	0.6	0.0	0.2	18	10	12	40	7.4	26
4	19	7.1	11	2.4	0.0	0.3	11	7.4	9.0	25	14	18
5	9.2	5.3	6.6	3.8	0.0	0.4	8.9	5.0	6.9	20	9.6	12
6	520	3.9	120	8.5	0.0	3.8	6.8	4.1	5.2	12	7.2	8.6
7	140	16	42	9.8	3.1	5.3	5.4	3.4	4.3	22	6.5	8.9
8	21	9.7	12	7.3	1.6	3.0	4.3	3.0	3.5	39	15	22
9	11	8.7	9.6	3.3	1.0	2.0	4.0	2.6	3.2	16	8.6	11
10	13	5.1	7.3	2.1	0.1	0.8	4.0	2.6	3.1	9.1	6.7	7.7
11	7.5	4.7	5.8	2.3	0.0	0.4	3.8	2.4	2.9	8.1	6.0	6.8
12	6.5	2.5	4.5	2.1	0.0	0.3	---	---	---	11	5.5	6.6
13	5.5	3.1	3.9	0.9	0.0	0.3	220	21	47	7.0	4.8	6.3
14	5.1	2.3	3.3	1.2	0.0	0.5	32	16	19	9.0	5.7	6.4
15	4.9	2.2	3.3	1.3	0.1	0.8	25	14	15	11	5.6	6.2
16	4.6	2.8	3.7	3.1	0.0	0.9	17	9.4	12	7.9	5.3	6.1
17	4.1	2.2	3.1	3.9	1.0	2.0	12	7.8	9.9	9.6	5.4	6.6
18	4.0	2.2	2.9	4.4	0.5	2.5	11	6.6	8.7	9.9	5.9	7.1
19	4.6	2.0	2.8	7.1	3.3	4.5	9.6	6.6	7.9	9.9	6.5	7.8
20	3.9	2.0	2.8	6.2	3.6	4.5	8.5	6.1	7.3	13	6.6	7.4
21	3.7	2.2	2.8	6.8	3.1	3.7	7.9	5.8	6.7	17	7.2	11
22	4.7	1.6	2.4	4.1	2.8	3.3	8.2	5.3	6.6	15	7.1	8.4
23	3.1	0.7	1.6	7.0	2.3	3.0	7.2	5.3	6.1	12	6.3	9.0
24	1.6	0.0	0.6	4.7	2.0	2.6	8.3	5.2	6.2	11	6.5	7.8
25	0.6	0.0	0.3	3.1	1.8	2.3	11	4.6	5.6	---	---	---
26	0.6	0.0	0.2	4.5	2.0	2.5	8.4	4.7	6.0	---	---	---
27	2.1	0.0	0.5	4.0	2.3	2.9	15	7.8	8.7	11	7.3	8.4
28	1.5	0.0	0.5	4.7	2.8	3.4	17	5.6	7.3	---	---	---
29	1.5	0.0	0.3	3.7	2.5	3.0	9.8	4.6	5.7	---	---	---
30	---	---	---	3.6	2.4	2.9	8.8	4.6	5.6	17	7.9	10
31	---	---	---	4.3	2.3	2.8	---	---	---	45	7.2	13
MONTH	520	0.0	9.3	9.8	0.0	2.1	220	2.4	9.4	45	4.5	9.6

01658000 MATTAWOMAN CREEK NEAR POMONKEY, MD—Continued

TURBIDITY, WATER, FORMAZIN NEPHELOMETRIC UNITS (FNU)
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	44	16	23	---	---	---	---	---	---	5.6	2.1	3.1
2	17	10	13	---	---	---	---	---	---	8.7	2.4	3.6
3	12	7.2	8.7	---	---	---	24	1.4	8.7	5.5	2.7	4.1
4	10	5.7	7.4	---	---	---	16	1.2	8.6	5.5	3.3	4.7
5	62	7.2	34	---	---	---	---	---	---	12	4.4	4.9
6	43	19	26	12	5.9	7.5	---	---	---	6.1	3.4	5.0
7	21	13	16	11	6.0	7.6	---	---	---	4.3	1.8	2.7
8	15	9.3	11	15	4.5	6.1	---	---	---	7.2	1.7	2.4
9	11	7.2	8.6	15	4.0	5.1	---	---	---	43	5.6	20
10	20	6.8	9.5	10	3.8	4.8	---	---	---	18	6.4	9.8
11	37	19	26	6.3	3.3	4.4	---	---	---	7.6	3.4	4.6
12	60	22	36	5.9	3.1	4.2	---	---	---	5.0	2.7	3.5
13	22	12	15	12	3.0	4.0	---	---	---	4.3	2.3	2.9
14	13	8.1	9.9	8.5	3.1	4.1	---	---	---	4.4	2.2	3.2
15	9.6	7.0	8.1	---	---	---	---	---	---	590	2.9	55
16	9.9	7.2	8.2	5.1	3.3	4.1	---	---	---	---	---	---
17	---	---	---	5.9	4.0	5.0	---	---	---	29	4.3	7.2
18	---	---	---	15	3.8	6.3	---	---	---	---	---	---
19	33	12	18	14	6.5	8.4	---	---	---	28	12	17
20	15	12	14	16	4.8	6.1	8.1	4.0	4.9	12	6.7	9.0
21	13	11	12	7.4	3.6	4.8	9.6	4.0	5.0	7.6	4.3	5.5
22	20	8.8	12	---	---	---	7.5	4.8	5.3	6.3	3.2	4.1
23	32	18	22	11	6.2	7.7	7.5	4.5	5.3	5.7	3.1	3.9
24	18	13	15	9.5	5.0	6.5	6.1	4.1	4.8	6.2	3.1	3.8
25	14	10	12	5.9	4.5	5.1	5.7	4.0	4.6	5.2	3.3	4.0
26	12	8.6	9.8	9.5	4.8	5.9	6.1	3.9	4.6	5.4	3.3	4.2
27	10	8.0	8.8	55	6.4	16	5.4	3.6	4.3	6.3	3.1	4.2
28	9.8	7.0	7.9	31	7.2	13	6.2	3.5	4.1	720	3.3	120
29	10	6.0	6.8	---	---	---	4.8	3.4	3.9	120	23	43
30	9.2	5.7	6.7	---	---	---	5.5	3.2	4.0	32	19	23
31	---	---	---	---	---	---	4.7	2.5	3.2	---	---	---
MONTH	62	5.7	14	55	3.0	6.5	24	1.2	5.1	720	1.7	14
YEAR	720	0.0	9.6									



DAILY MEAN TURBIDITY - 2004 WATER YEAR

01660920 ZEKIAH SWAMP RUN NEAR NEWTOWN, MD

LOCATION.--Lat 38°29'26.1", long 76°55'37.5", Charles County, Hydrologic Unit 02070011, on left-center downstream side of bridge on State Highway 6, 1.0 mi southeast of Newtown, and 1.7 mi downstream from Kerrick Swamp.

DRAINAGE AREA.--79.9 mi^2.

PERIOD OF RECORD.--June 1983 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 34.88 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges (ice effect and missing record), which are fair. Low flow affected by ground-water diversions from municipal well fields at Waldorf and St. Charles, and occasional farm irrigation upstream from station during summer months. U.S. Geological Survey gage-height telemeter at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov 7	0915	985	*4.02	Feb 7	unknown	*1,190	4.18

Minimum discharge, 0.87 ft^3/s, Sept. 6.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48	173	149	e133	e58	74	116	65	82	34	24	3.0
2	45	118	120	e138	e53	79	215	61	83	26	62	2.4
3	40	96	105	e138	e86	81	194	141	41	17	144	1.7
4	38	85	97	134	e240	81	158	200	29	14	135	1.2
5	37	91	143	131	e200	e74	114	132	135	24	57	0.95
6	35	444	243	157	e460	e140	88	89	322	24	66	0.94
7	33	901	230	144	e1,040	e200	79	74	198	16	39	1.1
8	32	589	175	114	e810	e147	75	114	85	14	19	2.0
9	32	285	148	e109	e440	87	71	106	56	12	11	36
10	32	180	136	e83	274	75	67	72	43	8.9	7.6	35
11	32	152	298	e133	210	70	65	57	38	6.8	5.9	17
12	32	148	541	e107	183	67	106	48	104	5.9	11	7.5
13	30	260	364	e121	162	62	445	42	130	8.2	75	4.9
14	31	308	285	e121	152	58	513	38	67	19	77	3.8
15	146	208	545	108	146	57	305	33	46	22	87	13
16	203	159	467	106	126	69	197	32	39	13	71	57
17	117	144	370	84	110	112	151	36	58	7.9	41	64
18	65	129	558	138	109	104	128	58	242	16	32	243
19	48	133	420	235	107	101	111	70	572	26	46	238
20	40	240	257	e129	106	95	99	51	186	22	44	132
21	39	291	204	e130	104	81	88	43	74	14	23	54
22	38	209	181	e87	99	69	83	36	55	9.6	22	32
23	36	160	170	e72	89	60	79	29	96	36	24	21
24	30	141	203	e58	86	56	76	23	85	31	15	13
25	28	152	338	e71	85	57	71	19	57	23	9.5	10
26	28	156	303	e46	80	60	73	22	49	21	7.1	9.0
27	65	136	202	e68	78	61	103	30	42	39	5.9	7.7
28	229	125	171	e78	77	65	95	57	29	73	4.9	48
29	371	174	157	e71	76	60	74	83	22	56	4.3	278
30	416	187	151	e74	---	57	68	43	20	28	3.7	299
31	300	---	e135	e62	---	56	---	36	---	17	3.4	---
TOTAL	2,696	6,574	7,866	3,380	5,846	2,515	4,107	1,940	3,085	684.3	1,177.3	1,636.19
MEAN	87.0	219	254	109	202	81.1	137	62.6	103	22.1	38.0	54.5
MAX	416	901	558	235	1,040	200	513	200	572	73	144	299
MIN	28	85	97	46	53	56	65	19	20	5.9	3.4	0.94
CFSM	1.09	2.74	3.18	1.36	2.52	1.02	1.71	0.78	1.29	0.28	0.48	0.68
IN.	1.26	3.06	3.66	1.57	2.72	1.17	1.91	0.90	1.44	0.32	0.55	0.76

e Estimated

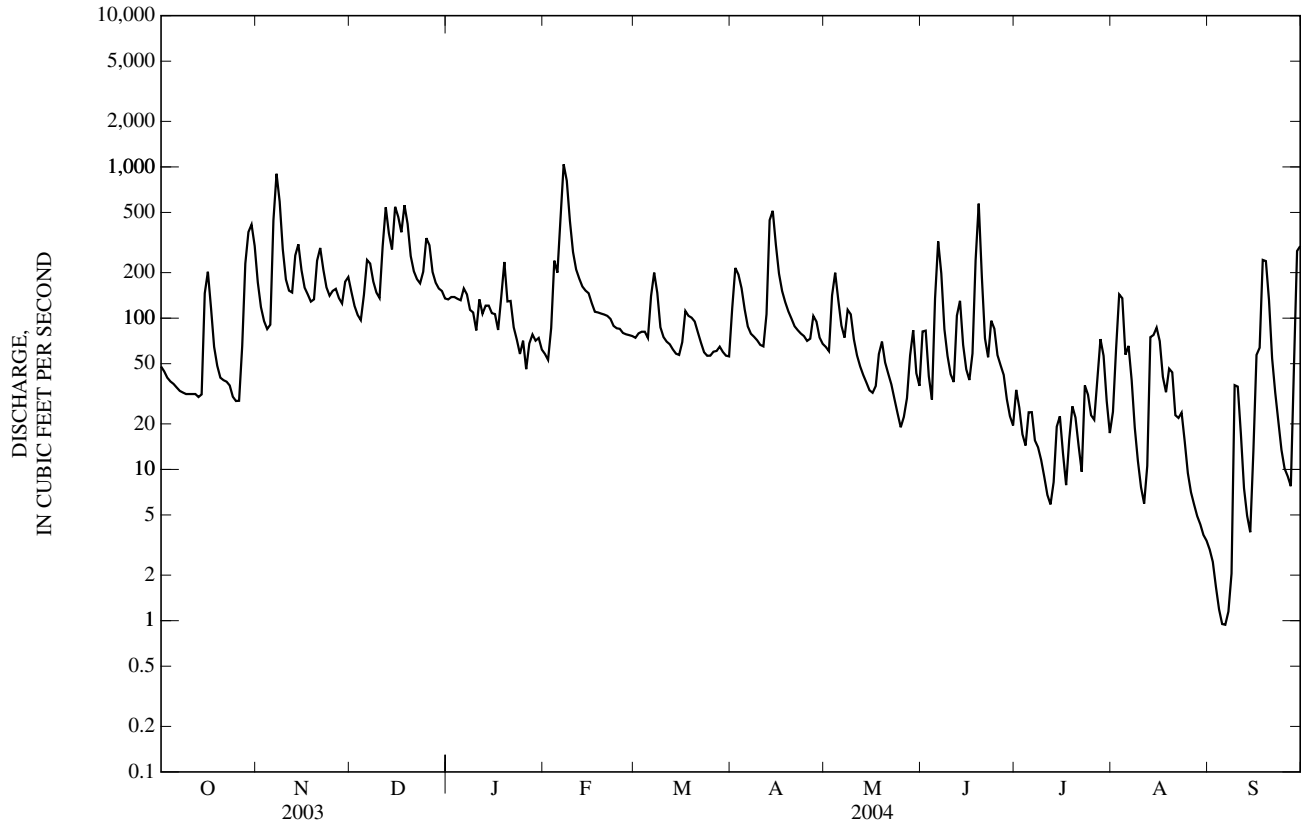
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 2004, BY WATER YEAR (WY)

MEAN	43.1	77.1	110	125	149	183	128	101	68.6	35.7	32.8	45.9
MAX	163	219	254	268	375	491	277	334	311	129	115	175
(WY)	(1990)	(2004)	(2004)	(1996)	(1998)	(1994)	(1993)	(1989)	(1989)	(2000)	(2000)	(1999)
MIN	0.00	0.00	14.0	32.2	16.8	54.4	30.5	14.1	1.40	0.00	0.00	0.00
(WY)	(1999)	(1999)	(1999)	(2002)	(2002)	(2002)	(1985)	(2002)	(2002)	(2002)	(2002)	(1995)

01660920 ZEKIAH SWAMP RUN NEAR NEWTOWN, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1983 - 2004	
ANNUAL TOTAL	67,152.2		41,506.79			
ANNUAL MEAN	184		113		91.6	
HIGHEST ANNUAL MEAN					160	2003
LOWEST ANNUAL MEAN					16.0	2002
HIGHEST DAILY MEAN	1,340	Feb 23	(e)1,040	Feb 7	2,570	Mar 29, 1994
LOWEST DAILY MEAN	6.1	Aug 26	0.94	Sep 6	0.00	(a)
ANNUAL SEVEN-DAY MINIMUM	14	Aug 20	1.5	Sep 2	0.00	Jul 20, 1987
MAXIMUM PEAK FLOW			1,190	Feb 7	(b)4,080	Sep 17, 1999
MAXIMUM PEAK STAGE			4.18	Feb 7	5.51	Sep 17, 1999
INSTANTANEOUS LOW FLOW			0.87	Sep 6	0.00	(c)
ANNUAL RUNOFF (CFSM)	2.30		1.42		1.15	
ANNUAL RUNOFF (INCHES)	31.26		19.32		15.58	
10 PERCENT EXCEEDS	400		242		210	
50 PERCENT EXCEEDS	133		75		53	
90 PERCENT EXCEEDS	37		14		1.3	

e Estimated
a Many days.
b From rating curve extended above 1,500 ft^3/s.
c No flow at times in 1983, 1985-89, 1991, 1993, 1995-1999, 2002, 2003.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01661050 ST. CLEMENT CREEK NEAR CLEMENTS, MD

LOCATION.--Lat 38°19'59.9", long 76°43'30.0", St. Marys County, Hydrologic Unit 02070011, on left bank 60 ft downstream from bridge on State Highway 242, 0.5 mi north of Clements, 2.3 mi upstream from mouth, and 5.7 mi northwest of Leonardtown.

DRAINAGE AREA.--18.5 mi^2.

PERIOD OF RECORD.--October 1968 to current year.

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Elevation of gage is 8 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges (missing record), which are fair. Occasional regulation from unknown source upstream from station. U.S. Geological Survey gage-height telemeter at station. Several measurements of water temperature were made during the year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 220 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov 6	2200	373	4.21	Apr 13	2215	230	3.02
Dec 14	1815	243	3.12	Jun 18	0230	228	2.99
Feb 7	0300	385	4.25	Aug 1	2130	*490	*4.79
Apr 13	0230	228	2.99				

Minimum discharge, 1.4 ft^3/s, July 12.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	29	23	26	16	18	87	16	26	3.5	121	4.2
2	12	28	21	29	17	19	62	16	8.9	3.2	162	3.5
3	13	24	20	29	55	18	38	47	5.3	2.8	89	3.1
4	13	23	21	e27	71	18	26	30	5.1	3.0	29	3.2
5	12	24	69	e38	40	18	20	18	81	4.2	e20	3.4
6	12	195	57	e42	108	23	18	15	26	3.6	e15	4.9
7	11	171	36	e30	255	21	18	14	15	2.6	e12	5.6
8	12	49	27	e25	70	20	17	16	11	3.1	e10	5.9
9	11	32	25	22	44	17	17	13	8.8	2.7	e8.0	6.7
10	11	25	27	17	42	18	16	11	7.3	2.0	e6.0	4.9
11	11	23	135	16	35	18	22	9.4	8.0	1.8	e5.0	3.7
12	13	28	58	20	30	17	65	8.3	18	4.6	e30	3.4
13	11	102	36	23	28	15	191	7.4	8.6	26	8.7	3.2
14	12	39	137	20	26	15	129	9.9	7.1	21	20	3.2
15	46	27	107	20	25	16	e50	5.9	6.2	17	26	12
16	22	24	49	15	22	35	e36	5.0	6.7	5.6	60	18
17	13	24	55	16	22	33	e30	7.9	23	13	22	7.6
18	12	22	53	72	23	23	e24	27	115	71	14	17
19	12	32	39	68	23	28	e22	14	16	26	11	13
20	12	86	34	28	22	20	e20	13	8.5	25	8.3	6.0
21	12	40	30	22	22	19	e18	9.4	6.4	14	8.0	4.8
22	12	28	30	e20	20	16	e17	8.6	7.0	6.9	10	4.2
23	9.6	26	29	e21	20	15	e20	6.5	16	14	6.9	3.6
24	9.5	25	54	e17	20	15	e18	5.1	8.8	17	6.0	3.4
25	10	30	52	e15	20	15	e14	4.1	6.7	17	5.3	3.2
26	12	24	35	e22	19	15	e30	4.0	11	11	4.8	3.2
27	34	23	31	21	19	16	53	4.4	6.1	64	4.8	3.5
28	70	28	28	e25	19	15	22	14	4.6	125	4.3	26
29	137	38	28	21	19	14	19	14	4.2	39	4.0	41
30	69	25	28	22	---	15	17	5.8	3.7	17	3.9	20
31	35	---	26	17	---	16	---	14	---	12	5.8	---
TOTAL	693.1	1,294	1,400	806	1,152	581	1,136	393.7	486.0	578.6	740.8	245.4
MEAN	22.4	43.1	45.2	26.0	39.7	18.7	37.9	12.7	16.2	18.7	23.9	8.18
MAX	137	195	137	72	255	35	191	47	115	125	162	41
MIN	9.5	22	20	15	16	14	14	4.0	3.7	1.8	3.9	3.1
CFSM	1.21	2.33	2.44	1.41	2.15	1.01	2.05	0.69	0.88	1.01	1.29	0.44
IN.	1.39	2.60	2.82	1.62	2.32	1.17	2.28	0.79	0.98	1.16	1.49	0.49

e Estimated

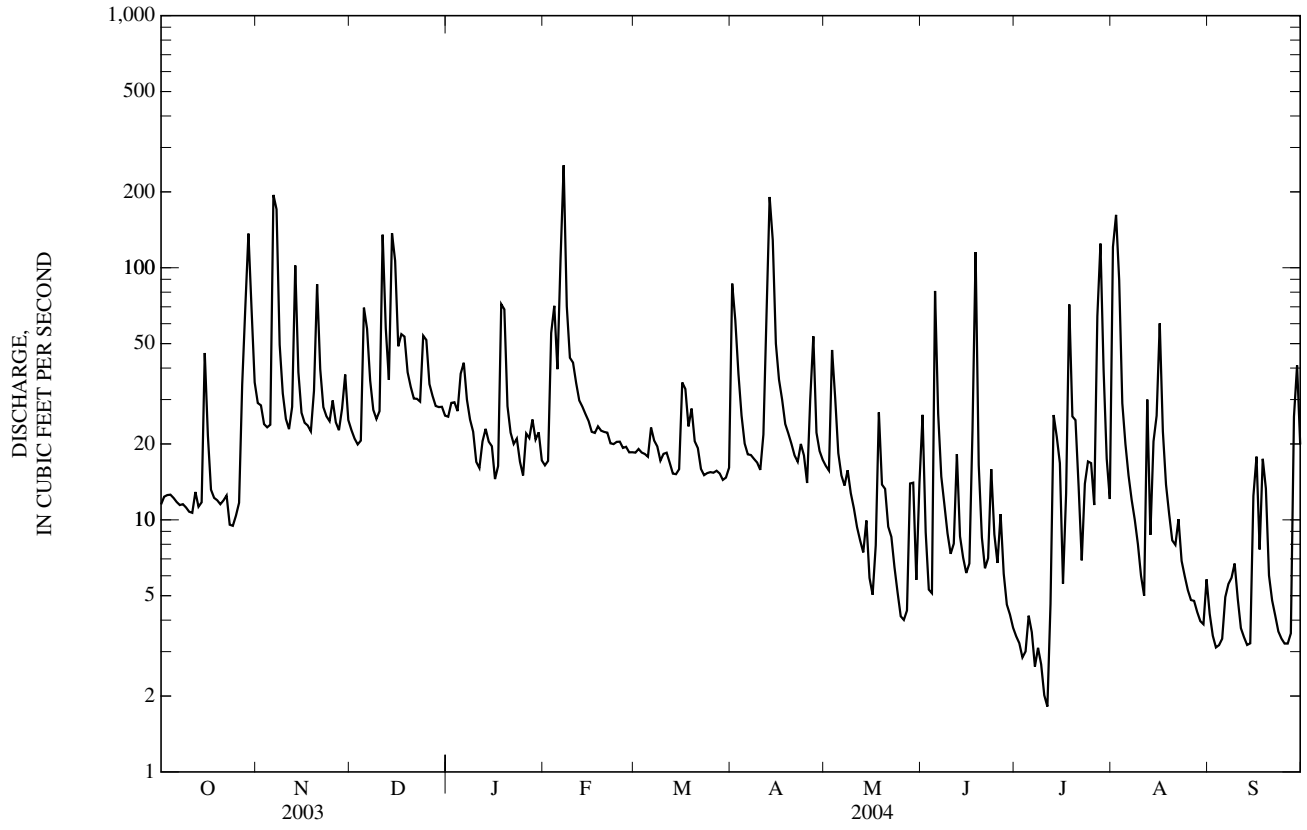
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 2004, BY WATER YEAR (WY)

MEAN	10.1	15.2	21.0	25.9	29.8	34.0	26.6	21.1	16.2	12.3	11.1	13.1
MAX	46.8	45.3	48.9	77.4	89.7	115	54.7	57.9	116	56.4	45.0	75.2
(WY)	(1980)	(1980)	(1997)	(1978)	(1998)	(1994)	(1983)	(1978)	(1972)	(1975)	(1985)	(1979)
MIN	0.73	3.10	5.01	5.30	6.74	10.1	9.05	3.59	1.04	0.46	0.00	0.00
(WY)	(1989)	(1999)	(1989)	(1981)	(2002)	(1981)	(1985)	(1999)	(1999)	(1999)	(2002)	(1988)

01661050 ST. CLEMENT CREEK NEAR CLEMENTS, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1969 - 2004	
ANNUAL TOTAL	12,425.0		9,506.6			
ANNUAL MEAN	34.0		26.0		19.6	
HIGHEST ANNUAL MEAN					34.5	1972
LOWEST ANNUAL MEAN					5.83	2002
HIGHEST DAILY MEAN	297	Feb 23	255	Feb 7	1,580	Jun 22, 1972
LOWEST DAILY MEAN	3.7	Aug 25	1.8	Jul 11	0.00	(a)
ANNUAL SEVEN-DAY MINIMUM	6.2	Aug 20	2.9	Jul 5	0.00	Aug 31, 1980
MAXIMUM PEAK FLOW			490	Aug 1	(b)4,500	Sep 6, 1979
MAXIMUM PEAK STAGE			4.79	Aug 1	(c)6.96	Sep 6, 1979
INSTANTANEOUS LOW FLOW			1.4	Jul 12	0.00	(b)
ANNUAL RUNOFF (CFSM)	1.84		1.40		1.06	
ANNUAL RUNOFF (INCHES)	24.98		19.12		14.43	
10 PERCENT EXCEEDS	74		53		38	
50 PERCENT EXCEEDS	23		18		11	
90 PERCENT EXCEEDS	9.8		4.7		1.3	

a Many days.
b From rating curve extended above 480 ft^3/s on basis of contracted-opening and flow-over-road measurement of peak flow.
c Backwater from tide; maximum gage height unaffected by backwater, 6.55 ft, June 22, 1972.
d No flow at times in 1977, 1980, 1981, 1983, 1985-89, 1991, 1993, 1995, 1999, 2002, 2003.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

01661500 ST. MARYS RIVER AT GREAT MILLS, MD

LOCATION.--Lat 38°14'30.3", long 76°30'13.2", St. Marys County, Hydrologic Unit 02070011, on left bank at downstream side of bridge on State Highway 471 in Great Mills, 0.3 mi downstream from Western Branch, and 12.0 mi upstream from mouth.

DRAINAGE AREA.--24.0 mi^2.

PERIOD OF RECORD.--June 1946 to current year.

REVISED RECORDS.--WSP 1702: 1946, 1948-49, 1955, 1957-58. WDR MD-DE-83-1: 1981-82(M).

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharge (instrument malfunction), which are poor. Occasional regulation by reservoir on Western Branch of St. Marys River, 2.0 mi upstream since 1975, total capacity, 3,200 acre feet. U.S. Geological Survey gage-height telemeter at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 400 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov 6	2215	634	5.96
Dec 14	1745	472	4.75
Feb 7	0215	474	4.76
Apr 13	0215	442	4.55
Apr 14	0045	1,070	8.15
Jun 18	0445	801	6.95
Jul 27	0830	454	4.63
Jul 27	2315	*1,610	*9.37
Sep 28	2230	439	4.53

Minimum discharge, UNKNOWN.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	24	22	20	15	16	183	20	33	8.3	33	25
2	14	20	19	21	13	17	138	19	19	7.6	55	17
3	12	17	18	22	48	17	83	43	15	7.0	163	13
4	12	15	17	22	46	17	54	32	13	7.1	74	11
5	11	14	115	32	30	16	37	24	54	9.4	73	11
6	11	272	69	47	117	20	29	21	29	14	e54	14
7	11	326	48	31	272	19	24	19	19	9.9	e31	13
8	11	112	36	98	71	20	22	21	14	10	e25	13
9	10	56	32	180	37	17	20	18	12	8.9	e22	16
10	10	40	30	162	34	17	18	16	11	6.9	e19	14
11	11	32	91	147	30	17	29	17	11	6.1	e15	12
12	12	31	59	134	28	16	93	13	15	5.8	12	11
13	10	65	44	52	27	15	489	12	11	7.3	11	9.9
14	10	44	234	15	26	14	580	12	10	13	e70	9.1
15	33	33	200	14	25	15	305	11	9.8	19	e92	15
16	17	27	93	12	22	38	139	10	13	11	e211	19
17	13	26	62	15	21	37	77	10	58	8.0	e78	17
18	12	23	51	96	22	28	56	14	435	62	50	89
19	11	30	40	70	21	39	44	12	125	24	33	27
20	10	119	32	32	21	28	36	12	37	16	25	17
21	9.9	57	28	26	21	25	32	12	21	14	20	14
22	9.5	41	26	19	19	21	29	11	17	16	17	12
23	8.9	33	25	16	18	18	26	10	19	51	14	11
24	7.8	28	34	15	18	17	23	9.0	15	68	13	10
25	7.8	25	34	16	18	17	21	8.2	14	42	12	9.4
26	8.6	23	27	14	17	16	29	8.0	17	26	11	9.0
27	23	21	26	15	17	16	49	8.9	12	471	11	8.9
28	35	22	23	16	17	16	31	14	11	e240	10	110
29	156	35	22	16	17	15	26	29	11	e135	9.5	112
30	54	24	22	16	---	15	22	14	8.7	e72	13	57
31	33	---	20	16	---	18	---	27	---	48	64	---
TOTAL	609.5	1,635	1,599	1,407	1,088	617	2,744	507.1	1,089.5	1,444.3	1,340.5	726.3
MEAN	19.7	54.5	51.6	45.4	37.5	19.9	91.5	16.4	36.3	46.6	43.2	24.2
MAX	156	326	234	180	272	39	580	43	435	471	211	112
MIN	7.8	14	17	12	13	14	18	8.0	8.7	5.8	9.5	8.9
CFSM	0.82	2.27	2.15	1.89	1.56	0.83	3.81	0.68	1.51	1.94	1.80	1.01
IN.	0.94	2.53	2.48	2.18	1.69	0.96	4.25	0.79	1.69	2.24	2.08	1.13

e Estimated

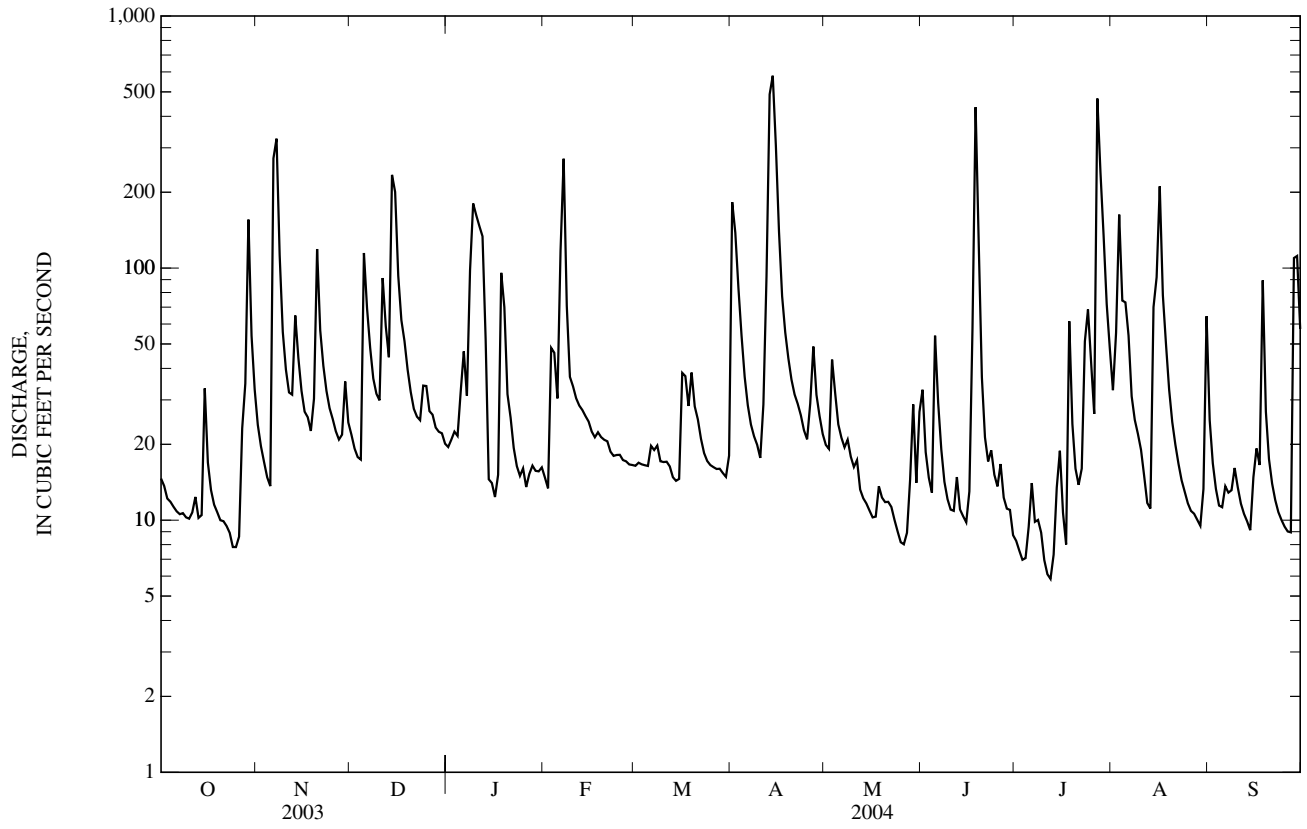
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 2004, BY WATER YEAR (WY)

MEAN	12.5	19.5	28.4	34.1	37.5	45.0	33.5	25.0	16.3	16.0	18.0	16.3
MAX	70.3	84.4	98.6	125	213	166	95.9	97.4	68.4	82.4	118	150
(WY)	(1997)	(1957)	(1997)	(1978)	(1998)	(1994)	(1983)	(1990)	(1972)	(2000)	(1955)	(1999)
MIN	2.58	4.29	5.27	6.45	7.67	8.52	6.82	3.71	2.01	1.22	1.29	2.02
(WY)	(1969)	(1982)	(1966)	(1955)	(2002)	(1981)	(1985)	(1999)	(1999)	(1999)	(1995)	(1988)

01661500 ST. MARYS RIVER AT GREAT MILLS, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1946 - 2004	
ANNUAL TOTAL	15,794.3		14,807.2			
ANNUAL MEAN	43.3		40.5		25.1	
HIGHEST ANNUAL MEAN					50.9	1998
LOWEST ANNUAL MEAN					7.93	2002
HIGHEST DAILY MEAN	496	May 26	580	Apr 14	2,650	Sep 16, 1999
LOWEST DAILY MEAN	6.2	Jul 28	5.8	Jul 12	0.17	Aug 11, 1999
ANNUAL SEVEN-DAY MINIMUM	7.9	Jul 16	7.8	Jul 7	0.22	Aug 7, 1999
MAXIMUM PEAK FLOW			1,610	Jul 27	(a)7,950	Aug 20, 1969
MAXIMUM PEAK STAGE			9.37	Jul 27	13.34	Aug 20, 1969
INSTANTANEOUS LOW FLOW			UNKNOWN		0.13	(b)
ANNUAL RUNOFF (CFSM)	1.80		1.69		1.05	
ANNUAL RUNOFF (INCHES)	24.48		22.95		14.22	
10 PERCENT EXCEEDS	103		85		49	
50 PERCENT EXCEEDS	24		20		12	
90 PERCENT EXCEEDS	10		10		3.2	

a From rating curve extended above 1,500 ft^3/s on basis of contracted-opening measurement at gage height 12.08 ft.
b Aug. 10-14, 1999.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

03075500 YOUGHIOGHENY RIVER NEAR OAKLAND, MD

LOCATION.--Lat 39°25'17.9", long 79°25'29.6", Garrett County, Hydrologic Unit 05020006, on left bank 200 ft downstream from Baltimore and Ohio Railroad bridge, 250 ft downstream from Little Youghiogheny River, 1.2 mi northwest of Oakland, and 1.5 mi upstream from Dunkard Lick Run.

DRAINAGE AREA.--134 mi^2.

PERIOD OF RECORD.--August 1941 to current year.

REVISED RECORDS.--WSP 1113: 1947(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 2,353.61 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 1, 1946, nonrecording gage at bridge 200 ft upstream at same datum.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are poor. Town of Oakland diverted an average of 0.4 ft^3/s for water supply. The diversion is returned upstream from station as sewage. U.S. Army Corps of Engineers satellite collection platform at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1936 reached a stage of 15.3 ft, from floodmarks.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov 12	1515	4,230	7.07	Mar 4	1545	3,730	6.67
Nov 19	2015	2,810	5.86	Mar 6	1215	4,550	7.32
Jan 5	1615	2,180	5.25	Mar 21	0630	2,500	5.57
Feb 7	0400	*4,830	*7.53	Apr 13	2100	3,220	6.23
Mar 2	2245	2,640	5.70	Jun 12	0515	3,820	6.74

Minimum discharge, 24 ft^3/s, July 26.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	459	229	e420	493	e85	384	421	201	315	69	165	193
2	370	208	e330	1,060	e84	1,410	720	192	262	61	89	126
3	284	188	e285	1,710	e82	1,890	828	253	265	55	66	95
4	350	171	e250	1,450	e160	2,860	1,100	179	215	53	56	76
5	364	362	e230	1,660	e240	2,370	862	169	217	54	72	72
6	270	765	e210	1,410	1,840	4,010	737	165	188	50	63	58
7	232	655	e195	914	3,940	2,760	766	142	153	44	43	53
8	200	486	193	718	e800	1,650	772	135	125	41	37	293
9	173	386	183	511	e460	1,080	678	110	106	38	33	1,160
10	153	312	199	391	e350	823	484	94	95	35	29	676
11	135	275	1,090	e300	e280	700	378	92	552	37	28	357
12	122	2,870	737	e240	e240	619	532	216	2,670	70	59	235
13	111	2,250	507	e217	e208	472	1,930	277	1,010	181	116	177
14	127	1,040	415	e195	e195	398	2,160	142	609	105	67	146
15	571	714	356	e170	e180	401	1,140	118	394	75	47	126
16	297	518	300	e157	e170	420	774	115	292	54	64	128
17	243	399	e270	e150	e155	564	562	92	382	42	51	189
18	280	313	e255	e145	e165	485	406	122	818	39	37	632
19	224	1,340	e243	e138	e195	956	321	767	498	42	151	281
20	205	1,800	e235	e132	215	829	274	416	357	61	113	195
21	212	962	e220	e126	864	2,000	234	323	264	34	378	154
22	201	670	208	e120	578	1,180	204	937	234	30	319	115
23	170	492	417	e113	393	809	189	526	222	31	160	99
24	146	405	1,150	e109	372	625	170	338	165	34	115	85
25	126	354	1,090	e103	320	493	158	248	135	28	91	76
26	136	276	749	e101	282	395	549	254	132	45	72	68
27	271	238	537	e97	249	360	516	231	116	221	61	64
28	324	453	407	e94	247	325	362	483	97	171	54	92
29	286	741	346	e91	294	267	278	388	93	89	97	124
30	306	519	654	e89	---	242	231	252	81	63	302	81
31	255	---	628	e87	---	255	---	255	---	77	586	---
TOTAL	7,603	20,391	13,309	13,291	13,643	32,032	18,736	8,232	11,062	2,029	3,621	6,226
MEAN	245	680	429	429	470	1,033	625	266	369	65.5	117	208
MAX	571	2,870	1,150	1,710	3,940	4,010	2,160	937	2,670	221	586	1,160
MIN	111	171	183	87	82	242	158	92	81	28	28	53
CFSM	1.83	5.07	3.20	3.20	3.51	7.71	4.66	1.98	2.75	0.49	0.87	1.55
IN.	2.11	5.66	3.69	3.69	3.79	8.89	5.20	2.29	3.07	0.56	1.01	1.73

e Estimated

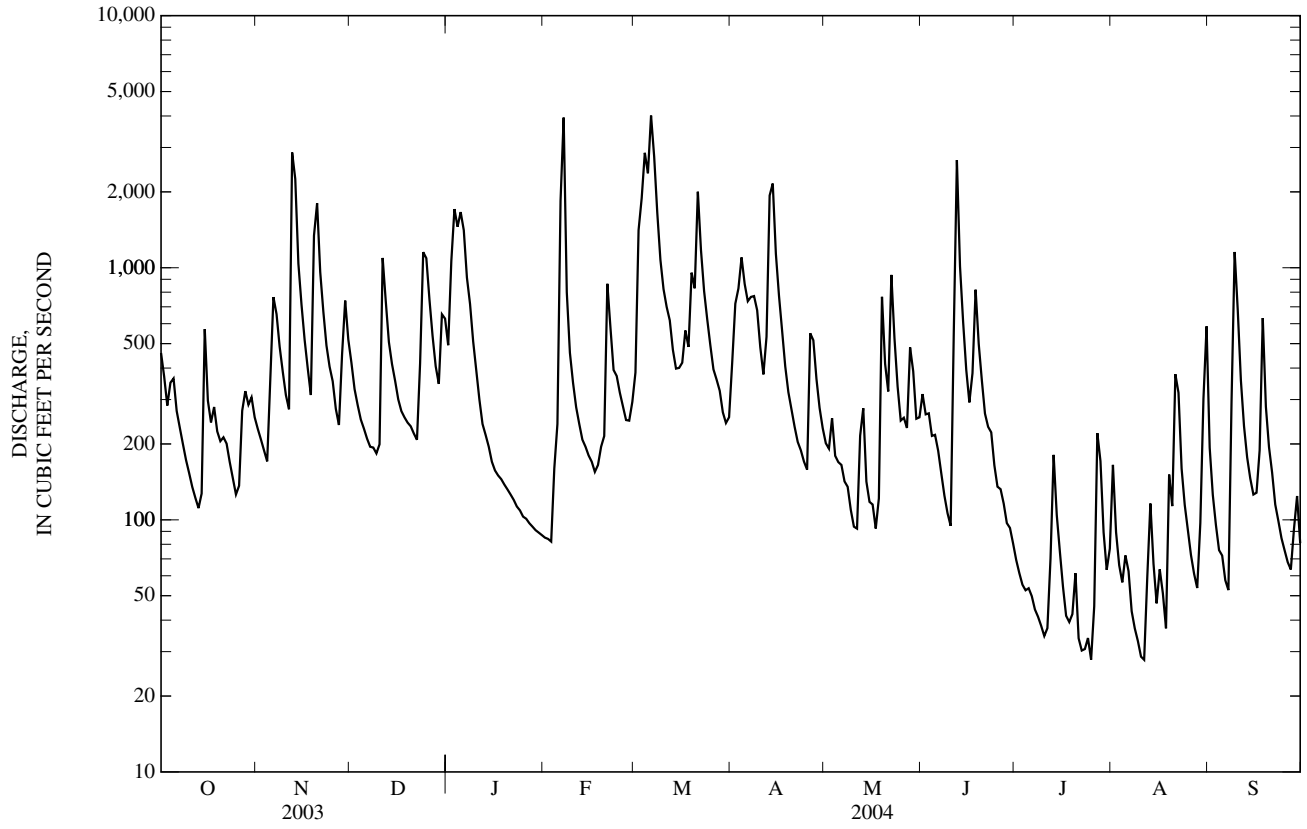
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 2004, BY WATER YEAR (WY)

MEAN	115	246	397	427	499	620	457	335	215	171	132	99.8
MAX	608	1,152	1,027	973	1,100	1,477	879	995	766	629	586	900
(WY)	(1955)	(1986)	(1973)	(1996)	(1986)	(1963)	(1973)	(1996)	(2003)	(1978)	(1956)	(2003)
MIN	4.45	7.08	62.2	63.2	127	168	121	76.0	22.9	10.3	10.5	5.99
(WY)	(1954)	(1954)	(1944)	(1977)	(1978)	(1990)	(1946)	(1982)	(1999)	(1953)	(1944)	(1953)

03075500 YOUGHIOGHENY RIVER NEAR OAKLAND, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1941 - 2004	
ANNUAL TOTAL	202,625		150,175			
ANNUAL MEAN	555		410		309	
HIGHEST ANNUAL MEAN					528	2003
LOWEST ANNUAL MEAN					193	1947
HIGHEST DAILY MEAN	4,930	Sep 19	4,010	Mar 6	8,740	Jan 19, 1996
LOWEST DAILY MEAN	56	Jul 27	28	(a)	2.5	Oct 4, 1953
ANNUAL SEVEN-DAY MINIMUM	90	Jul 21	37	Jul 19	2.7	Oct 2, 1953
MAXIMUM PEAK FLOW			4,830	Feb 7	(b)14,100	Jan 19, 1996
MAXIMUM PEAK STAGE			7.53	Feb 7	13.06	Jan 19, 1996
INSTANTANEOUS LOW FLOW			24	Jul 26	2.5	Oct 4, 1953
ANNUAL RUNOFF (CFSM)	4.14		3.06		2.30	
ANNUAL RUNOFF (INCHES)	56.25		41.69		31.28	
10 PERCENT EXCEEDS	1,250		879		740	
50 PERCENT EXCEEDS	337		240		166	
90 PERCENT EXCEEDS	117		63		24	

a July 25 and August 11.
b From rating curve extended above 7,000 ft^3/s.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

03076000 DEEP CREEK RESERVOIR NEAR OAKLAND, MD

LOCATION.--Lat 39°30'34", long 79°23'28", Garrett County, Hydrologic Unit 05020006, on Deep Creek at dam, 1.8 mi upstream from mouth and 7.0 mi north of Oakland.

DRAINAGE AREA.--64.7 mi2.

PERIOD OF RECORD.--July 1925 to current year. Prior to October 1950, monthend contents published in WSP 1305, and October 1950 to September 1955, monthend contents published in WSP 1385.

GAGE.--Water-stage recorder at right end of spillway. Datum of gage is at sea level, unadjusted.

REMARKS.--Reservoir is formed by an earthfill dam completed January 1925, with storage beginning at that time. Usable capacity, 92,975 acre-ft between elevations 2,425 ft, top of intake to outlet tunnel, and 2,462 ft, crest of spillway. Dead storage, 13,085 acre-ft. Figures given herein represent usable contents. Reservoir is used for hydroelectric power.

COOPERATION.--Elevations and capacity table furnished by Pennsylvania Electric Co.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 93,800 acre-ft, July 14, 1990, elevation, 2,462.25 ft; minimum observed, 11,763 acre-ft, Sept. 30, 1925, elevation, 2,433.45 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 90,400 acre-ft, June 12, elevation, 2,461.3 ft; minimum, 70,100 acre-ft, Jan. 26 to Feb. 2, elevation, 2,455.7 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTBER 2003 TO SEPTEMBER 2004

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	2458.5	80000	
Oct. 31	2457.5	76400	-3600
Nov. 30	2456.7	73600	-2800
Dec. 31	2457.0	74700	+1100
CAL YR 2003			+2900
Jan. 31	2455.7	70100	-4600
Feb. 29	2456.6	73200	+3100
Mar. 31	2458.9	81500	+8300
Apr. 30	2460.8	88500	+7000
May 31	2461.0	89300	+800
June 30	2460.8	88500	-800
July 31	2460.1	85900	-2600
Aug. 31	2459.3	83000	-2900
Sept. 30	2459.0	81900	-1100
WTR YR 2004			+1900

Photo by Jeff Griffith

03076000 Deep Creek Reservoir near Oakland, MD.

03076500 YOUGHIOGHENY RIVER AT FRIENDSVILLE, MD

LOCATION.--Lat 39°39'13.0", long 79°24'29.9", Garrett County, Hydrologic Unit 05020006, on left bank 0.7 mi upstream from bridge on State Highway 42 at Friendsville, and 1.5 mi upstream from Bear Creek.

DRAINAGE AREA.--295 mi^2.

PERIOD OF RECORD.--August 1898 to December 1904 and October 1940 to current year. Annual maximum, water years 1905, 1923-3l, 1940, published in WSP 1675. October, November 1940 monthly discharge only, published in WSP 1305. September 1922 to September 1926 (gage heights only) in reports of Pennsylvania Department of Forests and Waters.

REVISED RECORDS.--WSP 1385: Drainage area at former site, 1898-1905, 1941(M), 1942, 1944-45, 1948-49, 1951(M).

GAGE.--Water-stage recorder. Datum of gage is 1,487.33 ft above National Geodetic Vertical Datum of 1929. Aug. 17, 1898, to Dec. 31, 1904, and Sept. 1, 1922, to Sept. 30, 1926, nonrecording gages at bridge 0.7 mi downstream at datum 16.24 ft and 16.29 ft lower, respectively.

REMARKS.--Records good, except those for estimated daily discharges, (ice effect), which are fair. Low and medium flow regulated since July 1925 by Deep Creek Reservoir, 12 mi upstream from station (see station 03076000). U.S. Army Corps of Engineers satellite collection platform at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,070 ft^3/s, Mar. 6, gage height, 6.65 ft; minimum discharge, 51 ft^3/s, Jan. 28.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,280	448	e720	947	106	603	694	581	595	137	262	363
2	1,020	445	e650	1,460	e105	1,900	1,530	408	454	182	404	310
3	612	528	e580	2,850	e99	3,180	1,760	638	441	174	345	394
4	655	567	e540	3,030	160	4,470	2,380	396	524	113	199	288
5	672	600	e500	3,520	451	4,710	1,680	346	435	168	127	166
6	605	1,200	e470	3,170	1,570	7,450	1,120	341	353	105	195	216
7	478	1,090	e450	2,130	4,850	5,240	1,140	475	389	158	171	210
8	635	797	e430	1,690	2,230	3,470	1,100	370	394	95	89	315
9	501	656	e410	e1,400	1,160	2,590	1,000	271	347	142	139	1,580
10	437	599	541	1,190	860	2,100	782	452	199	81	76	1,230
11	299	567	1,830	1,020	e750	1,850	641	228	390	100	184	862
12	323	4,650	1,630	e860	e690	1,510	715	314	3,950	236	87	677
13	345	4,460	949	e710	e640	884	3,840	725	1,510	330	220	579
14	261	2,670	e760	e610	e590	792	4,040	415	1,210	199	150	453
15	692	2,010	e640	e530	e550	866	2,220	299	1,070	213	106	392
16	565	1,670	549	e460	e530	756	1,370	306	790	188	176	386
17	435	1,480	510	e400	e515	858	1,020	418	472	161	127	491
18	496	1,350	e480	e350	e505	718	794	460	888	124	93	1,790
19	553	2,610	e460	e310	e497	1,250	714	1,850	779	301	169	924
20	535	4,020	e450	e270	567	1,360	638	1,340	481	238	348	546
21	541	2,480	493	e238	1,240	3,620	491	1,140	448	212	514	441
22	550	1,920	525	e215	1,080	2,710	605	2,020	337	187	674	398
23	619	1,050	611	e195	830	1,640	566	1,260	357	145	561	368
24	521	959	1,450	e180	846	1,560	399	1,230	424	82	271	369
25	289	1,020	1,700	e167	698	1,090	377	695	303	78	186	348
26	331	760	1,220	e154	665	812	962	554	210	173	158	301
27	781	496	879	e142	557	681	1,030	626	204	271	360	357
28	841	525	806	e132	513	584	728	650	241	350	207	309
29	634	1,320	772	e126	523	533	572	698	170	199	248	406
30	571	817	962	e118	---	558	573	434	156	248	446	382
31	491	---	1,110	110	---	554	---	481	---	285	814	---
TOTAL	17,568	43,764	24,077	28,684	24,377	60,899	35,481	20,421	18,521	5,675	8,106	15,851
MEAN	567	1,459	777	925	841	1,964	1,183	659	617	183	261	528
MAX	1,280	4,650	1,830	3,520	4,850	7,450	4,040	2,020	3,950	350	814	1,790
MIN	261	445	410	110	99	533	377	228	156	78	76	166
(†)	-58.5	-47.0	17.9	-74.6	53.9	135	117	13.0	-13.5	-42.3	-47.1	-18.5
MEAN‡	508	1,412	795	850	895	2,099	1,300	672	604	141	214	510
CFSM‡	1.72	4.79	2.69	2.88	3.03	7.12	4.41	2.28	2.05	0.48	0.73	1.73
IN‡	1.98	5.34	3.10	3.32	3.27	8.21	4.92	2.63	2.29	0.55	0.84	1.93

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1898 - 1905, 1941 - 2004, BY WATER YEAR (WY)

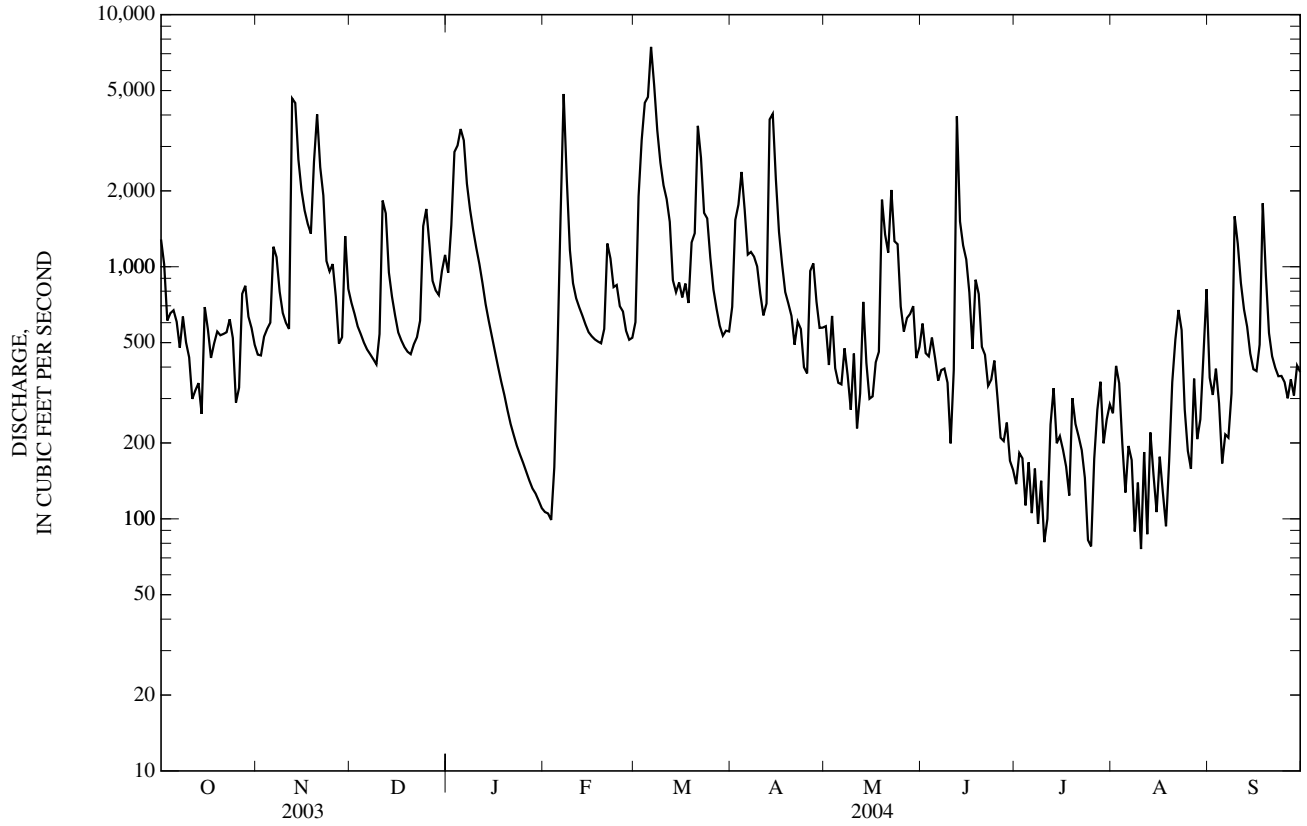
MEAN	278	508	831	865	985	1,230	944	700	496	378	298	259
MAX	1,103	2,190	2,147	1,886	2,277	2,644	2,231	1,888	1,823	1,335	1,319	1,648
(WY)	(1955)	(1986)	(1903)	(1996)	(1903)	(1963)	(1901)	(1996)	(1903)	(1990)	(1956)	(2003)
MIN	50.2	55.7	145	140	337	285	327	176	84.2	64.6	51.0	49.8
(WY)	(1992)	(1905)	(1944)	(1981)	(1954)	(1990)	(1995)	(1982)	(1969)	(1991)	(1991)	(1991)

†Change in contents in Deep Creek Reservoir, equivalent in cubic feet per second, provided by Pennsylvania Electric Company.
‡Adjusted for change in reservoir contents.

03076500 YOUGHIOGHENY RIVER AT FRIENDSVILLE, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1898 - 1905, 1941 - 2004	
ANNUAL TOTAL	390,531		303,424			
ANNUAL MEAN	1,070		829		645	
ANNUAL MEAN‡						
HIGHEST ANNUAL MEAN					1,052	1903
LOWEST ANNUAL MEAN					375	1954
HIGHEST DAILY MEAN	7,380	Sep 19	7,450	Mar 6	11,200	Jan 19, 1996
LOWEST DAILY MEAN	100	Jan 26	76	Aug 10	8.2	Sep 11, 1966
ANNUAL SEVEN-DAY MINIMUM	126	Jan 21	114	Jan 28	29	Sep 21, 1972
MAXIMUM PEAK FLOW			8,070	Mar 6	(a)16,100	Jan 19, 1996
MAXIMUM PEAK STAGE			6.65	Mar 6	(b)14.20	Mar 29, 1924
INSTANTANEOUS LOW FLOW			72	(c)	UNKNOWN	
ANNUAL RUNOFF (CFSM)	3.63		2.81		2.18	
ANNUAL RUNOFF (CFSM)‡						
ANNUAL RUNOFF (INCHES)	49.25		38.26		29.69	
ANNUAL RUNOFF (INCHES)‡						
10 PERCENT EXCEEDS	2,480		1,770		1,430	
50 PERCENT EXCEEDS	634		540		405	
90 PERCENT EXCEEDS	241		168		105	

‡ Adjusted for change in reservoir contents since October 1940.
a From rating curve extended above 5,800 ft^3/s on basis of slope-area measurement of peak flow.
b From floodmarks.
c July 25, 26, Aug. 10, 11.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

03076600 BEAR CREEK AT FRIENDSVILLE, MD

LOCATION.--Lat 39°39'22.1", long 79°23'38.8", Garrett County, Hydrologic Unit 05020006, on right bank 0.2 mi downstream from bridge on Accident-Friendsville Road, 0.6 mi downstream from South Branch Bear Creek, 0.8 mi southeast of Friendsville, and 1.2 mi upstream from mouth.

DRAINAGE AREA.--48.9 mi^2.

PERIOD OF RECORD.--October 1964 to current year.

REVISED RECORDS.--WDR MD-DE-94-1: 1993

GAGE.--Water-stage recorder. Datum of gage is 1,551.34 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair. U.S. Army Corps of Engineers satellite collection platform at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 600 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov 12	0630	1,850	5.40	Mar 2	1900	1,250	4.48
Nov 19	1300	1,800	5.32	Mar 6	0630	1,750	5.25
Jan 5	1115	1,120	4.29	Mar 21	0015	1,640	5.08
Feb 1	0430	759	3.74	Apr 13	0900	*1,950	*5.55
Feb 6	1830	1,120	4.29	Sep 8	2000	645	3.56
Feb 6	2330	983	4.07	Sep 17	2230	1,700	5.17

Minimum discharge, 8.1 ft^3/s, Aug. 12, 18.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	140	83	107	139	e33	128	199	100	78	18	25	24
2	117	76	e96	189	e32	609	293	95	62	17	16	19
3	100	70	e90	255	e32	743	369	87	93	20	14	16
4	99	64	e83	406	e31	799	427	70	69	24	14	14
5	88	86	e76	788	42	827	304	64	72	21	19	13
6	76	119	e72	560	347	1,390	243	57	62	17	13	11
7	67	121	e67	301	657	820	222	65	54	16	11	12
8	60	116	65	220	324	562	199	67	47	15	10	184
9	54	107	61	166	219	357	167	55	43	13	9.3	269
10	50	98	67	e145	167	257	138	50	41	13	8.8	150
11	46	93	255	e127	140	212	120	47	90	12	10	101
12	44	1,260	201	110	119	187	179	46	149	28	10	72
13	42	562	154	89	104	154	1,210	47	134	34	15	53
14	47	270	e120	76	93	138	848	42	111	18	11	43
15	77	208	e108	71	84	126	415	46	94	14	9.0	38
16	57	158	100	e66	73	123	264	48	79	16	13	34
17	56	131	96	e60	e67	109	195	39	72	12	12	256
18	65	111	86	e56	e63	106	150	70	65	18	8.5	713
19	61	737	79	e53	68	134	125	259	54	27	18	239
20	58	668	73	e50	83	278	109	173	46	16	22	140
21	56	322	74	e48	240	962	97	201	42	13	107	101
22	57	226	67	e46	185	431	88	388	42	12	64	75
23	54	168	126	e44	145	260	86	237	41	12	41	58
24	49	143	369	e42	e110	185	75	161	35	12	31	48
25	45	120	311	e40	e94	150	101	121	30	10	23	43
26	44	103	217	e39	e85	127	318	106	28	12	18	39
27	79	90	162	e38	e78	116	244	86	24	41	16	35
28	95	99	134	e37	89	103	172	88	23	30	14	45
29	99	111	121	e36	98	92	133	78	24	18	14	41
30	94	104	153	e35	---	86	113	60	20	14	56	36
31	88	---	151	e34	---	84	---	67	---	23	37	---
TOTAL	2,164	6,624	3,941	4,366	3,902	10,655	7,603	3,120	1,824	566	689.6	2,922
MEAN	69.8	221	127	141	135	344	253	101	60.8	18.3	22.2	97.4
MAX	140	1,260	369	788	657	1,390	1,210	388	149	41	107	713
MIN	42	64	61	34	31	84	75	39	20	10	8.5	11
CFSM	1.43	4.52	2.60	2.88	2.75	7.03	5.18	2.06	1.24	0.37	0.45	1.99
IN.	1.65	5.04	3.00	3.32	2.97	8.11	5.78	2.37	1.39	0.43	0.52	2.22

e Estimated

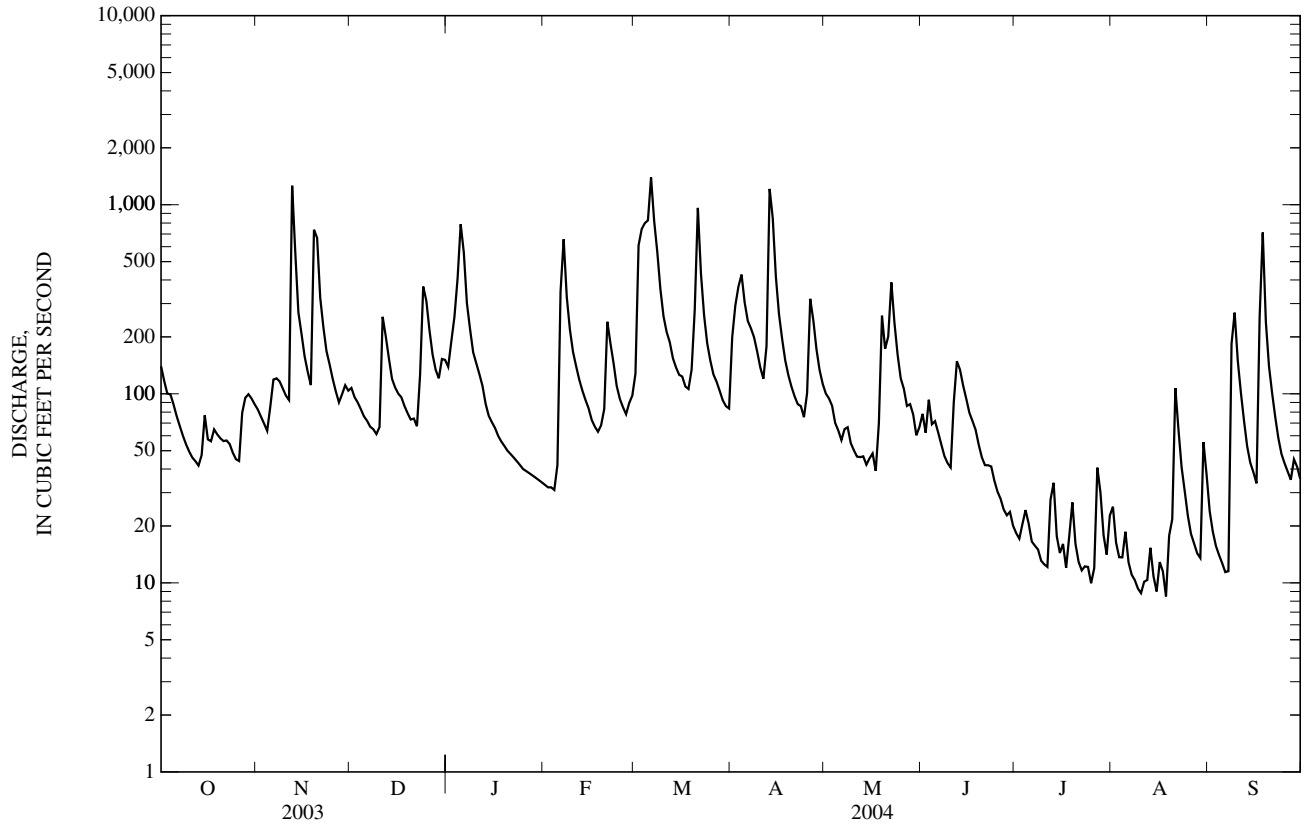
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 2004, BY WATER YEAR (WY)

MEAN	33.4	70.4	115	114	149	193	155	106	57.7	47.2	31.2	35.2
MAX	187	341	293	296	387	413	293	223	199	274	117	256
(WY)	(1980)	(1986)	(1991)	(1996)	(1986)	(1994)	(1984)	(1996)	(2003)	(1990)	(1980)	(1971)
MIN	4.05	6.71	11.3	19.1	39.8	45.5	59.4	23.5	10.6	6.35	4.32	2.98
(WY)	(1992)	(1999)	(1999)	(1977)	(1993)	(1990)	(1995)	(1982)	(1991)	(1965)	(1966)	(1991)

03076600 BEAR CREEK AT FRIENDSVILLE, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1965 - 2004	
ANNUAL TOTAL	51,748		48,376.6			
ANNUAL MEAN	142		132		91.8	
HIGHEST ANNUAL MEAN					133	1996
LOWEST ANNUAL MEAN					53.4	1966
HIGHEST DAILY MEAN	1,260	Nov 12	1,390	Mar 6	3,100	Sep 14, 1971
LOWEST DAILY MEAN	11	Aug 24	8.5	Aug 18	1.6	(a)
ANNUAL SEVEN-DAY MINIMUM	12	Aug 20	10	Aug 6	2.0	Sep 7, 1966
MAXIMUM PEAK FLOW			1,950	Apr 13	(b)4,650	Sep 14, 1971
MAXIMUM PEAK STAGE			5.55	Apr 13	(c)9.60	Sep 14, 1971
INSTANTANEOUS LOW FLOW			8.1	(d)	1.5	Sep 12, 1966
ANNUAL RUNOFF (CFSM)	2.90		2.70		1.88	
ANNUAL RUNOFF (INCHES)	39.37		36.80		25.51	
10 PERCENT EXCEEDS	325		269		226	
50 PERCENT EXCEEDS	93		78		50	
90 PERCENT EXCEEDS	33		16		8.4	

a Sept. 12, 13, 1966.
b From rating curve extended above 2,000 ft^3/s on basis of slope-area measurement of peak flow.
c From floodmarks.
d Aug. 12,18.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

03078000 CASSELMAN RIVER AT GRANTSVILLE, MD

LOCATION.--Lat 39°42'07.9", long 79°08'11.0", Garrett County, Hydrologic Unit 05020006, on left bank at downstream side of highway bridge, 0.3 mi upstream from Slaubaugh Run, 0.7 mi downstream from U.S. Highway 40, and 1.0 mi northeast of Grantsville.

DRAINAGE AREA.--62.5 mi^2.

PERIOD OF RECORD.--July 1947 to current year.

REVISED RECORDS.--WSP 1143: 1948.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 2,088.97 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are poor. U.S. Army Corps of Engineers satellite collection platform at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov 12	0930	2,220	4.97
Nov 19	1700	2,080	4.80
Jan 5	1415	1,080	3.45
Feb 7	2200	1,580	4.21
Feb 21	1500	1,940	4.68
Mar 2	2200	1,340	3.86
Mar 6	0630	2,180	4.98
Mar 21	0300	1,700	4.36
Apr 13	1930	1,060	3.41
Aug 30	1815	1,170	3.58
Sep 8	2315	*2,530	*5.40

Minimum discharge, 7.2 ft^3/s, Aug. 11, 12.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	174	94	157	138	e39	141	256	117	147	19	30	84
2	148	88	127	304	e38	677	329	123	99	17	18	53
3	119	82	108	502	e37	848	388	136	146	16	13	40
4	125	76	98	628	e70	948	401	106	96	50	11	35
5	118	139	e92	830	e150	1,040	283	98	92	56	14	30
6	95	247	e88	514	e200	1,770	246	89	83	25	13	24
7	83	211	e81	314	e400	860	253	94	69	19	10	25
8	74	145	e79	e240	e600	599	223	150	58	17	9.3	713
9	67	116	75	e195	e200	394	230	97	50	14	8.4	1,290
10	61	104	97	141	e140	299	171	82	46	12	7.9	402
11	56	103	567	e122	e120	257	146	73	139	12	7.6	215
12	52	1,390	246	e105	e103	251	343	88	303	29	28	149
13	49	611	161	e95	e94	188	837	99	192	44	50	115
14	59	349	135	e86	e87	164	616	123	119	23	24	94
15	200	269	e127	e80	e80	175	366	86	89	16	14	83
16	108	225	e120	70	e76	160	273	97	75	13	31	72
17	87	187	e116	e67	e72	139	222	70	84	12	25	162
18	117	159	e110	e63	e80	131	184	170	87	12	14	665
19	90	983	e105	e60	e100	179	158	555	67	13	17	234
20	76	753	e100	e57	e150	338	139	248	58	14	21	147
21	71	350	e96	e55	e240	1,090	125	330	48	11	119	116
22	77	252	e93	e53	e215	403	118	609	47	9.4	70	95
23	81	199	192	e51	e180	266	126	276	50	9.7	30	81
24	71	179	422	e49	e132	219	125	193	39	11	19	70
25	61	167	290	e47	e117	213	132	155	33	9.1	14	64
26	58	133	196	e45	e110	184	342	259	31	13	12	57
27	140	115	157	e44	e105	165	238	160	26	82	11	51
28	160	162	136	e43	e99	145	177	141	24	64	11	85
29	140	225	130	e42	107	120	147	141	27	24	45	99
30	128	161	209	e41	---	109	129	101	23	15	543	69
31	103	---	170	e40	---	124	---	104	---	20	212	---
TOTAL	3,048	8,274	4,880	5,121	4,141	12,596	7,723	5,170	2,447	701.2	1,452.2	5,419
MEAN	98.3	276	157	165	143	406	257	167	81.6	22.6	46.8	181
MAX	200	1,390	567	830	600	1,770	837	609	303	82	543	1,290
MIN	49	76	75	40	37	109	118	70	23	9.1	7.6	24
CFSM	1.57	4.41	2.52	2.64	2.28	6.50	4.12	2.67	1.31	0.36	0.75	2.89
IN.	1.81	4.92	2.90	3.05	2.46	7.50	4.60	3.08	1.46	0.42	0.86	3.23

e Estimated

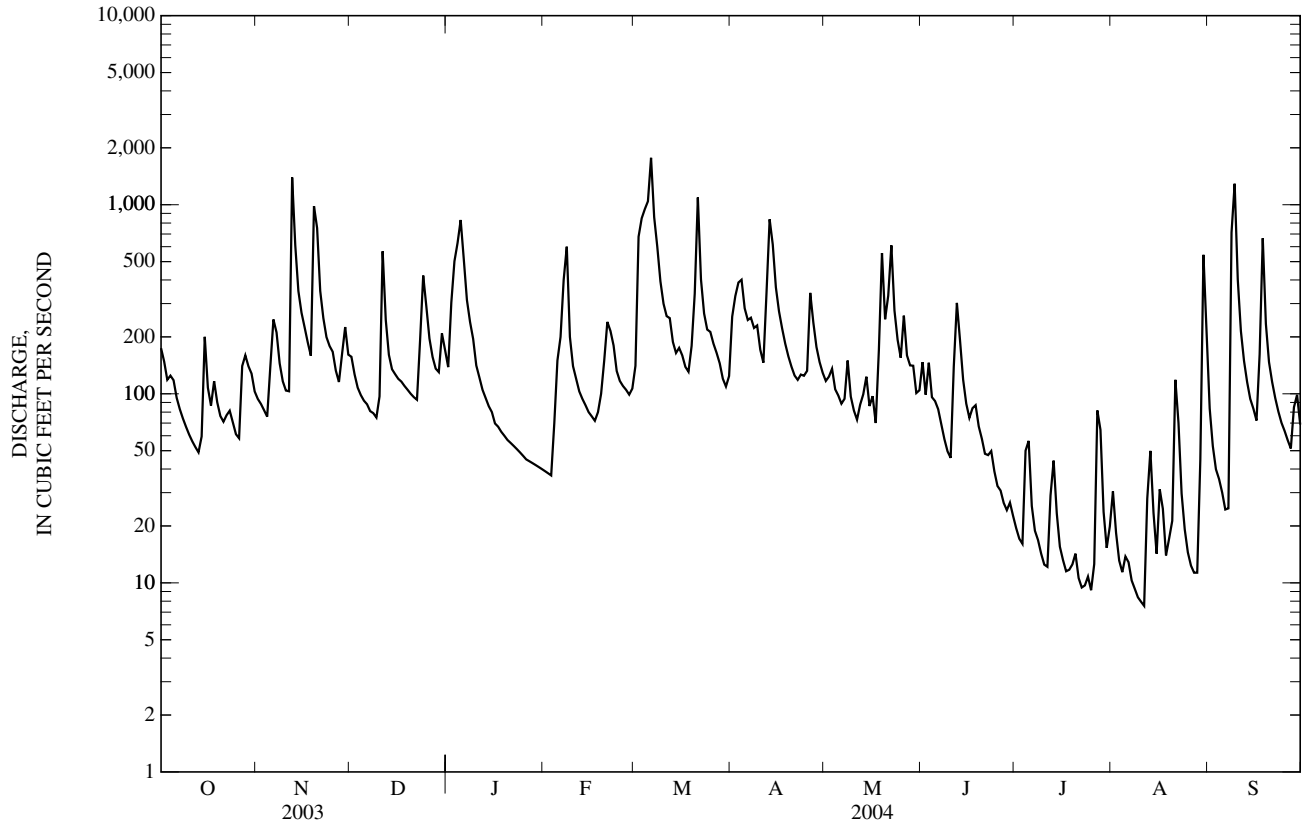
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1947 - 2004, BY WATER YEAR (WY)

MEAN	45.8	90.4	144	161	195	267	212	140	79.0	48.6	38.5	39.4
MAX	288	449	341	376	414	582	468	312	298	175	202	290
(WY)	(1955)	(1986)	(1973)	(1996)	(1956)	(1963)	(1970)	(1996)	(2003)	(1996)	(1956)	(1996)
MIN	1.65	3.38	13.8	26.4	60.3	57.0	77.1	40.1	10.0	4.30	2.87	1.58
(WY)	(1954)	(1954)	(1999)	(1977)	(1964)	(1990)	(1968)	(1976)	(1965)	(1965)	(1991)	(1991)

03078000 CASSELMAN RIVER AT GRANTSVILLE, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1947 - 2004	
ANNUAL TOTAL	75,244.7		60,972.4			
ANNUAL MEAN	206		167		121	
HIGHEST ANNUAL MEAN					203	1996
LOWEST ANNUAL MEAN					64.2	1954
HIGHEST DAILY MEAN	2,110	Sep 19	1,770	Mar 6	(e)3,600	Jan 19, 1996
LOWEST DAILY MEAN	8.8	Aug 26	7.6	Aug 11	(a)0.00	Aug 31, 1962
ANNUAL SEVEN-DAY MINIMUM	11	Aug 20	10	Aug 5	0.89	Aug 27, 1962
MAXIMUM PEAK FLOW			2,530	Sep 8	(b)8,400	Oct 15, 1954
MAXIMUM PEAK STAGE			5.40	Sep 8	10.70	Oct 15, 1954
INSTANTANEOUS LOW FLOW			7.2	(c)	(a)0.00	(d)
ANNUAL RUNOFF (CFSM)	3.30		2.67		1.94	
ANNUAL RUNOFF (INCHES)	44.79		36.29		26.38	
10 PERCENT EXCEEDS	487		345		282	
50 PERCENT EXCEEDS	127		105		68	
90 PERCENT EXCEEDS	33		19		8.4	

e Estimated
a Result of regulation from unknown source.
b From rating curve extended above 1,600 ft^3/s on basis of contracted-opening measurement at gage height of 8.13 ft.
c Aug. 11, 12.
d Aug. 31, Sept. 1, 1962.



DAILY MEAN DISCHARGE - 2004 WATER YEAR

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or floodflow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Records collected at partial-record stations are presented in two tables. The first is a table of discharge measurements at special study and miscellaneous sites, the second is a table of annual maximum stage for tidal crest-stage stations.

Special study and miscellaneous sites

Discharge measurements in the following table were made at special study and miscellaneous sites throughout the State.

Discharge measurements made at special study and miscellaneous sites during water years 2000-2004

Station No.	Station Name	Location	Drainage area (mi^2)	Period of record	Measurements	
					Date	Discharge (ft^3/s)
		SUSQUEHANNA RIVER BASIN				
01580520	Deer Creek near Darlington, Md.	Lat 39°37'02.8", long 76°11'30.7", Harford County, Hydrologic Unit 02050306, at right bank at Deer Creek pumping station, 1.4 mi southeast of Darlington, 0.7 mi east of Wilson, and 3.5 mi upstream from mouth.	168	2000-04	02-16-00	241
					03-24-00	449
					05-09-00	215
					06-01-00	195
					06-08-00	180
					07-06-00	115
					07-18-00	164
					08-30-00	120
					10-03-00	103
					11-03-00	81.2
					12-07-00	94.3
					01-04-01	110
					01-16-01	116
					02-26-01	233
					03-26-01	218
					05-03-01	170
					06-04-01	145
					06-07-01	131
					07-17-01	77.1
					08-08-01	49.0
					09-07-01	43.6
					10-03-01	55.4
					11-14-01	54.3
					12-11-01	75.8
					01-16-02	74.6
					02-20-02	63.0
					04-08-02	81.3
					04-30-02	118
					06-04-02	46.2
					07-08-02	21.2
					08-12-02	12.1
					08-19-02	7.26
					09-30-02	44.0
					12-17-02	214
					03-12-03	328
					05-05-03	194
					06-30-03	297
					08-25-03	168
					05-05-04	269
					06-28-04	206
					08-31-04	155
					09-24-04	142

Photo by J.Kvech

Downstream below the gage at 01585020 Deer Creek near Darlington, MD

Tidal crest-stage partial-record stations

The following table contains annual maximum stages for tidal crest-stage stations. The information is obtained from a crest-stage gage or a water-stage recorder located at each site. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. All stages are elevations above National Geodetic Vertical Datum of 1929. Only the maximum stage is given. Information on some other high stages may have been obtained but is not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

Annual maximum stage at tidal crest-stage partial-record stations during water year 2004

Station No.	Station Name	Location	Period of Record	Annual Maximum Date	Annual Maximum Elevation, in feet NGVD
		DELAWARE RIVER BASIN			
01480065	Christina River at Newport, De.	Lat 39°42'38", long 75°36'33", New Castle County, Hydrologic Unit 02040205, on downstream side of bridge on James Street, at Newport and 7.5 mi upstream from the confluence with Delaware River.	1995-99, 2000-04	12-14-03	5.97
01481602	Delaware River below Christina River, at Wilmington, De.	Lat 39°43'00", long 75°31'03", New Castle County, Hydrologic Unit 02040205, on right bank, 1,000 ft from mouth of Christina River at the Wilmington Marine Terminal, 2.0 mi upstream of Delaware Memorial Bridge, and at river mi 69.70.	1983-91, 1995-99, 2000-04	12-14-03	6.20
		MURDERKILL RIVER BASIN			
01484085	Murderkill River at Bowers, De.	Lat 39°03'30", long 75°23'51", Kent County, Hydrologic Unit 02040207, at Faulkner's Landing in Bowers, on left bank 10 ft southeast of south-west corner of Faulkner's Pier nr near public boat ramp.	1966-86, 1997-99, 2000-04	12-14-03	6.17
		BROADKILL RIVER BASIN			
01484272	Broadkill River nr Milton, De.	Lat 38°47'27", long 75°15'03", Sussex County, Hydrologic Unit 02040207, on right bank at abandoned bridge abutment, just downstream of State Highway 1, 3.3 mi east of Milton, and 7.8 mi upstream of mouth.	2003-04	12-6-03	3.54
01484350	Broadkill River at Lewes, De.	Lat 38°47'24", long 75°09'48", Sussex County, Hydrologic Unit 02040207, at Lewes, on right bank on boat dock at the Roosevelt Inlet Coast Guard station.	2003-04	12-6-03	4.39
		INDIAN RIVER BASIN			
01484540	Indian River at Rosedale Beach, De.	Lat 38°35'29", long 75°12'44", Sussex County, Hydrologic Unit 02060010, on left bank attached to privately owned fishing pier, at Seals Point, 1.9 mi west of Oak Orchard.	1992-99 2000-04	12-6-03	4.40
01484670	Rehoboth Bay at Dewey Beach, De.	Lat 38°41'40", long 75°05'05", Sussex County, Hydrologic Unit 02060010, on north shore of Rehoboth Bay at Head of Bay Cove, at Dewey Beach and at south end of Ventian Drive on bulkhead of a boat slip.	1985-97 2001-04	12-6-03	3.41
01484683	Indian River Bay at Indian River Inlet near Bethany Beach, De.	Lat 38°36'35", long 75°04'06", Sussex County, Hydrologic Unit 02060010, 0.3 mi northwest of the Indian River Inlet, 0.2 mi west of State Highway 1, 4.9 mi north of Bethany Beach and at the Indian River Coast Guard station.	1992-99 2000-04	12-6-03	4.77

Tidal crest-stage partial-record stations--Continued

Annual maximum stage at tidal crest-stage partial-record stations during water year 2004--Continued

Station No.	Station Name	Location	Period of Record	Annual Maximum Date	Annual Maximum Elevation, in feet NGVD
		ASSAWOMAM BAY BASIN			
01484696	Jefferson Creek at South Bethany, De.	Lat 38°31'18", long 75°03'46", Sussex County, Hydrologic Unit 02060010, near mouth of canal off Jefferson Creek, at bulkhead at the end of West 1st Street at South Bethany.	2000-04	12-11-03	2.93
01484701	Little Assawoman Bay at Fenwick Island, De.	Lat 38°27'18", long 75°03'31", Sussex County, Hydrologic Unit 02060010, at bulkhead at end of Madison Ave at Fenwick Island.	2000-04	12-11-03	2.92

Water-Quality partial-records stations are particular sites where chemical-quality, biological, and/or sediment data are collected systematically over a period of years for use in hydrologic analyses. The data are collected usually less than quarterly. Samples collected at sites other than gaging stations and partial-record stations to give better areal coverage in a river basin are referred to as miscellaneous sites.

CHESTER RIVER BASIN

01482900 JORDAN BRANCH NEAR DOWNS CHAPEL, DE

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sample type	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Ammonia water, fltrd, mg/L as N (00608)
APR												
30...	0945	Environmental	1028	80020	--	7.0	6.9	148	16.5	--	--	.10
MAY												
28...	1135	Environmental	1028	80020	.26	5.7	6.9	211	21.5	57	70	.16

Date	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, wat unf by analysis, mg/L (62855)	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)	Pheophytin a, phytoplankton, ug/L (62360)	Chlorophyll a phytoplankton, fluoro, ug/L (70953)
APR													
30...	.32	.33	.010	--	.021	.21	1.10	--	--	--	--	--	--
MAY													
28...	.48	.53	.052	.32	.025	.27	1.12	2.7	<.1	2.7	6.7	9.5	9.2

01483666 PENROSE BRANCH NEAR PEARSONS CORNER, DE

Date	Time	Sample type	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Ammonia water, fltrd, mg/L as N (00608)
MAY												
17...	1400	Environmental	1028	80020	1.0	5.5	5.5	161	21.0	--	--	.14
28...	1000	Environmental	1028	80020	1.1	6.2	6.4	171	19.0	30	36	.14

Date	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, wat unf by analysis, mg/L (62855)	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)	Pheophytin a, phytoplankton, ug/L (62360)	Chlorophyll a phytoplankton, fluoro, ug/L (70953)
MAY													
17...	2.59	2.65	.060	--	.073	.31	3.72	--	--	--	--	--	--
28...	3.21	3.26	.049	.67	.040	.29	3.85	5.4	<.1	5.4	5.7	6.4	9.0

Agency collecting sample: 1028 - U.S. Geological Survey
Agency analyzing sample: 80020 - USGS-National Water Quality Lab, Denver, CO

Remark codes used in this table:
< -- Less than

CHESTER RIVER BASIN--CONTINUED

01483990 BLACK SWAMP CREEK NEAR MASTERS CORNER, DE

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sample type	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Ammonia water, fltrd, mg/L as N (00608)
APR												
22...	1040	Environmental	1028	80020	5.5	--	--	--	--	--	--	.07
JUN												
15...	1130	Environmental	1028	80020	1.6	8.1	6.6	131	20.0	15	18	.04

Date	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, wat unf by analysis, mg/L (62855)	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)	Pheophytin a, phytoplankton, ug/L (62360)	Chlorophyll a phytoplankton, fluoro, ug/L (70953)
APR													
22...	1.89	1.91	.012	--	.037	.091	2.50	--	--	--	--	--	--
JUN													
15...	2.59	2.60	.009	.18	.013	.065	2.86	1.5	<.1	1.5	2.6	1.8	.4

01484036 HUDSON BRANCH AT CANTERBURY, DE

Date	Time	Sample type	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Ammonia water, fltrd, mg/L as N (00608)
APR												
22...	0900	Environmental	1028	80020	8.8	--	--	--	--	--	--	.04
JUN												
15...	1000	Environmental	1028	80020	3.7	8.3	6.1	225	17.5	16	20	E.02

Date	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, wat unf by analysis, mg/L (62855)	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)	Pheophytin a, phytoplankton, ug/L (62360)	Chlorophyll a phytoplankton, fluoro, ug/L (70953)
APR													
22...	4.94	4.95	.009	--	.010	.043	5.43	--	--	--	--	--	--
JUN													
15...	6.42	6.43	.009	.08	.011	.029	6.81	.5	<.1	.5	2.2	1.1	1.1

Agency collecting sample: 1028 - U.S. Geological Survey
Agency analyzing sample: 80020 - USGS-National Water Quality Lab, Denver, CO
Remark codes used in this table:
< -- Less than
E -- Estimated value

CHESTER RIVER BASIN--CONTINUED

01484050 PRATT BRANCH NEAR FELTON, DE

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sample type	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Ammonia water, fltrd, mg/L as N (00608)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, wat unf by analysis, mg/L (62855)
MAY											
07...	1050	Environmental	1028	80020	.07	4.51	4.54	.029	.009	.041	4.91
JUN											
09...	1300	Environmental	1028	80020	.05	4.54	4.57	.027	.012	.026	4.83

01484534 SWAN CREEK NEAR MILLSBORO, DE

Date	Time	Sample type	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Ammonia water, fltrd, mg/L as N (00608)
MAY												
06...	1015	Environmental	1028	80020	5.3	8.0	5.7	85	14.0	--	--	<.04
JUN												
09...	0900	Environmental	1028	80020	2.2	8.1	5.7	73	17.0	12	15	<.04

Date	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Particulate nitrogen, susp, water, mg/L (49570)	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, wat unf by analysis, mg/L (62855)	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)	Pheophytin a, phytoplankton, ug/L (62360)	Chlorophyll a phytoplankton, fluoro, ug/L (70953)	CFC-12, water, unfltrd undr N2 pg/kg (50282)
MAY													
06...	2.60	E.005	--	<.006	.011	2.74	--	--	--	--	--	--	--
JUN													
09...	1.82	<.008	.14	E.004	.014	2.00	1.9	<.1	1.9	2.1	2.2	.4	1,000

Agency collecting sample: 1028 - U.S. Geological Survey
Agency analyzing sample: 80020 - USGS-National Water Quality Lab, Denver, CO
Remark codes used in this table:
< -- Less than
E -- Estimated value

CHESTER RIVER BASIN--CONTINUED

01484640 Unity Branch at Fairmount, DE

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sample type	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Ammonia water, fltrd, mg/L as N (00608)
MAY												
27...	0955	Environmental	1028	80020	2.9	--	--	--	--	--	--	.04
JUN												
22...	0930	Environmental	1028	80020	1.5	7.0	6.5	118	19.0	22	26	.04
22...	*0935*	*Replicate*	*1028*	*80020*	--	--	--	--	--	--	--	*E.04*

Date	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, wat unf by anal ysis, mg/L (62855)	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)	Pheophytin a, phytoplankton, ug/L (62360)	Chlorophyll a phytoplankton, fluoro, ug/L (70953)
MAY													
27...	1.55	1.56	.008	--	.046	.083	1.96	--	--	--	--	--	--
JUN													
22...	--	1.55	E.005	.10	.046	.077	1.93	1.3	<.1	1.3	3.2	2.1	.6
22...	--	*1.56*	*E.004*	*.13*	*.047*	*.079*	*1.92*	*1.7*	*<.1*	*1.7*	*3.5*	--	--

01484645 PHILLIPS BRANCH NEAR FAIRMOUNT, DE

Date	Time	Sample type	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Ammonia water, fltrd, mg/L as N (00608)
MAY												
27...	1050	Environmental	1028	80020	2.5	7.2	6.5	123	18.0	--	--	.05
JUN												
22...	1015	Environmental	1028	80020	1.3	8.2	6.8	123	17.0	16	19	<.04

Date	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, wat unf by anal ysis, mg/L (62855)	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)	Pheophytin a, phytoplankton, ug/L (62360)	Chlorophyll a phytoplankton, fluoro, ug/L (70953)
MAY													
27...	3.07	3.10	.024	--	.016	.041	3.42	--	--	--	--	--	--
JUN													
22...	--	4.53	E.006	.09	.015	.030	4.69	1.2	<.1	1.2	2.3	1.1	.4

Agency collecting sample: 1028 - U.S. Geological Survey
Agency analyzing sample: 80020 - USGS-National Water Quality Lab, Denver, CO
Remark codes used in this table:
< -- Less than
E -- Estimated value

CHESTER RIVER BASIN--CONTINUED

01484652 BUNDICKS BRANCH NEAR COOL SPRING, DE

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sample type	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Ammonia water, fltrd, mg/L as N (00608)
MAY												
17...	1045	Environmental	1028	80020	.18	5.5	6.5	115	24.0	--	--	.13
JUN												
01...	0940	Environmental	1028	80020	.36	5.2	6.6	115	19.5	20	25	.16

Date	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, wat unf by analysis, mg/L (62855)	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)	Pheophytin a, phytoplankton, ug/L (62360)	Chlorophyll a phytoplankton, fluoro, ug/L (70953)
MAY													
17...	.67	.72	.041	--	.012	.105	1.66	--	--	--	--	--	--
JUN													
01...	.40	.41	.017	1.05	.006	.163	1.20	5.6	<.1	5.6	7.3	40.3	73.2

01485025 BURNT MILL BRANCH NEAR PITTSVILLE, MD

Date	Time	Sample type	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Ammonia water, fltrd, mg/L as N (00608)
MAY												
13...	0920	Environmental	1028	80020	2.7	8.9	6.3	94	22.0	--	--	.24
JUN												
24...	0915	Environmental	1028	80020	1.2	9.6	7.2	78	19.5	16	20	<.04

Date	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, wat unf by analysis, mg/L (62855)	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)	Pheophytin a, phytoplankton, ug/L (62360)	Chlorophyll a phytoplankton, fluoro, ug/L (70953)
MAY													
13...	.89	.90	.015	--	.009	.089	1.83	--	--	--	--	--	--
JUN													
24...	--	.49	<.008	.10	E.004	.025	.71	.8	<.1	.8	3.3	6.3	4.6

Agency collecting sample: 1028 - U.S. Geological Survey
Agency analyzing sample: 80020 - USGS-National Water Quality Lab, Denver, CO
Remark codes used in this table:
< -- Less than
E -- Estimated value

CHESTER RIVER BASIN--CONTINUED

01485030 AYDYLOTTE BRANCH AT PITTSVILLE, MD

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sample type	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Ammonia water, fltrd, mg/L as N (00608)
MAY												
13...	0830	Environmental	1028	80020	2.0	6.9	6.3	150	22.5	--	--	.54
JUN												
24...	1000	Environmental	1028	80020	<1	9.1	7.3	159	24.5	22	27	E.02
24...	1005	Environmental	1028	80020	--	--	--	--	--	--	--	--

Date	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, wat unf by analysis, mg/L (62855)	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)	Pheophytin a, phytoplankton, ug/L (62360)	Chlorophyll a phytoplankton, fluoro, ug/L (70953)
MAY													
13...	1.18	1.22	.038	--	.053	.24	3.02	--	--	--	--	--	--
JUN													
24...	.92	.92	.009	.45	.008	.136	2.07	2.7	<.1	2.7	11.7	20.5	40.3
24...	--	--	--	--	--	--	--	--	--	--	--	20.5	40.3

01486100 ANDREWS BRANCH NEAR DELMAR, MD

Date	Time	Sample type	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	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)
APR												
28...	0930	Environmental	1028	80020	8.3	8.9	5.8	49	11.4	<.04	.20	E.004
JUN												
24...	1130	Environmental	1028	80020	.64	--	--	--	--	E.03	.37	E.004
29...	1130	Environmental	1028	80020	--	--	--	--	--	--	--	--

Date	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, wat unf by analysis, mg/L (62855)	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)	Pheophytin a, phytoplankton, ug/L (62360)	Chlorophyll a phytoplankton, fluoro, ug/L (70953)
APR										
28...	--	.023	.065	1.05	--	--	--	--	--	--
JUN										
24...	.06	.019	.044	.73	.7	<.1	.7	5.8	--	--
29...	--	--	--	--	--	--	--	--	1.7	.4

Agency collecting sample: 1028 - U.S. Geological Survey
Agency analyzing sample: 80020 - USGS-National Water Quality Lab, Denver, CO
Remark codes used in this table:
< -- Less than
E -- Estimated value

CHESTER RIVER BASIN--CONTINUED

01487116 STONEY BRANCH AT HARDSCRABBLE, DE

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sample type	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Ammonia water, fltrd, mg/L as N (00608)
APR												
29...	1200	Environmental	1028	80020	16	12.3	6.7	107	19.0	14	17	<.04
JUN												
09...	1000	Environmental	1028	80020	5.0	--	--	--	--	--	--	E.03

Date	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, wat unf by anal ysis, mg/L (62855)	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)	Pheophytin a, phytoplankton, ug/L (62360)	Chlorophyll a phytoplankton, fluoro, ug/L (70953)
APR													
29...	--	3.35	E.006	--	<.006	.034	3.65	--	--	--	--	--	--
JUN													
09...	3.17	3.18	.013	.10	<.006	.016	3.35	1.0	<.1	1.0	2.1	4.7	1.9

01487250 CHAPEL BRANCH NEAR SEAFORD, DE

Date	Time	Sample type	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Ammonia water, fltrd, mg/L as N (00608)
MAY												
17...	0945	Environmental	1028	80020	5.2	7.8	6.4	--	18.0	--	--	.05
JUN												
21...	1045	Environmental	1028	80020	2.6	8.8	6.7	129	18.0	13	16	E.03

Date	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, wat unf by anal ysis, mg/L (62855)	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)	Pheophytin a, phytoplankton, ug/L (62360)	Chlorophyll a phytoplankton, fluoro, ug/L (70953)
MAY													
17...	5.33	5.35	.014	--	.017	.045	6.03	--	--	--	--	--	--
JUN													
21...	--	5.83	E.006	.07	.021	.043	6.00	.7	<.1	.7	2.4	1.8	1.0

Agency collecting sample: 1028 - U.S. Geological Survey
Agency analyzing sample: 80020 - USGS-National Water Quality Lab, Denver, CO
Remark codes used in this table:
< -- Less than
E -- Estimated value

CHESTER RIVER BASIN--CONTINUED

01487300 BUTLER MILL BRANCH NEAR WOODLAND, DE

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sample type	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Ammonia water, fltrd, mg/L as N (00608)
APR 29...	0900	Environmental	1028	80020	12	9.0	6.0	172	13.0	--	--	<.04
JUN 21...	0930	Environmental	1028	80020	3.5	8.3	6.4	154	17.0	12	15	<.04

Date	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, wat unf by anal ysis, mg/L (62855)	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)	Pheophytin a, phytoplankton, ug/L (62360)	Chlorophyll a phytoplankton, fluoro, ug/L (70953)
APR 29...	8.77	8.78	.010	--	.020	.054	8.73	--	--	--	--	--	--
JUN 21...	--	8.12	E.005	.08	.031	.067	7.71	.8	<.1	.8	2.1	1.2	.6

01487910 MEADOW BRANCH AT LITTLE ACRES, DE

Date	Time	Sample type	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Ammonia water, fltrd, mg/L as N (00608)
APR 28...	1015	Environmental	1028	80020	10	7.9	6.4	83	11.4	--	--	.28
JUN 09...	1100	Environmental	1028	80020	2.6	8.4	6.3	87	20.0	12	15	.23

Date	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, wat unf by anal ysis, mg/L (62855)	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)	Pheophytin a, phytoplankton, ug/L (62360)	Chlorophyll a phytoplankton, fluoro, ug/L (70953)
APR 28...	2.35	2.39	.039	--	.025	.084	3.03	--	--	--	--	--	--
JUN 09...	2.08	2.15	.064	.17	E.004	.034	2.47	1.1	<.1	1.1	1.4	1.8	.7

Agency collecting sample: 1028 - U.S. Geological Survey
Agency analyzing sample: 80020 - USGS-National Water Quality Lab, Denver, CO
Remark codes used in this table:
< -- Less than
E -- Estimated value

CHESTER RIVER BASIN--CONTINUED

01488530 CATTAIL BRANCH NEAR ADAMSVILLE, DE

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sample type	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Ammonia water, fltrd, mg/L as N (00608)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water fltrd, mg/L as N (00631)
MAY 06...	1400	Environmental	1028	80020	5.1	10.7	6.4	142	21.0	<.04	1.63	1.64

Date	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, wat unf by analysis, mg/L (62855)
MAY 06...	.011	E.004	.062	1.92

01489000 FAULKNER BRANCH AT FEDERALSBURG, MD

Date	Time	Sample type	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Ammonia water, fltrd, mg/L as N (00608)
APR 28...	1300	Environmental	1028	80020	13	--	5.2	--	--	--	--	.05
JUN 21...	1210	Environmental	1028	80020	3.2	8.9	6.7	221	19.0	16	19	E.03

Date	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, wat unf by analysis, mg/L (62855)	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)	Pheophytin a, phytoplankton, ug/L (62360)	Chlorophyll a phytoplankton, fluoro, ug/L (70953)
APR 28...	9.44	9.46	.014	--	E.005	.062	10.2	--	--	--	--	--	--
JUN 21...	11.4	11.4	.009	.07	.006	.031	11.7	.5	<.1	.5	2.7	1.3	.7

Agency collecting sample: 1028 - U.S. Geological Survey
Agency analyzing sample: 80020 - USGS-National Water Quality Lab, Denver, CO
Remark codes used in this table:
< -- Less than
E -- Estimated value

CHESTER RIVER BASIN--CONTINUED

01490590 COW MARSH DITCH NEAR WILLOW GROVE, DE

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sample type	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Ammonia water, fltrd, mg/L as N (00608)
APR												
30...	1400	Environmental	1028	80020	5.5	7.0	6.4	86	18.0	--	--	E.03
JUN												
08...	0800	Environmental	1028	80020	1.4	6.4	6.1	100	18.5	16	19	.14

Date	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, wat unf by anal ysis, mg/L (62855)	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)	Pheophytin a, phytoplankton, ug/L (62360)	Chlorophyll a phytoplankton, fluoro, ug/L (70953)
APR												
30...	<.06	<.008	--	.018	.170	.45	--	--	--	--	--	--
JUN												
08...	<.06	E.004	.27	.006	.181	.47	3.2	<.1	3.2	3.3	2.5	4.8

01490600 MEREDITH BRANCH NEAR SANDTOWN, DE

Date	Time	Sample type	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Ammonia water, fltrd, mg/L as N (00608)
APR												
22...	1400	Environmental	1028	80020	16	--	--	--	--	--	--	.09
JUN												
08...	0900	Environmental	1028	80020	4.4	8.9	6.4	134	18.5	11	14	.04

Date	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, wat unf by anal ysis, mg/L (62855)	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)	Pheophytin a, phytoplankton, ug/L (62360)	Chlorophyll a phytoplankton, fluoro, ug/L (70953)
APR													
22...	1.84	1.85	.010	--	.015	.088	2.49	--	--	--	--	--	--
JUN													
08...	2.59	2.61	.015	.26	E.003	.120	3.07	1.7	<.1	1.7	3.0	21.5	23.3

Agency collecting sample: 1028 - U.S. Geological Survey
Agency analyzing sample: 80020 - USGS-National Water Quality Lab, Denver, CO
Remark codes used in this table:
< -- Less than
E -- Estimated value

CHESTER RIVER BASIN--CONTINUED

01491020 GRAVELLY BRANCH NEAR GREENSBORO, MD

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sample type	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Ammonia water, fltrd, mg/L as N (00608)
APR												
22...	1245	Environmental	1028	80020	27	--	--	--	--	--	--	<.04
JUN												
16...	1015	Environmental	1028	80020	7.0	7.7	6.7	125	21.0	22	26	E.02

Date	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, wat unf by anal ysis, mg/L (62855)	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)	Pheophytin a, phytoplankton, ug/L (62360)	Chlorophyll a phytoplankton, fluoro, ug/L (70953)
APR													
22...	4.14	4.16	.024	--	.017	.078	4.58	--	--	--	--	--	--
JUN													
16...	4.67	4.68	.012	.19	.016	.105	4.95	1.5	<.1	1.5	2.9	2.4	.8

01491050 SPRING BRANCH NEAR GREENSBORO, MD

Date	Time	Sample type	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Ammonia water, fltrd, mg/L as N (00608)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, wat unf by anal ysis, mg/L (62855)
MAY											
12...	1315	Environmental	1028	80020	.04	5.03	5.04	.011	.023	.056	5.36
JUN											
16...	1130	Environmental	1028	1028	--	--	--	--	--	--	--

Agency collecting sample: 1028 - U.S. Geological Survey
Agency analyzing sample: 80020 - USGS-National Water Quality Lab, Denver, CO
Remark codes used in this table:
< -- Less than
E -- Estimated value

CHESTER RIVER BASIN--CONTINUED

01492990 MILL BRANCH NEAR MILLINGTON, MD

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sample type	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Ammonia water, fltrd, mg/L as N (00608)
MAY												
07...	1300	Environmental	1028	80020	2.4	--	--	--	--	--	--	.13
JUN												
07...	1230	Environmental	1028	80020	.61	7.7	7.2	155	19.0	44	54	.10

Date	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, wat unf by analysis, mg/L (62855)	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)	Pheophytin a, phytoplankton, ug/L (62360)	Chlorophyll a phytoplankton, fluoro, ug/L (70953)
MAY													
07...	.52	.55	.023	--	.056	.188	1.32	--	--	--	--	--	--
JUN													
07...	.74	.77	.033	.17	.037	.21	1.25	1.9	<.1	1.9	5.6	2.4	2.0

01493499 MORGAN CREEK NEAR WORTON, MD

Date	Time	Sample type	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Sampling method, code (82398)	UV absorbance, 254 nm, wat flt units /cm (50624)	SUVA, 254 nm, abs L/(mgDOC*meter) (63162)	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)
MAR												
16...	1530	Environmental	1028	80097	10	.132	2.8	--	11.0	--	7.6	89
JUN												
04...	1330	Environmental	1028	80097	40	.107	2.5	--	--	--	--	--
04...	*1400*	*Replicate*	*1028*	*80097*	--	*.117*	*2.7*	--	--	--	--	--
JUL												
19...	1400	Environmental	1028	80097	10	.244	3.4	761	6.3	74	6.7	160
SEP												
27...	1415	Environmental	1028	80020	40	.099	2.5	--	8.2	--	7.5	183

Agency collecting sample: 1028 - U.S. Geological Survey
Agency analyzing sample: 80020 - USGS-National Water Quality Lab, Denver, CO
Remark codes used in this table:
<-- Less than
E-- Estimated value

CHESTER RIVER BASIN--CONTINUED

01493499 MORGAN CREEK NEAR WORTON, MD--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, 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)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Bromide water, fltrd, mg/L (71870)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)
MAR													
16...	2.0	5.0	58	14.5	5.23	4.05	8.26	34	41	<.02	18.3	<.2	7.84
JUN													
04...	--	--	68	17.5	5.84	3.31	7.30	42	52	<.02	17.0	<.2	12.1
04...	--	--	*67*	*17.2*	*5.79*	*3.27*	*7.13*	--	--	*E.01*	*17.4*	*<.2*	*12.0*
JUL													
19...	26.0	23.0	53	13.9	4.46	7.24	5.12	--	--	<.06	13.0	<.2	9.80
SEP													
27...	--	20.0	62	15.5	5.62	5.72	7.23	48	59	<.16	17.0	<.2	12.5

Date	Sulfate water, fltrd, field, mg/L (99113)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia water, fltrd, mg/L as N (00608)	Nitrate water, fltrd, field, mg/L as N (99121)	Nitrate water, fltrd, mg/L as N (00618)	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)	Total nitrogen, wat unf by analysis, mg/L (62855)	Organic carbon, water, fltrd, mg/L (00681)	Iron (II), water, fltrd, field, mg/L (99114)
MAR													
16...	10.0	8.4	111	.42	1.4	3.40	3.45	.045	.013	.19	4.50	4.7	.030
JUN													
04...	--	5.4	127	.08	--	2.67	2.72	.053	.013	.106	3.24	4.3	--
04...	--	*5.1*	*134*	*.08*	--	*2.70*	*2.75*	*.052*	*.012*	*.110*	*3.26*	*4.3*	--
JUL													
19...	--	10.1	105	.09	--	.95	.98	.027	.050	.008	1.37	7.3	--
SEP													
27...	--	3.2	109	E.03	--	2.47	2.48	.008	.009	.075	2.68	3.9	--

Date	Iron, water, fltrd, ug/L (01046)	Manganese, water, fltrd, ug/L (01056)	1-Naphthol, water, fltrd 0.7u GF ug/L (49295)	2,6-Diethylaniline water fltrd 0.7u GF ug/L (82660)	2-[(2-Ethyl-6methylphenyl) amino]2 oxoESA ug/L (62850)	2Chloro-2,6'-' diethyl acetanilide wat flt ug/L (61618)	CIAT, water, fltrd, ug/L (04040)	Alachlor 2nd amide, water, fltrd, ug/L (63781)	Acetochlor 3rd amide, water, fltrd, ug/L (63782)	2-Ethyl-6-methylaniline water, fltrd, ug/L (61620)	3,4-Dichloroaniline water fltrd, ug/L (61625)	4Chloro 2methyl phenol, water, fltrd, ug/L (61633)	Acetochlor ESA, water, fltrd 0.7u GF ug/L (61029)
MAR													
16...	426	362	--	--	--	--	--	--	--	--	--	--	--
JUN													
04...	131	168	<.09	<.006	.04	<.005	E.048	--	--	<.004	<.004	<.006	.10
04...	*182*	*165*	*<.09*	*<.006*	*.04*	*<.005*	*E.046*	--	--	*<.004*	*<.004*	*<.006*	*.08*
JUL													
19...	529	98.1	--	--	--	--	--	--	--	--	--	--	--
SEP													
27...	57	89.4	<.09	<.006	.03	<.005	E.034	<.02	<.02	<.004	<.004	<.006	.08

CHESTER RIVER BASIN--CONTINUED

01493499 MORGAN CREEK NEAR WORTON, MD--CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Acetochlor OA, water, fltrd 0.7u GF ug/L (61030)	Acetochlor SAA, water, fltrd, ug/L (62847)	Acetochlor, water, fltrd, ug/L (49260)	Alachlor ESA SA, water, fltrd, ug/L (62849)	Alachlor ESA, water, fltrd 0.7u GF ug/L (50009)	Alachlor OA, water, fltrd 0.7u GF ug/L (61031)	Alachlor SAA, water, fltrd, ug/L (62848)	Alachlor, water, fltrd, ug/L (46342)	alpha-HCH-d6, surrog, Sch2003 wat flt percent recovry (99995)	Atrazine, wat flt immunoassay unadj. ug/L (99775)	Atrazine, water, fltrd, ug/L (39632)	Azinphos-methyl oxon, water, fltrd, ug/L (61635)	Azinphos-methyl, water, fltrd 0.7u GF ug/L (82686)
MAR													
16...	--	--	--	--	--	--	--	--	--	.07	--	--	--
JUN													
04...	.04	<.02	.012	<.02	.61	.21	<.02	.045	87.4	--	.335	--	<.050
04...	*.03*	*<.02*	*.010*	*<.02*	*.59*	*.22*	*<.02*	*.039*	*80.6*	--	*.279*	--	*<.050*
JUL													
19...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP													
27...	<.02	<.02	<.006	<.02	.54	.18	<.02	.042	72.2	--	.021	<.07	<.050

Date	Benfluralin, water, fltrd 0.7u GF ug/L (82673)	Carbaryl, water, fltrd 0.7u GF ug/L (82680)	Chlorpyrifos oxon, water, fltrd, ug/L (61636)	Chlorpyrifos water, fltrd, ug/L (38933)	cis-Permethrin water fltrd 0.7u GF ug/L (82687)	Cyfluthrin, water, fltrd, ug/L (61585)	Cypermethrin water, fltrd, ug/L (61586)	DCPA, water fltrd 0.7u GF ug/L (82682)	Dechloroacetochlor, water, fltrd, ug/L (63778)	Dechloroalachlor, water, fltrd, ug/L (63777)	Dechlorodimethenamid, water, fltrd, ug/L (63779)	Dechlorometolachlor, water, fltrd, ug/L (63780)	Desulfinyl fipronil, water, fltrd, ug/L (62170)
MAR													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
04...	<.010	<.041	<.06	<.005	<.006	<.008	<.009	<.003	--	--	--	--	<.012
04...	*<.010*	*<.041*	*<.06*	*<.005*	*<.006*	*<.008*	*<.009*	*<.003*	--	--	--	--	*<.012*
JUL													
19...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP													
27...	<.010	<.041	<.06	<.005	<.006	<.008	<.009	<.003	<.02	<.02	<.02	.03	<.012

Date	Diazinon oxon, water, fltrd, ug/L (61638)	Diazinon, water, fltrd, ug/L (39572)	Diazinon-d10 surrog, Sch2003 wat flt percent recovry (99994)	Dicrotophos, water fltrd, ug/L (38454)	Dieldrin, water, fltrd, ug/L (39381)	Dimethenamid ESA, water, fltrd, ug/L (61951)	Dimethenamid OA, water, fltrd, ug/L (62482)	Dimethenamid water, fltrd, ug/L (61588)	Dimethoate, water, fltrd 0.7u GF ug/L (82662)	Ethion monoxon water, fltrd, ug/L (61644)	Ethion, water, fltrd, ug/L (82346)	Fenamiphos sulfone water, fltrd, ug/L (61645)	Fenamiphos sulfoxide, water, fltrd, ug/L (61646)
MAR													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
04...	<.01	<.005	101	<.08	<.009	.02	<.02	<.02	<.006	<.03	<.004	<.008	<.03
04...	*<.01*	*<.005*	*81.5*	*<.08*	*<.009*	*<.02*	*<.02*	*<.02*	*<.006*	*<.03*	*<.004*	*<.008*	*<.03*
JUL													
19...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP													
27...	<.01	<.005	86.3	<.08	<.009	<.02	<.02	<.02	<.006	<.0020	<.004	<.049	<.04

Date	Fenamiphos, water, fltrd, ug/L (61591)	Desulfinyl-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)	Flufenacet ESA, water, fltrd, ug/L (61952)	Flufenacet OA, water, fltrd, ug/L (62483)	Flufenacet, water, fltrd, ug/L (62481)	Fonofos oxon, water, fltrd, ug/L (61649)	Fonofos water, fltrd, ug/L (04095)	Hexazinone, water, fltrd, ug/L (04025)	Hydroxy acetochlor, water, fltrd, ug/L (63784)	Hydroxy alachlor, water, fltrd, ug/L (63783)
MAR													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
04...	<.03	<.029	<.013	<.024	<.016	<.02	<.02	<.02	<.002	<.003	<.013	--	--
04...	*<.03*	*<.029*	*<.013*	*<.024*	*<.016*	*<.02*	*<.02*	*<.02*	*<.002*	*<.003*	*<.013*	--	--
JUL													
19...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP													
27...	<.03	<.029	<.013	<.024	<.016	<.02	<.02	<.02	<.003	<.003	<.013	<.02	<.02

CHESTER RIVER BASIN--CONTINUED

01493499 MORGAN CREEK NEAR WORTON, MD--CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Hydroxy dimeth-enamid, water, fltrd, ug/L (64045)	Hydroxy metola-chlor, water, fltrd, ug/L (63785)	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 ESA, water, fltrd 0.7u GF ug/L (61043)	Metola-chlor OA, water, fltrd 0.7u GF ug/L (61044)	Metola-chlor, water, fltrd, ug/L (39415)
MAR													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
04...	--	--	<1	<.003	<.008	<.027	<.005	<.006	<.03	<.015	2.62	.46	.341
04...	--	--	*<1*	*<.003*	*<.008*	*<.027*	*<.005*	*<.006*	*<.03*	*<.015*	*2.57*	*.45*	*.276*
JUL													
19...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP													
27...	<.02	.02	<.387	<.003	<.030	<.027	<.005	<.006	<.03	<.015	3.21	.37	.240

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)	Propy-zamide, water, fltrd 0.7u GF ug/L (82676)	Propa-chlor ESA, water, fltrd 0.7u GF ug/L (62766)	Propa-chlor OA, water, fltrd 0.7u GF ug/L (62767)	Sima-zine, water, fltrd, ug/L (04035)
MAR													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
04...	<.006	<.008	<.022	<.10	<.011	--	<.008	<.08	<.005	<.004	<.05	<.02	.029
04...	*<.006*	*<.008*	*<.022*	*<.10*	*<.011*	--	*<.008*	*<.01*	*<.005*	*<.004*	*<.05*	*<.02*	*.024*
JUL													
19...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP													
27...	<.006	<.008	<.022	<.10	<.011	<.05	<.008	M	<.005	<.004	<.05	<.02	.252

Date	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)	Sampler type, code (84164)
MAR							
16...	--	--	--	--	--	--	3045
JUN							
04...	<.02	<.07	<.02	<.01	<.009	<.01	8010
04...	*<.02*	*<.07*	*<.02*	*<.01*	*<.009*	*<.01*	--
JUL							
19...	--	--	--	--	--	--	3045
SEP							
27...	<.02	<.07	<.02	<.01	<.009	<.01	3070

Remark codes used in this table:
< -- Less than
E -- Estimated value
M-- Presence verified, not quantified
Sampler type: 3045 - US DH-81 with Teflon cap and nozzle
8010 - Other
3070 - Grab sample

CHESTER RIVER BASIN--CONTINUED

0149349945 MORGAN CREEK TRIB NEAR MORNEC RD NEAR WORTON, MD

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sample type	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Sampling method, code (82398)	UV absorbance, 254 nm, wat flt units /cm (50624)	SUVA, 254 nm, abs L/ (mgDOC* meter) (63162)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)
MAR 16...	1535	Environmental	1028	80097	70	.151	3.0	--	6.1	107	6.0	38
JUN 02...	1000	Environmental	1028	80097	70	.057	3.3	8.3	6.3	160	16.0	57

Date	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Bromide water, fltrd, mg/L (71870)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, field, mg/L (99113)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)
MAR 16...	8.55	4.14	2.83	3.94	10	13	<.32	9.28	<.2	8.22	1.00	6.2	90
JUN 02...	12.9	5.99	2.89	4.98	10	12	<.02	12.7	<.2	13.1	--	4.8	130

Date	Ammonia water, fltrd, mg/L as N (00608)	Nitrate water, fltrd, field, mg/L as N (99121)	Nitrate water, fltrd, mg/L as N (00618)	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)	Total nitrogen, wat unf by analysis, mg/L (62855)	Organic carbon, water, fltrd, mg/L (00681)	Iron (II), water, fltrd, field, mg/L (99114)	Iron, water, fltrd, ug/L (01046)	Manganese, water, fltrd, ug/L (01056)	1-Naphthol, water, fltrd 0.7u GF ug/L (49295)
MAR 16...	.13	3.0	--	5.58	E.007	E.004	.152	6.24	5.1	.070	215	66.4	--
JUN 02...	.05	--	9.01	9.02	.011	.007	.066	9.05	1.7	--	135	59.9	<.09

Date	2,6-Diethylaniline water fltrd 0.7u GF ug/L (82660)	2-[(2-Ethyl-6methylphenyl) amino]2 oxoESA ug/L (62850)	2Chloro-2,6'-'diethyl acetanilide wat flt ug/L (61618)	CIAT, water, fltrd, ug/L (04040)	2-Ethyl-6-methylaniline water, fltrd, ug/L (61620)	3,4-Dichloroaniline water fltrd, ug/L (61625)	4Chloro 2methyl phenol, water, fltrd, ug/L (61633)	Acetochlor ESA, water, fltrd 0.7u GF ug/L (61029)	Acetochlor OA, water, fltrd 0.7u GF ug/L (61030)	Acetochlor SAA, water, fltrd, ug/L (62847)	Acetochlor, water, fltrd, ug/L (49260)	Alachlor ESA SA, water, fltrd, ug/L (62849)	Alachlor ESA, water, fltrd 0.7u GF ug/L (50009)
MAR 16...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 02...	<.006	.31	<.005	E.025	<.004	<.004	<.006	<.02	<.02	<.02	<.006	<.02	.22

Date	Alachlor OA, water, fltrd 0.7u GF ug/L (61031)	Alachlor SAA, water, fltrd, ug/L (62848)	Alachlor, water, fltrd, ug/L (46342)	alpha-HCH-d6, surrog, Sch2003 wat flt percent recovry (99995)	Atrazine, wat flt immunoassay unadj. ug/L (99775)	Atrazine, water, fltrd, ug/L (39632)	Azinphosmethyl oxon, water, fltrd, ug/L (61635)	Azinphosmethyl, water, fltrd 0.7u GF ug/L (82686)	Benfluralin, water, fltrd 0.7u GF ug/L (82673)	Carbaryl, water, fltrd 0.7u GF ug/L (82680)	Chlorpyrifos oxon, water, fltrd, ug/L (61636)	Chlorpyrifos water, fltrd, ug/L (38933)	cis-Permethrin water fltrd 0.7u GF ug/L (82687)
MAR 16...	--	--	--	--	.07	--	--	--	--	--	--	--	--
JUN 02...	<.02	<.02	<.005	71.6	--	.009	<.02	<.050	<.010	<.041	<.06	<.005	<.006

Agency collecting sample: 1028 - U.S. Geological Survey
Agency analyzing sample: 80097 - USGS, Carbon Research Lab, Menlo Park, CA
Sample method: 70 - Grab sample

CHESTER RIVER BASIN--CONTINUED

0149349945 MORGAN CREEK TRIB NEAR MORNEC RD NEAR WORTON, MD--CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Cyfluthrin, water, fltrd, ug/L (61585)	Cypermethrin water, fltrd, ug/L (61586)	DCPA, water fltrd 0.7u GF ug/L (82682)	Desulfinyl fipronil, water, fltrd, ug/L (62170)	Diazinon oxon, water, fltrd, ug/L (61638)	Diazinon, water, fltrd, ug/L (39572)	Diazinon-d10 surrog, Sch2003 wat flt percent recovry (99994)	Dicrotophos, water fltrd, ug/L (38454)	Dieldrin, water, fltrd, ug/L (39381)	Dimethenamid ESA, water, fltrd, ug/L (61951)	Dimethenamid OA, water, fltrd, ug/L (62482)	Dimethenamid water, fltrd, ug/L (61588)	Dimethoate, water, fltrd 0.7u GF ug/L (82662)
MAR 16...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 02...	<.008	<.009	<.003	<.012	<.01	<.005	62.6	<.08	<.009	<.02	<.02	<.02	<.006

Date	Ethion monoxon water, fltrd, ug/L (61644)	Ethion, water, fltrd, ug/L (82346)	Fenamiphos sulfone water, fltrd, ug/L (61645)	Fenamiphos sulfoxide, water, fltrd, ug/L (61646)	Fenamiphos, water, fltrd, ug/L (61591)	Desulfinyl-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)	Flufenacet ESA, water, fltrd, ug/L (61952)	Flufenacet OA, water, fltrd, ug/L (62483)	Flufenacet, water, fltrd, ug/L (62481)	Fonofos oxon, water, fltrd, ug/L (61649)
MAR 16...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 02...	<.03	<.004	<.008	<.03	<.03	<.029	<.013	<.024	<.016	<.02	<.02	<.02	<.002

Date	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)	Metalaxyl, water, fltrd, ug/L (61596)	Methialthion water, fltrd, ug/L (61598)	Methyl paraoxon, water, fltrd, ug/L (61664)	Methyl parathion, water, fltrd 0.7u GF ug/L (82667)	Metolachlor ESA, water, fltrd 0.7u GF ug/L (61043)	Metolachlor OA, water, fltrd 0.7u GF ug/L (61044)	Metolachlor, water, fltrd, ug/L (39415)
MAR 16...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 02...	<.003	<.013	<1	<.003	<.008	<.027	<.005	<.006	<.03	<.015	2.05	.75	.027

Date	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)	Propyzamide, water, fltrd 0.7u GF ug/L (82676)	Propachlor ESA, water, fltrd 0.7u GF ug/L (62766)	Propachlor OA, water, fltrd 0.7u GF ug/L (62767)	Simazine, water, fltrd, ug/L (04035)
MAR 16...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 02...	<.006	<.008	<.022	<.10	<.011	<.06	<.008	<.01	<.005	<.004	<.05	<.02	<.005

Date	Tebuthiuron 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)	Trifluralin, water, fltrd 0.7u GF ug/L (82661)	Dichlorvos, water fltrd, ug/L (38775)	Sampler type, code (84164)
MAR 16...	--	--	--	--	--	--	8010
JUN 02...	<.02	<.07	<.02	<.01	<.009	<.01	8010

Remark codes used in this table:
< -- Less than
E -- Estimated value
Sampler type: 8010 - Other

CHESTER RIVER BASIN--CONTINUED

0149349949 MORGAN CREEK TRIB NEAR WORTON, MD

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sample type	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Sampling method, code (82398)	UV absorbance, 254 nm, wat flt units /cm (50624)	SUVA, 254 nm, abs L/ (mgDOC* meter) (63162)	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)
MAR												
16...	1630	Environmental	1028	80097	70	.140	2.9	--	--	--	--	--
JUN												
02...	1100	Environmental	1028	80097	70	.058	3.1	--	8.8	--	6.5	153
JUL												
20...	0900	Environmental	1028	80097	30	.065	3.5	765	7.4	78	6.9	157
SEP												
27...	1630	Environmental	1028	80097	70	.046	2.4	--	--	--	--	--

Date	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, 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)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Bromide water, fltrd, mg/L (71870)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)
MAR													
16...	--	--	40	8.76	4.29	2.86	4.18	--	--	<.16	9.54	<.2	8.88
JUN													
02...	--	16.0	55	12.5	5.73	2.83	4.88	13	16	<.02	12.3	<.2	13.5
JUL													
20...	24.5	18.0	54	12.5	5.41	3.58	5.01	14	18	<.08	12.6	<.2	13.5
SEP													
27...	--	--	49	11.4	5.07	3.40	4.91	15	18	<.02	12.8	<.2	13.6

Date	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia water, fltrd, mg/L as N (00608)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, wat unf by analysis, mg/L (62855)	Organic carbon, water, fltrd, mg/L (00681)	Iron, water, fltrd, ug/L (01046)	Manganese, water, fltrd, ug/L (01056)	1-Naphthol, water, fltrd 0.7u GF ug/L (49295)
MAR													
16...	5.5	84	.14	--	5.83	E.006	<.006	.076	6.38	4.8	192	66.3	--
JUN													
02...	5.2	135	.05	8.47	8.48	.010	.008	.085	8.47	1.9	102	62.6	<.09
JUL													
20...	5.1	120	.05	7.75	7.76	.009	.007	.191	9.04	1.9	87	74.2	--
SEP													
27...	3.9	115	E.04	--	8.54	E.007	E.005	.027	8.28	1.9	60	65.8	<.09

Date	2,6-Diethylaniline water fltrd 0.7u GF ug/L (82660)	2-[(2-Ethyl-6methylphenyl) amino]2 oxoESA ug/L (62850)	2Chloro-2,6'-' diethyl acetanilide wat flt ug/L (61618)	CIAT, water, fltrd, ug/L (04040)	Alachlor 2nd amide, water, fltrd, ug/L (63781)	Acetochlor 3rd amide, water, fltrd, ug/L (63782)	2-Ethyl-6-methylaniline water, fltrd, ug/L (61620)	3,4-Dichloroaniline water fltrd, ug/L (61625)	4Chloro 2methylphenol, water, fltrd, ug/L (61633)	Acetochlor ESA, water, fltrd 0.7u GF ug/L (61029)	Acetochlor OA, water, fltrd 0.7u GF ug/L (61030)	Acetochlor SAA, water, fltrd, ug/L (62847)	Acetochlor, water, fltrd, ug/L (49260)
MAR													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
02...	<.006	.29	<.005	E.082	--	--	<.004	<.004	<.006	<.02	<.02	<.02	<.006
JUL													
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP													
27...	<.006	.26	<.005	E.085	<.02	<.02	<.004	<.004	<.006	<.02	<.02	<.02	<.006

Agency collecting sample: 1028 - U.S. Geological Survey
Agency analyzing sample: 80097 - USGS, Carbon Research Lab, Menlo Park, CA
80020 - USGS-National Water Quality Lab, Denver, CO
Sample method: 70 - Grab sample
30 - Single vertical

CHESTER RIVER BASIN--CONTINUED

0149349949 MORGAN CREEK TRIB NEAR WORTON, MD--CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Alachlor ESA SA, water, fltrd, ug/L (62849)	Alachlor ESA, water, fltrd 0.7u GF ug/L (50009)	Alachlor OA, water, fltrd 0.7u GF ug/L (61031)	Alachlor SAA, water, fltrd, ug/L (62848)	Alachlor, water, fltrd, ug/L (46342)	alpha-HCH-d6, surrog, Sch2003 wat flt percent recovry (99995)	Atrazine, water, fltrd, ug/L (39632)	Azinphos-methyl oxon, water, fltrd, ug/L (61635)	Azinphos-methyl, water, fltrd 0.7u GF ug/L (82686)	Benfluralin, water, fltrd 0.7u GF ug/L (82673)	Carbaryl, water, fltrd 0.7u GF ug/L (82680)	Chlorpyrifos oxon, water, fltrd, ug/L (61636)	Chlorpyrifos water, fltrd, ug/L (38933)
MAR 16...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 02...	<.02	<.02	<.02	<.02	<.005	75.9	.009	<.02	<.050	<.010	<.041	<.06	<.005
JUL 20...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP 27...	<.02	.17	<.02	<.02	<.005	77.7	<.007	<.07	<.050	<.010	<.041	<.06	<.005

Date	cis-Permethrin water fltrd 0.7u GF ug/L (82687)	Cyfluthrin, water, fltrd, ug/L (61585)	Cypermethrin water, fltrd, ug/L (61586)	DCPA, water fltrd 0.7u GF ug/L (82682)	Dechloroacetochlor, water, fltrd, ug/L (63778)	Dechloroalachlor, water, fltrd, ug/L (63777)	Dechlorodimethenamid, water, fltrd, ug/L (63779)	Dechlorometolachlor, water, fltrd, ug/L (63780)	Desulfinyl fipronil, water, fltrd, ug/L (62170)	Diazinon oxon, water, fltrd, ug/L (61638)	Diazinon, water, fltrd, ug/L (39572)	Diazinon-d10 surrog, Sch2003 wat flt percent recovry (99994)	Dicrotophos, water fltrd, ug/L (38454)
MAR 16...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 02...	<.006	<.008	<.009	<.003	--	--	--	--	<.012	<.01	<.005	65.9	<.08
JUL 20...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP 27...	<.006	<.008	<.009	<.003	<.02	<.02	<.02	<.02	<.012	<.01	<.005	94.4	<.08

Date	Dieldrin, water, fltrd, ug/L (39381)	Dimethenamid ESA, water, fltrd, ug/L (61951)	Dimethenamid OA, water, fltrd, ug/L (62482)	Dimethenamid water, fltrd, ug/L (61588)	Dimethoate, water, fltrd 0.7u GF ug/L (82662)	Ethion monoxon water, fltrd, ug/L (61644)	Ethion, water, fltrd, ug/L (82346)	Fenamiphos sulfone water, fltrd, ug/L (61645)	Fenamiphos sulfoxide, water, fltrd, ug/L (61646)	Fenamiphos, water, fltrd, ug/L (61591)	Desulfinyl-fipronil amide, wat flt ug/L (62169)	Fipronil sulfide water, fltrd, ug/L (62167)	Fipronil sulfone water, fltrd, ug/L (62168)
MAR 16...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 02...	<.009	<.02	<.02	<.02	<.006	<.03	<.004	<.008	<.03	<.03	<.029	<.013	<.024
JUL 20...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP 27...	<.009	<.02	<.02	<.02	<.006	<.0020	<.004	<.049	<.04	<.03	<.029	<.013	<.024

Date	Fipronil, water, fltrd, ug/L (62166)	Flufenacet ESA, water, fltrd, ug/L (61952)	Flufenacet OA, water, fltrd, ug/L (62483)	Flufenacet, water, fltrd, ug/L (62481)	Fonofos oxon, water, fltrd, ug/L (61649)	Fonofos water, fltrd, ug/L (04095)	Hexazinone, water, fltrd, ug/L (04025)	Hydroxyacetochlor, water, fltrd, ug/L (63784)	Hydroxyalachlor, water, fltrd, ug/L (63783)	Hydroxydimethenamid, water, fltrd, ug/L (64045)	Hydroxymetolachlor, water, fltrd, ug/L (63785)	Iprodione, water, fltrd, ug/L (61593)	Isofenphos, water, fltrd, ug/L (61594)
MAR 16...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 02...	<.016	<.02	<.02	<.02	<.002	<.003	<.013	--	--	--	--	<1	<.003
JUL 20...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP 27...	<.016	<.02	<.02	<.02	<.003	<.003	<.013	<.02	<.02	<.02	<.02	<.387	<.003

CHESTER RIVER BASIN--CONTINUED

0149349949 MORGAN CREEK TRIB NEAR WORTON, MD--CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Malaoxon, water, fltrd, ug/L (61652)	Malathion, water, fltrd, ug/L (39532)	Metalaxyl, water, fltrd, ug/L (61596)	Methialthion water, fltrd, ug/L (61598)	Methyl paraoxon, water, fltrd, ug/L (61664)	Methyl parathion, water, fltrd 0.7u GF ug/L (82667)	Metolachlor ESA, water, fltrd 0.7u GF ug/L (61043)	Metolachlor OA, water, fltrd 0.7u GF ug/L (61044)	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)
MAR 16...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 02...	<.008	<.027	<.005	<.006	<.03	<.015	2.37	.66	.026	<.006	<.008	<.022	<.10
JUL 20...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP 27...	<.030	<.027	<.005	<.006	<.03	<.015	7.79	.50	.020	<.006	<.008	<.022	<.10

Date	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)	Propyzamide, water, fltrd 0.7u GF ug/L (82676)	Propachlor ESA, water, fltrd 0.7u GF ug/L (62766)	Propachlor OA, water, fltrd 0.7u GF ug/L (62767)	Simazine, water, fltrd, ug/L (04035)	Tebuthiuron 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)
MAR 16...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 02...	<.011	<.06	<.008	<.01	<.005	<.004	<.05	<.02	<.007	<.02	<.07	<.02	<.01
JUL 20...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP 27...	<.011	<.05	<.008	<.01	<.005	<.004	<.05	<.02	<.005	<.02	<.07	<.02	<.01

0149349970 MORGAN CREEK TRIB NEAR WALLIS RD NEAR KENNEDYVILLE, MD

Date	Time	Sample type	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Sampling method, code (82398)	UV absorbance, 254 nm, wat flt units /cm (50624)	SUVA, 254 nm, abs L/ (mgDOC* meter) (63162)	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)
MAR 16...	1445	Environmental	1028	80097	10	.089	2.5	--	11.0	--	--	173
JUN 04...	1100	Environmental	1028	80097	40	.112	2.1	--	8.8	--	7.5	184
JUL 19...	1230	Environmental	1028	80097	10	.206	2.8	761	6.5	74	6.7	160
SEP 27...	1530	Environmental	1028	80097	40	.120	3.2	--	8.2	--	7.3	184

Agency collecting sample: 1028 - U.S. Geological Survey
Agency analyzing sample: 80097 - USGS, Carbon Research Lab, Menlo Park, CA
80020 - USGS-National Water Quality Lab, Denver, CO
Sample method: 10 - Equal width increment
40 - Multiple verticals

CHESTER RIVER BASIN--CONTINUED

0149349970 MORGAN CREEK TRIB NEAR WALLIS RD NEAR KENNEDYVILLE, MD--CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, 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)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Bromide water, fltrd, mg/L (71870)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)
MAR													
16...	2.0	5.0	57	14.3	5.20	3.63	7.77	--	--	<.02	17.9	<.2	7.99
JUN													
04...	--	18.0	67	17.3	5.77	3.22	7.18	43	51	E.01	17.4	<.2	12.1
JUL													
19...	24.5	22.0	54	14.1	4.52	7.43	5.24	38	46	<.06	13.2	<.2	9.69
SEP													
27...	--	19.0	60	15.6	5.12	5.41	6.74	46	56	<.02	17.0	<.2	12.9

Date	Sulfate water, fltrd, field, mg/L (99113)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrate water, fltrd, field, mg/L as N (99121)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Organic nitrogen, water, fltrd, mg/L (00607)	Organic nitrogen, water, unfltrd mg/L (00605)	Orthophosphate, water, fltrd, mg/L as P (00671)
MAR													
16...	4.00	6.8	113	--	--	.38	1.9	3.69	3.73	.043	--	--	.008
JUN													
04...	--	5.4	118	--	--	.09	--	2.87	2.92	.053	--	--	.006
JUL													
19...	--	10.6	109	--	--	.09	--	.96	.99	.025	--	--	.024
SEP													
27...	--	3.3	114	--	--	E.03	--	--	2.70	E.007	--	--	.010

Date	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, wat unf by analysis, mg/L (62855)	Total nitrogen, water, fltrd, mg/L (00602)	Total nitrogen, water, unfltrd mg/L (00600)	Organic carbon, water, fltrd, mg/L (00681)	Iron (II), water, fltrd, field, mg/L (99114)	Iron, water, fltrd, ug/L (01046)	Manganese, water, fltrd, ug/L (01056)	1-Naphthol, water, fltrd 0.7u GF ug/L (49295)	2,6-Diethylaniline water fltrd 0.7u GF ug/L (82660)	2-[(2-Ethyl-6methylphenyl) amino]2 oxoESA ug/L (62850)	2Chloro-2,6'-'diethyl acetanilide wat flt ug/L (61618)
MAR													
16...	--	.136	4.52	--	--	3.6	.030	341	307	--	--	--	--
JUN													
04...	--	.105	3.64	--	--	5.4	--	137	182	--	<.006	.05	<.005
JUL													
19...	--	.24	1.88	--	--	7.3	--	201	103	--	--	--	--
SEP													
27...	--	.070	2.87	--	--	3.7	--	314	89.9	<.09	<.006	.03	<.005

Date	CIAT, water, fltrd, ug/L (04040)	Alachlor 2nd amide, water, fltrd, ug/L (63781)	Acetochlor 3rd amide, water, fltrd, ug/L (63782)	2-Ethyl-6-methylaniline water, fltrd, ug/L (61620)	3,4-Dichloroaniline water fltrd, ug/L (61625)	4Chloro 2methyl phenol, water, fltrd, ug/L (61633)	Acetochlor ESA, water, fltrd 0.7u GF ug/L (61029)	Acetochlor OA, water, fltrd 0.7u GF ug/L (61030)	Acetochlor SAA, water, fltrd, ug/L (62847)	Acetochlor, water, fltrd, ug/L (49260)	Alachlor ESA SA, water, fltrd, ug/L (62849)	Alachlor ESA, water, fltrd 0.7u GF ug/L (50009)	Alachlor OA, water, fltrd 0.7u GF ug/L (61031)
MAR													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
04...	E.044	--	--	<.004	<.004	--	<.02	.04	<.02	<.009	<.02	.47	.20
JUL													
19...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP													
27...	E.032	<.02	<.02	<.004	<.004	<.006	.08	<.02	<.02	<.006	<.02	.55	.18

CHESTER RIVER BASIN--CONTINUED

0149349970 MORGAN CREEK TRIB NEAR WALLIS RD NEAR KENNEDYVILLE, MD--CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Alachlor SAA, water, fltrd, ug/L (62848)	Alachlor, water, fltrd, ug/L (46342)	alpha-HCH-d6, surrog, Sch2003 wat flt percent recovry (99995)	Atrazine, wat flt immuno-assay unadj. ug/L (99775)	Atrazine, water, fltrd, ug/L (39632)	Azinphos-methyl oxon, water, fltrd, ug/L (61635)	Azinphos-methyl, water, fltrd 0.7u GF ug/L (82686)	Benfluralin, water, fltrd 0.7u GF ug/L (82673)	Carbaryl, water, fltrd 0.7u GF ug/L (82680)	Chlorpyrifos oxon, water, fltrd, ug/L (61636)	Chlorpyrifos water, fltrd, ug/L (38933)	cis-Permethrin water fltrd 0.7u GF ug/L (82687)	Cyfluthrin, water, fltrd, ug/L (61585)
MAR													
16...	--	--	--	.12	--	--	--	--	--	--	--	--	--
JUN													
04...	<.02	.047	86.7	--	.414	--	<.050	<.010	<.041	<.06	<.005	<.006	<.008
JUL													
19...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP													
27...	<.02	.035	73.3	--	.019	<.07	<.050	<.010	<.041	<.06	<.005	<.006	<.008

Date	Cypermethrin water, fltrd, ug/L (61586)	DCPA, water fltrd 0.7u GF ug/L (82682)	Dechloro-acetochlor, water, fltrd, ug/L (63778)	Dechloro-alachlor, water, fltrd, ug/L (63777)	Dechloro-dimethenamid, water, fltrd, ug/L (63779)	Dechloro-metolachlor, water, fltrd, ug/L (63780)	Desulfinyl fipronil, water, fltrd, ug/L (62170)	Diazinon oxon, water, fltrd, ug/L (61638)	Diazinon, water, fltrd, ug/L (39572)	Diazinon-d10 surrog, Sch2003 wat flt percent recovry (99994)	Dicrotophos, water fltrd, ug/L (38454)	Dieldrin, water, fltrd, ug/L (39381)	Dimethenamid ESA, water, fltrd, ug/L (61951)
MAR													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
04...	<.009	<.003	--	--	--	--	<.012	<.01	<.005	103	<.12	<.009	<.02
JUL													
19...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP													
27...	<.009	<.003	<.02	<.02	<.02	.03	<.012	<.01	<.005	86.2	<.08	<.009	<.02

Date	Dimethenamid OA, water, fltrd, ug/L (62482)	Dimethenamid water, fltrd, ug/L (61588)	Dimethoate, water, fltrd 0.7u GF ug/L (82662)	Ethion monoxon water, fltrd, ug/L (61644)	Ethion, water, fltrd, ug/L (82346)	Fenamiphos sulfone water, fltrd, ug/L (61645)	Fenamiphos sulfoxide, water, fltrd, ug/L (61646)	Fenamiphos, water, fltrd, ug/L (61591)	Desulfinyl-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)	Flufenacet ESA, water, fltrd, ug/L (61952)
MAR													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
04...	<.02	<.02	<.031	<.03	<.004	<.008	--	<.03	<.029	<.013	<.024	<.016	<.02
JUL													
19...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP													
27...	<.02	<.02	<.006	<.0020	<.004	<.049	<.04	<.03	<.029	<.013	<.024	<.016	<.02

Date	Metalaxyl, water, fltrd, ug/L (61596)	Methialthion water, fltrd, ug/L (61598)	Methyl paraoxon, water, fltrd, ug/L (61664)	Methyl parathion, water, fltrd 0.7u GF ug/L (82667)	Metolachlor ESA, water, fltrd 0.7u GF ug/L (61043)	Metolachlor OA, water, fltrd 0.7u GF ug/L (61044)	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)
MAR													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
04...	<.005	<.006	<.03	<.015	2.13	.44	.412	<.006	<.008	<.022	<.10	<.011	<.12
JUL													
19...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP													
27...	<.005	<.006	<.03	<.015	3.28	.41	.220	<.006	<.008	<.022	<.10	<.011	<.05

CHESTER RIVER BASIN--CONTINUED

0149349970 MORGAN CREEK TRIB NEAR WALLIS RD NEAR KENNEDYVILLE, MD--CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Phosmet water, fltrd, ug/L (61601)	Prometon, water, fltrd, ug/L (04037)	Prometryn, water, fltrd, ug/L (04036)	Propyzamide, water, fltrd 0.7u GF ug/L (82676)	Propachlor ESA, water, fltrd 0.7u GF ug/L (62766)	Propachlor OA, water, fltrd 0.7u GF ug/L (62767)	Simazine, water, fltrd, ug/L (04035)	Tebuthiuron 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)	Trifluralin, water, fltrd 0.7u GF ug/L (82661)	Dichlorvos, water fltrd, ug/L (38775)
MAR													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
04...	<.008	<.04	<.005	<.004	<.05	<.02	.028	--	<.07	<.02	<.01	<.009	<.01
JUL													
19...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP													
27...	<.008	M	<.005	<.004	<.05	<.02	.243	<.02	<.07	<.02	<.01	<.009	<.01

Date	Sampler type, code (84164)
MAR	
16...	3045
JUN	
04...	8010
JUL	
19...	3045
SEP	
27...	3070

Remark codes used in this table:
< -- Less than
E -- Estimated value
M -- Presence verified, not quantified

Sampler type: 3045 - US DH-81 with teflon cap and nozzle
8010 - Other
3070 - Grab sample

GUNPOWDER RIVER BASIN

0158397925 MINEBANK RUN AT INTERVALE COURT NEAR TOWSON, MD

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sample type	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Sampling method, code (82398)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Ammonia + org-N, water, fltrd, mg/L as N (00623)
JUN												
03...	1240	Environmental	1028	80020	.10	10	7.1	7.4	424	19.9	19.3	.20
10...	0940	Environmental	1028	80020	.11	10	7.8	7.1	585	20.5	19.1	.42
21...	1015	Environmental	1028	80020	.10	10	8.5	7.2	580	18.2	17.8	.23
28...	0930	Environmental	1028	80020	.12	10	7.8	7.1	555	18.9	17.0	.17
JUL												
06...	1000	Environmental	1028	80020	.13	10	6.5	6.9	421	21.9	20.0	.20
12...	0930	Environmental	1028	80020	.11	10	7.6	6.8	573	20.3	19.1	.26
29...	0945	Environmental	1028	80020	.17	40	7.0	7.1	493	20.9	19.3	.45
AUG												
05...	1030	Environmental	1028	80020	.14	40	6.3	7.1	419	22.4	20.1	.23
17...	1010	Environmental	1028	80020	.09	40	7.2	6.7	531	18.9	17.3	.13
17...	*1012*	*Blank*	*1028*	*80020*	--	--	--	--	--	--	--	*<.10*
25...	1000	Environmental	1028	80020	.08	40	6.7	6.9	540	18.8	17.0	E.06
SEP												
01...	0930	Environmental	1028	80020	.09	40	6.6	6.9	544	17.3	16.6	E.09
09...	1130	Environmental	1028	80020	.12	10	5.8	7.2	391	22.8	19.4	.29
16...	1000	Environmental	1028	80020	.08	40	7.2	7.1	509	18.3	16.5	.23
23...	1015	Environmental	1028	80020	.07	40	7.4	7.0	518	16.3	15.8	E.09
30...	1130	Environmental	1028	80020	.12	10	7.5	7.1	486	18.7	17.3	.26

Date	Ammonia water, fltrd, mg/L as N (00608)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, fltrd, mg/L (00602)	Sampler type, code (84164)
JUN								
03...	E.02	.77	.77	.008	E.01	E.02	.97	3070
10...	<.04	--	1.19	E.006	<.02	<.04	1.6	3070
21...	<.04	--	1.14	<.008	<.02	<.04	1.4	3070
28...	<.04	--	1.17	<.008	<.02	<.04	1.3	3070
JUL								
06...	E.02	--	.86	<.008	<.02	<.04	1.1	3070
12...	E.02	--	1.21	<.008	<.02	E.02	1.5	3070
29...	<.04	--	1.32	<.008	<.02	<.04	1.8	3070
AUG								
05...	<.04	--	1.21	<.008	<.02	E.03	1.4	3070
17...	<.04	--	1.03	<.008	<.02	<.04	1.2	3070
17...	*<.04*	--	*<.06*	*<.008*	*<.02*	*<.04*	--	--
25...	<.04	--	1.00	<.008	<.02	<.04	--	3070
SEP								
01...	<.04	--	.85	<.008	<.02	<.04	--	3070
09...	<.04	--	.91	<.008	<.02	<.04	1.2	3070
16...	<.04	--	1.00	<.008	<.02	<.04	1.2	3070
23...	<.04	--	1.00	<.008	<.02	<.04	--	3070
30...	<.04	--	1.22	<.008	<.02	<.04	1.5	3070

Agency collecting sample: 1028 - U.S. Geological Survey

Agency analyzing sample: 80020 - USGS-National Water Quality Lab, Denver, CO

Sample method: 10 - Equal-width increment

40 - Multiple verticals

Sampler type: 3070 - Grab sample

Remark codes used in this table:
< -- Less than
E -- Estimated value

01645495 POTOMAC RIVER NEAR GREAT FALLS, VA

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sample type	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Sampling method, code (82398)	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, air, deg C (00020)
OCT 07...	0930	Environmental	1028	80020	E10,200	30	768	13.1	126	7.7	304	16.0
NOV 06...	1030	Environmental	1028	80020	E15,000	30	765	7.5	77	6.9	189	19.0
DEC 03...	1045	Environmental	1028	80020	E18,000	30	768	14.5	115	8.0	246	2.0
JAN 08...	0915	Environmental	1028	80020	E19,500	30	769	12.2	97	7.8	275	-2.5
FEB 02...	1200	Environmental	1028	80020	E7,880	30	775	17.4	117	7.8	383	4.0
MAR 04...	0930	Environmental	1028	80020	E26,300	30	766	E11.7	--	7.8	255	11.0
AUG 03...	1500	Environmental	1028	80020	E15,000	30	767	5.8	74	7.6	321	28.0
SEP 07...	1400	Environmental	1028	80020	1,890	50	761	7.9	95	8.0	408	26.5

Date	Temperature, water, deg C (00010)	Organic carbon, water, fltrd, mg/L (00681)	E coli, modif. m-TEC, water, col/ 100 mL (90902)	1-Methylnaphthalene, water, fltrd, ug/L (62054)	1-Naphthol, water, fltrd 0.7u GF ug/L (49295)	2,4,5-T surrog, water, fltrd, percent recovry (99958)	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	2,4-DB water, fltrd 0.7u GF ug/L (38746)	2,6-Diethylaniline water fltrd 0.7u GF ug/L (82660)	2,6-Dimethylnaphthalene, water, fltrd, ug/L (62055)	2-[(2-Et-6-Me-Ph)--amino]propan-1-ol, ug/L (61615)	2-[(2-Ethyl-6methylphenyl)amino]2oxoESA ug/L (62850)
OCT 07...	14.0	2.5	--	<.5	<.09	47.1	<.009	E.01	<.02	<.006	<.5	<.1	.03
NOV 06...	17.2	6.3	4,800	<.5	M	85.6	<.021	.51	<.02	<.006	<.5	<.1	<.02
DEC 03...	5.6	2.3	100	<.5	<.09	104	<.009	E.02	<.02	<.006	<.5	<.1	.03
JAN 08...	5.8	2.6	E62	<.5	<.09	93.2	<.009	<.02	<.02	<.006	<.5	<.1	<.02
FEB 02...	.1	1.6	<2	<.5	<.09	75.2	<.009	<.02	<.02	<.006	<.5	<.1	.02
MAR 04...	9.3	2.1	23	<.5	<.09	92.3	<.009	<.02	<.02	<.006	<.5	--	.04
AUG 03...	28.3	--	--	<.5	<.09	97.6	<.009	.09	<.02	<.006	<.5	--	<.02
SEP 07...	24.3	--	--	<.5	<.09	69.9	<.009	<.02	<.02	<.006	<.5	--	<.02

Date	2Chloro-2,6'-'diethyl acetanilide wat flt ug/L (61618)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	2-Ethyl-6-methylaniline water, fltrd, ug/L (61620)	OIET, water, fltrd, ug/L (50355)	2-Methylnaphthalene, water, fltrd, ug/L (62056)	3,4-Dichloroaniline water fltrd, ug/L (61625)	3-beta-Coprostanol, water, fltrd, ug/L (62057)	3-Hydroxycarbofuran, wat flt 0.7u GF ug/L (49308)	3-Ketocarbofuran, water, fltrd, ug/L (50295)	3-Methyl-1H-indole, water, fltrd, ug/L (62058)	3-tert-Butyl-4-hydroxyanisole wat flt ug/L (62059)	4Chloro2methylphenol, water, fltrd, ug/L (61633)
OCT 07...	<.005	E.078	E.01	<.004	E.022	<.5	E.004	<2	<.006	<1.50	<1	<5	<.006
NOV 06...	<.005	E.015	<.04	<.004	<.036	<.5	<.004	E1	<.006	<1.50	<1	<5	<.006
DEC 03...	<.005	E.018	E.01	<.004	<.008	<.5	<.004	<2	<.006	<1.50	<1	<5	<.006
JAN 08...	<.005	E.046	E.01	<.004	E.014	<.5	<.004	M	<.006	<1.50	<1	<5	<.006
FEB 02...	<.005	E.068	E.03	<.004	<.010	<.5	<.004	<2	<.006	<1.50	<1	<5	<.006
MAR 04...	<.005	E.032	E.01	<.004	E.013	<.5	<.004	<2	<.006	<1.50	<1	<5	<.006
AUG 03...	<.005	E.065	E.03	<.004	E.092	<.5	.006	M	<.006	<.01	<1	<5	<.006
SEP 07...	<.005	E.064	E.01	<.004	E.031	<.5	<.004	<2	<.006	<.01	<1	<5	<.006

Agency collecting sample: 1028 - U.S. Geological Survey
Agency analyzing sample: 80020 - USGS-National Water Quality Lab, Denver, CO

Sample method: 30 - Single vertical

01645495 POTOMAC RIVER NEAR GREAT FALLS, VA--CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	4-Cumyl-phenol, water, fltrd, ug/L (62060)	4-Octyl-phenol, water, fltrd, ug/L (62061)	4-Nonyl-phenol, water, fltrd, ug/L (62085)	4-tert-Octyl-phenol, water, fltrd, ug/L (62062)	5-Methyl-1H-benzo-triazole, wat flt ug/L (62063)	9,10-Anthra-quinone water, fltrd, ug/L (62066)	Aceto-chlor ESA, water, fltrd 0.7u GF ug/L (61029)	Aceto-chlor OA, water, fltrd 0.7u GF ug/L (61030)	Aceto-chlor SAA, water, fltrd, ug/L (62847)	Aceto-chlor, water, fltrd, ug/L (49260)	Aceto-phenone water, fltrd, ug/L (62064)	AHTN, water, fltrd, ug/L (62065)	Aci-fluor-fen, water, fltrd 0.7u GF ug/L (49315)
OCT													
07...	<1	<1	<5	<1	<2	<.5	<.02	<.02	<.02	<.006	<.5	<.5	<.007
NOV													
06...	<1	<1	E1	<1	<2	E.1	<.02	<.02	<.02	<.006	<.5	M	<.007
DEC													
03...	<1	<1	<5	<1	<2	<.5	<.02	<.02	<.02	<.006	<.5	M	<.007
JAN													
08...	<1	<1	<5	<1	<2	<.5	<.02	<.02	<.02	<.006	<.5	M	<.007
FEB													
02...	<1	<1	<5	<1	<2	<.5	<.02	<.02	<.02	<.006	<.5	E.1	<.007
MAR													
04...	<1	<1	<5	<1	<2	<.5	.06	<.02	<.02	<.006	<.5	E.1	<.007
AUG													
03...	<1	<1	<5	<1	<2	<.5	<.02	.02	<.02	.009	<.5	M	<.007
SEP													
07...	<1	<1	<5	<1	<2	<.5	<.02	<.02	<.02	<.006	<.5	<.5	<.007

Date	Ala-chlor ESA SA, water, fltrd, ug/L (62849)	Ala-chlor ESA, water, fltrd 0.7u GF ug/L (50009)	Ala-chlor OA, water, fltrd 0.7u GF ug/L (61031)	Ala-chlor SAA, water, fltrd, ug/L (62848)	Ala-chlor, water, fltrd, ug/L (46342)	Aldi-carb sulfone water, fltrd 0.7u GF ug/L (49313)	Aldi-carb sulf-oxide, wat flt 0.7u GF ug/L (49314)	Aldi-carb, water, fltrd 0.7u GF ug/L (49312)	alpha-HCH-d6, surrog, Sch2003 wat flt percent recovry (99995)	Anthra-cene, water, fltrd, ug/L (34221)	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													
07...	<.02	.06	<.02	<.02	<.005	<.02	<.008	<.04	83.2	<.5	.065	<.02	<.050
NOV													
06...	<.02	.05	<.02	<.02	<.005	<.02	<.008	<.04	87.2	<.5	.042	<.02	<.050
DEC													
03...	<.02	<.02	<.02	<.02	<.005	<.02	<.008	<.04	83.5	<.5	.044	<.02	<.050
JAN													
08...	<.02	.02	<.02	<.02	<.005	<.02	<.008	<.04	87.7	<.5	.040	<.02	<.050
FEB													
02...	<.02	.03	<.02	<.02	<.005	<.02	<.008	<.04	87.5	<.5	.045	<.02	<.050
MAR													
04...	<.02	.07	<.02	<.02	<.005	<.02	<.008	<.04	88.0	<.5	.024	<.02	<.050
AUG													
03...	<.02	<.02	<.02	<.02	<.005	<.02	<.008	<.04	80.2	<.5	.127	<.07	<.050
SEP													
07...	<.02	.03	<.02	<.02	<.005	<.02	<.008	<.04	88.4	<.5	.058	<.07	<.050

Date	Barban, surrog, Sched. 2060/ 9060, wat flt pct rcv (90640)	Bendio-carb, water, fltrd, ug/L (50299)	Ben-flur-alin, water, fltrd 0.7u GF ug/L (82673)	Benomyl water, fltrd, ug/L (50300)	Bensul-furon, water, fltrd, ug/L (61693)	Ben-tazon, water, fltrd 0.7u GF ug/L (38711)	Benzo-[a]-pyrene, water, fltrd, ug/L (34248)	Benzo-phenone water, fltrd, ug/L (62067)	beta-Sitos-terol, water, fltrd, ug/L (62068)	beta-Stigma-stanol, water, fltrd, ug/L (62086)	Bisphe-nol A, water, fltrd, ug/L (62069)	Bisphenol A-d3 sur Sch 2033 & 8033, wat flt pct rcv (99583)	Broma-cil, water, fltrd, ug/L (04029)
OCT													
07...	59.8	<.03	<.010	<.004	<.02	<.01	<.5	<.5	<2	<2	<1	42.7	<.03
NOV													
06...	77.4	<.03	<.010	<.004	<.02	<.01	<.5	<.5	M	M	M	100	<.03
DEC													
03...	83.2	<.03	<.010	<.004	<.02	<.01	<.5	<.5	<2	<2	<1	30.0	<.03
JAN													
08...	66.5	<.03	<.010	<.004	<.02	<.01	<.5	E.1	<2	<2	<1	10.5	<.03
FEB													
02...	99.5	<.03	<.010	<.004	<.02	<.01	<.5	E.1	<2	<2	<1	.0	<.03
MAR													
04...	72.6	<.03	<.010	<.004	<.02	<.01	<.5	<.5	<2	<2	<1	65.2	<.03
AUG													
03...	76.9	<.03	<.010	<.004	<.02	<.01	<.5	<.5	<2	<2	<1	123	<.03
SEP													
07...	87.6	<.03	<.010	<.004	<.02	<.01	<.5	<.5	<2	<2	<1	70.5	<.03

POTOMAC RIVER BASIN--CONTINUED

01645495 POTOMAC RIVER NEAR GREAT FALLS, VA--CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Bromoxynil, water, fltrd 0.7u GF ug/L (49311)	Caffeine, water, fltrd, ug/L (50305)	Caffeine-13C, surrog, wat flt percent recovry (99959)	Caffeine-13C sur Sch 2033 & 8033, wat flt pct rcv (99584)	Camphor water, fltrd, ug/L (62070)	Carbaryl, water, fltrd 0.7u GF ug/L (49310)	Carbaryl, water, fltrd 0.7u GF ug/L (82680)	Carbazole, water, fltrd, ug/L (62071)	Carbofuran, water, fltrd 0.7u GF ug/L (49309)	Chlorambenmethyl ester, water, fltrd, ug/L (61188)	Chlorimuron, water, fltrd, ug/L (50306)	Chlorodiamino-s-triazine, wat flt ug/L (04039)	Chlorothalonil, water, fltrd 0.7u GF ug/L (49306)
OCT													
07...	<.02	<.5	E37.4	72.7	<.5	<.03	<.041	<.5	<.006	<.02	<.010	<.01	<.04
NOV													
06...	<.02	E.1	80.2	109	<.5	E.01	E.025	M	<.006	<.02	<.010	E.01	<.04
DEC													
03...	<.02	<.5	75.9	123	<.5	M	E.008	<.5	<.006	<.02	<.010	<.01	<.04
JAN													
08...	<.02	M	74.2	81.8	<.5	<.03	<.041	<.5	<.006	<.02	<.010	E.01	<.04
FEB													
02...	<.02	E.1	E102	109	<.5	<.03	<.041	<.5	<.006	<.02	<.010	E.02	<.04
MAR													
04...	<.02	E.1	83.8	109	<.5	<.03	<.041	<.5	<.006	<.02	<.035	E.01	<.04
AUG													
03...	<.02	<.022	102	82.8	<.5	E.01	E.021	<.5	<.006	<.02	<.010	E.02	<.04
SEP													
07...	<.02	<.010	92.9	84.7	<.5	<.03	<.041	<.5	<.006	<.02	<.010	E.02	<.04

Date	Chlorpyrifos oxon, water, fltrd, ug/L (61636)	Chlorpyrifos water, fltrd, ug/L (38933)	Cholesterol, water, fltrd, ug/L (62072)	cis-Permethrin water fltrd 0.7u GF ug/L (82687)	Clopyralid, water, fltrd 0.7u GF ug/L (49305)	Cotinine, water, fltrd, ug/L (62005)	Cycloate, water, fltrd, ug/L (04031)	Cyfluthrin, water, fltrd, ug/L (61585)	Cypermethrin water, fltrd, ug/L (61586)	Dacthal mono-acid, water, fltrd 0.7u GF ug/L (49304)	DCPA, water fltrd 0.7u GF ug/L (82682)	DecaF-biphenl sur Sch 2033 & 8033, wat flt pct rcv (99585)	DEET, water, fltrd, ug/L (62082)
OCT													
07...	<.06	<.005	<2	<.006	<.01	<1.00	<.01	<.008	<.009	<.01	<.003	63.6	<.5
NOV													
06...	<.06	E.001	E1	<.006	<.01	<1.00	<.01	<.008	<.009	<.01	<.003	86.4	E.1
DEC													
03...	<.06	<.005	<2	<.006	<.01	<1.00	<.01	<.008	<.009	<.01	<.003	90.9	E.1
JAN													
08...	<.06	<.005	M	<.006	<.01	<1.00	<.01	<.008	<.009	<.01	<.003	54.5	E.1
FEB													
02...	<.06	<.005	<2	<.006	<.01	<1.00	<.01	<.008	<.009	<.01	<.003	63.6	E.1
MAR													
04...	<.06	<.005	<2	<.006	<.01	<1.00	<.01	<.008	<.009	<.01	<.003	69.6	E.1
AUG													
03...	<.06	<.005	M	<.006	<.01	<1.00	<.01	<.008	<.009	<.01	<.003	60.3	E.1
SEP													
07...	<.06	<.005	<2	<.006	<.01	<1.00	<.01	<.008	<.009	<.01	<.003	38.4	E.1

Date	Desulfinyl fipronil, water, fltrd, ug/L (62170)	Diazinon oxon, water, fltrd, ug/L (61638)	Diazinon, water, fltrd, ug/L (39572)	Diazinon-d10 surrog, Sch2003 wat flt percent recovry (99994)	Dicamba water fltrd 0.7u GF ug/L (38442)	Dichlorprop, water, fltrd 0.7u GF ug/L (49302)	Dicrotophos, water fltrd, ug/L (38454)	Dieldrin, water, fltrd, ug/L (39381)	Diethoxynonylphenol, water, fltrd, ug/L (62083)	Diethoxyoctylphenol, water, fltrd ug/L (61705)	Dimethenamid ESA, water, fltrd, ug/L (61951)	Dimethenamid OA, water, fltrd, ug/L (62482)	Dimethenamid water, fltrd, ug/L (61588)
OCT													
07...	<.012	<.01	<.005	97.3	<.01	<.01	<.08	<.009	<5	<1	<.02	<.02	<.02
NOV													
06...	<.012	<.01	<.008	104	<.01	<.01	<.08	<.009	E3	M	<.02	<.02	<.02
DEC													
03...	<.012	<.01	E.004	94.6	<.01	<.01	<.08	<.009	<5	M	<.02	<.02	<.02
JAN													
08...	<.012	<.01	<.005	96.5	<.01	<.01	<.08	<.009	<5	<1	<.02	<.02	<.02
FEB													
02...	<.012	<.01	<.005	95.5	<.01	<.01	<.08	<.009	<5	<1	<.02	<.02	<.02
MAR													
04...	<.012	<.01	<.005	93.7	<.01	<.01	<.08	<.009	<5	<1	<.02	<.02	<.02
AUG													
03...	E.007	<.01	<.008	97.0	<.01	<.01	<.08	<.009	<5	<1	<.02	<.02	<.02
SEP													
07...	<.012	<.01	<.005	98.3	<.01	<.01	<.08	<.009	<5	<1	<.02	<.02	<.02

POTOMAC RIVER BASIN--CONTINUED

01645495 POTOMAC RIVER NEAR GREAT FALLS, VA--CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Dimethoate, water, fltrd 0.7u GF ug/L (82662)	Dinoseb water, fltrd 0.7u GF ug/L (49301)	Diphenamid, water, fltrd, ug/L (04033)	Diuron, water, fltrd 0.7u GF ug/L (49300)	D-Limonene, water, fltrd, ug/L (62073)	Equilenin, water, fltrd, ug/L (62074)	Ethion monoxon water, fltrd, ug/L (61644)	Ethion, water, fltrd, ug/L (82346)	Ethoxyoctylphenol, water, fltrd ug/L (61706)	Fenamiphos sulfone water, fltrd, ug/L (61645)	Fenamiphos sulfoxide, water, fltrd, ug/L (61646)	Fenamiphos, water, fltrd, ug/L (61591)	Fenuron water, fltrd 0.7u GF ug/L (49297)
OCT													
07...	<.006	<.01	<.03	<.01	<.5	<5	<.03	<.004	<1	<.008	<.03	<.03	<.03
NOV													
06...	<.006	<.01	<.03	<.01	<.5	<5	<.03	<.004	M	<.008	<.03	<.03	<.03
DEC													
03...	<.006	<.01	<.03	<.01	<.5	<5	<.03	<.004	M	<.008	<.03	<.03	<.03
JAN													
08...	<.006	<.01	<.03	<.01	<.5	<5	<.03	<.004	<1	<.008	<.03	<.03	<.03
FEB													
02...	<.006	<.01	<.03	<.01	<.5	<5	<.03	<.004	<1	<.008	<.03	<.03	<.03
MAR													
04...	<.006	<.01	<.03	<.01	<.5	<5	<.03	<.004	<1	<.008	<.03	<.03	<.03
AUG													
03...	<.006	<.01	<.03	.04	<.5	--	<.0020	<.004	<1	<.049	<.04	<.03	<.03
SEP													
07...	<.006	<.01	<.03	<.01	<.5	--	<.0020	<.004	<1	<.049	<.04	<.03	<.03

Date	Desulfinyl-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)	Flufenacet ESA, water, fltrd, ug/L (61952)	Flufenacet OA, water, fltrd, ug/L (62483)	Flufenacet, water, fltrd, ug/L (62481)	Flumetsulam, water, fltrd, ug/L (61694)	Fluometuron water fltrd 0.7u GF ug/L (38811)	Fluoranthene water, fltrd, ug/L (34377)	Fluoranthene-d10, sur Sch 20/8033 wat flt pct rcv (99586)	Fonofos oxon, water, fltrd, ug/L (61649)	Fonofos water, fltrd, ug/L (04095)
OCT													
07...	<.029	<.013	<.024	<.016	<.02	<.02	<.02	<.01	<.03	<.5	118	<.002	<.003
NOV													
06...	<.029	<.013	<.024	E.005	<.02	<.02	<.02	<.01	<.03	M	109	<.002	<.003
DEC													
03...	<.029	<.013	<.024	<.016	<.02	<.02	<.02	<.01	<.03	<.5	127	<.002	<.003
JAN													
08...	<.029	<.013	<.024	<.016	<.02	<.02	<.02	<.01	<.03	<.5	81.8	<.002	<.003
FEB													
02...	<.029	<.013	<.024	<.016	<.02	<.02	<.02	<.01	<.03	<.5	100	<.002	<.003
MAR													
04...	<.029	<.013	<.024	<.016	<.02	<.02	<.02	<.01	<.03	<.5	95.7	<.002	<.003
AUG													
03...	<.029	<.013	E.006	E.004	<.02	<.02	<.02	<.01	<.03	M	80.2	<.003	<.003
SEP													
07...	<.029	<.013	<.024	<.016	<.02	<.02	<.02	<.01	<.03	<.5	78.9	<.003	<.003

Date	HHCB, water, fltrd, ug/L (62075)	Hexazinone, water, fltrd, ug/L (04025)	Imazaquin, water, fltrd, ug/L (50356)	Imazethapyr, water, fltrd, ug/L (50407)	Imidacloprid water, fltrd, ug/L (61695)	Indole, water, fltrd, ug/L (62076)	Iprodione, water, fltrd, ug/L (61593)	Isoborneol, water, fltrd, ug/L (62077)	Isobutyl alcohol-d6, surrog, wat unf pct rcv (62835)	Isofenphos, water, fltrd, ug/L (61594)	Isophorone water, fltrd, ug/L (34409)	Isopropylbenzene water, fltrd, ug/L (62078)	Isoquinoline, water, fltrd, ug/L (62079)
OCT													
07...	<.5	<.013	<.02	<.02	<.007	<.5	<1	<.5	112	<.003	<.5	<.5	<.5
NOV													
06...	E.1	<.013	<.02	<.02	<.007	<.5	<1	<.5	119	<.003	M	<.5	<.5
DEC													
03...	<.5	<.013	<.02	<.02	<.007	<.5	<1	<.5	134	<.003	<.5	<.5	<.5
JAN													
08...	M	<.013	<.02	<.02	<.007	<.5	<1	<.5	121	<.003	<.5	<.5	<.5
FEB													
02...	E.1	<.013	<.02	<.02	<.007	<.5	<1	<.5	105	<.003	<.5	<.5	<.5
MAR													
04...	<.5	<.013	<.02	<.02	<.007	M	<1	<.5	129	<.003	<.5	<.5	<.5
AUG													
03...	<.5	<.013	<.02	<.02	<.007	<.5	<.387	<.5	--	<.003	<.5	<.5	<.5
SEP													
07...	<.5	<.013	<.02	<.02	<.007	<.5	<.387	<.5	--	<.003	<.5	<.5	<.5

POTOMAC RIVER BASIN--CONTINUED

01645495 POTOMAC RIVER NEAR GREAT FALLS, VA--CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Linuron water fltrd 0.7u GF ug/L (38478)	Malaoxon, water, fltrd, ug/L (61652)	Malathion, water, fltrd, ug/L (39532)	MCPA, water, fltrd 0.7u GF ug/L (38482)	MCPB, water, fltrd 0.7u GF ug/L (38487)	Menthol water, fltrd, ug/L (62080)	Metalaxyl, water, fltrd, ug/L (50359)	Metalaxyl, water, fltrd, ug/L (61596)	Methialthion water, fltrd, ug/L (61598)	Methiocarb, water, fltrd 0.7u GF ug/L (38501)	Methomyl, water, fltrd 0.7u GF ug/L (49296)	Methyl acetate water unfltrd ug/L (77032)	Methyl paraoxon, water, fltrd, ug/L (61664)
OCT													
07...	<.01	<.008	<.027	<.02	<.01	<.5	<.02	<.005	<.006	<.008	<.004	<.4	<.03
NOV													
06...	<.01	<.008	<.027	.07	<.01	<.5	<.02	E.004	<.006	<.008	<.004	<.4	<.03
DEC													
03...	<.01	<.008	<.027	<.02	<.01	<.5	<.02	<.005	<.006	<.008	<.004	<.4	<.03
JAN													
08...	<.01	<.008	<.027	<.02	<.01	<.5	<.02	<.005	<.006	<.008	<.004	<.4	<.03
FEB													
02...	<.01	<.008	<.027	<.02	<.01	<.5	<.02	<.005	<.006	<.008	<.004	<.4	<.03
MAR													
04...	<.01	<.008	<.027	<.02	<.01	<.5	<.02	<.005	<.006	<.008	<.004	<.4	<.03
AUG													
03...	<.01	<.030	<.027	<.02	<.01	<.5	E.01	.011	<.006	<.008	<.004	--	<.03
SEP													
07...	<.01	<.030	<.027	<.02	<.01	<.5	<.02	<.005	<.006	<.008	<.004	--	<.03

Date	Methyl parathion, water, fltrd 0.7u GF ug/L (82667)	Methyl salicylate, water, fltrd, ug/L (62081)	Metolachlor ESA, water, fltrd 0.7u GF ug/L (61043)	Metolachlor OA, water, fltrd 0.7u GF ug/L (61044)	Metolachlor, water, fltrd, ug/L (39415)	Metribuzin, water, fltrd, ug/L (82630)	Metsulfuron, water, fltrd, ug/L (61697)	Myclobutanil water, fltrd, ug/L (61599)	N-(4-Chlorophenyl) -N-' methylurea, ug/L (61692)	Naphthalene, water, fltrd, ug/L (34443)	Neburon water, fltrd 0.7u GF ug/L (49294)	Nicosulfuron, water, fltrd, ug/L (50364)	Norflurazon, water, fltrd 0.7u GF ug/L (49293)
OCT													
07...	<.015	<.5	.77	.10	.020	<.006	<.03	<.008	<.02	<.5	<.01	<.01	<.02
NOV													
06...	<.015	E.1	.53	.09	E.012	<.006	<.03	<.008	<.02	<.5	<.01	<.01	<.02
DEC													
03...	<.015	<.5	.59	.08	E.010	<.006	<.03	<.008	<.02	<.5	<.01	<.01	M
JAN													
08...	<.015	<.5	.31	.06	.014	<.006	<.03	<.008	<.02	<.5	<.01	<.01	<.02
FEB													
02...	<.015	<.5	.38	.05	.016	<.006	<.03	<.008	<.02	<.5	<.01	<.01	<.02
MAR													
04...	<.015	<.5	.17	.06	E.010	<.006	<.03	<.008	<.02	<.5	<.01	<.01	<.02
AUG													
03...	<.015	<.5	.42	.16	.068	<.006	<.03	<.008	<.02	<.5	<.01	<.01	<.02
SEP													
07...	<.015	<.5	.30	.05	E.012	<.006	<.03	<.008	<.02	<.5	<.01	<.01	<.02

Date	Oryzalin, water, fltrd 0.7u GF ug/L (49292)	Oxamyl, water, fltrd 0.7u GF ug/L (38866)	p-Cresol, water, fltrd, ug/L (62084)	Pendimethalin, water, fltrd 0.7u GF ug/L (82683)	Pentachlorophenol, water, fltrd, ug/L (34459)	Phenanthrene, water, fltrd, ug/L (34462)	Phenol, water, fltrd, ug/L (34466)	Phorate oxon, water, fltrd, ug/L (61666)	Phorate water fltrd 0.7u GF ug/L (82664)	Phosmet oxon, water, fltrd, ug/L (61668)	Phosmet water, fltrd, ug/L (61601)	Picloram, water, fltrd 0.7u GF ug/L (49291)	Prometon, water, fltrd, ug/L (04037)
OCT													
07...	<.02	<.01	<1	<.022	<2	<.5	<.5	<.10	<.011	<.06	<.008	<.02	.01
NOV													
06...	<.02	<.01	<1	<.022	<2	M	<.5	<.10	<.011	--	--	<.02	.01
DEC													
03...	<.02	<.01	<1	<.022	<2	<.5	<.5	<.10	<.011	--	--	<.02	.01
JAN													
08...	<.02	<.01	<1	<.022	<2	<.5	<.5	<.10	<.011	<.06	<.008	<.02	<.01
FEB													
02...	.07	<.01	<1	<.022	<2	<.5	<.5	<.10	<.011	<.06	<.008	<.02	M
MAR													
04...	<.02	<.01	<1	<.022	<2	<.5	<.5	<.10	<.011	<.06	<.008	<.02	M
AUG													
03...	<.02	<.01	<1	<.022	<2	M	E.3	<.10	<.011	<.05	<.008	<.02	.03
SEP													
07...	<.02	<.01	<1	<.022	<2	<.5	<.6	<.10	<.011	<.05	<.008	<.02	.01

POTOMAC RIVER BASIN--CONTINUED

01645495 POTOMAC RIVER NEAR GREAT FALLS, VA--CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Prometryn, water, fltrd, ug/L (04036)	Propyzamide, water, fltrd 0.7u GF ug/L (82676)	Propachlor ESA, water, fltrd 0.7u GF ug/L (62766)	Propachlor OA, water, fltrd 0.7u GF ug/L (62767)	Propham water fltrd 0.7u GF ug/L (49236)	Propiconazole, water, fltrd, ug/L (50471)	Propoxur, water, fltrd 0.7u GF ug/L (38538)	Pyrene, water, fltrd, ug/L (34470)	Siduron water, fltrd, ug/L (38548)	Simazine, water, fltrd, ug/L (04035)	Sulfometruron, water, fltrd, ug/L (50337)	Tebuthiuron water fltrd 0.7u GF ug/L (82670)	Terbacil, water, fltrd, ug/L (04032)
OCT													
07...	<.005	<.004	<.05	<.02	<.010	<.02	<.008	<.5	<.02	.015	<.009	<.02	<.010
NOV													
06...	<.005	<.004	<.05	<.02	<.010	<.02	<.008	M	<.02	.009	<.009	<.02	<.010
DEC													
03...	<.005	<.004	<.05	<.02	<.010	<.02	<.008	<.5	<.02	.012	<.009	<.02	<.010
JAN													
08...	<.005	<.004	<.05	<.02	<.010	<.02	<.008	<.5	<.02	.011	<.009	<.02	<.010
FEB													
02...	<.005	<.004	<.05	<.02	<.010	<.02	<.008	<.5	<.02	.010	<.009	<.02	<.010
MAR													
04...	<.005	<.004	<.05	<.02	<.010	<.02	<.008	<.5	<.02	.014	<.009	<.02	<.010
AUG													
03...	<.005	<.004	<.05	<.02	<.010	<.02	<.008	<.5	<.02	.049	<.009	<.02	<.010
SEP													
07...	<.005	<.004	<.05	<.02	<.010	<.02	<.008	<.5	<.02	.019	<.009	E.01	<.010

Date	Terbufos oxon sulfone water, fltrd, ug/L (61674)	Terbufos, water, fltrd 0.7u GF ug/L (82675)	Terbuthylazine, water, fltrd, ug/L (04022)	tert-Amyl alcohol water unfltrd ug/L (77073)	tert-Butyl alcohol water unfltrd ug/L (77035)	Tetrachloroethene, water, fltrd, ug/L (34476)	Tribromomethane water, fltrd, ug/L (34288)	Tributyl phosphate, water, fltrd, ug/L (62089)	Triclopyr, water, fltrd 0.7u GF ug/L (49235)	Triclosan, water, fltrd, ug/L (62090)	Triethyl citrate water, fltrd, ug/L (62091)	Trifluralin, water, fltrd 0.7u GF ug/L (82661)	Triphenyl phosphate, water, fltrd, ug/L (62092)
OCT													
07...	<.07	<.02	<.01	<.4	<1.00	<.5	<.5	<.5	E.02	<1	<.5	<.009	<.5
NOV													
06...	<.07	<.02	<.01	<.4	<1.00	<.5	M	<.5	<.02	M	<.5	<.009	E.1
DEC													
03...	<.07	<.02	<.01	<.4	<1.00	<.5	<.5	<.5	<.02	<1	<.5	<.009	<.5
JAN													
08...	<.07	<.02	<.01	<.4	<1.00	<.5	M	E.1	<.02	<1	<.5	<.009	<.5
FEB													
02...	<.07	<.02	<.01	<.4	<1.00	<.5	M	E.1	<.02	<1	E.1	<.009	M
MAR													
04...	<.07	<.02	<.01	<.4	<1.00	<.5	<.5	<.5	<.02	<1	<.5	<.009	<.5
AUG													
03...	<.07	<.02	<.01	--	--	<.5	<.5	<.5	<.06	<1	<.5	<.009	<.5
SEP													
07...	<.07	<.02	<.01	--	--	<.5	<.5	<.5	<.02	<1	<.5	<.009	<.5

Date	Tris(2-butoxyethyl) phosphate, wat flt ug/L (62093)	Tris(2-chloroethyl) phosphate, wat flt ug/L (62087)	Tris(dichloro-i-Pr) phosphate, wat flt ug/L (62088)	1,1,1,2-Tetrachloroethane, water, unfltrd ug/L (77562)	1,1,1-Trichloroethane, water, unfltrd ug/L (34506)	1,1,2,2-Tetrachloroethane, water, unfltrd ug/L (34516)	CFC-113 water unfltrd ug/L (77652)	1,1,2-Trichloroethane, water, unfltrd ug/L (34511)	1,1-Dichloroethane, water unfltrd ug/L (34496)	1,1-Dichloroethene, water, unfltrd ug/L (34501)	1,1-Dichloropropene water unfltrd ug/L (77168)	1,2,3,4 Tetramethylbenzene water unfltrd ug/L (49999)	1,2,3,5 Tetramethylbenzene water unfltrd ug/L (50000)
OCT													
07...	<.5	<.5	<.5	<.03	<.03	<.16	<.04	<.06	<.04	<.02	<.03	<.1	<.1
NOV													
06...	E.2	E.1	M	<.03	<.03	<.16	<.04	<.06	<.04	<.02	<.03	<.1	<.1
DEC													
03...	<.5	<.5	<.5	<.03	<.03	<.16	<.04	<.06	<.04	<.02	<.03	<.1	<.1
JAN													
08...	<.5	M	<.5	<.03	<.03	<.16	<.04	<.06	<.04	<.02	<.03	<.1	<.1
FEB													
02...	E.2	E.1	E.1	<.03	<.03	<.16	<.04	<.06	<.04	<.02	<.03	<.1	<.1
MAR													
04...	<.5	<.5	<.5	<.03	<.03	<.16	<.04	<.06	<.04	<.02	<.03	<.1	<.1
AUG													
03...	<.5	E.1	<.5	<.03	<.03	<.16	<.04	<.06	<.04	<.02	<.03	<.1	<.1
SEP													
07...	<.5	<.5	<.5	<.03	<.03	<.16	<.04	<.06	<.04	<.02	<.03	<.1	<.1

POTOMAC RIVER BASIN--CONTINUED

01645495 POTOMAC RIVER NEAR GREAT FALLS, VA--CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	1,2,3-Trichlorobenzene water unfltrd ug/L (77613)	1,2,3-Trichloropropane water unfltrd ug/L (77443)	1,2,3-Trimethylbenzene water unfltrd ug/L (77221)	1,2,4-Trichlorobenzene water unfltrd ug/L (34551)	1,2,4-Trimethylbenzene water unfltrd ug/L (77222)	Dibromochloropropane water unfltrd ug/L (82625)	1,2-Dibromoethane, water, unfltrd ug/L (77651)	1,2-Dichlorobenzene water unfltrd ug/L (34536)	1,2-Dichloroethane, water, unfltrd ug/L (32103)	1,2-Dichloroethane-d4, sur Sch2090 wat unf pct rcv (99832)	1,2-Dichloropropane water unfltrd ug/L (34541)	1,3,5-Trimethylbenzene water unfltrd ug/L (77226)	1,3-Dichlorobenzene water unfltrd ug/L (34566)
OCT													
07...	<.3	<.18	<.1	<.1	<.06	<.5	<.04	<.05	<.1	105	<.03	<.04	<.03
NOV													
06...	<.3	<.18	<.1	<.1	<.06	<.5	<.04	<.05	<.1	104	<.03	<.04	<.03
DEC													
03...	<.3	<.18	<.1	<.1	<.06	<.5	<.04	<.05	<.1	144	<.03	<.04	<.03
JAN													
08...	<.3	<.18	<.1	<.1	<.06	<.5	<.04	<.05	<.1	110	<.03	<.04	<.03
FEB													
02...	<.3	<.18	<.1	<.1	<.06	<.5	<.04	<.05	<.1	142	<.03	<.04	<.03
MAR													
04...	<.3	<.18	<.1	<.1	<.06	<.5	<.04	<.05	<.1	111	<.03	<.04	<.03
AUG													
03...	<.3	<.18	<.1	<.1	<.06	<.5	<.04	<.05	<.1	118	<.03	<.04	<.03
SEP													
07...	<.3	<.18	<.1	<.1	<.06	<.5	<.04	<.05	<.1	112	<.03	<.04	<.03

Date	1,3-Dichloropropane water unfltrd ug/L (77173)	1,4-Dichlorobenzene water unfltrd ug/L (34571)	14Bromofluorobenzene surrog. VOC Sch wat unf pct rcv (99834)	2,2-Dichloropropane water unfltrd ug/L (77170)	2-Chlorotoluene water unfltrd ug/L (77275)	2-Ethyltoluene water unfltrd ug/L (77220)	3-Chloropropene water unfltrd ug/L (78109)	4-Chlorotoluene water unfltrd ug/L (77277)	4-Isopropyltoluene water unfltrd ug/L (77356)	Acetone water unfltrd ug/L (81552)	Acrylonitrile water unfltrd ug/L (34215)	Benzene water unfltrd ug/L (34030)	Bromobenzene water unfltrd ug/L (81555)
OCT													
07...	<.1	<.03	84.8	<.05	<.04	<.06	<.50	<.05	<.08	<6	<1	<.02	<.03
NOV													
06...	<.1	<.03	89.6	<.05	<.04	<.06	<.50	<.05	<.08	<6	<1	<.02	<.03
DEC													
03...	<.1	<.03	85.5	<.05	<.04	<.06	<.50	<.05	<.08	<6	<1	<.02	<.03
JAN													
08...	<.1	<.03	85.9	<.05	<.04	<.06	<.50	<.05	<.08	<6	<1	<.02	<.03
FEB													
02...	<.1	<.03	88.7	<.05	<.04	<.06	<.50	<.05	<.08	<6	<1	<.02	<.03
MAR													
04...	<.1	<.03	91.9	<.05	<.04	<.06	<.50	<.05	<.08	<6	<1	E.01	<.03
AUG													
03...	<.1	<.03	100	<.05	<.04	<.06	<.50	<.05	<.08	<6	<1	<.02	<.03
SEP													
07...	<.1	<.03	103	<.05	<.04	<.06	<.50	<.05	<.08	<6	<1	<.02	<.03

POTOMAC RIVER BASIN--CONTINUED

01645495 POTOMAC RIVER NEAR GREAT FALLS, VA--CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Bromo-chloro-methane water unfltrd ug/L (77297)	Bromo-di-chloro-methane water unfltrd ug/L (32101)	Bromo-ethene, water, unfltrd ug/L (50002)	Bromo-methane water unfltrd ug/L (34413)	Carbon di-sulfide water unfltrd ug/L (77041)	Chloro-benzene water unfltrd ug/L (34301)	Chloro-ethane, water, unfltrd ug/L (34311)	Chloro-methane water unfltrd ug/L (34418)	cis-1,2-Di-chloro-ethene, water, unfltrd ug/L (77093)	cis-1,3-Di-chloro-propene water unfltrd ug/L (34704)	Di-bromo-chloro-methane water unfltrd ug/L (32105)	Di-bromo-methane water unfltrd ug/L (30217)	Di-chloro-di-fluoro-methane wat unf ug/L (34668)
OCT 07...	<.12	<.03	<.1	<.3	<.04	<.03	<.1	<.2	<.02	<.05	<.1	<.05	<.18
NOV 06...	<.12	E.03	<.1	<.3	<.04	<.03	<.1	<.2	<.02	<.05	<.1	<.05	<.18
DEC 03...	<.12	<.03	<.1	<.3	<.04	<.03	<.1	<.2	<.02	<.05	<.1	<.05	<.18
JAN 08...	<.12	<.03	<.1	<.3	<.04	<.03	<.1	<.2	<.02	<.05	<.1	<.05	<.18
FEB 02...	<.12	E.03	<.1	<.3	<.04	<.03	<.1	<.2	<.02	<.05	<.1	<.05	<.18
MAR 04...	<.12	<.03	<.1	<.3	<.04	<.03	<.1	<.2	<.02	<.05	<.1	<.05	<.18
AUG 03...	<.12	<.03	<.1	<.3	<.04	<.03	<.1	<.2	<.02	<.05	<.1	<.05	<.18
SEP 07...	<.12	<.03	<.1	<.3	<.04	<.03	<.1	<.2	<.02	<.05	<.1	<.05	<.18

Date	Di-chloro-methane water unfltrd ug/L (34423)	Di-ethyl ether, water, unfltrd ug/L (81576)	Diiso-propyl ether, water, unfltrd ug/L (81577)	Ethyl methac-rylate, water, unfltrd ug/L (73570)	Ethyl methyl ketone, water, unfltrd ug/L (81595)	Ethyl-benzene water unfltrd ug/L (34371)	Hexa-chloro-buta-diene, water, unfltrd ug/L (39702)	Hexa-chloro-ethane, water, unfltrd ug/L (34396)	Iodo-methane water unfltrd ug/L (77424)	Iso-butyl methyl ketone, water, unfltrd ug/L (78133)	Iso-propyl-benzene water unfltrd ug/L (77223)	Methyl acrylo-nitrile water unfltrd ug/L (81593)	Methyl acryl-ate, water, unfltrd ug/L (49991)
OCT 07...	<.1	<.1	<.10	<.2	<4.0	<.03	<.1	<.1	<.35	<.4	<.04	<.8	<2.0
NOV 06...	<.1	<.1	<.10	<.2	<4.0	<.03	<.1	<.1	<.35	<.4	<.04	<.8	<2.0
DEC 03...	<.1	<.1	<.10	<.2	<4.0	<.03	<.1	<.1	<.35	<.4	<.04	<.8	<2.0
JAN 08...	<.1	<.1	<.10	<.2	<4.0	<.03	<.1	<.1	<.35	<.4	<.04	<.8	<2.0
FEB 02...	<.1	<.1	<.10	<.2	<4.0	<.03	<.1	<.1	<.35	<.4	<.04	<.8	<2.0
MAR 04...	M	<.1	<.10	<.2	<4.0	<.03	<.1	<.1	<.35	<.4	<.04	<.8	<2.0
AUG 03...	<.1	<.1	<.10	<.2	<4.0	<.03	<.1	<.1	<.35	<.4	<.04	<.8	<2.0
SEP 07...	<.1	<.1	<.10	<.2	<4.0	<.03	<.1	<.1	<.35	<.4	<.04	<.8	<2.0

Date	Methyl methac-rylate, water, unfltrd ug/L (81597)	Methyl tert-pentyl ether, water, unfltrd ug/L (50005)	meta- + para-Xylene, water, unfltrd ug/L (85795)	Naphth-alene, water, unfltrd ug/L (34696)	Methyl n-butyl ketone, water, unfltrd ug/L (77103)	n-Butyl benzene water unfltrd ug/L (77342)	n-propyl-benzene water unfltrd ug/L (77224)	o-Xylene, water, unfltrd ug/L (77135)	sec-Butyl-benzene water unfltrd ug/L (77350)	Styrene water unfltrd ug/L (77128)	t-Butyl ethyl ether, water, unfltrd ug/L (50004)	Methyl t-butyl ether, water, unfltrd ug/L (78032)	tert-Butyl-benzene water unfltrd ug/L (77353)
OCT 07...	<.3	<.08	<.06	<.5	<.7	<.1	<.04	<.04	<.06	<.04	<.05	E.1	<.06
NOV 06...	<.3	<.08	<.06	<.5	<.7	<.1	<.04	<.04	<.06	<.04	<.05	E.1	<.06
DEC 03...	<.3	<.08	<.06	<.5	<.7	<.1	<.04	<.04	<.06	<.04	<.05	<.2	<.06
JAN 08...	<.3	<.08	<.06	<.5	<.7	<.1	<.04	<.04	<.06	<.04	<.05	<.2	<.06
FEB 02...	<.3	<.08	<.06	<.5	<.7	<.1	<.04	<.04	<.06	<.04	<.05	<.2	<.06
MAR 04...	<.3	<.08	E.02	<.5	<.7	<.1	<.04	<.04	<.06	<.04	<.05	E.1	<.06
AUG 03...	<.3	<.08	<.06	<.5	<.7	<.1	<.04	<.04	<.06	<.04	<.05	.2	<.06
SEP 07...	<.3	<.08	<.06	<.5	<.7	<.1	<.04	<.04	<.06	<.04	<.05	.3	<.06

POTOMAC RIVER BASIN--CONTINUED

01645495 POTOMAC RIVER NEAR GREAT FALLS, VA--CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Tetra-chloro-ethene, water, unfltrd ug/L (34475)	Tetra-chloro-methane water unfltrd ug/L (32102)	Tetra-hydro-furan, water, unfltrd ug/L (81607)	Toluene water unfltrd ug/L (34010)	Toluene -d8, surrog, Sch2090 wat unf percent recovry (99833)	trans-1,2-Di-chloro-ethene, water, unfltrd ug/L (34546)	trans-1,3-Di-chloro-propene water unfltrd ug/L (34699)	trans-1,4-Di-chloro-2-butene, wat unf ug/L (73547)	Tri-bromo-methane water unfltrd ug/L (32104)	Tri-chloro-ethene, water, unfltrd ug/L (39180)	Tri-chloro-fluoro-methane water unfltrd ug/L (34488)	Tri-chloro-methane water unfltrd ug/L (32106)	Vinyl chlor-ide, water, unfltrd ug/L (39175)
OCT													
07...	<.06	<.06	<2	E.08	102	<.03	<.09	<.7	<.10	<.04	<.16	E.05	<.1
NOV													
06...	<.06	<.06	<2	E.03	98.2	<.03	<.09	<.7	<.10	<.04	<.16	.13	<.1
DEC													
03...	<.06	<.06	<2	E.02	102	<.03	<.09	<.7	<.10	<.04	<.16	E.06	<.1
JAN													
08...	<.06	<.06	<2	E.02	94.2	<.03	<.09	<.7	<.10	<.04	<.16	E.04	<.1
FEB													
02...	<.06	<.06	<2	E.02	104	<.03	<.09	<.7	<.10	<.04	<.16	E.09	<.1
MAR													
04...	<.06	<.06	<2	E.04	96.0	<.03	<.09	<.7	<.10	<.04	<.16	E.05	<.1
AUG													
03...	<.06	<.06	<2	E.03	102	<.03	<.09	<.7	<.10	<.04	<.16	E.08	<.1
SEP													
07...	<.06	<.06	<2	<.05	102	<.03	<.09	<.7	<.10	<.04	<.16	E.07	<.1

Date	Di-chlor-vos, water fltrd, ug/L (38775)	Sampler type, code (84164)
OCT		
07...	<.01	3060
NOV		
06...	E.01	3060
DEC		
03...	<.01	3060
JAN		
08...	M	3060
FEB		
02...	<.01	3060
MAR		
04...	<.01	3060
AUG		
03...	<.01	3060
SEP		
07...	<.01	3060

Remark codes used in this table:
< -- Less than
E -- Estimated value
M-- Presence verified, not quantified
Sampler type: 3060 - Weighted-bottle sampler

POTOMAC RIVER BASIN--CONTINUED

01647595 POTOMAC RIVER AT KEY BRIDGE AT WASHINGTON, DC

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sample type	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Sampling method, code (82398)	Silica, water, fltrd, mg/L (00955)	Residue total at 105 deg. C, suspended, mg/L (00530)	Residue volatile, suspended, mg/L (00535)	Ammonia water, fltrd, mg/L as N (00608)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)
JUN												
14...	1200	Environmental	1028	80020	8010	7.2	15	<10	E.03	1.71	1.71	.007
14...	*1202*	*Replicate*	*1028*	*80020*	*8010*	--	--	--	--	--	--	--
14...	*1205*	*Replicate*	*1028*	*80020*	*8010*	*7.2*	*15*	*<10*	*E.03*	*1.74*	*1.75*	*.007*
14...	*1207*	*Replicate*	*1028*	*80020*	*8010*	--	--	--	--	--	--	--
14...	*1210*	*Replicate*	*1028*	*80020*	*8010*	*7.2*	*14*	*<10*	*E.04*	*1.72*	*1.72*	*.007*
14...	*1212*	*Replicate*	*1028*	*80020*	*8010*	--	--	--	--	--	--	--

Date	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, wat flt by analysis, mg/L (62854)	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)	Sampler type, code (84164)
JUN										
14...	.10	.033	.047	.079	1.98	.9	.3	.6	3.1	8010
14...	--	--	*.04*	--	--	--	--	--	--	*8010*
14...	*.10*	*.033*	*.045*	*.079*	*2.01*	*.9*	*<.1*	*.9*	*3.4*	*8010*
14...	--	--	*.04*	--	--	--	--	--	--	*8010*
14...	*.07*	*.033*	*.049*	*.084*	*2.06*	*.7*	*<.1*	*.7*	*3.0*	*8010*
14...	--	--	*.04*	--	--	--	--	--	--	*8010*

Agency collecting sample: 1028 - U.S. Geological Survey

Agency analyzing sample: 80020 - USGS-National Water Quality Lab, Denver, CO

Sample method: 8010 - Other

Sampler type: 8010 - Other

Remark codes used in this table:
< -- Less than
E -- Estimated value

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Conversion Factors

Multiply	By	To obtain
	Length	
inch (in.)	2.54×10^{1}	millimeter (mm)
	2.54×10^{-2}	meter (m)
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 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)	1.233×10^{3}	cubic meter (m^3)
	1.233×10^{-3}	cubic hectometer (hm^3)
	1.233×10^{-6}	cubic kilometer (km^3)
	Flow	
cubic foot per second (ft^3/s)	2.832×10^{1}	liter per second (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 (m^3/s)
	4.381×10^{1}	cubic decimeter per second (dm^3/s)
	Mass	
ton (short)	9.072×10^{-1}	megagram (Mg) or metric ton

Temperature in degrees Celsius (°C) may be converted to degrees Fahrenheit (°F) as follows:

°F = (1.8 x °C) + 32